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**CARIBBEAN JOURNAL  
OF  
CRIMINOLOGY  
AND  
PUBLIC SAFETY**

*Special Issue on Crime in Trinidad and Tobago:*

**Excessive Use of Force in Trinidad and Tobago**

- Deborah Pfaff and Richard R. Bennett -

**Spatial Concentrations of Violence in Trinidad and Tobago**

- Edward R. Maguire, Julie A. Willis, Jeffrey Snipes and Megan Gantley -

**Lodging Security and Crimes Against Tourists**

- Joseph B. Kuhns, Cassia C. Spohn and William Wells -

**Perceived Risk, Fear of Gang Crime and  
Resulting Behavioural Precautions in Trinidad**

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**Policing People with Mental Illness in Trinidad and Tobago**

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**Youth Perceptions of the Police in Trinidad and Tobago**

- Devon Johnson, William R. King, Charles M. Katz,  
Andrew M. Fox and Natalie Goulette -

*Guest Editors: Edward R. Maguire & Richard R. Bennett*

*Editor: Ramesh Deosaran*



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# CARIBBEAN JOURNAL OF CRIMINOLOGY AND PUBLIC SAFETY

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# **SPECIAL INVITATION TO GRADUATE STUDENTS**

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## **A CALL FOR BRIEF SUMMARIES OF THESES, RESEARCH OR THEORETICAL NOTES ON ISSUES WITHIN CRIMINOLOGY OR PUBLIC SAFETY**

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The *CJCS* has introduced a regular **Graduate Research Section** in its issues.

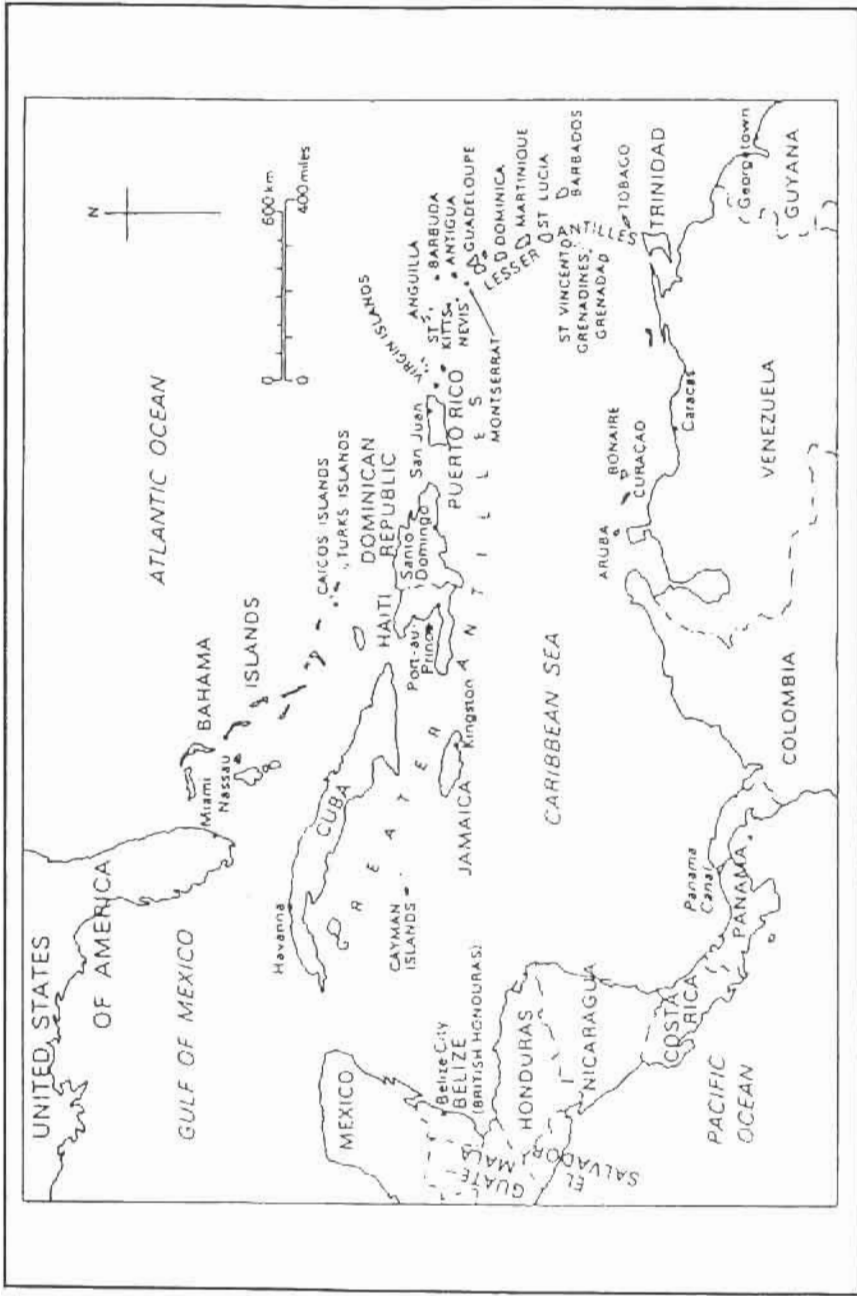
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**EDITORIAL –**  
***THE ENIGMA OF A CARIBBEAN CRIMINOLOGY***  
***Ramesh Deosaran***

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***Crime and Justice: The Caribbean Enigma***

As Editor of this *Caribbean Journal of Criminology and Public Safety*,<sup>1</sup> I got attracted to this idea of publishing research papers *on* crime in Trinidad and Tobago written *by* researchers from outside the Caribbean. This is the substance of this special issue. This shift in research perspective is sometimes useful in the realm of criminological scholarship, especially when we get the opportunity for cross-cultural comparisons.

I am quite aware, however, of the uneasiness over such visitations, what Marlyn Jones<sup>2</sup> (1999) termed “tourist researchers” who lack an understanding of the cultural and even political nuances which embrace issues of crime and justice in the Caribbean, especially in a politically lively country like Trinidad and Tobago.

To the extent that such a shortcoming exists in the papers in this issue, my editorial seeks to provide some balance and context. More precisely though, there is greater sensitivity regarding policy. While for

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1 Formally *Caribbean Journal of Criminology and Social Psychology* (ISSN 1025 5591)

2 Jones, M. (1999). Towards a criminology, of, or for the Caribbean? *Caribbean Journal of Criminology and Social Psychology*, 4(1&2), 233-253.

me research collaboration is healthy and welcome, I acknowledge the strong view in the Caribbean that the development and implementation of crime and justice policies *be undertaken* by local agencies and professionals. As Jones (1999) noted, the failure rate of foreign-driven policies and expertise is quite high in the Caribbean.

Unintentional parochialism aside, the question of subjecting scholarly research to sentiments of nationalism is one I view with great caution. Perhaps, in the present circumstances, the best answer is to have effective *research partnerships* between those inside and those outside the Caribbean, a partnership which reflects genuine mutual respect and acknowledges the strengths and weaknesses of both. These comments are necessary as crime and public safety research in the Caribbean now seeks a proper space and identity.

But above all this, it must be noted that one of our guest editors, Professor Richard Bennett, has been doing research in many Caribbean countries over ten years now and knowing him as well as I do, he has gathered a good understanding of the dynamics of Caribbean societies. He has been a former President of the Academy of Criminal and Justice Sciences and also a member of this journal's Editorial Board.

It was therefore with great pleasure and professional satisfaction that about one year ago I agreed to have this long-standing colleague Professor Bennett and his collaborator Professor Edward Maguire act as Guest Editors for this special volume of our thirteen-year old *Caribbean Journal of Criminology and Public Safety*.<sup>3</sup> In their own Introduction they are right in noting the urgency in using research to support crime policy in the Caribbean. The development and implementation of evidence-based crime policy should be more expeditiously undertaken by our local and regional policy makers.

Professor Bennett's own work<sup>4</sup> included an examination of Gross Domestic Product (GDP) and homicide rates in selected Caribbean countries. In addition, my own analysis in Trinidad and Tobago from 1966 to 2008 indicated that the correlation between GDP and homicides is quite strong,  $r = .90$ . That is, as the country's economic progress improved, the homicide rate also increased significantly. The unemployment rate went from 12% in 2000 to 5% in 2008, while in the same period, homicides went from 118 to 550, an increase of 366%.

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3 Formally *Caribbean Journal of Criminology and Social Psychology* (ISSN 1025 5591)

4 See, for example, R. Bennett et. al. (1997). Crime and development in the Caribbean: An investigation of traditional explanatory models. *Caribbean Journal of Criminology and Social Psychology*, 2(2), 1-35.

In fact, from 386 in 2007 to 550 in 2008, this country had 100 murders in the first two months of 2009. Such trends have caused widespread public fear and official concerns. It is really a portrait of vulgar prosperity.

The Caribbean, Trinidad and Tobago in particular, now needs an extremely serious examination of the crime situation, especially with regard to research, training, evidence-based policies and institutional accountability.

*The Quest for a Caribbean Criminology*

There are six papers in this volume with an Introduction by Professors Maguire and Bennett. This is quite an enlightening Introduction especially since they view these six papers in the context of developing a "Caribbean Criminology."

I deliberately used quotation marks here because this objective of pursuing a Caribbean Criminology is not yet quite settled among scholars inside or outside the Caribbean (see, for example, Volume 4, Nos. 1&2, 1999 of this journal). In this era of cyber crimes, international drug-trafficking, trans-national crimes, cross-border terrorism, movements towards global justice and crime-fighting strategies, and varying

degrees of cultural homogenization, how will the quest for a “Caribbean Criminology” stand up?

Apart from demographic profiles and differences in constitutional and judicial architecture, would the crime and violence data themselves be able to create theoretical perspectives far different from what is traditionally known in criminology as, for example, routine activities, differential association, anomie and strain, rational choice, containment or neutralization, labeling or even conflict theory? But whichever route we choose, we should be mindful of the region’s plantation history which may not be able to explain today’s crime quite well, but could more likely help explain the nature and purpose of many of our laws.

It seems that Caribbean scholars are now finding themselves in a similar position as the European Group for the Study of Deviance and Social Control which, from 1973 to the late 1990’s, pressed for the emergence of a “new European Criminology.” This “new” movement shunned punishment for example, and advocated mediation and community-based restorative justice.

### *Culture of Lawlessness*

This is not really the place to delve fully into the merits or even the possibility of framing a Caribbean

Criminology, but the challenge has occupied my own mind for quite some time especially since I do edit a *Caribbean Journal of Criminology* but shun parochial tendencies. A Caribbean Criminology cannot be framed upon data alone. It must also be framed upon data-generated theory and reciprocally, upon theory-generated data – the scientific way. So which should come first?

After such reflection and reading the views of my colleagues (e.g., Richard Bennett, John King, the late Klaus de Albuquerque) published in our *Caribbean Journal of Criminology and Social Psychology*, I think a good starting point will be not so much the actual crime data itself, but a critical study of how Caribbean crime and justice institutions function, or more precisely, how they do not function, the culture of lawlessness and the attendant lack of law enforcement now pervading the region, the *relationships* between broken-down public services and deviance, and as well the crooked relationship between macro-economic progress and the rising crime rates in the region.

This is where the distinctive parts required for a Caribbean Criminology would be likely found – in the relationships and criminogenic contexts. Naturally, all Caribbean governments have grown

very concerned and are spending a lot of effort and resources to stem the tide. But given the acknowledged lack of success so far, it seems that new ways are now needed in thinking about crime and violence in the Caribbean.

This means deeper research and much more evidence-based policy implementation. It also means much more accountability from the relevant institutions and authorities. Even if possible, a Caribbean Criminology cannot stop at research and publications. It has to press quite intensely for institutional change as well. It has to be an engaging, activist discipline, a birthplace for public intellectuals as well.

*Data or Theory: Which is First?*

Maybe the challenging “new criminology” or even the politically-grounded “cultural criminology” could be helpful in providing some relevant perspectives in examining the relationships between elite institutions and crime in the Caribbean - given its plantation history and decolonization experiences. If so, then it will not be a case for a distinctive Caribbean Criminology but the application of the “most relevant” of existing theories to data in the Caribbean region.

But this search for a Caribbean Criminology may not end here. The data itself usually emerges from a particular theoretical perspective, one being, as I indicated above, the “new” criminology. In such circumstances, the extent to which the six papers in this Volume contribute to a Caribbean Criminology is a matter for further consideration.

As indicated by the authors themselves, these six papers illustrate four major things:

- 1) Theories and even data from studies in the developed world (e.g., USA, Britain, Europe, Australia, etc.) will find some difficulty in being relevant to regions like the Caribbean.
- 2) There is need for further research in such areas as gang formation and behaviour, police use of force, the culture of the police service and spatial analysis.
- 3) There is a need for greater will on the part of the authorities to facilitate more extensive crime research and policy development by university scholars.
- 4) The increasing need for criminologists to engage the public more fully in matters of crime statistics, crime management and policy issues.

These six papers and the perspectives put forward by Professors Maguire and Bennett do help the research effort and accompanying discourse now engaging Caribbean scholars, policy-makers and practitioners. Some components of this local research are school

violence and delinquency, gender and crime, community policing, police use of force, crime and public policy, white-collar crime, prison reform, the culture of lawlessness, crime and the media and public perceptions of punishment. In fact, as Maguire and Bennett kindly noted, our recent publication of *Crime, Delinquency and Justice: A Caribbean Reader* (2007, 720pp) provides information on many of these crime issues.

My own research on school violence and delinquency has produced some surprising results which may be helpful for international comparisons and to read alongside the papers in this volume. For example, are students punished more at home or at school? Do students commit more crimes and delinquency at school or at home?

### *School vs. the Home*

We were astounded to find that in Trinidad and Tobago, students receive corporal punishment significantly more at the hands of their parents at home than by teachers at school. And these students also commit more acts of delinquency at home than at school. Even so, the punishment, both in quantity and severity, when averaged, is of higher proportion than that administered in school. This is of course possible due to the prohibition of corporal

punishment in schools. Can we afford then to have intervention programmes at school but with no attention to the home?

Another project, our ten-year Tracer Study (2001-2010) on secondary school students, also provided some interesting results. When we traced and measured the attitudes, relationships and behaviours of 1,300 students, we found that they do undergo significant changes in such characteristics as they move from their first entry up to the point of leaving secondary school. More precisely, these youths change in their attitudes quite a lot, positively or negatively.

Their turn to a worsening of civic attitudes, in particular, is worrisome since it raises the fundamental question: Aren't schools suppose to build social character too? Too often, educators look upon academic achievement as the sole criterion of schooling, thus leaving the building of social skills and civic character outside the evaluation loop, and so leaving behind those many good and civic-minded students without honourable mention or encouragement.

Certainly, a student could be both good and bright. But there is growing evidence that brightness and

good character do not often go hand in hand. This phenomenon is relevant given the drastic upsurge in gang formation in this country, a fact which occupies Lane and Chadee's paper on gangs in Trinidad.

### *Prison and Youth*

One outcome of all these social deficits ends up within the prison system which brings us to another set of data from our research. The work by one of our Senior Research Assistants, Ian Ramdhanie, shows the prison system overcrowded with a disproportionate amount of young offenders for a large amount of minor crimes and with relatively short-term sentences. This is a situation which compels an urgent review of sentencing and penal policies. Indeed, a *Sentencing Act* has been passed in our Parliament since 2000 but it has not yet been implemented – which brings us back to my earlier point about the “non-functioning” of our crime and justice institutions.

Then, dealing with youths again, another of our Senior Research Assistants, Vidya Lall, found that delinquent acts such as smoking and drinking alcohol begin substantially at a rather young age, in primary school, and in some cases, exceed the frequency in secondary school. Given such contextual research, a follow-up possibility may be to have a research and

policy conference with the six papers in this volume linked to some relevant ones done locally.

Take another example, Pfaff and Bennett's paper deals with the excessive use of force by the police in Trinidad and Tobago. But as far back as 2001, eight years ago, we did a human resource survey of the police here when the results clearly showed that all is certainly not well in the police service. For example, substantial proportions of the police officers themselves felt there was too much alcoholism, stress, indiscipline and non-compliance in the Service. The report with appropriate recommendations was submitted to the authorities but remained shelved.

### *Police Use of Force*

Excessive use of force is a charge which emerges largely from public complaints. But again, there is a Police Complaints Authority, passed by Parliament, and which is now, as of April 2009, "non-functional" because of no appropriate staff. Meanwhile a US State Department report recently commented quite severely on the recent increase in "police killings" in Trinidad and Tobago. This is a critical policy issue relevant to Pfaff and Bennett's paper.

In fact, at present, the critical posts of Solicitor General, Commissioner of Police and Director of

Public Prosecutions are among those which have not yet been substantively filled. And all this when there is a severe case back-log problem facing the courts. So Caribbean Criminology cannot ignore the status and functions of crime-related institutions – their ineffectiveness really.

As Professors Maguire and Bennett note, and the paper on “Youth Perceptions of the Police” suggests, such institutional gaps do undermine public confidence in the administration of justice. This is one of the reasons I suggested earlier that a critical analysis of our crime and justice institutions may provide a good basis for pursuing a Caribbean Criminology.

The authorities and Caribbean governments generally must now be prepared to accommodate and properly act upon carefully engineered, data-driven policies. Public policy in this respect must not be contaminated by political expediency.

***Research Support: An Enduring Challenge***

Indeed, as these six papers suggest, university scholars in the Caribbean are intensely aware of the need for continuing research into a number of areas which can bring some positive policy action. But crime research itself may well point out the

inefficiencies, deficits and gaps in the policies of the Executive arm of government. Even with a good amount of tactful reporting, such research usually carries obvious implications for continued State funding. This country, or the Caribbean for that matter, does not have a National Institute of Justice, a Ford Foundation or any such crime and justice funding agency.

What does a university researcher do in such circumstances when the Government is the major and often the sole funding agency for local crime and justice research? This is another vital point in the current discourse over a Caribbean Criminology especially when critical analyses and critical thinking are required for constructing the theoretical foundations of an academic discipline.

There is now an opportunity, however, to pursue partnerships between the authors of these six papers and Caribbean researchers so as to deepen the theoretical foundation and policy value of continuing research. As a scientific mode of inquiry, data analysis and theory-building, Criminology itself is a rather young discipline in this part of the world – about thirty years old. Professors Maguire and Bennett did point to the range of relevant activities here.

*Criminology, Partnerships and Programmes*

What all this means is that the partnership between this *Caribbean Journal of Criminology and Public Safety* and our colleagues from American University has been quite opportune and valuable. As our previous issues have shown, we do wish to emphasize papers drawn from Caribbean research but given such areas as trans-national and cyber crimes, terrorism, drug and human trafficking, etc., we are always willing to accommodate papers which cross geographical and cultural boundaries if only to widen our own understanding of crime, justice and Criminology as a whole.

The fact that the American authors of these six papers could have done such research in the Caribbean and now have them published in a Caribbean journal helps to demonstrate the great value there is in professional collaboration. In the many years that I have known Professor Bennett, he has always exemplified this spirit. The Introduction by Professor Maguire and himself is extremely enlightening, even for us in the Caribbean.

Finally, for their assistance in looking after the many publication details, I express my deep appreciation to Mr. Ian Ramdhanie and Ms. Vidya Lall. Their willingness and thoughtfulness are indeed

exemplary. To the President of The University of Trinidad and Tobago, Professor Emeritus Kenneth Julien, I also express my gratitude for providing the financial support required for this publication.

*Professor Ramesh Deosaran*  
Editor, *CJCPs*

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## INTRODUCTION

*Edward R. Maguire and Richard R. Bennett*

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*Special Issue on Criminal Justice:  
Research in Trinidad and Tobago*

This special issue features six original papers, each one reporting the results from empirical studies of crime and justice in Trinidad and Tobago. Three things are remarkable about this collection of papers. First, each study was carried out in Trinidad and Tobago, a small-island developing state in the southeastern Caribbean. Small states, particularly in the developing world, often do not contribute much empirical research to the growing knowledge base in criminology and criminal justice. Trinidad and Tobago is a rare exception. Second, each study has implications for policy and practice in crime and justice. These studies do not represent knowledge for the sake of knowledge – they all strive to be relevant. Third, each study is based on one or more original data sets assembled using a variety of rigorous social science research methods.

These papers represent the first wave of findings from ongoing research that is expected to result in many other publications. We view it as fitting that this first wave of research should be published in the region's primary outlet for scholarship in criminology and criminal justice: the *Caribbean Journal of Criminology and Public Safety*.

*Why Trinidad and Tobago?*

Trinidad and Tobago is the southernmost nation in the chain of Caribbean islands. Trinidad is located seven miles northeast of the coast of Venezuela, while Tobago is located 21 miles northeast of Trinidad. Trinidad is the larger island, measuring 1,864 square miles, and is home to nearly 96% of the nation's population of approximately 1.26 million people.<sup>1</sup> It is the heart of government and the home of commerce, including a prosperous oil and natural gas industry. It is the birthplace of the steelpan, calypso and soca music, and has been home to two Nobel Laureates in literature.<sup>2</sup> Tobago is the smaller of the two islands, with a population of just over 54,000 and a land mass of about 116 square miles. It is a more stereotypical Caribbean island – with beautiful beaches, water sports, and a relaxed lifestyle – whose principal industry is tourism. Trinidad and Tobago is one of the wealthiest nations in the region, thanks largely to its reserves of oil and natural gas.

Since 2000, Trinidad and Tobago has experienced a serious outbreak of violent crime. Figure 1 shows the number of homicides in Trinidad and Tobago from 1988 to 2008. Homicides remained fairly stable from 1988 to 1999, but increased 485% from 1999 to 2008.

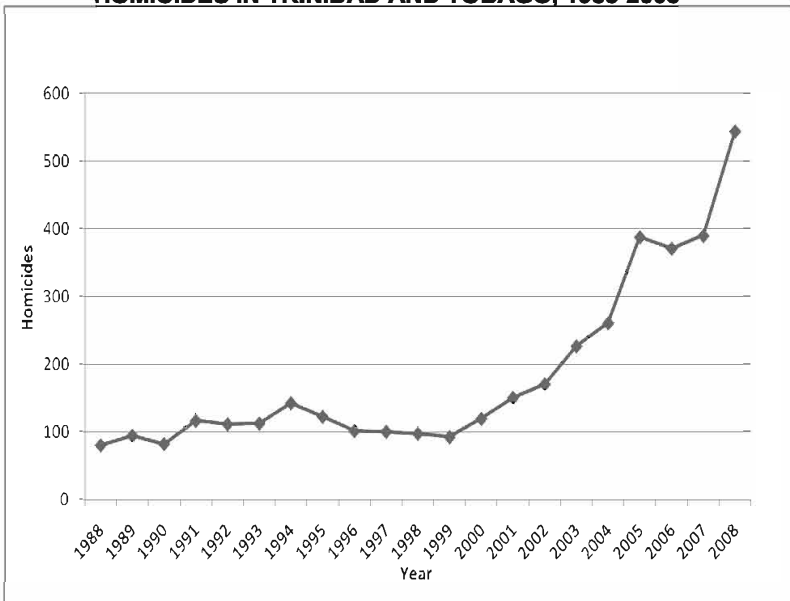
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<sup>1</sup> The Central Statistical Office of Trinidad and Tobago lists the nation's population as 1,262,366 as of the 2000 census, with 1,208,282 people in Trinidad, and 54,084 in Tobago [<http://www.cso.gov.tt>].

<sup>2</sup> V.S. Naipaul, who won the Nobel Prize in Literature in 2001, was born in Trinidad and now lives in England. Derek Walcott, who won the Prize in 1992, was born in St. Lucia, but lives in Trinidad.

The vast majority of the increase was due to homicides committed using firearms. Research has shown that the number of homicides committed using blunt instruments, sharp instruments, and “other” weapon types remained fairly stable during this period (Maguire, et al., 2009). Increases in the volume and severity of crime in Trinidad and Tobago had a predictable effect on residents.

**FIGURE 1**  
**HOMICIDES IN TRINIDAD AND TOBAGO, 1988-2008**



A 2003 poll of Trinidad and Tobago residents found that 74% of respondents considered crime to be “the single most important issue” facing the country, with 92% viewing it as “one of the most important issues” (MORI International, 2003, p. 20). That same survey found that only 35% of respondents trust the police to

tell the truth (compared with 64% in Britain). According to the authors of the report, “the Police Service in Trinidad and Tobago has a very poor image” (p. 26). Three in five (60%) survey respondents agreed that “the Police Service is too much in league with criminal elements in our society” (p. 7).

As the first decade of the new millennium proceeded, citizens were clearly concerned about crime and policing in the nation and the media applied intense daily pressure on the police and politicians to “*do something*” about the crime problem. Our interviews with criminal justice officials at all levels revealed a nearly universal belief that citizens had lost faith in the very institutions – the police, the courts, and the government more generally – responsible for addressing the crime problem.

These officials told us that a lack of trust in police and courts, coupled with fear of retribution by offenders, had led to a reduction in citizen cooperation with police. Citizens became reluctant to call the police in the first place or to serve as witnesses against suspected offenders. Similarly, in their role as jurors, citizens became less willing to trust police testimony. As these relationships between citizens and public authorities worsened, detection rates and conviction rates decreased, and crime continued to increase (Maguire, et al., 2009). Because it is a cyclic process, not only did crime and fear of crime increase but the

nation's ability to combat it was significantly curtailed.

In the midst of this "spiral of decay" (Skogan, 1990), the government of Trinidad and Tobago turned to experts from the United States and Great Britain for help, hiring teams of current and former police officials as well as academic criminologists to diagnose the crime problem and recommend solutions. This investment in external consultants is probably the largest single investment in criminological research in the history of the Caribbean. Some of the articles appearing in this issue represent the first products to emerge from this research portfolio.

Trinidad and Tobago's investment in criminological research was essential for diagnosing the unique nature of its crime problem. Moreover, it revealed the existence of criminal justice practices that in some cases failed to address the crime problem adequately or in other cases probably made the problem worse. Criminology, as a social science, is meant to be relevant; it is meant to inform policy.<sup>3</sup> Trinidad and Tobago's investment in criminological research has generated many policy-relevant findings that policymakers and practitioners can use to make evidence-based decisions.

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<sup>3</sup> This is not to say that theory-testing or "pure" research that has no immediate implications for policy is not valuable as well. A healthy balance between pure and applied research is vital to the health of the discipline (Sherman, 2005).

*Evidence-Based Policy Making in Criminal Justice*

The past decade has seen the emergence of “evidence-based” movements in several policy domains, including medicine, education, social work, and government and policy making more generally (Davies, Nutley, and Smith, 2006; Roberts and Yeager, 2006; Sackett and Rosenberg, 1995; Thomas and Pring, 2003). The evidence-based movement is beginning to take root in criminal justice policy as well, with calls for evidence-based policing and crime prevention now discussed widely by professionals, policy makers, and scholars (Sherman, 1998; Sherman, et al., 2006; Tilley and Laycock, 2006).

The essential premise of the evidence-based approach in criminal justice is the simple notion that crime can be prevented and reduced through a careful analysis and diagnosis of the problem followed by a focused deployment of strategies and resources that are consistent with the findings of the analysis. Taking diagnosis seriously means rejecting ineffective one-size-fits-all solutions for dealing with crime and violence in favor of more thoughtful, more tailored, and more effective approaches.

The methods used for analyzing crime problems and crafting an effective suite of strategies for dealing with them are derived from the social scientific study of crime and criminal justice. Thanks to decades of investment in criminology and criminal justice research in nations like Australia, Canada, Great

Britain, and the United States, there is now a large and growing body of research evidence about how to prevent and reduce crime and sustain or enhance justice. The existence of this research base means there is often no need for police and other government officials to start from scratch when developing strategies for preventing and reducing crime and improving the operations of justice agencies. It also means that there are now fewer excuses for repeating the mistakes that others have already made.

One of the central tenets of evidence-based criminal justice policy is the idea that our instincts, our knee-jerk reactions, and our gut impressions about how to fight crime are often misguided. Rigorous experimental research has shown many times that programs thought to be effective in reducing or preventing crime had little or no effect. Moreover, sometimes our gut impressions are not only wrong, they are counterproductive.

Many crime prevention programs that were implemented by people having the best of intentions were later shown to increase crime. For instance, *Scared Straight*, a program that exposes juvenile offenders to the realities of life in prison through visits with hardened offenders, has actually been shown to *increase* offending among participants (Petrosino, Turpin, and Buehler, 2003). Similarly, evaluation research has shown that a number of

programs that bring juvenile delinquents together in camps, detention facilities, counseling sessions, or recreational programs tend to increase delinquency and antisocial behavior among participants (Dishion, McCord, and Poulin, 1999; Poulin, Dishion, and Burraston, 2001). There are many other examples of crime prevention programs that increase crime or recidivism (see also, Chalmers, 2003; Grabosky, 1996; Marx, 1981; McCord, 2003).

Thanks to the growth of criminology and crime science, however, there is now a body of research evidence that can serve as a foundation for crafting effective crime prevention measures. This evidence, if policy makers pay careful attention to it, can help them avoid making mistakes that many others have already made. Unfortunately, criminologists face a number of constraints in getting their ideas implemented in legislation, in crime policy, and in practice within organizations likely to have an impact on crime.

While most non-experts are unlikely to argue with a chemist, a physicist, or a biologist about the solutions to scientific problems, everybody seems to have strong opinions about how to prevent or reduce crime. These opinions are firmly rooted in individual experiences, morals, values, and belief systems. Typically absent is theory-based research results about what works and what does not work. This general lack of awareness about research evidence

does not only apply to the general public but is also evident within police agencies and other organizations having a significant role in crime and justice. The failure to take advantage of existing scientific evidence is a major roadblock to implementing effective reform in criminal justice.

### *Toward a Caribbean Criminology*

Although the evidence-based movements are making valuable contributions to policy-making in many nations, there are several reasons to wonder how much impact they can have in the Caribbean.

First, little is known about how well theories, models, and innovations from the developed world are suitable for developing nations. The field of evidence-based medicine, an older and more mature field than the evidence-based movement in criminal justice, continues to struggle with this question (Chinnock, Siegfried, and Clarke, 2005; Siddiqi, Newell, and Robinson, 2005).

Second, even if these theories, models, and innovations are applicable in the developing world, are they applicable to the small-island states or “micro-states” that make up much of the Caribbean region? Research has shown that micro-states are not just miniature versions of larger nations. There are significant differences in culture, history, and tradition and these differences exert a powerful effect on public administration and policymaking (Raynor,

2007; Sutton, 2007).

Finally, these evidence-based movements are based on the assumption that scientific evidence about what works is available. This may be true in many developed nations, but there is little empirical evidence about what works and what does not work in crime and criminal justice in the Caribbean. There is a nascent criminological infrastructure in the Caribbean that is not yet sufficient in size or scope to serve as the foundation for the widespread regional adoption of evidence-based criminal justice policy. Peer-reviewed scholarship is the bedrock of academic research in most disciplines, yet there is not enough peer-reviewed empirical research in criminology and criminal justice from the Caribbean.

On the bright side, four meetings of the International Conference on Crime and Justice in the Caribbean have brought both Caribbean researchers and others from outside the region whose research focuses upon the Caribbean together to discuss topics, methodologies, and the policy implication of the research. These meetings were first held in Barbados, then twice in Jamaica, and finally in Trinidad and Tobago in 2006. In each case, they were hosted by the criminology faculty and campuses of The University of the West Indies (UWI) in those three nations. The UWI St. Augustine Campus is again planning to host a crime conference in spring (2009) whose theme will be *Developing a Caribbean Criminology*. It has been

encouraging to see young graduate students presenting their well-conceived and well-executed empirical research at past meetings. Their presence and their work demonstrate that a new generation of well-trained individuals is beginning to expand the literature and knowledge of crime and justice in their home region. Such activity is vital for enabling the region to implement informed crime and justice policy, and hopefully to begin effectively responding, both actively and pro-actively, to the current surges in crime being faced by several Caribbean nations.

Trinidad and Tobago is home to one established Criminology program at the St. Augustine Campus of UWI. It offers graduate degrees (M.Sc., M.Phil. and Ph.D.) in Criminology but not an undergraduate degree. Another Criminology program is under development at The University of Trinidad and Tobago (UTT).

The UWI also has two new Criminology-related centers on its Mona Campus in Jamaica: Professor Anthony Harriott, one of the region's most prolific criminologists, directs the Institute of Criminal Justice and Security, and Professor Barry Chevannes directs the Centre for Public Safety and Justice. Trinidad and Tobago and Jamaica, arguably the two Caribbean nations most affected by crime and violence, are also the hub of its emerging criminology infrastructure.

The leaders of these academic programs, their

colleagues, and their students have been the major contributors to the region's scientific body of knowledge concerning crime.

Professor Ramesh Deosaran from Trinidad and Tobago (formerly of the UWI and Centre for Criminology and Criminal Justice, St. Augustine Campus and currently at The University of Trinidad and Tobago) has been a long-time contributor to our knowledge of crime in the region. His latest book, *Crime, Delinquency and Justice: A Caribbean Reader* (2007) is one of the most comprehensive collections of current knowledge about crime and justice in the region. Professor Harriott's book, *Understanding Crime in Jamaica: New Challenges for Public Policy* (2003), contains a wealth of information and policy directives concerning crime and justice in Jamaica that also have relevance to other nations in the region.

These scholars and the young researchers they are training are building a scientific body of knowledge and have done so by following the pioneering lead of earlier Caribbean researchers such as Kenneth Pryce, author of the now classic article "Toward a Caribbean Criminology" (1976). In addition, other scholars have paved the way for Caribbean Criminology, including Hyacinthe Ellis, author of *Identifying Crime Correlates in a Developing Society* (1991); Bernard Headley, author of *The Jamaican Crime Scene: A Perspective* (1994); and Klaus de Albuquerque, who, prior to his untimely death, researched and published on many

criminological topics in the Caribbean.

*The Papers in the Volume*

The papers in this volume focus on a wide range of topics in crime and justice using a variety of data sources. Two examine crime itself, two explore citizens' perspectives on crime and justice, and two focus on the attitudes and opinions of police officers. Together these studies illustrate the breadth of the field and the challenges of building the capacity for a truly relevant criminology.

In "Spatial Concentrations of Violence in Trinidad and Tobago," Edward Maguire and his colleagues examine whether homicides in Trinidad are concentrated spatially. They review three popular theories often used to account for spatial concentrations (sometimes called "hot spots") of violence. They then examine various forms of data from the Trinidad and Tobago Police Service.

Using a variety of methods, including spatial analysis, they find that homicides are concentrated geographically at all levels, whether looking at the nation as a whole, or looking in a more focused way at police station districts. They find that homicides are even concentrated within the most violent station districts. Their evidence suggests that existing criminological theories can only account partially for these spatial concentrations because they ignore the group dynamics and social contagion effects of the

gang violence that is responsible for the vast majority of homicides. Their evidence also points to a number of potentially effective practices aimed at preventing violence in the hot spots where it is most prevalent.

In “Lodging Security and Crimes against Tourists in a Developing Nation,” Joseph Kuhns and his colleagues report on findings from a survey of hotels and other lodging establishments in Tobago. Their examination focuses on security measures at these establishments as well as the perceptions of the managers about crimes against tourists. The authors report that many of the establishments provide little or no security for their guests. They also suggest that while crimes against tourists are a problem in Tobago more generally, guests in some establishments are more likely to be victimized than others.

Tourists often represent attractive and low-risk targets because they engage in risky behaviors, are easily taken advantage of by friendly local residents seeking to victimize them, and often choose not to pursue criminal action against their attackers because they just want to return home and put the incident behind them. Kuhns and his colleagues recommend a number of strategies for addressing the problem of crimes against tourists, some focused on police and court reform and others focused on third parties like those who own or manage lodging establishments.

In “Perceived Risk, Fear of Gang Crime, and

Resulting Behavioral Precautions in Trinidad,” Jodi Lane and Derek Chadee present results from a telephone survey with a random sample of Trinidad residents. Respondents from high crime areas reported significantly greater concerns about community problems than those from lower crime areas. However, the majority of respondents reported that gangs did not affect their communities. Perceived risk and fear of crime were also low for the sample as a whole as well as the high crime area subsamples. Trinidadians of Indian descent reported greater levels of fear and took more precautions than those of African descent, though they were less likely to live in high crime areas. Lane and Chadee’s findings that perceptions of risk and fear are low in Trinidad are at odds with findings from other recent studies of residents living in high-crime neighborhoods (Johnson, 2008). Further research is clearly needed to understand patterns in fear of crime and gangs in Trinidad and Tobago.

In “Youth Perceptions of the Police in Trinidad and Tobago,” Devon Johnson and her colleagues focus on the extent to which the nation’s youth are satisfied with the services offered by the Trinidad and Tobago Police Service. Their study is based on a long line of research from multiple social surveys on citizen and client satisfaction with government and service providers. Based on their survey of more than 2,500 public school students, they find that Trinidad’s youth “have a relatively negative view of the police,

regardless of whether they are asked about service quality, fairness of treatment, or police misconduct.”

Unlike much of the research from other nations, Johnson and her colleagues report that race does not have a stable and consistent effect on youth attitudes toward the police. At the same time, youth from more socially disorganized communities report lower levels of satisfaction with police and view the police as less fair and responsive. Like the others in this volume, this study raises important questions about the extent to which context matters in criminal justice research. Their findings, consistent with other recent research, confirm that the Trinidad and Tobago Police are facing a serious image problem even among the nation’s youth.

In “Policing People with Mental Illness in Trinidad and Tobago,” Melissa Morabito and Richard Bennett present findings from a survey of police officers on attitudes toward dealing with the mentally ill. Morabito and Bennett test whether Muir’s (1977) theory of police behavior accounts for officer perspectives on referring the mentally ill to health services. They fail to find support for the theoretical model. The only variable in the model that affected attitudes toward the mentally ill was the socio-economic status of the officer. Morabito and Bennett speculate that officers raised in households with higher socio-economic status may be more informed about mental illness issues. They present a number of

possibilities about why their model has low explanatory power.

Morabito and Bennett suggest that officers may be less willing to refer people with mental illness for treatment or assistance if the officers view the available mental health services as weak or ineffective. Another possibility is that officers may be unclear about their responsibilities when interacting with the mentally ill. If this is the case, a brief training program to teach officers about how to deal with the mentally ill could be very useful. Clearly more research is needed to uncover the network of relationships between police, the mentally ill and mental health services in Trinidad and Tobago.

In “Excessive Use of Force in Trinidad and Tobago: Investigating Its Determinants across Time,” Deborah Pfaff and Richard Bennett present findings from surveys and interviews with Trinidad and Tobago Police Service constables and their supervisors in 1994 and 2007. They test a theoretical model in which four factors – situational, individual, organizational, and contextual – explain perceptions of excessive force. They find little support for the model as a whole, though one variable – tolerance of deviance by fellow constables – emerges as a statistically significant predictor in both waves of research. The authors speculate that this finding may be consistent with a subcultural explanation. They suggest that if this interpretation of the findings is valid, then

interventions designed to reduce excessive force would need to recognize the informal subcultural dynamics within the Police Service. As in several of the articles in this special issue, Pfaff and Bennett question the extent to which theories derived from developed nations are applicable to developing nations like Trinidad and Tobago.

*The Future of Criminology and Criminal Justice  
Research in the Caribbean*

*"The FBI lacked the ability to know what it knew..."*

-The 9/11 Commission Report

With this quote, the National Commission on Terrorist Attacks upon the United States (2004, p. 77) succinctly summarized the plight of the FBI prior to the 9/11 terrorist attacks. Though the FBI was awash in data, it lacked the capacity to process and analyze the data systematically to discover meaningful patterns that might have been useful in averting the terrorist attacks. This quote reminds us that some (though certainly not all) of the data necessary for understanding problems in criminal justice and criminology already exist. The challenge is having the infrastructure in place to process the data, carry out meaningful analyses, extract useful patterns from the data, and then to enact policies or practices based on those patterns.

We might think about the FBI and its state of

readiness for terrorism on 9/11 as a loose analogy for the Caribbean and its current state of readiness to deal with the many crime problems in its midst. If crime patterns in a Caribbean nation change suddenly, are there mechanisms in place to detect, analyze, understand, and address those changes?

As crime patterns emerge in one part of the region, are there mechanisms in place to ensure that other parts of the region will know about and understand them? As policymakers implement policies in one sector (such as education or housing) that might influence crime, are there mechanisms in place to alert authorities to the changes in crime that might result? For example, the relationships among public housing, crime, and gangs are well-known, yet nations throughout the Caribbean continue to build the same types of government-funded housing complexes that will concentrate their poorest and most vulnerable citizens in small spaces which will certainly become a breeding ground for the next generation of gangs. Is there a mechanism for delivering these kinds of messages to policymakers in the Caribbean?

Analytical capacity in criminal justice can vary in scope and focus. Beyond a certain size threshold, most criminal justice agencies could benefit from having an in-house unit whose job is to store, process, analyze, and interpret data. These types of units can serve as a built-in source of reflection or introspection

for the agency, placing its practices and its workload under a microscope to determine whether current policies and practices are sufficient and to recommend new approaches. The Trinidad and Tobago Police Service, for example, established a Crime and Problem Analysis (CAPA) Unit for this purpose. One police executive described CAPA as "the engine room that will drive the TTPS." Putting these types of units in place represents one way to enhance analytical capacity in Caribbean criminal justice. Universities can contribute to this capacity-building process by developing degree or certification programs that provide students with theoretical knowledge, opportunities for internships, and entry-level research skills to perform basic analyses for the region's criminal justice agencies.

These types of in-house analytical units represent one important part of a movement toward improving critical thinking and implementing evidence-based practice in criminal justice. These units are typically staffed by technicians, often with a Bachelor's or Master's degree, with skills in database management, basic statistics, and descriptive forms of spatial analysis (like making maps of hot spots). Their role is to use their training to answer applied questions in criminal justice like where and when crimes are occurring or whether (or why) there are changes in offending or victimization patterns. The people in these units are not typically trained to carry out original research of the sort that would satisfy the

peer-review process in academic criminology journals, nor should they be expected to do so. Specifying high-quality research designs, making statistical inferences, investigating causal relationships, and evaluating the effectiveness of programs or policies using rigorous social science research methods are all jobs within the purview of an academic criminologist who is fully trained in the use of the scientific method.

As we think through what it means for a nation (or a region) to improve its capacity for analyzing problems in crime and criminal justice, it is useful to think about establishing (at least) two levels of expertise. At the lower-level, justice organizations could establish in-house analytical units that track agency statistics, carry out limited forms of analysis, and make recommendations to agency leaders based on the results of their analyses. The employees staffing these units would be trained in local academic programs that provide a solid foundation consisting of criminological theory, some elements of organizational change and public administration theory and communications, and technical skills like database management, statistics, spatial analysis, and making effective presentations about analytical findings.

At a higher level, university criminology and criminal justice programs in the region would expand and attract scholars trained in the scientific method who

carry out high-quality empirical research worthy of publication in the field's major academic journals both inside and outside the region. These scholars would be given sufficient time and autonomy within the university environment to establish relationships with criminal justice agencies, treatment facilities, NGOs, or other entities that play a role in crime and criminal justice. These scholars would strive to achieve the ideal of a "public scholar" whose scholarship is of sufficient quality to withstand the scrutiny of their peers during the peer review process. At the same time, their scholarship would be relevant in the real world of criminal justice. Achieving this ideal should be a principal goal in the development of Caribbean Criminology.

Universities cannot do it alone. Forward thinking governments and NGOs will need to fund this regional upgrade in capacity and infrastructure. Moreover, criminal justice agencies and universities will need to build and continue to nurture mutually beneficial relationships with one another.

Of course, building up the region's analytical capacity in criminal justice and criminology and making available research evidence about what works is not sufficient to improve the operations of criminal justice systems. These improvements must be coupled with a will to change and the ability to implement change. But improving analytical capacity would be a profound first step in the development of a

theoretically rich, analytically sophisticated, and highly relevant Caribbean Criminology.

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**EXCESSIVE USE OF FORCE IN  
TRINIDAD AND TOBAGO:  
INVESTIGATING ITS  
DETERMINANTS ACROSS TIME\***

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Police scholars attribute police use of excessive force to a variety of factors including individual characteristics, situational contingencies, and organizational determinants. However, little research has focused upon the effects of rising crime rates or governmental and citizen demands for more control over police use of excessive force. This article presents the findings from a longitudinal study on police perceptions of the use of excessive force in one developing nation in the Caribbean region. A model of the determinants of excessive force is created based mostly upon research from developed nations which includes situational, individual, and organizational factors as well as the contextual factor of rising violent crime rates. The data were collected through surveys and in-depth interviews with constables and their immediate supervisors in 1994 and again in 2007. The findings suggest that the model does not adequately explain the perception of excessive use of force in this developing nation. The only variable in the model that accounts for variance in both time periods is tolerance to deviance. In addition, the extent of crime had a significant effect in 2007 while remaining insignificant in 1994. Policy implications for the control of excessive force in this developing nation are discussed.

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## **Introduction**

The role of the police has evolved over time as societies expect police behavior to reflect the values of the current social order. The police function has changed from that of the traditional notion of police as crime fighters to the more recent idea of community-oriented policing. However, one aspect of policing has not changed: the inherent separation of the police from ordinary citizens by the extralegal powers granted to them, most notably the use of force. In fact, many scholars have argued that the police role is defined by the authority to use force in situations where an officer deems it necessary (Bittner, 1970; Klockars, 1995; Skogan and Meares, 2004). Studies of police use of force were forged by Westley in 1953 and continued by Black (1976), Goldstein (1977), Smith (1986), and others.

In the 1970s and 1980s, the focus of research in this area was on the use of deadly force. Perhaps this was due to the limited knowledge the public held regarding police activities: deadly force was seen as the ultimate exercise in police discretion, and therefore the most comfortable starting point for challenging police power. Non-lethal uses of force began to be a public and scholarly concern as extreme brutality cases became widely publicized, such as the videotape of the Rodney King beatings in 1996 and the sodomizing of Abner Louima in 1997. These incidents and the resulting trials of the police officers involved were watershed events in the US and generated significant changes in police departments and the research agendas of

academics whose attention has expanded beyond a focus on deadly force incidents to include excessive but less-than-lethal force.

While individual-level studies examining data drawn from single agencies have been the norm (Alpert and MacDonald, 2001), the willingness of police agencies to participate in finding solutions for what has become both a public relations and a civil liability issue has opened the door for state and even nationwide comparisons. Although this increase in data has provided some insight into determinants and possible policy changes, the rates of police use of excessive force remain highly variable across police departments (Skogan and Meares, 2004).

Examining excessive use of force is important for several reasons. First, the topic pertains to the legitimacy of the police role, which has strong ties to public perceptions. In developed countries, community policing has evolved out of a recognition for the need for more interpersonal relations between police and the community. The promotion of positive police-citizen relations is espoused both in scholarly studies and practical applications as a means of fostering a sense of community, which furthers the joint police-public goal of crime reduction. Proactive policing may not have the same meaning in developed and developing countries, however. Exploring this potential dichotomy is important in order to identify policies that will further the goals of both the public and the police.

Second, excessive use of force has been associated with

other aspects of police behavior including culture, corruption, accountability, morale, and retention. Identifying the determinants behind the use of excessive force may be crucial to recognizing, understanding, and preventing negative behavior in these areas as well. Broadening our perspective on these additional police issues will allow for a better understanding of the policing environment.

Finally, and of particular importance to this study, is the comparison between developed and developing countries regarding excessive use of force levels and associated determinants. Few studies have been conducted on excessive use of force incidents in developing countries where the organizational and societal pressures for and against such police behavior are likely to be very different than in developed nations. This comparison will expand the scope and relevance of the literature as well as allow for methods of managing the problem to be shared in the international community.

The primary purpose of this study is to investigate the determinants of the perception of excessive use of force by police in Trinidad and Tobago. A secondary goal is to determine if the model's explanatory value is invariant across time or if it is affected by the changing police organizational environment and/or the culture in which it operates. Research in developed nations has emphasized four clusters of determinants behind the use of excessive force (c.f., Worden, 1995) and each will be explored in turn in the sections that follow: the individual, formal

organizational, informal organizational, and situational factors.

The data for this study came from surveys of constables and their immediate supervisors in Trinidad and Tobago in 1994 and 2007. This Caribbean nation was selected for several reasons. First, it is one of a group of developing nations whose economic future is based upon the developed world's growing dependence on energy imports, especially oil and natural gas.<sup>1</sup> The transition from agrarian economy to one of energy exporting is rapid and susceptible both to corruption and social/political turmoil. Potential byproducts of this transition and the associated multitude of social changes are increased class tension and escalating crime rate (Bennett, 1991; Shelley, 1981).

Escalating crime, in particular, is an important factor in this country's selection. Violent, predatory crime increased from a rate of 381.5 in 1995 to 587.5 in 2006<sup>2</sup> and had dramatic effects upon the quality of life of the populace. The people have demanded government intervention to quell the increase in crime. Understanding the police response in terms of the use of excessive force is an important objective for informing future policy. Thus, if this country is representative of other developing nations in the Caribbean and throughout the world, these findings may be of benefit to policy makers generally.

Finally, given well-defined scope conditions,<sup>3</sup> the construction of a correctly specified conceptual model to

understand police excessive use of force should help explain its levels in both survey periods. The model should also help explain the direction and magnitude of change over the years between the surveys.

### **Construction of the Model**

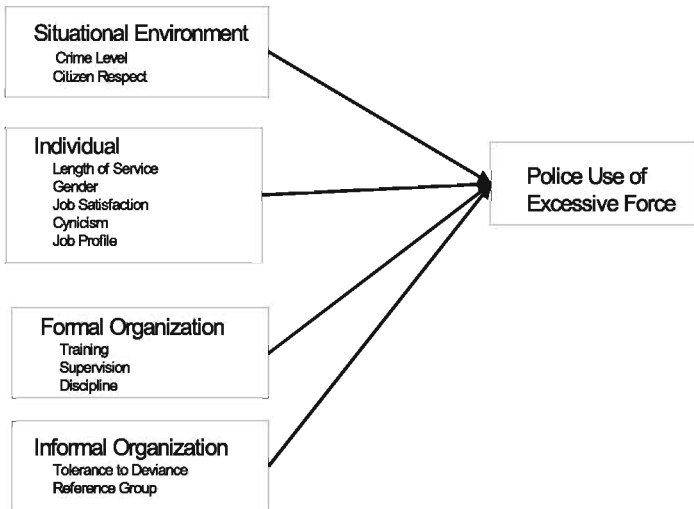
Most scholars agree that it is difficult, if not impossible, to separate the function of police from the use of force, a distinction first explored by Bittner (1970). Klockars (1995) agrees with Bittner and defines the difference between the police and citizens as the police's exclusive right to use force as deemed appropriate to control a law enforcement situation. If the appropriate use of force is a defining attribute of the police role, then it follows that excessive use of force must be viewed as a deviation from the norm. Klockars (1995) goes on to define the use of excessive force as: "the use of any more force than a highly skilled police officer would find necessary to use in a particular situation" (p. 17-18). Fyfe (1995) differentiates between brutality and unnecessary or excessive force. He maintains that excessive force: "...is the result of ineptitude or carelessness, and occurs when well-meaning officers prove incapable of dealing with situations they encounter without needless or too hasty resort to force." (p. 163).

These definitions have a common theme: excessive force is a deviation from the behavior of a highly skilled officer. Thus, the definition of the excessive use of force is based on a comparison between the actions of the officer in question and the way in which a skilled officer would

behave if placed in a similar situation. This study uses the same definition, which was delineated for the officers in the survey as the following: “more force than a reasonable, professional officer would use to make an arrest or control behavior.”<sup>4</sup>

The model used for this analysis is based upon the relevant literature from developed nations. From this body of knowledge, four clusters of determinants (situational environment, individual, formal organizational, and informal organizational) emerge as explaining police excessive use of force. The conceptual model containing the clusters and the 12 determinants investigated in this study is graphically depicted in Figure 1 and addressed below.

**Figure 1**  
**The Hypothesized Determinants of Excessive Use of Force**



*The Situational Environment Cluster*

The situational environment explanation for the excessive use of force considers both the relationships between police and citizens and the general environment in which police operate. The model for the current study included both the level of crime in the country and perceived citizen respect for the police. One accepted conclusion is that there is a reciprocal relationship between police and citizen violence: one begets the other. If officers perceive their environment as dangerous and crime-ridden, they are more likely to use excessive force in order to control their surroundings and protect themselves (Jacobs and O'Brien, 1998). A study by Kania and Mackey (1977) also supported this conclusion through a comparison of fatal shooting rates and exposure to threats. The findings suggest that police reactions are positively related to the level of violence that they encounter.

Similarly, Worden (1995) found that the use of force by police officers is more likely in encounters involving violence. Actual crime rates were not included in the study reported here because of the emphasis in the literature on police *perception* of crime. If police perceive the environment around them as more hostile in comparison with other environments, or more hostile as compared with previous time periods, they are more likely to employ excessive force. Although actual crime rates are likely correlated with police perceptions of crime, examining police perceptions of the crime rate is the more appropriate measure.

Economic stratification may play an important role in the level of force used by police because unstable social conditions are often the result of economic inequality. Additionally, police presence may be found disproportionately in disadvantaged neighborhoods, which both increases the opportunity for excessive force incidents as well as perpetuates the perception that these are the neighborhoods with the highest levels of crime (Jacobs and O'Brien, 1998; McElvain and Kposowa, 2004). In neighborhoods where crime levels are markedly higher, victim deservedness may also be perceived as high and officers may consider the crime levels as warranting more physical responses (Kane, 2002). Therefore, it is hypothesized that as the level of violent crime increases, the level of excessive force will also increase.

Citizen respect for the police is the second factor considered in this cluster. Numerous studies have found that police act more forcefully to elicit compliance from suspects when they perceive a lack of support or respect from the general public (Chevigny, 1969; Hudson, 1970; Muir, 1977). Disrespect exhibited by a citizen has consistently been shown to predict officer use of force. Terrill (2005) found that officers were more likely to follow the use of force continuum when a suspect was passive or offered only verbal resistance, as opposed to physical resistance. Other studies have concluded that a suspect's resistance and demeanor are associated with police use of force (Garner, Maxwell and Heraux, 2002; MacDonald, Manz, Alpert, and Dunham, 2003). Worden (1995) found a negative correlation between citizen support and the

excessive use of force: the higher the perceived citizen respect, the lower the excessive use of force. It is therefore hypothesized that the police will use an increased amount of force when they perceive little citizen support and respect.

### *The Individual Cluster*

The social psychological approach to examining excessive use of force considers an officer's individual characteristics and the influence that these characteristics have on an officer's behavior (Cancino, 2001). In other words, there may be demographically-based reasons a particular officer or group of officers are more likely than others to use excessive force. The social psychological approach does not focus upon pathologies or personal quirks but rather on variables such as experience, gender, and age which condition the way people react to the world around them.

There is some agreement in the literature on characteristics that appear to predispose officers to use excessive force. One of the best predictors of future use of excessive force is, of course, past behavior, specifically involvement in an incident within the prior 6 to 12 months. There is even more agreement among scholars that a small number of officers are disproportionately and repeatedly cited in excessive use of force allegations (Alpert and MacDonald, 2001; Independent Commission, 1991; Lawton, 2007; McElvain and Kposowa, 2004;). Monzoni and Eisner (2006) found that 10 percent of the officers in their study contributed to the majority of the use of force incidents

that took place in one police department. Although the survey methodology used in the current study was not able to gather the same type of individual data used by Monzoni and Eisner, it did collect similar individual-level data that are related to the excessive use of force in the literature. Five constructs emerged from the literature as appropriate for the individual cluster: length of service, gender, satisfaction with the job, cynicism, and job profile.<sup>5</sup>

Some studies suggest that younger officers are more likely to use excessive force (McElvain and Kposowa, 2004; Monzoni and Eisner, 2006; Terrill and Mastrofski, 2002) while other studies suggest that age is not an important factor. Miccuci and Gomme (2005) found that age per se was not important but years of experience was: both novices and veterans found a given scenario to portray a serious violation of departmental policy regarding the use of force, but officers with a moderate amount of experience were less likely to consider the incident serious. Other studies suggest that a limited amount of police experience is a significant predictive factor, due to likely overreaction to situations perceived as dangerous or a lack of tolerance for disrespectful citizens (McElvain and Kposowa, 2004; Terrill and Mastrofski, 2002). It is hypothesized that as the length of time on the job increases, the instances of excessive use of force will decrease.

Extensive research has been done on the relationship between gender and the excessive use of force. In direct comparisons between the use of force (not necessarily excessive) by male officers versus female officers, about

half of the studies found no statistical difference (Hoffman and Hickey, 2005; Monzoni and Eisner, 2006; Terrill and Mastrofski, 2006) and half found that male officers were more likely to use force than female officers (Bazley, Lersch, and Mieczkowski, 2006; Schuck and Rabe-Hemp, 2005; Worden, 1995). Additional studies took other variables into consideration and noted that female officers less frequently used a weapon (Hoffman and Hickey, 2005), male officers were more likely to be investigated for a use of excessive force incident (McElvain and Kposowa, 2004), female-female officer pairs were less likely to use force than their male-male counterparts (Schuck and Rabe-Hemp, 2005) and that male officers became involved in significantly more situations in which they employed force (Alpert and Dunham, 2004; Bazley, et. al., 2006). This study hypothesized that female officers will employ excessive use of force less often than their male counterparts.

There are numerous studies examining job satisfaction among police officers – over 35 at the time of publication. One consistent finding is that good performance on the job is correlated with a higher level of job satisfaction (Bennett, 1997; Wright, 1993; Wycoff and Skogan, 1994). Exploring police job satisfaction in developing nations such as those found in the Caribbean is particularly imperative, as prior research has documented its importance in terms of developing stronger public relations, decreasing human rights violations and fostering change (Bennett, 1997). Studies which have examined the relationship between job satisfaction and excessive use of force have typically found

that officers who are more satisfied with their work tend to use excessive force less frequently (Carter, 1976; Friedrich, 1980). Monzoni and Eisner (2006) suggested that this may be because content officers are less likely to trigger negative reactions from the public. It was therefore hypothesized that officers who have higher levels of job satisfaction are less likely to use excessive force.

Dissatisfied or burned-out officers are likely to display symptoms of cynicism. This frequently results in an officer feeling less committed to the job and therefore more likely to experience confrontations with citizens (Monzoni and Eisner, 2006). Research by Burke and Mikkelsen (2004) found that police officers who had higher levels of cynicism also perceived a violent response as more acceptable, which might lead to their utilizing violence more frequently in carrying out their duties. This study hypothesized that officers who are more cynical are also more likely to use excessive force.

An officer's job profile or assignment has only recently been taken into consideration in studies of excessive use of force. Findings have generally been mixed. Some studies have found that officers who work on the front line (i.e., patrol) are more likely than their administrative or specially-assigned counterparts to use excessive force (Monzoni and Eisner, 2006), whereas other studies have found no difference (c.f., Williams and Westall, 2003). Still other studies conclude that specially-assigned officers are more likely to use excessive force than officers on the front line (Bazley, et. al., 2006). One notable study examined job

profile in terms of rank and concluded that higher ranking officers are less likely to use force than line officers (Alpert and Dunham, 2004). The researchers cautioned that this may be due to higher ranking officers possessing more experience in handling confrontational situations. Such findings could also be a result of higher-ranking officers spending less time on the streets due to the increase in administrative duties typically associated with higher rank. For purposes of this study, it was hypothesized that front line officers (constables) are more likely to use excessive force than those officers with special assignments (e.g., detectives, traffic, administrative).

#### *The Formal Organizational Cluster*

The formal organizational approach to examining the excessive use of force by police addresses the impact of agency rules on decisions to use force (Cancino, 2001). Theoretical arguments focus on an agency's structural properties that influence officer decisions and thereby provide explanations for variance in use of force rates (Alpert and MacDonald, 2001). Practitioner and scholarly literature are in general agreement that administrative guidance and supervision restrict the use of excessive force, provided that the policies are appropriate, conveyed clearly and upheld in every incident (Fyfe, 1995; Kappeler, Sluder and Alpert, 1994; Micucci and Gomme, 2005). The formal organizational cluster in this model contains three variables: training, supervision, and discipline.

Prior research suggests that training is a key element in

reducing the use of excessive force, although it has been largely ignored by police organizations. Police academies generally do not focus on ethics and professionalism but rather a list of rules and regulations without justifications for them (Johnson and Cox, 2005). However, training can be an important determinant for the tendency toward violence (Buchanan, 1993; O'Linn, 1992; Papst, 1993; Scrivner, 1994). The proper training provides the officer with a basic understanding of what is expected in a given situation. Additionally, skill level has been found to be directly related to the use of excessive force and the training of officers to enhance their skill level is of vital importance (Fyfe, 1993; Klockars, 1995). This study hypothesized that the more the constable perceives initial and continuing situational training as adequate, the less excessive force will be used.

Officers determine the level of seriousness of misconduct based on how the organization investigates and punishes it (Kappeler, et. al., 1994; Klockars and Ivkovic, 2004). A study by White (2001) examined the impact of the removal and subsequent reinstatement of a restrictive excessive force policy on the behavior of Philadelphia police officers from 1974 to 1990. The result was an immediate and significant decrease in the use of deadly force, an effect that lasted for nearly a decade. White explained the lack of sanctions for violating force policy as attributable to the preferences of the Philadelphia mayor at the time. Mayor Rizzo promoted an environment that reflected his personal philosophies, including a lack of sanctions for excessive use of force. Skolnick and Fyfe (1993) and Walker (2005)

suggested that negative behavior is less likely to be prevalent when punishments are both swift and fair. It is therefore hypothesized that as officers perceive discipline to be fair and appropriate, there will be a decrease in the incidents of excessive use of force.

Researchers have also found that effective supervision is another important variable in determining excessive use of force (Kappeler, et. al., 1994; Skolnick and Fyfe, 1993). Scrivner (1994) noted that those officers who tend toward the use of excessive force may in fact be reflecting their agencies' deficiencies in proper supervision. Together with a clearly outlined and firmly enforced policy, supervision is a means of organizational control that serves to limit inappropriate uses of force (Buchanan, 1993; Fyfe, 1979; Walker, 2005; Worden, 1995.) It is hypothesized for this study that as the quality of supervision increases, the use of excessive force will decrease.

### *The Informal Organizational Cluster*

There are two constructs to the informal organizational cluster. The first concerns occupational culture and how officers' behavior is influenced by the behavior of their colleagues, that is, their peer reference groups. The second construct, the organization's tolerance of police deviance, is an aspect of organizational culture. Specifically, this construct focuses on officers' perceptions about how rule-breaking is handled informally among the officers as well as formally by the administration.

The occupational and organizational cultures of any organization have the power to reconstruct an individual's ethical basis so there is similarity between the individual and the group (Kleinig, 1996). This is especially true in the profession of policing where a high degree of solidarity is maintained as a result of conflicts with out-groups, particularly the administration and the public (Crank, 1998). While most officers will stop at a certain stage of deviance based upon the group's definition of those limits, a powerful norm of not exposing deviance committed by colleagues, (known as the "blue wall of silence") usually protects the officers who go beyond these limits from being detected and punished.

Officers are first exposed to peer group culture in training and the culture continues to be reinforced throughout their careers (Harris, 1973; Skolnick, 2002). In the police academy, officers are taught that the public is generally to be mistrusted and that an officer should remain suspicious in every dealing with a citizen. Only other officers can be trusted. While this "us versus them" mentality was originally intended to protect an officer from harm in seemingly innocuous situations, it created a shared ethos that the public is a dangerous entity that will not hesitate to behave in a manner reflective of a disregard for authority. The inherent danger of the profession in addition to officers' authority to use force leads to the development of a close-knit subculture that places its own demands on members (Crank, 1998; Skolnick, 2002). Research on police culture and excessive use of force has found that officers hold positive attitudes towards

aggressive policing tactics as well as favorable attitudes toward selectively enforcing laws (Crank, 1998; Skolnick, 2002). Additionally, this same subculture mandates that officers maintain leverage over citizens at all times and never back down from citizen resistance to their authority (Terrill et. al., 2003).

The occupational culture enables officers to perform their duties on the streets while remaining within the parameters of the expectations held by their peer reference group and the policies provided by their agencies. In other words, occupational culture defines the behavior of officers on the streets while protecting them from administrative penalties (Manning, 1977; Reuss-Ianni, 1983; Sklonick, 1966). If the culture is one where excessive use of force is seen as an appropriate means of controlling crime and criminals, then membership in this peer group should increase the use of excessive force. This study hypothesized that the stronger an officer's bond with a peer reference group, the more likely excessive force will be used. While police occupational cultures are typically developed and perpetuated by officers on the front line, organizational culture is defined from the top down (Paoline, 2003).

Police departments shape their agencies' norms and behavioral patterns to create a shared outlook among their members (Wilson, 1968). Organizational cultures bear the responsibility for their group members' total social psychological functioning, and insuring that officers are committed to the shared ethos is imperative to compliance

with policy directives (Paoline, 2003). When the occupational culture of an organization is stronger than the organizational culture, infractions of rules are more likely. In this environment, police management will be viewed by line officers as being determined by social and political influences. Line officers will employ techniques to limit the impact administrators have on their daily operations, often ignoring or nullifying management directives (Micucci and Gomme, 2005). Punishments administered by police management will be viewed as inappropriate or unfair and as a result, officers will be less likely to report the unethical or illegal actions of other officers. It is therefore hypothesized that the more informally officers deal with rule-breaking in the force, the higher the use of excessive force.

The resulting model contains the 12 determinants just discussed and organized into four clusters. The hypothesized relationships between these predictor variables and police use of excessive force, and the way in which each is measured, are summarized in Table 1.

## **Methods**

### *Data Collection*

The data for these analyses were collected from police constables and their immediate supervisors at two time periods in the nation of Trinidad and Tobago: March, 1994 and January, 2007. The original survey sample was created by a two-tier process. First, all police stations (i.e., a

designated police district) located within the corporate limits of the capital, Port of Spain, Trinidad, were selected. Only stations in the capital were selected because rural policing is very different from urban policing.<sup>6</sup> Second, every constable and their first-level supervisor assigned for duty during the week that the survey was administered were asked to participate, that is, those **not** on vacation, administrative leave, or sick leave. This process was replicated for the second fielding of the survey in 2007.

In both time periods and prior to the administration of the survey, the researcher personally met with the commander and his/her staff to discuss its administration. The shift commander, usually an inspector, would then distribute the necessary number of questionnaires to the sergeants (or next in command) to deliver to their constables. The questionnaire was administered anonymously. In the first administration, the constables were instructed to place their completed forms in plain envelopes provided and to seal them before returning them to their supervisors. In the second administration, the constables were instructed to place their completed forms in plain envelopes provided, to seal them and then deposit them in a locked box provided to each station by the researcher. This procedure was adopted for the second administration to further insure the privacy of the officers' responses.

The original questionnaire was a professionally constructed survey booklet with 13 pages of items and the respondent was instructed to check the appropriate response option under each question. The second

**Table 1**  
**Measurement of Variables and Predicted Direction**

Variable	Measurement	H <sub>1</sub>
<b>Situational Environment</b>		
Extent of Crime	3 item scale, FA <sup>a</sup> -1 component (76%) <sup>b</sup> , $\forall^c = .833$	Pos.
Citizen Respect	3 item scale, FA - 1 component (61%), $\forall = .678$	Pos.
<b>Individual Factors</b>		
Length of Service	1 item, 5 category scale	Neg.
Gender	1 item, Male = 1, Female = 0	Pos.
Satisfaction with Job	5 item scale, FA - 1 component (52%), $\forall = .760$	Neg.
Cynicism	4 item scale, FA - 1 component (47%), $\forall = .600$	Pos.
Job Profile	1 item, Dummy variable, 1 = Patrol, 0 = Other	Pos.
<b>Formal Organizational Factors</b>		
Training	3 item scale, FA - 1 component (62%), $\forall = .686$	Neg.
Supervision	5 item scale, FA - 1 component (61%), $\forall = .830$	Neg.
Discipline	3 item scale, FA - 1 component (59%), $\forall = .445$	Neg.
<b>Informal Organizational Factors</b>		
Tolerance to Police Deviance	2 item scale, $\forall = .841$	Pos.
Subculture Reference Group	3 item scale, range 0 to 3	Pos.
<b>Perceived Use of Excessive Force</b>	1 item, 5 category scale	----

<sup>a</sup> Factor Analysis using Principal Component Analysis

<sup>b</sup> Variance explained by component

<sup>c</sup> Cronbach's Alpha

questionnaire was also a professionally constructed survey booklet with 13 pages but respondents were asked to fill in the appropriate bubble after each item so the booklets could be scanned. Both instruments contained nearly identical questions with only minor differences (e.g., items concerning facilities and equipment were reduced from 100 specific items to 6 general items in the second instrument). In addition, based upon the Commissioner of Police's request, items on community policing and the handling of emotionally disturbed persons were added to the 2007 instrument.<sup>7</sup>

Both instruments asked about demographic characteristics, personal and station equipment, crime trends, training, communications, supervision, discipline, police-citizen relations, job satisfaction, rule breaking, how time is spent, and social relations. In the original instrument, there were 79 questions (three questions had sub-questions for a total of 190) that took an average of 25 minutes to answer; in the second instrument, there were 109 questions that took an average of 20 minutes to answer.

The number of constables and supervisors included in the two samples varied as did the response rate. For the original survey, there were 578 officers available in the stations in the Port of Spain region during the week of administration. Of these, 462 officers completed the survey, producing a response rate of 80%. For the second survey, the number of officers available in the Port of Spain region was 411 and only 234 of them responded, yielding a response rate of 57%.<sup>8</sup> This latter response rate

is still within the acceptable limits for such a survey.

The survey questions focused on the constables' perceptions of his/her organizational and occupational culture. Rather than asking the respondent about their personal use of excessive force, the fairness of discipline personally received, or the quality of training experienced, the items tapped their perceptions regarding these topics. All of the variables reflected the constables' perceptions of the organizational and occupational culture within which they work.

This approach differs from that used in the majority of the studies cited earlier that relied on either quantitative observational data or archival records. The differences in methodological approach between those studies and the one reported here mean that direct comparisons of findings must be done cautiously.<sup>9</sup> The reliance upon perceptions about the organizational and occupational culture rather than a request for self-reported behavior was not without merit, however, as it afforded individual constables additional anonymity concerning behavior that is not only against force policy but sometimes against the law in Trinidad and Tobago.

### *Measurement*

The dependent variable, *Excessive Force*, is measured by responses to a single item asking to what extent perceived excessive force is used by fellow officers in dealing with criminal suspects. The item employed Likert-type scaling<sup>10</sup>

with the categories ordered so that the higher the value, the greater the use of excessive force. Again, as with all variables in this model, this variable refers to the subject's perception of the organization's culture. It does not measure the subject's use of excessive force but rather the subject's beliefs about the level within the organization. This form of measurement is consistent with the relative definition of excessive force used in most studies conducted in the US.

The independent variables in the model are grouped into four clusters. First, the Situational Environment Cluster contains two variables: *Crime Level* and *Citizen Respect*. *Crime Level* is measured by combining three items tapping the constables' perceptions about 1) the extent of crime in general, 2) the extent of violent crime, and 3) the use of guns in the commission of crimes. The dimensionality of the scale was ascertained through factor analysis. The analysis indicated that the scale is unidimensional by having all items load on the one factor which accounted for 76% of the variance. A Cronbach's Alpha of .833 was obtained. The higher the score, the higher the level of criminality and violence in the community.

The second variable, *Citizen Respect*, was created by combining three items measuring perceived respect of police by citizens in the community. The dimensionality of the scale was measured through a factor analysis and the three items loaded on one factor which explained 61% of the variance and produced a Cronbach's Alpha of .678. The higher the score, the lower the level of perceived

citizen respect.

The Individual Cluster contains five variables. First, *Length of Service* is a five-category variable which measures the number of years since the constable entered the police service. The higher the number, the longer the service. Second, *Gender* is dichotomized with male equaling 1 and female equaling 0. Third, *Satisfaction with the Job* is measured by a scale containing five items.

The dimensionality of the scale was ascertained through a factor analysis which revealed it is unidimensional and all items load on the same factor which accounts for 52% of the variance. A Cronbach' Alpha of .760 was observed. The higher the score, the greater the job satisfaction. Next, *Cynicism* is measured by a four-item scale with the principal component explaining 47% of the variance. A Cronbach's Alpha of .600 was observed. Finally, *Job Profile* is measured as a dichotomous variable with "1" equaling the patrol function and "0" equaling a non-patrol function.

The Formal Organizational Cluster contains three variables. The first variable, *Training*, is a scale containing three items tapping the constables' perceptions about 1) the efficacy of recruit training, 2) the efficacy of firearms training, and 3) the efficacy of continuing firearms training. The dimensionality of the scale was ascertained through factor analysis. The analysis indicates that the scale is unidimensional by having all items loading on the same factor which accounts for 62% of the variance and generates a Cronbach's Alpha of .686. The higher the

score, the higher the perceived efficacy of training.

Second, *Supervision* was created from the combination of responses to four items addressing guidance, respect, concern, and effectiveness. The items were factor analyzed to determine unidimensionality. The findings indicate that the scale is unidimensional with one factor explaining 60% of the variance. The scale yielded a Cronbach's Alpha of .830. The higher the value, the more fair and appropriate the supervision is seen to be.

Finally, *Discipline* was created by combining three items concerning fairness, respect, and appropriateness of discipline. Analysis documented the unidimensionality of the scale with the factor accounting for 48% of the variance. A Cronbach's Alpha of .445 was observed. The higher the value, the more fair and appropriate the discipline.

The Informal Organizational cluster contains two variables. The first, *Tolerance to Police Deviance*, is a scale containing two items tapping the constables' perceptions about whether two types of rule breaking are typically handled informally among the officers as opposed to through formal administrative channels: 1) the breaking of a minor rule of the TTPS and 2) the breaking of a major TTPS rule. The resulting scale generated a Cronbach's Alpha of .841. The higher the score, the less likely the infraction will be dealt with formally.

Finally, *Reference Group* is measured by determining the

number of times the constables selected their police colleagues over other reference groups for support, friendship, and recognition. The variable is measured so that the higher the score, the more times the constable indicated influence of the police reference group.

### *Analyses*

Two types of analyses were performed. First, a difference of means test was performed to determine if the responses to the 1994 survey differed from responses to identical or similar questions in the 2007 survey.<sup>11</sup> Second, ordinary least squares (OLS) regression was performed on both samples independently to determine if *Excessive Force* was being explained by the same Situational, Individual, and Organizational factors. Table 1 presents a summary of the variables in the model and as well as the hypothesized direction of their relationship to *Perceived Use of Excessive Force*.

### **Findings**

Table 2 presents the means, standard deviations, and t-values of comparisons between the two fieldings of the survey in Trinidad and Tobago. Since multiple (13) comparisons were conducted, the Bonferroni adjustment, which adjusted the standard .05 level of significance to .00385, was employed. The data show that constables in 2007 basically hold the same perceptions as the constables did back in 1994.

**Table 2**  
**Means and Standard Deviations of Variables**  
**in the 1994<sup>a</sup> and 2007<sup>b</sup> Models**

Variable	Mean 1994	SD 1994	Mean 2007	SD 2007	t- Statistic
<b>Situational Environment</b>					
Extent of Crime	5.82	.55	9.23	1.46	<b>39.121*</b>
Citizen Respect	8.58	1.11	8.81	1.34	2.074
<b>Individual Factors</b>					
Length of Service	3.64	1.39	3.23	1.43	<b>-3.125*</b>
Gender	.90	.30	.83	.38	-2.291
Satisfaction with Job	14.68	4.48	13.89	4.83	-1.839
Cynicism	9.37	2.86	9.60	3.24	.824
Job Profile	.69	.46	.71	.45	.469
<b>Formal Organizational Factors</b>					
Training	10.98	2.67	11.06	2.89	.312
Supervision	17.82	3.95	16.95	4.33	-2.283
Discipline	9.26	2.47	9.34	2.46	.348
<b>Informal Organizational Factors</b>					
Tolerance to Police Deviance	4.57	1.81	5.21	1.87	<b>3.739*</b>
Subculture Reference Group	.71	.76	.71	.45	0
<b>Perceived Use of Excessive Force</b>	<b>2.73</b>	<b>1.08</b>	<b>3.40</b>	<b>1.18</b>	<b>6.437*</b>

<sup>a</sup> N = 370

<sup>b</sup> N = 166

\* Bonferroni's adjustment for 13 comparisons at the .05 level, one tailed test is a t-value of 2.677 (Direction of the relationship was predicted, thus a one tailed test).

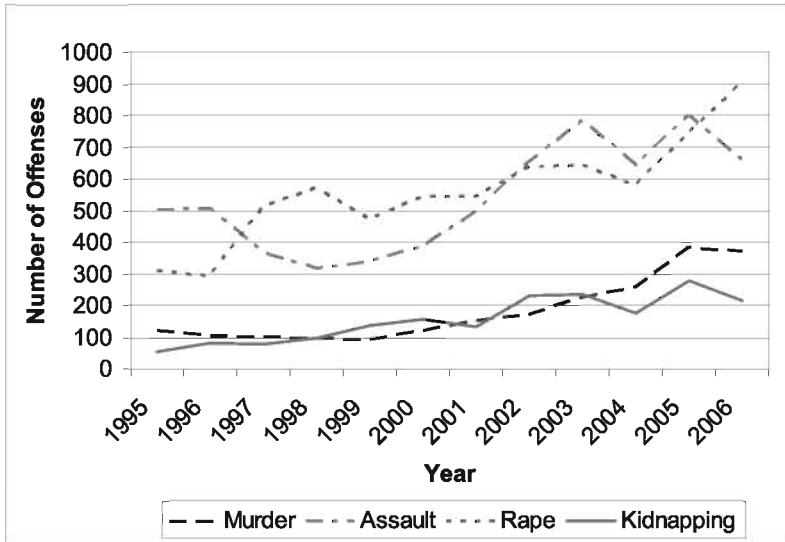
Four significant differences across time were found: on *Extent of Crime*, *Length of Service*, *Tolerance to Police Deviance* and on the dependent variable, *Perceived Use of Excessive Force*. The *Extent of Crime* and *Tolerance to Police Deviance* showed an increase in value between 1994 and 2007. *Extent of Crime* rose dramatically (almost doubled) and *Tolerance for Police Deviance* increased almost 20%. The *Length of Service* of those completing the 2007 survey was significantly shorter than the sample who completed the survey in 1994. *Perceived Use of Excessive Force* increased from an average of between 1 and 5 percent of the time to an average of between 6 and 11 percent of the time.

The constables' perceptions concerning the extent of crime reflect the changing reality of reported crime. As examples, homicides have almost tripled in number since 1995 with the largest increases happening between 2003 and 2006. Likewise, kidnappings have quadrupled since 1995 with the largest increases occurring between 2002 and 2006. In addition, reported rapes increased approximately 300 percent since 1995, having doubled between 2002 and 2006. Although on the rise, the crime of assault has increased only 20 percent over the 12-year period. See [Figure 2](#).

However, the remaining eight predictor variables evidenced no significant differences between the two fielding periods. This finding is surprising because of the presumed link between them and the dependent variable which itself increased significantly.<sup>12</sup> There were non-significant increases in three of the eight, that is, in level of

citizen respect, in percent of the sample that is female and in the perceived level of effectiveness of supervision.

**Figure 2**  
**Number of Violent Offenses in Trinidad and Tobago**  
**between 1995 and 2006<sup>a</sup>**



<sup>a</sup> Data supplied by the Police Commissioner’s Office in February, 2007.

Tables 3 and 4 present the findings of the OLS regression analyses.<sup>13</sup> The 1994 model explains only 9% of the variation in perceptions of the use of excessive force and only one of the model’s 12 predictive variables is found to be significantly related to excessive force.<sup>14</sup> The 2007 model explains 17% of the variance in the excessive use of force and only 2 of the 12 variables are significantly related to the dependent variable. The results for the model in each year are presented and discussed in turn below.

**Table 3**  
**Regression Estimates, Standard Errors, and t-Statistics**  
**for Predictor Variables Regressed on**  
**Perceived Use of Excessive Force in 1994**

Variable	OLS Estimate	Standard Error	Beta	t-statistic
<b>Situational Environment</b>				
Extent of Crime	.053	.100	-.027	-.530
Citizen Respect	.088	.051	-.091	-1.740
<b>Individual Factors</b>				
Length of Service	.067	.042	-.086	-1.597
Gender	-.167	.183	-.047	-.914
Satisfaction with Job	-.008	.014	-.032	-.569
Cynicism	.008	.020	.021	.579
Profile	-.126	.121	-.054	-1.044
<b>Formal Organizational Factors</b>				
Training	.005	.023	.012	.221
Supervision	.018	.016	.067	1.152
Discipline	.027	.024	.062	1.117
<b>Informal Organizational Factors</b>				
Tolerance to Police Deviance	.141	.031	.237	<b>4.592*</b>
Subculture Reference Group	.012	.074	-.009	-.166

N = 370

R = .297

R<sup>2</sup> = .088

F = 2.878; p. < .05

\* = p. < .05

The variable in the 1994 model that reached significance was *Tolerance to Deviance*. It is in the predicted direction:

as the level of tolerance to deviance among police constables increased, so did the use of excessive force ( $\beta = .237, t = 4.592, p. < .05$ ). This finding is consistent with the literature in the US.

The formal organizational cluster of variables produced surprising results. *Supervision, Discipline, and Training*, although found to have an effect on the excessive use of force in the US, had no effect in Trinidad in 1994. Fyfe and Skolnick (1995) as well as others (c.f., Buchanam, 1993; Klockars and Ivkovic, 2004; Micucci and Gomme, 2005; O'Linn, 1992; Papst, 1993; Walker, 2005) view these three factors as being critical in the control or suppression of excessive force incidents, yet they do not appear to play a role in that year.<sup>15</sup> Interestingly, the formal organizational factor of *Discipline* does not effect usage, but the informal, subcultural reaction to how deviance is treated within the ranks of the constables does. This suggests that the informal or sub rosa way of dealing with police deviance and use of force trumps the formal organizational methods.

The most surprising finding is that the perceived *Extent of Crime* had no effect upon the excessive use of force. It appears that the level of criminality, especially violent crime, does not affect the constables' use of extra-legal behavior in fighting crime. Research in the US suggests that the extent of crime and violence in a neighborhood does impact police use of deadly and excessive force (Jacobs and O'Brien, 1998; Kane, 2002).

Finally, it is not totally surprising that some of the variables in the individual cluster did not reach significance. Similar surveys of American police samples have found that length of service (measured differently) and gender are not significantly related to use of force (c.f., Friedrich, 1980; Hoffman and Hickey, 2005; Miccuci and Gomme, 2005; Monzoni and Eisner, 2006; Terrill and Mastrofski, 2006; Worden, 1995). What is more surprising is that *Job Satisfaction* and especially *Cynicism* did not have the predicted effects. Common sense would suggest that as officers become more cynical about the system in which they work, they would also be more prone to take matters into their own hands and punish offenders by means of street justice.

Table 4 presents the OLS findings for the 2007 sample. Here, two variables reached significance and both were in the predicted direction. As in the earlier survey, *Tolerance to Deviance* is significantly related to *Use of Force* ( $\beta = .165$ ,  $t = 2.043$ ,  $p < .05$ ). *Extent of Crime* ( $\beta = .208$ ,  $t = 2.759$ ,  $p < .05$ ) had the predicted positive effect on the use of excessive force. This finding suggests that as the extent of violent crime increases, so does the constables' use of excessive force.

When the findings of the 1994 and 2007 surveys are compared, four results emerge. First, the model did not explain much variance in the dependent variable and few of the 12 hypothesized predictor variables reached significance, indicating that the model was not properly specified for the Trinidadian context. Second, the

**Table 4**  
**Regression Estimates, Standard Errors, and t-Statistics**  
**for Predictor Variables Regressed on**  
**Perceived Use of Excessive Force in 2007**

Variable	OLS Estimate	Standard Error	Beta	t-statistic
<b>Situational Environment</b>				
Extent of Crime	.168	.061	.208	<b>2.759*</b>
Citizen Respect	.062	.069	.070	.891
<b>Individual Factors</b>				
Length of Service	.087	.066	-.106	-1.312
Gender	-.220	.241	-.074	.914
Satisfaction with Job	.001	.022	.003	.031
Cynicism	.056	.030	.155	1.851
Job Profile	-.250	.198	-.096	-1.263
<b>Formal Organizational Factors</b>				
Training	.047	.033	-.114	-1.398
Supervision	.001	.024	.000	-.001
Discipline	.061	.040	.126	1.507
<b>Informal Organizational Factors</b>				
Tolerance to Police Deviance	.104	.051	.165	<b>2.043*</b>
Subculture/Reference Group	.006	.118	-.004	-.053

N = 166

R = .409

R<sup>2</sup> = .167

F = 2.558; p. &lt; .05

\* = p. &lt; .05

explanatory power of the model varied considerably between the two survey fieldings with the data for one explaining twice the variance as the other. Third, the

significance of the variable *Extent of Crime*, in the 2007 model but not in the 1994 model indicates either a threshold effect or a weakness in the model because its explanatory power was not invariate over time. Finally, the one variable that behaved similarly in the two analyses, *Tolerance to Police Deviance*, had a slightly stronger effect in 2007 ( $B = .141$ ) than in 1994 ( $B = .104$ ).

### **Conclusion and Discussion**

This study attempted to build a conceptual model that would explain the use of excessive force among two samples of Trinidadian constables surveyed 13 years apart. The focus of the research was to understand what factors shape the constables' perceptions concerning the use of excessive force at one point in time and also to determine if the factors are invariate across time within the same national context. The model was derived from a review of research conducted primarily on US samples. The literature identified four clusters of variables. First, the literature identified an individual cluster that included five variables, three of which were demographic and two which dealt with attitudinal profiles. Second, the situational cluster included two variables which tied environmental context to police behavior. The third and fourth clusters tapped formal and informal organizational structures and how these two sets of factors shaped the constables' perceptions regarding the excessive use of force.

The overall finding that the model explained little of the variance in constables' perceptions regarding the excessive

use of force in 1994 or 2007 was disappointing. In addition, the model failed to explain differences over time. With the exception of the variable representing *Tolerance to Police Deviance*, none of the other predictor variables showed a significant impact in either time period. One variable, *Extent of Crime*, emerged as a determining factor in the 2007 analysis but this was probably an artifact of the dramatic increases in violent, predatory crime in Trinidad in the prior years.

These disappointing findings could be the result of a singular effect or a combination of three factors. First, the model might have been misspecified and not inclusive of the actual factors that explain excessive use of force, especially if there is an inherent difference in the factors which explain such force in developed versus developing nations. Second, the variables might not have been correctly operationalized and thus not truly representative of their intended constructs. Finally, an explanatory model built from research conducted in the developed world might not be applicable to a developing nation where violence, structural disadvantage, corruption and political turmoil are more rampant.

The policy implications of this research can only be addressed tangentially because the model performed so poorly overall. However, one aspect of the model which performed both well and across time may have significant policy implications: the subculture of officers. The results of this study imply that excessive force can be addressed by reducing tolerance to deviance within the subculture of

the organization. In the analyses of both the 1994 and the 2007 data sets, the predictor variable that accounted for the strongest effect was the constables' tolerance of fellow constables' deviance. It appears that the formal disciplinary activities of each police administration were neutralized by the subculture of the constables, a subculture which dictates that deviance should be handled informally rather than officially. If the use of excessive force is to be curtailed, the rank and file must be persuaded to forego informal handling of infractions of departmental policy and bring such infractions to the attention of the administration.

This move towards accountability should be incorporated into every training program offered by the TTPS. In addition, a Service-wide campaign should be undertaken to persuade officers that transparency and accountability are the bedrock of legitimacy and a means of gaining the community support they currently lack. Increased community support would not only make their jobs easier (for example, more information flowing from the community), but would also reduce the perceived need to employ excessive force to control non-cooperative citizens. Furthermore, the administration must take and handle such complaints about excessive force seriously and discipline the offenders appropriately and, in the eyes of the constables, fairly. The TTPS has had a tradition of inadequate and untimely responses to citizen complaints in general and specifically to officers' rule violations. Without these two complementary and mandatory actions, the reliance on excessive force will not be reduced.

However, since the subculture's tolerance to deviance explained only a fraction of the variance in perceived use of excessive force, implementing these changes may have less effect than desired.

The reining in of excessive force is of concern to all police agencies across the globe and in developing and developed nations alike. The need to better understand its correlates and causal factors is imperative, which calls for further efforts to better specify a model, develop more appropriate and realistic scope conditions, develop better measures of the constructs and again subject the resulting efforts to a rigorous empirical test.

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## ENDNOTES

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1 Currently, 75% of the United States' imports of liquid natural gas comes from Trinidad and Tobago.

2 Violent predatory crime is defined as murder, rape, robbery, wounding and kidnapping. These five categories were combined to generate the number. The data were secured from the Office of the Commissioner of Police. They are presented in a rate per 100,000 population.

3 A scope condition is the third major component of a well-specified theory or model (Smelser 1976). It/they are those conditions under which the theory or model is said to apply (e.g., a developed as opposed to a developing nation or a democratic as opposed to a despotic nation). For a more detailed discussion of scope conditions in criminal justice see Bennett (1980).

4 The question asked the constables which defined the behavior was: "To what extent do police officers use excessive force (more force than a reasonable, professional officer would use to make an arrest or control behavior) while arresting criminal suspects?"

5 The literature has also supported a relationship between race and excessive use of force and citizen complaints regarding excessive use of force. However, when the researchers originally submitted the survey for approval, the then-commissioner requested that all questions applying to race and/or ethnic background of citizens or officers be omitted. Thus, the relationship can not be investigated in this study.

6 Rural policing differs in at least five important ways from urban policing. First, rural communities are more homogenous in composition and have stronger social networks. Second, there are fewer officers in each rural station and there tends to be more interaction among the officers on a continuing basis. Third, there are closer and stronger ties between the officers and the community they serve. Fourth, there is usually less crime. Fifth, the community tends to find solutions to minor problems without the aid of the police.

7 Readers interested in obtaining a copy of the questionnaires should contact the second author at [bennett@american.edu](mailto:bennett@american.edu).

8 This study is a continuation of a study first fielded in 1994. In the original survey, the researcher had just completed 250 hours of observation in the TTPS posts located in the Port of Spain region and was known to the constables as a

former police officer and as a serious researcher. In that administration, the survey received a response rate of 80%. In the 2007 survey, only a few officers remembered the researcher from his earlier work so more officers were suspicious of the intent of the survey. It is interesting to note that in the stations where several of the constables knew the researcher from the prior study, the response rate was over 80%. In addition, during the time of the original survey, little police research was being conducted in Trinidad. During the time of this administration, the constables had recently participated in two government-sponsored surveys that might have created survey fatigue. Due to the analysis program's use of list-wise case deletion, only 166 of the 234 respondents' information was used in the analyses. Although each variable and scale had missing data, the one variable that accounted for the most missing data was father's occupation.

9 Perceptions were employed rather than direct observation or archival records for two reasons. First, formal citizen complaints of excessive non-lethal force are a very rare event in Trinidad and their reliability and validity are seriously questioned by constables, police administrators and police critics alike (c.f., O'Dowd, 1991). Second, unlike the observational studies reported in the literature section, only one observer was employed in the observational phase of this research. The limited sample of constables-citizen encounters with citizens precluded quantitative analyses (use of just force, to say nothing of excessive force, is a rare event: 3 to 10% of police encounters (c.f., Geller and Toch, 1995).

10 See endnote #4 for question wording. The percent distribution across response options for 2007 for each category are presented in parentheses.

<b>RESPONSE CATEGORIES:</b>	<b>% Category Response</b>
Excessive force is never used	(7.2%)
Excessive force is used less than 1% of the time	(12.1%)
Excessive force is used between 1% and 5% of the time	(33.8%)
Excessive force is used between 6% and 10% of the time	(20.3%)
Excessive force is used more than 11% of the time	(26.6%)

11 These findings should be viewed with caution. The data were collected at only two points in time and over a one-week period in both cases. Similarities and/or differences between these two data points separated by 13 years might simply be an artifact of the uniqueness of the year and the week selected for the administration of the instruments.

12 The legitimacy literature suggests that as the police resort to force to control citizen interactions, the level of citizen trust in and respect for them will diminish

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(Tyler 2007).

13. Residual analyses were performed to assess the model's conformity to the assumptions of OLS regression. The analyses revealed that the disturbance term was normally distributed, the residuals were homoscedastic, the residuals were not correlated with any independent variables, and there were no problems with multicollinearity. In fact, the highest tolerance was .753.

14 Bennett (1997) studied the use of excessive force in three Caribbean nations. His findings concerning the effects on individual variables differ from what was found here. These differences could be a result of slightly different models used, but more likely the aggregation of the data from the three nations masked Trinidad's nation specific effects.

15 It should be noted that Bennett (1997), using data from three Caribbean nations, found that these three variables were not significantly related to the use of excessive force. It appears that this finding was not only true for the combined data, but also for the nation of Trinidad and Tobago alone.

## **SPATIAL CONCENTRATIONS OF VIOLENCE IN TRINIDAD AND TOBAGO\***

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The idea of spatial concentrations of crime – often referred to as “hot spots” – has had a fundamental influence on both theories of crime as well as the practice of crime prevention. Several criminological theories serve as an intellectual foundation for the hot spots literature, each suggesting causal pathways through which crime is likely to become spatially concentrated. These theories have been primarily established, tested, and refined in the United States and other developed nations. We begin by briefly reviewing theory and research on spatial concentrations of crime. Next we present findings on spatial concentrations of homicides in Trinidad and Tobago, a small-island developing nation in the eastern Caribbean. We then focus our analysis on a subset of high-crime police station districts, showing how even within high-crime areas, violence still tends to be concentrated in smaller, micro-level crime places. We conclude by discussing the implications of our analysis for theory, research, and policy.

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## Introduction

*“Pay attention to the hot spots,  
equalize the have and have nots.”*

- Singing Sandra and Maximus Dan (2005)<sup>1</sup>

Social scientists from multiple disciplines have long focused on the characteristics that make some places more crime prone than others. Environmental criminologists and psychologists, behavioral geographers, social ecologists, and social scientists from other intellectual traditions have all contributed to a growing body of theory and research on crime and place.

Two basic conclusions are evident from this large and diverse body of scholarship. First, crime is not distributed evenly over space; instead it tends to be concentrated, sometimes intensely so. Second, the explanations for these concentrations in crime vary widely. Some explanations focus on the characteristics of the places themselves. For instance, one explanation suggests that “pockets of crime” emerge in places that offer offenders an ecological advantage (St. Jean, 2007). Other explanations focus on characteristics of people or groups who occupy crime-ridden places. For instance, scholars from the classic “Chicago School” of sociology focused, in part, on the inflows and outflows of populations living in those places (Aldrich, 1975; Shaw & McKay, 1942; Taub, Taylor, & Dunham, 1984). Other research examines the connections

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<sup>1</sup> Singing Sandra and Maximus Dan are popular calypso artists from Trinidad and Tobago. These lyrics are from their song “Hands.”

or social networks between residents in high-crime locations (Sampson, Raudenbush, & Earls, 1997).

Although this diverse body of theory and research has produced some vital insights about distributions of crime over space, the majority of this work has emerged and been tested in developed nations like Australia, Great Britain, and the United States (Andresen, 2006; Doran & Lees, 2005; Perkins & Taylor, 1996; Ratcliffe, 2005; Sampson & Raudenbush, 1999; Sherman, Gartin, & Buerger, 1989; Sherman & Weisburd, 1995).

Previous scholarship has examined the applicability of criminological insights from the United States and other developed nations to problems in Caribbean nations specifically, and developing nations more generally (Bennett & Lynch, 1996; Bennett, Shields, & Daniels, 1997; Birkbeck, 1999). The question about whether separate theories need to be established or existing theories need to be modified is still open. But whether those theories need to be tested in Caribbean or other developing nations is not an open question; theories must have the potential to be falsified and must be tested across a wide range of contexts (Popper, 1959). This paper examines spatial concentrations of violence in Trinidad and Tobago, a small, two-island developing nation in the Eastern Caribbean.<sup>2</sup>

We begin by briefly reviewing theory and research on “hot spots” or spatial concentrations of crime. Next we present

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<sup>2</sup> In some cases we prefer the more general term “spatial concentration” because a “hot spot” represents just one of many potential types of spatial concentrations taking on different sizes and shapes. Moreover, the term “hot spot” is regularly misused in the popular media in Trinidad and Tobago to refer to entire jurisdictions rather than specific “spots” like a street corner or an address, which is the more common use of the term. Later in the paper when we discuss spatial concentrations in micro-level places, we use the term “hot spots.”

nationwide findings on spatial concentrations of homicides in Trinidad and Tobago. We then narrow the focus of our analysis to a subset of high-crime police station districts, showing how even within high-crime areas, violence is still concentrated in smaller, micro-level crime places. We examine the characteristics of a handful of these micro-level places that have experienced a disproportionate share of violence. We conclude by discussing the implications of our analysis for theory, research, and policy.

### **Theories of Crime and Place**

The criminological literature on hot spots or spatial concentrations rests on an intellectual foundation that is comprised largely of three theories of crime: social disorganization, collective efficacy, and routine activities. While these theories vary in substance, they are similar in that they describe how the characteristics of a place can influence the behavior of people who live there. Together they can be thought of as the theoretical “usual suspects” that scholars tend to rely upon for understanding spatial concentrations of crime and violence.

#### *Social Disorganization Theory*

Social disorganization theory stems from a human ecological approach to studying behavior. Just as plants and animals are dependent on and adapt to their environment, humans are attached to their surroundings, and both they and their environment exist symbiotically. In the early 20<sup>th</sup> century, this ecological approach was

applied to crime and social conditions by Robert Park, whose laboratory consisted of Chicago's neighborhoods.

Park (1952) noted that people in cities tend to adapt to their environments, forming communities based on spatial considerations like natural and manmade boundaries: railroad tracks, rivers, landfills, hills, and flatland all shape neighborhoods and what goes on in them. For instance, in developments located near rivers, bays, or oceans, people adapt in many ways – in the way they eat (seafood), the way they play (fishing, boating, etc...), and the way they work (as new businesses related to the water emerge to meet demand). Adapting to the environment is something humans share with the other members of the plant and animal kingdom.

Park also noted the dynamic nature of the uses of space, as new plant and animal species approach, invade, and succeed preexisting species in a given area. According to Park, humans adopt this pattern as well, with ethnic and racial groups sometimes taking over a community, gradually at first, but then passing a threshold or tipping point, eventually resulting in succession.

Working with Ernest Burgess and Roderick McKenzie, Park (1928) put forth a "concentric circles" model of succession, where inner city business districts represent Zone I; Zone II lies immediately outside it and includes the oldest structures (and is often called a "historical district"); Zone III is populated by middle-class families who escaped Zone II; Zone IV is more affluent and residential; and Zone V is suburban. Clifford Shaw and Henry McKay (1969) drew on Park's work in formulating a social disorganization theory of juvenile delinquency, noting a

direct relationship between the type of zone and the rates of delinquency. Zone II is the most problematic, with the highest delinquency rates, and is characterized by frequent racial and ethnic invasion and succession (high population mobility), economic disadvantage, and health problems.

Because these neighborhoods are so often in transition, as one ethnic group retreats to the next higher zone as another ethnic group invades, the communities are unhealthy: people often do not know each other and do not look out for one another, children are uncontrolled due to family disruption, and people from different cultures conflict with each other, sometimes criminally. This state of being is characterized as social disorganization. The most socially disorganized communities are likely to have the greatest spatial concentrations of crime and violence.

#### *Collective Efficacy and Social Capital*

Robert Sampson expanded social disorganization theory in some important ways. Reviewing research on neighborhoods and crime, Sampson (1995) affirmed the strong relationship between crime rates and residential mobility, family disruption (characterized by high divorce rates and female-headed households), and poverty. Socially disorganized communities are often unable to achieve their common values (such as safe neighborhoods) because they lack social capital, or networks of relationships that help people realize their common goals. Socially disorganized neighborhoods are populated by people who lack the capacity or the opportunity to enter

into or sustain enduring and socially beneficial networks (such as friendship networks with positive adult male role models for children) and pro-social institutions (such as good schools or community centers). Race and ethnicity are directly correlated with crime, a relationship due in part to the fact that minorities are more likely to live in socially disorganized neighborhoods.

Collective efficacy is the extent to which communities are able to maintain order and control over public areas, like parks, streets, and sidewalks (Sampson, Raudenbush, & Earls, 1997). A neighborhood's ability to maintain this level of control depends on trust between residents and shared expectations of support (e.g., "I know I can count on my neighbor to tell me if my child is acting up"). Sampson and his colleagues found that greater disorder was associated with high levels of concentrated poverty and mixed commercial and residential land use, but that neighborhoods with greater collective efficacy could counter the effects of structural disadvantage.

The greatest contribution of collective efficacy theory is its notion that neighborhoods characterized by high levels of social disorganization are not necessarily doomed. Although poverty and mobility make them more vulnerable to crime, interventions designed to increase social capital and trust among neighbors can mitigate the risk. Research on collective efficacy and social disorganization teaches us that diagnosing crime often means digging deeper than crime itself. It means understanding the social and structural contexts in which crime takes place.

*Routine Activities Theory*

Routine activities theory posits that crime is more likely when three elements converge in time and place: motivated offenders, vulnerable victims, and the absence of capable guardians (of people or property) (Cohen & Felson, 1979). Offenders may be more or less motivated depending on the nature of their criminal career and its trajectory. Victims may be more or less vulnerable, depending on their status (e.g., elderly) and behavior (e.g., tourism). Guardians can include formal protective mechanisms such as police or security guards, or informal guardians such as neighbors, friends and family, citizen patrols, and community organizations (Felson, 1994). In routine activities theory, the interaction of these three elements – offenders, victims, and lack of guardianship – explains crime.

Routine activities theory has been used to explain a broad variety of criminological phenomena. For example, Kennedy and Forde (1990) examined victim behavior, showing that people who stay at home at night (as opposed to going out at night) are less vulnerable victims and more capable guardians. Routine activities theory has also been used to explain variations in crime after a major disaster, such as Florida's Hurricane Andrew. Victims, and especially their property, become immediately more vulnerable; motivated offenders flock to disaster zones to capitalize on the opportunity; and formal guardians are busy dealing with problems other than crime and looting.

However, immediately following such a disaster, crime rates might actually go down temporarily, due to a sudden surge in informal guardianship, with citizens helping protect each other in a time of need. This temporary effect may dissipate and crime rates may eventually go up in the area suffering most from the disaster (Cohen & Felson, 1979). Routine activities theory can also be used to explain variations in crime across places and time periods. For example, crime rates may have been influenced over the decades during which women increasingly entered the work force, by leaving a greater number of homes unguarded (Cohen & Felson, 1979).

Routine activities theory is often used to explain why crime is concentrated in specific locations (Sherman, Gartin, & Buerger, 1989). The convergence of motivated offenders, vulnerable victims, and the absence of capable guardians may explain why some places become hot spots and not others. For this reason, policy implications of routine activities theory frequently involve altering structural conditions or environmental design in places where these factors converge and where crime is concentrated (Newman, 1996). For example, street lights might be installed to improve visibility, or park benches might be designed to discourage sleeping.

The crime prevention implications of the theory extend well beyond these simple environmental adjustments, however, to include exercising greater social control (e.g., juvenile curfew laws), expanding mechanisms by which citizens can look out for one another, and educating the public and especially vulnerable victims about crime patterns and how to defend themselves from victimization (Felson & Clarke, 1997).

*Criminological Theory and Spatial Concentrations*

The three theories we have just reviewed constitute the standard theoretical explanations for spatial concentrations of crime. All three theories attune us to some of the various pathways through which crime ends up becoming spatially concentrated. While this paper does not provide a formal “test” of these theories, they do serve as a useful lens through which to view spatial concentrations of violent crime in Trinidad and Tobago. Similarly, focusing on these concentrations in a developing nation that is different in many ways from the developed nations where these theories were formulated and tested also results in some useful insights.

**Data and Methods**

This study relies primarily on three sources of data. The first is official records on all 1,958 homicides from 2001-2007 that we gathered from the Homicide Bureau of Investigations (HBI) in the Trinidad and Tobago Police Service (TTPS). The HBI records all homicides in a handwritten register, including such information as victim name, age, sex, address, corresponding suspect information (when available), weapon type, and a brief description of the facts of the case.

Due to limitations in the official homicide data collected by the TTPS, it was necessary to gather other types of supplemental data. For instance, existing records did not accurately identify those homicides that were gang related,

nor did they provide information on the gangs that were involved in homicides.

Initial interviews with police investigators and task force officers highlighted the role that gangs may have played in the increase in homicides, so we knew it was important to gather more focused data useful for understanding the connection between gangs and homicide. Since gangs in Trinidad typically claim certain territory as their “turf,” understanding the spatial dynamics of violence meant we needed to pinpoint gang involvement in homicides.

Thus our second data source was based on a recordkeeping system that we instituted in three high-crime police station districts (Besson Street, Morvant, and Belmont) to capture homicide intelligence information from criminal investigators and task force officers working most closely with gangs. We found that even when officers most familiar with gangs lack sufficient evidence to file charges against a suspect in a gang-related homicide, they typically know the identity of the suspect (or at least of the gang) as well as the motive for the offense. Therefore, the premise of this homicide intelligence database was to capture “unofficial” intelligence data that might be useful for diagnosing trends and patterns in violence.

Official homicide records are sometimes not clear about the location of homicide incidents, a problem that is partly attributable to the lack of a standardized street address system in many parts of Trinidad and Tobago. For instance, houses in disadvantaged communities rarely have street numbers and streets sometimes have conflicting names or no official name at all. As a result,

information in police reports about the location of the offense is often either missing or vague. Thus we accompanied police officers familiar with homicide incident locations in the field to pinpoint the location of each offense.

We used handheld global positioning system (GPS) devices to capture the locations of 209 homicide incidents that occurred in these three police station districts between January 2006 and December 2007. We were unable to gather location information on earlier homicides due to problems with officer recall of the specific incident locations. The GPS data on homicide locations constitutes our third primary data source. In addition to these three sources of data, our analysis also draws on various qualitative data sources, including field observations of high-crime communities; unstructured interviews with police officers, citizens, and gang leaders; and photographs and videotapes of hot spot locations.

## **Findings**

We present the findings of our analysis in three sections. First, we examine the nation as a whole to identify regional concentrations of violence. Second, we focus on seven high-crime station districts that account for more than half the nation's homicides. Finally we present the findings from a more detailed analysis of violence in three station districts. Thus our analysis moves from the macro to the micro, from the nation as a whole, to police station

districts, to smaller hot spots or “pockets of violence.” At each level we observe spatial concentrations of violence.

Our initial finding of spatial concentrations in violence resulted from preliminary analyses of official homicide data from 2005. While the overall homicide rate in Trinidad and Tobago was approximately 34.5 per 100,000 persons in 2005,<sup>3</sup> seven of the nation’s 71 police station districts had substantially higher homicide rates. The most extreme case was the Besson Street station district, with a homicide rate of 249 per 100,000 persons, or about seven times the national homicide rate. About 23.8% of homicides in the nation took place in the Besson Street station district, followed by 8% in Morvant, 7.8% in West End, 6% in Belmont, 5.4% in Arima, and 4.4 % in both St. James and Carenage.

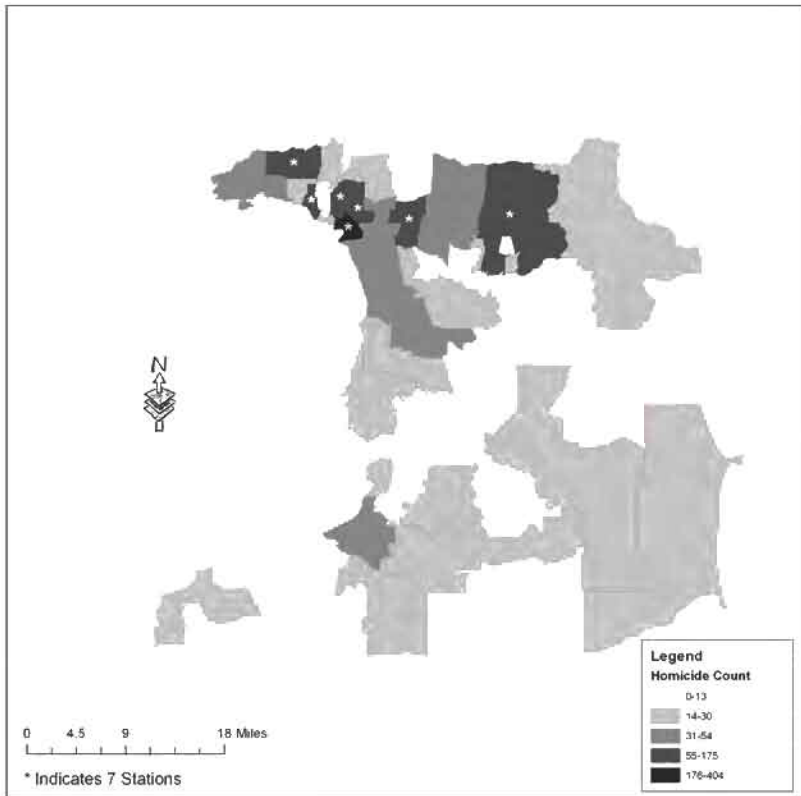
The remaining 40.2% of homicides were distributed throughout the nation’s other 64 station districts. Together, these seven station districts had about 60% of the homicides, though they constituted only 9.9% of the station districts in the nation, 39.7% of the population, and 6.1% of the land mass. The significant concentration of homicides occurring in the Besson Street station district (almost ¼ of the nation’s homicides) is even more striking when considering that this area constitutes only .25% of the nation’s land mass and houses only approximately 3%

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<sup>3</sup> Trinidad and Tobago’s homicide rate in 2005 was 34.5 per 100,000 persons, a rate significantly higher than most other nations in the region. Jamaica, with a homicide rate of 50.5 per 100,000 population, is usually thought of as the homicide capital of the Caribbean. Trinidad and Tobago’s homicide rate in 2005 was about six times higher than that of the United States, which had a homicide rate of 5.6 per 100,000 in 2005 (U.S. Department of Justice, 2005).

of the population.<sup>4</sup> This initial discovery of spatial concentrations in violence at the station district level is what led us to supplement official police data with other data sources and to carry out the more intensive study of spatial concentrations reported here. Figure 1 illustrates homicide counts in Trinidad and Tobago by station district from 2001-2007.

**Figure 1**  
Homicides in Trinidad from 2001-2007



<sup>4</sup> Population data were obtained from the Central Statistical Office of Trinidad and Tobago.

The seven station districts with the most homicides during that time are marked with asterisks. Six of the seven stations are the same as in the snapshot we just provided using data from only 2005. One of the seven most violent station districts included in the 2005 analysis drops off the list when we take a longer view from 2001-2007 (Carenage is replaced by St. Joseph). None of the seven stations had fewer than 55 homicides from 2001-2007; six of the seven had had at least 90 during this period. Besson Street was a clear outlier with 404 homicides during this period, more than twice the number of the second most violent station district, Morvant. Also noteworthy is that three of the seven stations (Besson Street, Belmont, and Morvant) share a jurisdictional border.

Table 1 shows the number and proportion of homicides in the seven most violent station districts in Trinidad and Tobago from 2001-2007.

**Table 1**  
**Homicides in Seven (7) Station Districts in Trinidad**  
**2001-2007**

<b>Station District</b>	<b># of Homicides</b>	<b>% of Homicides</b>	<b>% Area</b>	<b>% Population</b>
Besson St.	404	20.4%	0.25%	3.05%
Morvant	175	8.9%	0.29%	2.24%
Arima	107	5.5%	3.29%	3.05%
West End	97	5.0%	0.69%	2.50%
Belmont	91	4.6%	0.33%	1.79%
St. Joseph	90	4.6%	0.56%	2.24%
St. James	55	2.8%	0.13%	1.33%

*Homicide Case Characteristics*

Data from the HBI are useful for generating a profile of homicide victims. The mean age of homicide victims dropped from 35.8 years old in 2001 to 33.0 years in 2007, for an overall average of about 33.4 years. Homicide victims are overwhelmingly male (88.6%). About 72.4% of victims are of African descent, 18.6% are East Indian, 7.6% are of mixed race, and 1.4% are other races. Africans constitute only 37.5% of the population; therefore they constitute a disproportionate share of homicide victims.<sup>5</sup>

Data from the HBI are not very useful for generating a profile of suspects. Of the 1,958 murders recorded in Trinidad and Tobago between 2001 and 2007, only 522 case files (26.7%) contain either the legal name or the "street name" (alias) of one or more suspects. Moreover, since domestic homicides are typically the easiest to solve, those kinds of cases have more suspect information available than other case types. Because official homicide data are missing so much suspect information, we also cannot draw inferences about the relationships between victims and offenders. From 2001-2007, at least 90% of cases are missing information on victim offender relationships each year, with 2004 containing the most missing data at 94% of cases. While data on suspect gender are only available for 46.2% of cases, the available data show that 96.5% of

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<sup>5</sup> According to Trinidad and Tobago's Central Statistical Office, 37.5% of the population is African, 40% are East Indian, and 20.5% are of mixed descent.

suspects are male.<sup>6</sup> Similarly, while data on suspect race are only available for 15.6% of cases, 69.6% of suspects are African, 20.3% are East Indian, and 9.8% are mixed. Unfortunately, there is insufficient data on offenders to carry out meaningful spatial analyses of offender characteristics.

Data on offender motives also suffer from problems of both reliability and validity. Among the motive categories with more than just a handful of cases, the officially recorded motives are probably most accurate for robberies and domestic homicides, since these types of cases are the most straightforward. But for four other motive classifications (drugs, gangs, altercations, and revenge), the data are simply unusable. Our homicide intelligence interviews with task force officers and criminal investigators knowledgeable about these cases provide a very different picture of homicide motives than the official classifications used by the HBI.

For example, among the homicides classified by the HBI as altercation, drug, or revenge, 48.8% were classified during the intelligence interviews as gang-motivated.<sup>7</sup> Similarly, roughly half of the homicides in which the HBI listed the motive as “pending” or “unknown” were classified during

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<sup>6</sup> Only 37 female homicide suspects were listed in the homicide case files between 2001 and 2007. Of these cases, 43.2% were domestic homicides, 24.3% were altercations, 10.8% were robberies, 5.4% were revenge motivated, 13.5% were unknown, and one case was classified as motivated by personal gain. Of note, none of the cases with female suspects were classified as drug or gang motivated.

<sup>7</sup> The homicide intelligence database contained two classifications for gang involvement. Incidents were classified as “gang-motivated” if they “furthered the interest of the gang.” They were designated as “gang-related” if either the victim or the offender was a gang member or the incident was ordered by or carried out on behalf of the gang. All gang-motivated homicides are gang-related, but not all gang-related homicides are gang-motivated. For a discussion of these types of definitional issues, see Maxson and Klein (1996).

the intelligence interviews as gang-motivated. In our crude analysis of the motive data, we collapsed these four problematic motive categories into one catch-all category that we termed "street homicides."

From 2001-2007, 11% of homicides with known motives were classified as domestics, 21% were robberies, and 64.3% were "street" homicides.<sup>8</sup> Our reading of the homicide case files suggests that the majority of cases ending up in the "street homicide" category tend to be based largely in conflicts over turf, respect, drugs, girls, or previous offenses carried out against either the offender or the offender's friends or loved ones (Hughes and Short, 2005). The robbery-based homicides, though they may have occurred on "the streets," appeared to be much more instrumental; the domestic homicides were also clearly in a category of their own.

Data on weapon type provide one of the most useful pieces of information in the official homicide records. The raw number of homicides by sharp instrument, blunt instrument, asphyxiation, and other modalities all remained fairly constant while the nation's increase in violence was unfolding. Yet, gun homicides rose more than 959% from 1999 to 2007 (from 27 gun homicides in 1999 to 286 in 2007). During the period of interest for this study (2001-2007), 68.9% of homicides were committed

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<sup>8</sup> This classification system is primarily concerned with high-volume offense types and therefore does not address several other categories of homicides (such as sexually-motivated murders or kidnappings) containing only a handful of cases.

using guns, 17.6% with sharp instruments, 2.8% by asphyxiation, 5.5% with a blunt object, and 5.2% by some other means.

One of the most ignored elements of routine activities theory is time. Victims and offenders do not come together in places at random times – concentrations of crime tend to occur at specific times or on different days, weeks, months or years. These concentrations are often referred to as “temporal signatures” (Ratcliffe, 2004). We already discussed changes in homicides by year, with a dramatic growth in homicide by gunfire in recent years. We were unable to detect any clear monthly or seasonal pattern in homicides during the year. Some of the police officials we interviewed expressed a belief that violence is more common during the weeks/months spanning Trinidad and Tobago’s well known annual Carnival season.

Our analysis (not reported here due to space limitations) rejected that hypothesis using homicide data, though there is still the possibility that forms of violence other than homicide (such as minor assaults) may peak during Carnival season. While there were some fluctuations in the number of homicides by day of the week, they were not remarkable. We did, however, find significant variation in homicides by time of day. The majority of homicides (65.4%) occurred from 4 p.m. to 4 a.m., with 18.0% occurring from 4 p.m. to 8 p.m., 30.9% from 8 p.m. to midnight, and 16.5% from midnight to 4 a.m.

When combining day of week and time of day (for 42 four-hour time blocks per week), we found that the six time blocks with the highest frequency of homicides were Monday through Saturday nights from 8 p.m. to midnight.<sup>9</sup>

One important question is whether the various homicide incident characteristics we have just discussed are equivalent in areas with concentrations of homicide and in areas where homicide is less frequent. Some evidence suggests that in areas with concentrations of violence, violent incidents may not only be more numerous, they may also be qualitatively different than violent incidents occurring elsewhere.

Table 2 uses data from the HBI to determine whether there are differences in the nature of homicides between the seven most violent station districts and the other 64 station districts in the nation. Four case characteristics are examined: victim demographics, motive, weapon type, and time of day. Statistical tests are presented for every comparison (z-tests for differences in proportions and t-tests for differences in means). What is striking is that for

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<sup>9</sup> One reviewer questioned why time of day is more important than day of week. A common finding from research on temporal patterns is for violent crime to be higher on weekends than on weekdays. That same pattern is evident here. We do not have direct evidence to answer with confidence why time of day appears more important than day of week, thus we can only speculate. One possibility is that unemployment is endemic in the neighborhoods in Trinidad with the greatest amount of violence, thus for many residents there may be very little real difference in routine activities between weekends and weekdays. It is also common for people in these neighborhoods to "lime" or hang out with friends outside in the evening. This common practice means that potential victims can easily be found outside in public spaces by those wishing to do them harm. We should note that the temporal patterns observed here are similar to those found in some American cities (e.g., Harries, 1989).

most of the contrasts (except some time-of-day variables), the differences between the seven stations and the other stations are statistically significant. Homicide victims in the seven stations are significantly more likely to be black and male. Homicides in the seven station districts are much more likely to be what we have classified as “street” homicides rather than the result of a domestic altercation or a robbery. Homicides in the seven stations are also committed with firearms more often than in the comparison stations.

**Table 2**  
**Characteristics of Homicides, 2001-2007**

	<b>7 Stations</b>	<b>Other Stations</b>
<b>Victim Demographics</b>		
Mean Age	31.14 years	34.96 years
% Male **	93.3%	83.6%
% Female **	6.7%	16.4%
% East Indian **	7.4%	33.6%
% Black **	85.5%	54.7%
<b>Motive (includes only cases with known motives)</b>		
% Domestic **	4.9%	17.6%
% Robbery **	15.0%	27.5%
% Street **	77.7%	49.8%
<b>Weapon Type</b>		
% Firearm **	83.5%	53.0%
% Sharp Instrument **	8.7%	27.2%
% Asphyxiation **	1.3%	4.5%
% Blunt Object **	3.6%	7.6%
% Other (a) **	2.8%	7.9%
<b>Time of Day</b>		
% 12 a.m. – 4 a.m.	16.6%	16.4%
% 4 a.m. – 8 a.m. *	6.8%	10.7%
% 8 a.m. – 12 p.m.	12.0%	13.3%
% 12 p.m. – 4 p.m. *	11.4%	15.6%
% 4 p.m. – 8 p.m.	18.7%	17.2%
% 8 p.m. – 12 a.m. **	34.6%	26.9%

(a) Includes cases classified as fire, body force, run over, poison, other, and unknown. \*  $p < .05$  ; \*\*  $p < .01$ .

Conversely, homicides committed with a sharp instrument, asphyxiation, a blunt object or some other means are more frequent in the comparison stations than in the seven stations. Of the six time-of-day contrasts we examined, only three had evidence of a statistically significant difference at the .05 level, and only one of these at the .01 level. Homicides occurred between 8 p.m. and midnight 34.6% of the time in the seven stations, and only 26.9% of the time in the comparison stations.

Taken together, the results of this analysis suggest that homicides occurring in areas where violence is spatially concentrated are qualitatively different than homicides occurring in areas where violence is less frequent. The results of our analysis so far are consistent with the interpretation that the spatial concentrations are due largely to gang violence carried out by and against young men, primarily of African descent, using guns. We will explore this interpretation further as we drill down to explore more micro-level dynamics.

The official homicide data are useful for detecting some important patterns and trends in homicide in Trinidad and Tobago, but the data also have limitations; much of the information is missing from the case files and other potentially valuable information is not routinely collected. The two supplemental data sets that we gathered allow us to examine spatial concentrations in violence in much more detail.

*Is Homicide Concentrated Spatially  
Within High-Crime Station Districts?*

In this section we explore spatial concentrations of homicide within three station districts using two different methods. The major question we examine is whether there are smaller concentrations of violence *within* high-crime communities, or whether violence tends to be more endemic or diffuse throughout these communities. To do this, we begin by carrying out statistical tests of the extent to which homicides are spatially clustered. Next we use spatial analysis methods to identify a handful of micro-level homicide hot spots. Finally, we explore the nature of those hot spots using both quantitative and qualitative data.

The first step was to test the hypothesis that homicides in the three station districts are spatially clustered (against the null hypothesis that homicides are distributed randomly in space). We relied upon two spatial statistical methods: Nearest Neighbor Analysis (NNA) and a Ripley's K analysis. NNA "tests whether the average neighbor distance is significantly different than what would be expected on the basis of chance." Levine (2004: p. 5.5) cautions that the significance test used in NNA "is not a test for complete spatial randomness, it is a test of first-order nearest neighbor randomness." It only examines the mean distance between *nearest* neighbors; it ignores other higher-order effects. The mean distance between homicide incidents in these three station districts is 138.8 meters, compared with an expected distance (if homicides were distributed randomly) of 247.1 meters ( $z = -12.7$ ,  $p < .0001$ ). The results of this analysis support the hypothesis that homicides in these three station districts are spatially clustered.

While NNA only focuses on the mean distance between nearest neighbors, Ripley's K takes into account "the complete distribution of all distances in the point pattern" (DiMaggio, et al., 2008, p. 451). We ran a Ripley's K analysis using 100 simulations and no border correction. The L values for homicides fall outside of the "randomization envelope," thus providing a second form of evidence that homicides in these three station districts are spatially clustered rather than randomly dispersed.

The second step in our analysis was to identify micro-level places with a disproportionate number of homicides. We use the term "micro-level place" to refer to smaller locations within larger geographical units such as communities, neighborhoods, or police beats (Eck & Weisburd, 1995). In studies of micro-level places, the size of the place can vary from something as large as a street segment or a group of block faces (Sherman & Weisburd, 1995; Weisburd, et. al., 2004) to something as small as a single building, address, or street corner (Sherman, Gartin, & Buerger, 1989). Micro-level places with concentrations of crime are often referred to as "hot spots" (Sherman, Gartin, & Buerger, 1989) or "pockets of crime" (St. Jean, 2007). Rather than focusing on hot spots of crime in all of its various forms, here we limit our focus to hot spots of homicide. These are micro-places with disproportionate numbers of homicides relative to other similarly sized areas.

The first step in the analysis confirmed that homicides in three high-crime station districts are spatially

concentrated. The second step was to identify those concentrations. Our search for spatial concentrations of homicide required us to begin by deciding on the proper unit of analysis. Since homicides are rare relative to other offense types, we elected to use something similar in scope to a street block – one of the larger types of micro-places reported in the literature – as our unit of analysis.

The typical notion of a street block in a developed nation is somewhat tenuous in the three high-crime station districts under study here. These stations are nestled in the foothills of Port-of-Spain, the capital city of Trinidad and Tobago. People travel through these communities on a serpentine network of winding streets, alleys, and footpaths, some paved and some unpaved, with dramatic changes in elevation from one spot to the next. Public staircases carved into the hillsides connect areas with different elevations.

Due to the unique geography and terrain, including the absence of a grid-like street layout, we defined a micro-level place differently from the standard definition of a city block, but roughly comparable in size. For purposes of this study, we defined as a homicide “hot spot” any ellipse 600 feet or less in length where at least 5 homicides occurred during the two-year period from January 2006 to December 2007 (these were the only homicides for which GPS data on the location of the incident were available). We selected this distance because 600 feet is the approximate length of a street block in downtown Port-of-Spain, the largest city in Trinidad and Tobago. We identified these ellipses using nearest neighbor hierarchical clustering in CrimeStat, a spatial statistics software program (Levine, 2004).

Only two of the three high-crime station districts contained hot spots meeting our definition. We excluded one homicide hot spot in the Morvant station district because four of the victims were killed in a single mass-murder incident. Our goal here was to examine places with multiple separate incidents of homicide. The remaining four hot spots are all located within the Besson Street station district. Each of the four hot spots experienced six homicides between January 2006 and December 2007. Three of them (hot spots 1, 2, and 4) are within one square mile of each other. One of them (hot spot 3) is somewhat isolated and rests just below the border of the Besson Street and Belmont Station districts. We provide a brief description of each hot spot, drawing on homicide intelligence data, interviews with police officers, and photographs and video footage of the areas. We conclude by appraising the extent to which the criminological theories we reviewed at the start of this paper are useful for understanding these micro-level spatial concentrations of violence.

### *Hot Spot 1*

Hot Spot 1 is controlled by a violent street gang that has occupied the area for many years. All of the housing consists of four-story government subsidized apartment buildings known locally as “plannings.” They are similar to what would be referred to as “projects” in the United States. There is a vibrant street life in the area, with people liming (hanging out) at all hours, listening to music, drinking liquor, and walking through the labyrinth of alleyways between and around the many building units.

“Pipers” (drug users) stand around, ducking into concealed areas to smoke ganja or use other drugs. Laundry and rugs hang out to dry on the balcony railings. When we first began our work in Trinidad in early 2005 (before we began mapping homicide incident locations), the area had experienced several homicides in just a few days. A neighboring gang leader had approached the local gang leader about forging an alliance. When the local leader refused, the neighboring gang began murdering drug dealers in the area. The local leader relented and a fragile partnership was born, but it only lasted until the neighboring gang leader was murdered. Six homicides occurred in the area during the time period covered by this study; police intelligence information was available for five of them. All five were gang-related and in each case, the victim was also an offender of some type.

### *Hot Spot 2*

Hot Spot 2 is situated at the top of a steep hill in a densely populated area crowded with shanty houses dotted along the side of narrow, winding roads. Footpaths and staircases carved into the hillsides link the area to other nearby neighborhoods. According to police, these pathways provide offenders with an easy way to enter and exit the neighborhood to carry out shootings, robberies, and other offense types. There are very few street lights or lamp posts. It is easy to see how a murder could occur in the area because it is so secluded from “public” view and it is difficult for police to carry out routine patrols or to respond to calls for service in the area. Six homicides occurred in the area during the time period covered by this study; police intelligence information was available for four of them. Two were gang members killed by an outside gang as part of an ongoing gang war, one was a

serial rapist who was likely killed as a result of the rapes he carried out, and one had gotten drunk and had an altercation with a group of men earlier in the day. Police warned him not to go into the area because of his drunken, disorderly behavior; he ignored the warning and was later killed. Although the area is controlled by a gang, the motives for violence here are mixed, with some incidents not gang-related.

### *Hot Spot 3*

Hot Spot 3 is located at the top of a steep hill overlooking Port-of-Spain and the sea. It was home to one of the most violent street gangs in Trinidad and Tobago until most of its leadership was killed; vestiges of that gang still occupy the area but it is quieter since its former leaders were killed. In a separate social network analysis, we discovered that this gang was involved in violent conflicts with several other gangs. It was responsible for a number of murders and several of its members were murdered themselves (Katz and Maguire, 2006). The area is hilly and has dense vegetation. The majority of homes are small, makeshift shanties. These squatter properties are not organized like traditional residential areas; many of them have no street frontage and are only accessible from the road by footpaths. The roads are paved, but once again the area is navigated by footpaths or "tracks" that provide offenders with easy means of entry and exit, especially at night when these areas are not lit. There are few street lights in the area and only on the main road.

Six homicides occurred in the area during the time period covered by this study; limited police intelligence information was available for all of them. One was a taxi-driver with no gang affiliation. The incident was classified as gang-related, but we were unable to access any more specific information on motive. One common scenario in Trinidad is for taxi-drivers to be killed by gangs because they drive in other areas controlled by rival gangs. All of the remaining victims were either members or associates of the gang who were killed by other members as a result of infighting within the gang. Thus, most of the violence in hot spot 3 during the study period can be attributed to internal fissures within the gang and subsequent battles for control.

#### *Hot Spot 4*

Hot Spot 4 is located in an area dominated by government owned apartment complexes (known as “plannings”). The main road in the area cuts between the buildings with some located on each side of the road. Although the area can sometimes get quite busy, there is not nearly as much street traffic as in Hot Spot 1, which is located in a busier area with more foot and vehicular traffic. There are fewer pipers hanging out on the streets. There is more vegetation and grass and both the main road and the housing complex in the area appear to be better lit (although the police pointed out that people like to break the light bulbs and repair personnel are afraid to come into the area to replace streetlights because they are sometimes shot at).

As a side note, a local gang worker reported to us that he coaches the gang members not to shoot at repair personnel anymore because it is better for the community if workers

are allowed into the community to do their work. Behind the apartment complexes are shanty homes accessible by footpaths. While the roadways are fairly well lit in the area, the footpaths are not. Once again the officers pointed out how difficult it is to pursue suspects in the area because there are so many different paths and tracks available that are neither well lit nor accessible by vehicle.

Six homicides occurred in the area during the time period covered by this study; police intelligence information was available for all of them. Four of the victims were members or associates of the gang that controlled the area and all were killed (in separate incidents) by rival gangs. The two remaining victims were both also killed in gang-related homicides involving *other* gangs. One was from an outside gang and he was killed by a rival gang member while passing through the area. Another was not in a gang, but he beat up two gang members and they later returned and killed him. All six of the homicides in this area during the project period were gang-related.

### *Patterns of Homicide*

Several themes are prominent in our analysis of recent homicides in these four hot spots. First, all 24 victims were killed with guns. Second, of the 21 homicides with sufficient intelligence information, 19 (90.5%) were gang-related in some way (though not all gang-motivated). Third, although drugs are often blamed for the homicide problem in Trinidad, only three of the 21 cases with sufficient information were drug-related. Moreover, all of the drug-

related incidents occurred in one hot spot known for its drug activity. Fourth, with the exception of two women killed due to their relationships with gang members, most of the victims were young men ranging in age from 17 to 45 (with a mean age of 29 and median age of 28). The record of violence in these hot spots is largely a story about armed young men in gangs killing other young men who may or may not be in gangs but are typically involved in some type of criminal offending. Truly “innocent” or non-criminal victims in these areas are rare, though we are familiar with several tragic exceptions to this pattern.

### **Discussion and Conclusion**

We began this paper by reviewing three popular criminological theories useful for thinking about why some areas develop spatial concentrations of crime while others do not. Although we lack the data to carry out a definitive test of these theories, we are able to form some impressions about the extent to which these theories explain spatial concentrations of violence in Trinidad.

Routine activities theory teaches us that crime results from the intersection in time and space of suitable victims, motivated offenders, and a lack of capable guardianship. In the spatial concentrations we have identified, street gangs provide a readily available pool of motivated offenders. Since the victims in many of these cases appear also to be involved in crime, each hot spot also seems to offer a ready pool of suitable victims (Katz and Maguire, 2006). Guardianship in these areas is provided by a mix of formal and informal social controls. The police are responsible for formal social control, but their capacity to control crime and violence in these neighborhoods is weak.

Informal social control is provided by a number of institutions, like families, the faith community, schools, and a variety of social programs run by both government and nonprofit institutions. Unfortunately, one of the most potent forms of informal social control in the communities we studied is the gangs themselves.

Our interviews with gang leaders and police officials who work closely with gangs in Trinidad suggest that gangs play a role in regulating the types of offenses occurring within their neighborhoods. We heard numerous anecdotes about gang leaders punishing both members and nonmembers, in regularly scheduled disciplinary sessions, for carrying out unauthorized offenses or violating gang or community norms. Several gang leaders bragged to us during interviews that they had forbidden rapes and robberies within the neighborhoods under their control, though these offense types are permitted if they are carried out in other areas. Thus the very groups responsible for much of the violence are simultaneously responsible for regulating some forms of crime and violence in their communities (Klein, 1995; Manwaring, 2005).

Routine activities theory is a useful way of thinking about why certain areas become hot spots and not others. Its principal limitation is that it is a largely situational theory; it explains how certain situations might lead to criminal outcomes, but it does not explain how those situations emerge. In this case, it does not provide any explanation for how offenders and victims come together in time and

place – instead it treats the existence of these offenders and victims, as well as their confluence (or the lack of confluence), as a given. Moreover, the notion of guardianship takes on a new level of complexity when the guardians who sometimes prevent violence and the offenders who sometimes carry it out are one and the same. Routine activities is a useful but incomplete theory for understanding spatial concentrations of violence in Trinidad.

Social disorganization theory is also somewhat useful for thinking about why some places develop concentrations of violence and not others. All of the hot spots we identified in this paper are socially disorganized. Two common forms of housing in these hot spots, as well as the communities where they are situated, are makeshift “squatter homes” (or shanties) and government subsidized apartments. Trinidad (and the third world more generally) is home to many impoverished, socially disorganized communities, many of which do not become hot spots of crime and violence.

Unfortunately, the current census data available in Trinidad are insufficient to enable us to demonstrate empirically that the hot spots are no more socially disorganized than other locations in the communities where these hot spots are situated. However, our experience in visiting these areas dozens of times provides anecdotal support for this conclusion.

Social disorganization may be responsible for the emergence of gangs and other types of offenders in general, but since many communities in Trinidad have levels of social disorganization that likely equal or exceed

those of the hot spots we have examined here, social disorganization theory appears to be an incomplete explanation for spatial concentrations of violence. If social disorganization alone were responsible for homicide, we would observe a very different pattern; homicide would be distributed much more evenly throughout the socially disorganized communities examined in this study.

Collective efficacy emerged as part of the cure for the weak explanatory power of social disorganization theory. Collective efficacy theory combines ideas from social disorganization and social capital theories (Kubrin and Weitzer, 2003). It suggests that neighborhoods can buffer themselves from the effects of social disorganization and extreme disadvantage by forming prosocial networks built on mutual trust to exert informal social control over the behaviors that are tolerated there (Morenoff et al., 2001). The types of data we examined here are not very useful for drawing direct inferences about the effects of collective efficacy.

Our interviews with police officers, gang leaders, and residents suggest that gangs occupy an ecological niche in these hot spots. Gang leaders perceive themselves as community leaders and some residents appear to have the same perspective. Funerals of popular slain gang leaders have been heavily attended and testimonials at these ceremonies suggest that at least some residents appear to view gang leaders as "Robin Hood" figures who provide jobs and other opportunities for their communities. Media appearances by some gang leaders confirm that this is also

how they view (or at least portray) themselves. At the same time, the results of citizen surveys in these communities show that there are very high levels of fear as well (Johnson, 2008).

Our interviews with police investigators, as well as discussions we have had with witnesses at homicide scenes, both suggest that witnesses are frequently unwilling to cooperate with police or testify in court in gang-related cases. A number of witnesses have been killed by gang members to prevent them from testifying. In an environment characterized by such intense levels of fear, generating sufficient collective efficacy to reduce crime may be difficult. Moreover, to the extent that some residents also view gangs (or at least gang leaders) in a positive light, improving collective efficacy may do little to prevent gang violence. These are ultimately empirical questions that must be answered using types of data that were unavailable in this study.

Recent evidence from the US suggests that these questions are worth exploring in more detail. Symbiotic relationships often develop between gangs and neighborhood residents (Browning, Feinberg, and Dietz, 2004; Patillo-McCoy, 1999; Venkatesh, 2000). According to Browning and his colleagues (2004, p. 503), "while social networks may contribute to neighborhood collective efficacy, they also provide a source of social capital for offenders, potentially diminishing the regulatory effectiveness of collective efficacy." The same dense neighborhood ties used to transmit prosocial attitudes and behaviors in social capital and collective efficacy theories can also transmit antisocial attitudes and behaviors. Little is known about the complex relationships between gangs and residents in Trinidad's poorest and most socially disorganized

communities. Given the results of research elsewhere on the potential for neighborhood social networks to generate both crime-preventing and crime-enhancing effects, filling this considerable gap in the research would seem to be a worthwhile criminological investment.

Three dominant theories used to explain community differences in crime and violence all appear to be at least partially incomplete explanations for the spatial concentrations of violence we have observed in this study. They appear unable to account for why some micro-level places become hot spots of homicide while other similar places, some in close proximity, do not. The spatial concentrations we have identified are all located in areas controlled by street gangs, but the three station districts we examined in detail are home to at least 30 street gangs.<sup>10</sup>

Our previous research in Trinidad has demonstrated clearly that these gangs vary widely in the extent to which they use violence or have violence used against them (Katz and Maguire, 2006). We suspect that social disorganization and collective efficacy may provide potent explanations for the level of gang membership and possibly even the level of gang violence across *larger* spatial aggregates like communities or police jurisdictions in Trinidad, but both explanations seem to be much less potent at explaining variation in homicide across smaller ecological units like

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<sup>10</sup> Our estimate of the number of gangs in the area depends on the definition of a “gang” that is used. Unfortunately, the available journal space does not permit us to provide a full explanation of the definitions and classifications of gangs used in Trinidad and Tobago.

streets, blocks, or the ellipses that we relied upon in this study.

The factor that is seemingly responsible for most of the violence in the hot spots we examined here is not the mere *presence* of street gangs, since gangs are ubiquitous throughout the communities we studied. Instead, the major explanatory factors appear to be the degree to which these gangs are immersed in conflict with other gangs and are willing to use violence to resolve disputes or defend their boundaries.<sup>11</sup>

Neither social disorganization nor collective efficacy theory seems able to explain differential involvement in gang conflict or differential willingness to use violence across micro-level places with similar levels of social disorganization and collective efficacy. Similarly, routine activities theory provides useful insights about the genesis of violent events, but it is silent about the factors leading to these events (such as gang conflict, cycles of retaliation, or a predisposition to solving disputes using violence). Thus, ultimately, all three theories appear to offer incomplete explanations for neighborhood variations in violence, particularly gang-related homicides. Since gang homicide is such a ubiquitous phenomenon in many urban areas throughout the world today, expanding these ecological theories to account for outbreaks of violence in micro-level

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<sup>11</sup> Here we use the term “boundaries” in a general sense to refer to the many types of boundaries that organizations establish as part of their identity (e.g., Aldrich, 1999). For instance, behavioral boundaries provide a set of norms or rules for what types of behaviors are acceptable. Membership boundaries serve to distinguish between members, affiliates, and nonmembers. Spatial boundaries represent an organization’s claims about its geographic territory. All of these boundaries represent potential sources of conflict and gangs, like other organizations actively seek to maintain and defend their boundaries. Unlike many other types of organizations, however, violence serves as a defining feature of gang life. As Decker (1996: 254) points out, violence can “reinforce the ties of membership and maintain boundaries between neighborhood gangs and those in ‘rival’ neighborhoods.”

places represents a new frontier for criminologists in the Caribbean and elsewhere.

The major theories used to explain ecological variations in crime appear to be insufficient to explain the spatial distribution of homicide in Trinidad's most high crime communities. For instance, they do not account for why some gang-related areas become hot spots of violence while others do not. One such explanation may be that some micro-level places provide offenders with an ecological advantage such as greater protection from police and rival gangs (e.g., St. Jean, 2007; Tita et al., 2005). These theories also do not explain why some gangs are more willing to engage in violence than other gangs or criminal groups. Moreover, they do not account for the cycles of retaliation and revenge that tend to accumulate into spatial concentrations of violence in micro-level places.

In short, all three theories are silent about the group dynamics that result in the spatial clustering of gang violence. As Tita and his colleagues (2005, p. 273) argue, "even within high crime neighborhoods, crime exhibits non-random patterns of highly localized concentration in crime 'hot spots'... gangs are spatially concentrated among disadvantaged neighborhoods, but gang set space represents a sub-neighborhood phenomenon, with gang members hanging out in relatively small, geographically defined areas within a neighborhood." Understanding the distribution of violence across micro-level places, particularly violence carried out by criminal groups,

represents a fertile opportunity for theory development in criminology.

Moreover, because the theories were formulated and tested in developed nations, they rest on assumptions that may not be consistent with the reality of life in the developing world. Confidence in the police and courts in developing nations is often much lower than in the developed world. Low clearance and conviction rates are among a number of reasons for the failure of formal social control, thus opening the door for criminal gangs and other antisocial entities to exert their own breed of informal social control. As illegitimate forms of informal social control begin to take on legitimacy in the eyes of the public, they challenge the basic authority and sovereignty of the state in many developing nations (Manwaring, 2005).

These theories also sometimes fail to account for the unique historical and cultural differences between developed and developing nations. For instance, as Villareal and Silva (2006, p. 1726) point out, "because of the pattern in which low-income areas in Latin American cities were settled, as well as the prominent role of the informal sector in local economies, disadvantaged neighborhoods in these cities are often characterized as having dense social networks." These social networks are more problematic than often portrayed by collective efficacy theorists. Villareal and Silva (2006) found that social cohesion among residents in a Brazilian *favela* (a low-income squatter community) resulted in greater perceptions of risk and greater tolerance for criminal behavior.

Thus, the findings in this paper suggest at least three opportunities for theoretical development. First, theories of violent crime must be adapted to account for variations across micro-level places, particularly since criminal gangs often claim control over these places. Some evidence from the U.S. suggests that this shortcoming in existing theory will benefit knowledge in both developed and developing nations (Tita, et al., 2005). Second, theories must be adapted to account for environments in which formal social control mechanisms (such as police or criminal courts) function at levels that are insufficient to generate even modest amounts of deterrence. Finally, before they can be applied to developing nations, ecological theories of crime must be adapted to account for the unique historical and cultural environments in these communities.

The results of our analysis also have implications for policy and practice. Concentrations of violence represent opportunities for police and other community agencies to focus their efforts and implement targeted interventions.<sup>12</sup> One useful approach is for police agencies to identify hot spots of violence, particularly gang violence, and then assign personnel to become expert in those areas. These localized experts can gather intelligence, carry out operations, and put crime prevention measures in place. They could be called upon by investigators to assist in investigations in those areas. They could anticipate

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<sup>12</sup> The Trinidad and Tobago Police Service (TTPS) has invested heavily in recent years to improve its crime analysis capacity. In 2005, the TTPS established a Crime and Problem Analysis (CAPA) Unit that now has the resources to carry out geographic analysis of crime patterns (we are grateful to CAPA for providing much of the data used in this study).

impending violent events, such as retaliation shootings, and mobilize community resources to prevent violence before it happens. They could anticipate other key events in the community like offenders returning home from prison. They could act as individual “fusion centers” for making sure that other police units know what they need to know about the area and the offenders operating there. Once hot spots of violence have been identified, it is time for police and other officials to think creatively and act decisively, putting in place a suite of both preventive and responsive measures meant to reduce violence.

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**LODGING SECURITY AND CRIMES AGAINST  
TOURISTS IN A DEVELOPING NATION:  
FINDINGS FROM A SURVEY OF  
ESTABLISHMENT OWNERS AND MANAGERS  
IN TOBAGO**

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In recent years, Tobago, a popular tourist island destination in the southern Caribbean, experienced steady and substantial increases in recorded crimes against tourists. As a part of an assessment of the overall crime problem, we surveyed the owners and managers of resorts, hotels, villas, and guesthouses in two high-crime areas. The survey focused on security measures at the establishments and solicited perceptions of the nature and prevalence of crimes targeting tourists. The results reveal that lodging establishments - particularly villas and guesthouses - provide minimal security for guests, and crimes against tourists at these lodging establishments were not rare events. Further, although tourists staying in guesthouses had a higher likelihood of victimization than those staying in hotels and resorts, both burglaries and robberies were concentrated in a small number of hotels and resorts. Respondents from various types of establishments agreed that tourists become victims of crimes because they represent low-risk targets, often engage in risky behaviors, and are too willing to trust local residents. Establishment managers also suggested that offenders do not fear arrest by the police because convictions are quite rare. We suggest that routine police patrols of neighborhoods where lodging establishments are concentrated, coupled with a more expeditious response to calls for service and immediate arrests of identified suspects, would deter offenders and protect potential victims. However, long term improvements in lodging security coupled with focused community policing, problem-solving approaches, and situational crime prevention strategies would likely be effective at the most crime-prone establishments in Tobago.

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**Introduction**

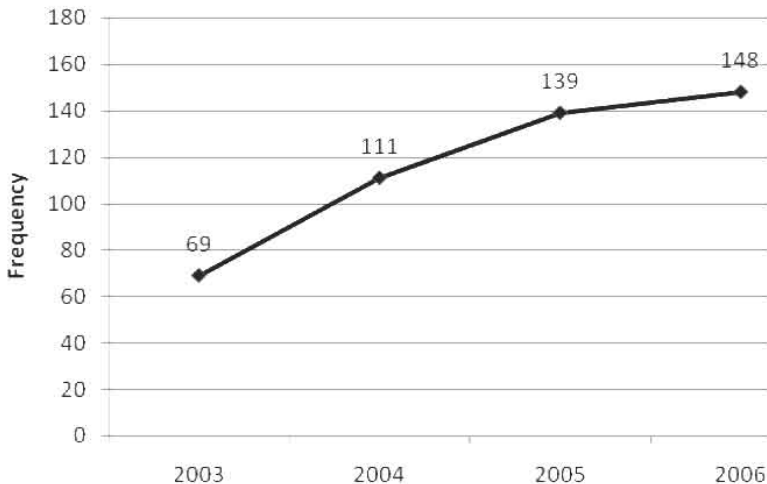
Although tourists who flock to the islands of the Caribbean are primarily interested in having fun and relaxing, they are also concerned about their safety and security (Bach, 1996). Tourists are reluctant to travel to countries where overall crime rates are high and where crimes against tourists are common. Government officials are similarly concerned about ensuring that tourists are not victimized and that the crimes that do occur are cleared expeditiously. This study explores crime, perceptions of crime, and perceptions of security through interviews of lodging establishment owners and managers in Tobago, a popular tourist destination in the southern Caribbean.

As is the case in other Caribbean islands, travel and tourism is vitally important to the economy of Trinidad and Tobago. The World Travel and Tourism Council (WTTC) estimated that one in five Trinidad and Tobago jobs in 2007 would be in the travel and tourism industry and that the industry would experience 15 percent growth (World Travel and Tourism Council, 2007). This projected rate of growth ranks Trinidad and Tobago ahead of several other Caribbean nations, including the Bahamas, Saint Lucia, and Aruba. Further, the projected growth rate of travel and tourism in Trinidad and Tobago over the next ten years is expected to exceed overall tourism growth in the Caribbean. The WTTC reported in 2005 that travel and tourism was particularly important for Tobago, accounting for nearly 60 percent of total island employment and 46

percent of Tobago’s Gross Domestic Product (World Travel and Tourism Council, 2005).

The vibrant and growing tourism industry in Trinidad and Tobago, however, may be jeopardized by rising crime rates, and particularly by increases in crimes that target tourists and other visitors. Increasing crime rates may be especially problematic in Tobago, where, as noted above, travel and tourism plays such an instrumental role in the local economy. As Figure 1 shows, crimes against tourists in Tobago more than doubled from 2003 to 2006, although the number of crimes remains relatively low. This increase led both the United Kingdom and the United States to issue warnings about travel to Tobago.

**Figure 1**  
**Recorded Crimes Against Tourists Between 2003 and 2006**



*Source: Trinidad and Tobago police station crime registers.*

In July of 2007, for example, the Foreign and Commonwealth Office in the United Kingdom issued a travel advisory that warned potential visitors about violent crimes in Tobago, suggesting that: You should be aware that there are high levels of violent crime, especially shootings and kidnappings; British nationals have been victims of violent attacks, particularly in Tobago where law enforcement is weak (British Foreign and Commonwealth Office, 2007). A similar warning was issued by the U.S. Department of State: In Tobago, the media have reported an increase in the incidence of violent crimes. While local authorities have announced increased measures to fight crime, the US Embassy advises that when making reservations at private accommodations, visitors should ensure that 24-hour security is provided. There have been reports of home invasions in the Mt. Irvine area, and robberies occurring on isolated beaches in Tobago. Visitors to Tobago should ensure that all villas or private homes have adequate security measures (United States Department of State, 2007).

In response to increasing crime and the warnings about travel to Tobago, the Trinidad and Tobago government launched an effort to reduce crimes against tourists in Tobago. This study reports the results from one part of a broader tourist crime diagnosis process that included structured and semi-structured interviews with visitors, residents, and business owners; on-site data collection; systematic observations of tourist activities in high-crime areas; and reviews of police and court policies and procedures for responding to tourist crimes. This study

examines and analyzes the perceptions held by the owners and managers of resorts, hotels, villas and guest houses and considers security and safety in around these lodging locations.<sup>1</sup>

To our knowledge, this is the first study of crimes against tourists based on the assessments of owners and managers of lodging establishments, who are in a unique position to provide information about the safety and security of their establishments and their guests and the prevalence of crimes against those guests. The overall objective is to describe the steps that owners and managers of lodging establishments take to ensure safety and security in and around their properties, and to compare security measures across various types of establishments. We also examine establishment owners' and managers' perceptions of the nature and prevalence of crimes against tourists in Tobago, as well as their assessments of the factors that lead to victimization of tourists. The findings offer some direction for governments and police with respect to working with establishment owners and managers to prevent tourist crimes from negatively affecting the tourism industry.

## **Literature Review**

### *Research on Caribbean Crime and Crimes Against Tourists*

There has been a dramatic increase in crime - particularly violent crime - in the Caribbean and in Trinidad and

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<sup>1</sup> We refer to these various lodging types as "establishments." Guest houses are defined as structures that contain fewer than 14 rooms available for short-term rent or occupation.

Tobago since 1999. In fact, the Caribbean region recently had the highest murder rate in the world (The United Nations and The World Bank, 2007) and both property crime and violent crime have increased significantly in many Caribbean countries since 1970 (Harriott, 2002). In Trinidad and Tobago, specifically, overall crime rates have risen substantially, and the number of homicides rose 159 percent from 2001-2007. Further, in Trinidad and Tobago crime stories frequently occupy the front pages of newspapers, generate heated discussions by radio and television hosts, and consume the time and energy of political leaders. In many respects, crime may be the single most pressing social issue facing Trinidad and Tobago.

Although the economic impact of increasing crime rates has not been quantified, it is clear that crime, real or perceived, does affect tourism. Cities and countries with increasing crime rates will have fewer visitors and reduced tourism income (Ferreira and Harmse, 2000). In fact, reductions in tourism resulting from concerns about crime have been documented in developing nations in the South Pacific and in the Caribbean (Levantis and Gani, 2000).

Regardless of the reality of crimes against tourists, the mere perception that a country is dangerous is sometimes enough to discourage potential visitors (Pelfrey, 1998; King, 2003). Although the probability of criminal victimization in the Caribbean is rather low for tourists (see King, 2003), media coverage of violent crimes or escalating crime rates may nevertheless negatively impact tourism and visitation. According to workers in the

tourism industry, crime concerns were perceived as the primary problem affecting tourism in Jamaica (Dunn and Dunn, 2002), and evidence suggests that crime discouraged some vacationers from visiting that country (Alleyne and Boxil, 2003). Caribbean tourists might be more likely to be victims of property crime (de Albuquerque and Elroy, 1999), but reports of tourists who have been victims of violent crime can be particularly harmful for business and commerce. Apart from the effects of the victimization experiences on the tourists and their families, police responses to reported crimes also appear to influence tourists' decisions to return to a particular destination (Holcomb, 1985) and to engage in certain types of recreational activities.

*Routine "Tourist" Activities Theory  
and Tourists as Suitable Targets*

Routine activities theory suggests that criminal acts are most likely to occur when suitable targets, motivated offenders, and the absence of capable guardians interact in a particular place and time (Clarke and Felson, 1993; Cohen and Felson, 1979). When considered within this context, it is clear that tourists, for a variety of reasons, are very suitable targets (Crotts, 2003).

First, tourists are desirable targets for motivated offenders, who assume that they will be less likely than local residents to press charges (Allen, 1999). Second, tourists often carry high-value items (e.g., jewelry, cash, cameras, cell phones, and other electronics) and frequently leave

those items unattended in lodging establishments that may or may not be secure. Third, tourists are highly visible targets; they typically dress and behave differently than local residents and they stay and recreate in known tourist areas. Fourth, tourist destinations include environments that are readily accessible to motivated offenders, including nightclubs, dimly lit or poorly managed lodging establishments or parking lots, isolated beaches, and other insecure locations. Many of these tourist destinations are crime hotspots in and of themselves, and the addition of tourists may further increase the propensity for criminal activity.

Finally, some tourists, particularly younger travelers and those without children (Allen, 1999), participate in high-risk recreational activities including gambling, sexual activity, legal and illegal substance use, and late-night partying at nightclubs or on isolated beaches. These "routine tourist activities" increase risk for criminal victimization, as does general carelessness and unfamiliarity with local territories and behavioral practices (Glensor and Peak, 2004).

In some locations, including Spain, Barbados, Miami, Florida, and Hawaii, tourists have been victimized at higher rates than local residents (de Albuquerque and McElroy, 1999; Chesney-Lind and Lind, 1986; Harper, 2001.<sup>2</sup> Evidence is also available to suggest that tourist

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<sup>2</sup> The evidence of increased crime rates in tourist locations is hardly conclusive, as other studies have found no differences in victimization rates between tourists and local residents (see Pelfrey, 1998).

locations attract criminals and create unplanned opportunities for offending. Further, tourist locations sometimes suffer from higher reported crime rates compared with other areas, although these rates may be misleading because calculations are sometimes based on local populations only, which do not include visitors (Reeder and Brown, 2005).

Schiebler, Crotts, and Hollinger (1996) used routine activities theory to examine crimes against tourists in ten Florida (United States) counties. The routine activity measures used in this study included the estimated number of visitors (suitable targets), a variety of crime and community demographic measures (motivated offenders and control variables), and the number of law enforcement officers, security officers, and the ratio of both law enforcement and security officers to the number of citizens (capable guardians).

The authors of this study found that whereas neither the number of visitors nor the indicators of motivated offenders predicted crimes against tourists, the measures of capable guardianship had significant, but positive, effects on tourist crimes. Although this finding seems inconsistent with routine activities theory, it could reflect the reactive nature of law enforcement; that is, as crimes against tourists increase, more police and security guards are deployed (Crotts, 2003). More importantly, this measure of capable guardianship (the ratio of law enforcement and security officers to citizens) may lack

content validity, since tourists are “capably guarded” in other formal and informal ways.

*Lodging Establishments –  
Capable Guardians or Crime “Hot Dots”*

An important component of tourist guardianship and protection is the security measures in and around hotels (see Rutherford and McConnell, 1987; 1991), motels, guest houses, rental homes, and other temporary housing facilities. To the extent that lodging establishments are well-protected, the perceived suitability of tourists as targets is theoretically reduced. Further, from a routine activities perspective, lodging establishment owners can prevent crimes by protecting potential victims in and around the property, adequately securing the property (i.e., potential crime locations), and creating physical and social distance between potential victims and offenders. Research indicates that lodging establishments are often the primary settings for tourist victimizations (Allen, 1999; Schiebler, Crotts and Hollinger, 1996). Further, some studies have found that the specific types of accommodations are linked to victimization (Barker, Page and Meyer, 2002).

A study conducted in the United States, for example, found that establishment age, size, location within the city or country, and room rates were all linked to visitor safety and security; older, smaller, economy, and resort motels were least likely to have adequate safety and security features (Enz and Taylor, 2002). Therefore, these settings

might be considered crime generators and/or “hot dots,” which are the specific locations within broader crime hot spots that are particularly vulnerable and are thus repeat victimization locations (Clarke and Eck, 2005; Kuhns and Leach, 2008).

Other research suggests that safety and security are important considerations for potential tourists and for the tourism industry at large. For example, a survey of 930 hotel guests found that women and frequent travelers were more likely than other respondents to support additional security measures, and guests, in general, were willing to pay higher prices for increased security (Feickert, Verma, Plaschka, and Sev, 2006).

A survey of elderly travelers suggested that some security features (i.e., emergency numbers by the bed, well-lit hallways, security chains on the doors, closed circuit TV systems, advisories on safe and unsafe practices and areas) were viewed as more important than other common safety features, including armed security officers (Shortt and Ruys, 1994). In yet another study of 166 tourists in Florida, overall perceptions of safety were dependent on a number of factors, including physical security devices at the hotels, the respondent’s level of education, and routine visibility of law enforcement officers (Milman, Jones and Bach, 1999).

Finally, King (2003) suggests that the two most important factors that might keep potential visitors from visiting Caribbean tourist destinations include crime and fear of

harassment. As a result, secure lodging settings might be particularly important in these kinds of vacation environments.

### *The Current Study*

Although there are a number of large hotels in Tobago, most of the lodging options for tourists are privately-owned rental homes, small guest houses, cottages, and condos or apartments. These smaller establishments, which typically do not utilize the security features that are standard in larger hotels, may be especially vulnerable locations for crimes against tourists. We therefore focus on Tobago lodging establishments as potential tourist crime locations. We examine the security measures used in these establishments, the link between security measures and crime, the perceptions of managers and owners regarding the nature of tourist crimes, and the response of the police.

### **Methodology**

Preliminary interviews with police leadership and lodging personnel suggested that Old Grange and Crown Point are the areas in Tobago where most tourists stay and where most crimes against tourists occur. Official crime reports confirmed this: 45 percent of all reported crimes against tourists were reported to the Old Grange police station and 21 percent were reported to the Crown Point police

station.<sup>3</sup> We therefore designed a sampling strategy that focused on villas (villas are essentially houses or other single-family, stand-alone rental structures), guest houses (which had more than one rental property contained within a single building or structure), hotels and resorts in these two areas.<sup>4</sup>

### *Sampling Frame*

We used four lists of hotels, guest houses, and villas to construct the sampling frame. The first was a list of realty agencies that managed villas. We contacted these companies and included those currently renting vacation properties in the sampling frame. The second was a list of 20 hotels, guest houses, and villas prepared by the House of Assembly, Department of Tourism, Research and Development. The third was a list of over 400 properties that we compiled from tourism websites including <http://www.mytobago.info/>. A number of villa managers indicated that this particular website was likely to have the most comprehensive list of lodging establishments. Finally, we used a list of lodging establishments that had

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<sup>3</sup> We were unable to find population estimates for the Old Grange and Crown Point areas. Therefore, crime rates are not provided. However, Figure 1 illustrates that the reported raw numbers of crimes against tourists more than doubled between 2003 and 2006.

<sup>4</sup> We initially considered including bars and restaurants in our study. However, there were only three primary bars that attracted tourists on a regular basis, and anecdotal evidence gathered onsite suggested that there is minimal night life in Tobago beyond these bars. Further, our reviews of the TTPS crime reports suggested that restaurants were not frequent tourist victimization spots. The bars were in places where tourist crimes tended to originate in some situations. However, many of those potential incidents should have been captured within the context of our establishment sampling process since many of these bars are also located in hotels.

been compiled by the Tobago Hotel Association Membership (THAM).

We merged these four lists and eliminated establishments found on more than one list. We also eliminated establishments that were no longer in business, as well as those where we were unable to reach anyone regarding their willingness to participate. This process resulted in a final initial sampling frame of 374 eligible establishments.

*Survey Development and  
Dissemination Process*

Using the tourist crime literature and previous studies examining security measures in hotels as a general guide, we developed a survey instrument that focused on the existence of security measures, the nature and prevalence of crimes against tourists, and the response of the police to crimes against tourists at or near the establishments.

More specifically, the survey was designed to gather data on 1) the general characteristics of the establishment (age, location, size in rooms, pricing category, and type of establishment); 2) the physical security measures currently in use (locks, lighting, remote monitoring, controlled access, check-in procedures); 3) security measures in parking areas (security personnel, lighting, controlled access, remote monitoring); 4) personnel security (armed or unarmed guards; training; procedures used in responding to crime); 5) administrative and procedural tasks related to security (monitoring of crime in the area,

systems used to advise guests, written policies and procedures, use of background checks for employees, methods for recording crimes); and 6) measures of tourist crimes in the past year; and 7) perceptions of police responses to those offenses.

The questions on establishment characteristics were often ordinal or underlying interval response categories that required checking a box or occasionally filling in a number (e.g., number of crimes). The questions on establishment security were "Yes" or "No" questions (the specific measure was either used or not) as were the questions associated with police response.<sup>5</sup>

The survey was administered from May through July of 2007. We used several different dissemination methods because we believed it would be difficult to reach a large number of property managers with any one particular method and because mailed surveys typically produce lower response rates. As a first step, we asked the leaders of THAM to email the survey to hotel managers on their registered list; this process, however, did not generate high numbers of responses (about 7% of completed surveys). Further, due to privacy concerns, THAM was unable to release the list of names (or email addresses) of their members that received the survey using this method. We also left copies of surveys with seven individuals who managed larger numbers of properties, and asked them to

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<sup>5</sup> A copy of the survey is available upon request from the first author.

complete a survey for each of the hotels, guest houses, and villas they managed. The completed surveys were then either mailed back to us (in just one or two cases) or retrieved by the research team on a subsequent visit to Tobago (about 2%).

Ultimately, the most effective dissemination process was to hand-deliver surveys to the owners and managers of the villas, guest houses and hotels and request that they complete the survey at that time. In situations where literacy and language challenges arose, we read the survey to the respondent and recorded his/her answers. The end result was that the majority of the surveys (over 90%) were completed in a face-to-face interview setting rather than as a self-administered data collection process. This methodology likely improved overall response rates and the validity of responses, as research staff were able to clarify confusing language and otherwise assist with survey comprehension and completion.

We received completed, usable surveys from 200 of the 374 establishments, for an overall representative/response rate of 54 percent. To further clarify, 63.4 percent (237) of owners/managers completed the survey, although some were not usable because the identified establishment was not a lodging facility (e.g., it was a realtor or a rental company). In addition, only one respondent refused to participate in the study.

The rest of the potentially eligible and identified establishments were not included for the following

reasons; no one was present when we stopped by at 15 (4%) of the establishments; we could not find 85 (22.7%) of the establishments within the allotted research time; there were 17 (4.5%) establishments that were closed; we dropped off surveys at 13 (3.5%) establishments but were unable to follow up or retrieve them within the allotted research time; and six (1.6%) establishments were otherwise excluded from the final analyses.

Overall, the response rate compares quite favorably with the Feickert et al. (2006) response rate of 23 percent and the Milman et al. (1999) response rate of 26 percent among hotel guests, and the King (2003) response rate of less than 22 percent among travel agents and agencies. Given that our final sample includes over 50 percent of the tourist lodging establishments in Tobago's two primary tourist areas, we believe that our results can be reasonably generalized to the island of Tobago.

## **Results**

### *Summary of Survey Findings*

Table 1 provides descriptive information about the Tobago lodging establishments included in the current analyses. The sample contains only 9 (3%) establishments with 40 or more units and only 33 (15%) with 20 to 39 units. In contrast, 43 percent of the establishments have only one unit and 24 percent have two to five units. The overrepresentation of establishments with five or fewer units is largely due to the number of villas and guest

houses in the sample. Most (76%) of the establishments are more than seven years old. With the exception of hotels and unclassified establishments, the majority are mid-priced. Relatively small percentages of guest houses (14%) and hotels (15%) are classified as luxury or upscale.<sup>6</sup>

### *Establishment Security*

Table 2 presents data regarding the existence of security measures at these establishments. Approximately two thirds of the guest houses, half of the hotels, and a third of the villas have security measures that provide more than minimal security. Approximately half (49%) of the establishments in the sample, in other words, do not provide more than minimal security for their guests. Across all types of lodging establishments, the most frequent types of security measures are adequate lighting in the establishment (91%) and the parking area (80%), and regular inspection of locks (79%). More than half of all establishments also control access to guest areas (59%) and parking lots (55%). Very few establishments, on the other hand, use remote monitoring or surveillance equipment in guest areas or parking lots.

Although there are few differences across establishment types on some of the security measures (e.g., use of adequate lighting), villas and guest houses are

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<sup>6</sup> The development of the survey items was based in part on previous studies, some of which used the terms mid-priced, luxury, upscale, etc. Interviewers did not, however, attempt to define these terms for respondents, although all of the terms were read in cases where the data collection process occurred as an interview. We recognize that these are subjective assessments of the price and, to some degree, the quality of establishments.

substantially less likely than hotels to require photo identification at check-in or utilize security measures that restrict access to guest areas and parking lots.

Table 3 presents descriptive information about the use and training of security personnel and the use of various security procedures. Most establishments, regardless of type, do not employ armed security guards. Unarmed security guards are more likely to be found in resorts (96%), hotels (85%) and villas (68%) than in guesthouses (30%), and guesthouses and villas are less likely than hotels and resorts to train staff on methods of preventing crimes against guests or ways of responding to criminal events. Although many establishments reported that they monitor crime in the area and have a system in place for advising guests to avoid dangerous or high-crime areas, most, with the exception of resorts, do not have written policies detailing actions to be taken in the event of a security concern. Villas and guesthouses are also less likely than hotels or resorts to perform background checks on employees or to have procedures for recording crimes or unusual events at the establishment or in the local area.

As an additional measure of each establishment's security, we computed a summed security score that tabulated the number of different security measures used by the establishment. This variable counted the existence of 12 security measures (see Appendix A), making the theoretical range 0 to 12. The average score for the establishments in our sample was 6.16 (SD = 2.24) and the median was 7.00. When we compared security scores

across different types of establishments, we found significant differences ( $F = 5.80, \alpha < .05$ ); guest houses (5.59) and villas (5.93) had significantly lower security scores than resorts (7.36) and hotels (7.88). The analysis also revealed statistically significant but small correlations between the number of security measures and the number of rental units ( $r = .27$ ) and the age of the establishment ( $r = .15$ ). Older establishments and those with more rental units utilized more security measures. On the other hand, there were no differences in the security scores of establishments located in the two police districts (Old Grange and Crown Point).

#### *Crime at Establishments*

The results of the survey confirm the importance of lodging establishments as locations for crimes against tourists. Approximately 43 percent (55 / 128 valid responses) of the owners and managers reported that a guest experienced some type of victimization in the year prior to the survey, and 26 percent (57 / 220 valid responses) indicated that the Trinidad and Tobago Police Service (TTPS) responded to a crime at the establishment in that timeframe. Thirty-four out of 125 owners and managers (27%) reported at least one burglary in the year prior to the survey and 17 of 123 (14%) reported the occurrence of at least one violent crime (homicide, assault, sexual assault, and robbery). Overall, respondents reported that there were 76 burglaries and 35 violent crimes in and around these establishments in the year prior to the survey.

**Table 1**  
**Descriptive Information About**  
**Lodging Establishments in the Current Study.<sup>1</sup>**

	<b>Total</b>	<b>Villa</b>	<b>Guest House</b>	<b>Hotel</b>	<b>Resort</b>	<b>Other</b>
<i>Number of Units</i>						
1	97 (43%)	93 (77%)	2 (4%)	0 (0%)	0 (0%)	2 (22%)
2 – 5	53 (24%)	26 (22%)	22 (44%)	1 (5%)	1 (4%)	3 (33%)
6 – 10	17 (8%)	1 (1%)	12 (24%)	2 (10%)	1 (4%)	1 (11%)
11 – 19	16 (7%)	0 (0%)	10 (20%)	4 (20%)	0 (0%)	2 (22%)
20 – 39	33 (15 %)	0 (0%)	4 (8 %)	10 (50%)	17 (68%)	1 (11%)
40 – 74	2 (1%)	0 (0%)	0 (0%)	1 (5%)	1 (4%)	0 (0 %)
75+	7 (2%)	0 (0%)	0 (0%)	2 (10%)	5 (20%)	0 (0 %)
<i>Age of Establishment</i>						
Less than 7 Yrs	53 (24%)	32 (27%)	12 (25 %)	3 (15%)	2 (8%)	4 (36%)
7 – 14 yrs	116 (52%)	66 (56%)	18 (37 %)	7 (35%)	19 (76%)	6 (55%)
15 – 21 yrs	24 (11%)	7 (6 %)	12 (25 %)	2 (10%)	2 (8%)	1 (9%)
22 – 28 yrs	11 (5%)	4 (3 %)	4 (8 %)	3 (15%)	0 (0%)	0 (0%)
29 +	19 (9%)	9 (8 %)	3 (6 %)	5 (25%)	2 (8%)	0 (0%)
<i>Price Point</i>						
Luxury	35 (16%)	26 (22 %)	3 (7 %)	1 (5%)	5 (20%)	0 (0%)
Upscale	34 (16%)	26 (22 %)	3 (7 %)	2 (10%)	1 (4%)	2 (22%)
Midprice	126 (58 %)	59 (50 %)	31 (69 %)	13 (65%)	19 (76%)	4 (44%)
Economy	17 (8%)	5 (4 %)	7 (16 %)	2 (10%)	0 (0%)	3 (33%)
Extended Stay	5 (2%)	2 (2 %)	1 (2 %)	2 (1 %)	0 (0%)	0 (0%)

**Table 1 (continued)**  
**Descriptive Information About**  
**Lodging Establishments in the Current Study.<sup>1</sup>**

<i>Location</i>						
Old Grange	153 (65%)	83 (69 %)	24 (48 %)	10 (50 %)	23 (92 %)	4 (33%)
Crown Point	84 (35%)	38 (31 %)	26 (52 %)	10 (50 %)	2 (8%)	8 (67%)

<sup>1</sup> Column percentages are reported.

A more detailed investigation of those crimes reported in the survey shows that guests at some establishments were at a particularly high risk of victimization. For example, there were 25 burglaries reported at one establishment (33% of all burglaries) and six burglaries at two others, eight robberies occurred at one establishment (28% of all robberies) and six occurred at a second location; and finally all five non-sexual assaults reported by owners and managers were reported at one establishment. In fact, 49 percent of the 76 total burglaries occurred at three establishments and 48 percent of 29 total robberies occurred at two establishments.

The three establishments where the burglaries were concentrated are larger (75 to 149 units), older establishments with rooms that are mid-priced and above. Two of these high-incidence locations are resorts and the other is a hotel. One establishment utilizes ten of the security measures included in the composite scale, the second utilizes seven, and the third uses six. The two establishments where the robberies were concentrated, one of which was also the location of six burglaries, scored below the median on the number of security measures in

**Table 2**  
**Physical Security Measures at Lodging Establishments.<sup>1</sup>**

	<b>Total</b>	<b>Villa</b>	<b>Guest House</b>	<b>Hotel</b>	<b>Resort</b>
<i>Physical Security Measures</i>					
Systems provide More than minimal security	113 (51 %)	79 (66 %)	15 (31 %)	10 (56 %)	5 (20 %)
Regularly inspect locking systems	171 (79 %)	106 (91 %)	36 (77 %)	14 (78 %)	6 (24 %)
Provide adequate Lighting	203 (91 %)	104 (87 %)	47 (94 %)	19 (95 %)	24 (96 %)
Use remote Monitoring/ surveillance	44 (20 %)	4 (3 %)	14 (28 %)	5 (25 %)	19 (76 %)
Control access to guest areas	131 (59 %)	58 (49 %)	28 (56 %)	16 (80 %)	24 (96 %)
Check photo ID at check in	66 (30 %)	13 (11 %)	27 (56 %)	16 (84 %)	6 (24 %)
<i>Parking Area Security</i>					
Assign security Personnel	87 (39 %)	52 (44 %)	13 (26 %)	13 (68 %)	7 (28 %)
Provide adequate Lighting	182 (80 %)	94 (78 %)	38 (76 %)	17 (85 %)	23 (92 %)
Control access	125 (55 %)	62 (51 %)	24 (48 %)	12 (60 %)	21 (84 %)
Use remote Monitoring/ surveillance	18 (8 %)	4 (3 %)	8 (16 %)	3 (15 %)	1 (4 %)

<sup>1</sup> Column percentages are reported; the values for the “other” category of establishments are not reported but are included in the count of the “total” column.

**Table 3**  
**Security Personnel and Procedures**  
**Utilized by Lodging Establishments.<sup>1</sup>**

	Total	Villa	Guest House	Hotel	Resort
<b>Personnel and Training</b>					
Unarmed security patrols guest areas	114 (62 %)	81 (68 %)	15 (30 %)	17 (85 %)	24 (96 %)
Armed security patrols guest areas	12 (5 %)	7 (6 %)	1 (2 %)	4 (20 %)	0 (0 %)
Armed security work in high crime areas	10 (5 %)	6 (5 %)	2 (4 %)	2 (13 %)	0 (0 %)
Train armed security personnel	11 (5 %)	2 (2 %)	4 (9 %)	2 (13 %)	2 (8 %)
Train staff on reporting and dealing with crime	104 (47 %)	42 (35 %)	19 (39 %)	13 (68 %)	25 (100 %)
<b>Security-Related Procedures</b>					
Monitor crime in area	163 (73 %)	91 (77 %)	27 (55 %)	11 (65 %)	24 (96 %)
System to advise guests of dangerous areas / crime	170 (77 %)	87 (73 %)	38 (81 %)	10 (59 %)	23 (92 %)
Written policy for action if security concern arises	59 (27 %)	22 (19 %)	10 (22 %)	3 (18 %)	21 (88 %)
Background checks for all staff	122 (56 %)	68 (59 %)	24 (49 %)	16 (84 %)	9 (36 %)
Background checks for all security personnel	87 (45 %)	46 (44 %)	9 (22 %)	7 (47 %)	23 (92 %)
Method for recording crime / unusual events at establishment and area	112 (51 %)	51 (44 %)	18 (38 %)	14 (78 %)	24 (96 %)
Receive crime reports/updates from police	41 (19 %)	3 (3 %)	8 (16 %)	8 (44 %)	21 (84 %)
Do you know how to get crime information from police	134 (60 %)	71 (60 %)	27 (54 %)	9 (50 %)	23 (92 %)

<sup>1</sup> Column percentages are reported; the values for the "other" category of establishments are not reported but are included in the count of the "total" column.

place. One of these establishments was a mid-priced hotel with more than 75 rental units and the other was a luxury guest house with two to five rental units. Both establishments were older than 14 years. These high-incidence establishments are ideal candidates for focused police attention and situational crime prevention approaches.

There is an important limitation with the crime victimization measure used here. The establishment victimization measure is not risk adjusted. In other words, the victimization measure does not account for the number of guest-night stays at establishments. Using a risk adjusted measure is akin to calculating a crime rate, which is appropriate when comparing units of analysis that have different levels of risk. For instance, a small guest house that has 20 percent of the guest-night stays compared to a larger hotel faces a much smaller risk of victimization. If those two establishments report comparable numbers of victimizations, the small guest house likely has a higher overall victimization risk.

To capture victimization risk it is important for future research to adjust for the number of guest-night stays. In this study, however, those data were not available. Therefore, the current results must be interpreted with some caution since we were unable to adjust for differential risks associated with guest stay rates.

*Relationships between Crime Events  
and Establishment Characteristics*

To determine whether guests at certain types of establishments were more likely to experience some type of victimization, we examined the relationships between lodging establishment characteristics, lodging security measures and the prevalence of criminal victimization. We found very few statistically significant differences. For example, the likelihood of victimization did not vary by police station district and did not vary systematically by either the typical room price point or the age of the establishment.

Thirty-nine percent of the establishments in Old Grange (31 of 79) and 49 percent of those in Crown Point (24 of 49) reported that a guest experienced at least one crime event. The rate of victimization was 40 percent (6 of 15) for luxury, 53 percent (10 of 19) for upscale, 37 percent (29 of 78) for mid-priced, and 50 percent (5 of 10) for economy establishments; it was 64 percent (9 of 14) for establishments less than seven years old, but was 73 percent (11 of 15) for establishments between 15 and 21 years old, and 43 percent (6 of 14) for establishments that had been in existence for more than 28 years.

Two establishment characteristics - the type of establishment and the number of rental units - were related to the prevalence of criminal victimization. Reported victimization was substantially lower for guests at resorts (29%; 7 of 24) than for guests at hotels (40%; 6 of

15), villas (42%; 26 of 62) and guest houses (61%; 14 of 23). Victimization was more likely at establishments with two to five units (74%; 14 of 19) than at those with one unit (38%; 20 of 53), 6 to 10 units (57%; 4 of 7), 11 to 9 units (50%; 6 of 12), or 20 or more units (28%; 10 of 35).

The findings are also mixed with respect to the relationships between security measures and victimization. Several of the security measures were not related to the prevalence of tourist victimization. For example, the likelihood of victimization was not affected by the existence of systems that provide more than minimal security; it was 44 percent (30 of 69) for establishments that reported having a system that provided more than minimal security and 40 percent (22 of 55) for establishments that reported not having such a system. The prevalence of victimization was also unrelated to whether the establishment controlled access to guest areas (39%; 32 of 82) or did not control access to these areas (49%; 22 of 45) or whether the establishment did (41%; 35 of 85) or did not (46%; 19 of 41) train staff on reporting and handling crimes against tourists.

A number of the security measures did affect the likelihood of guest victimization. As shown in Table 4, six of the statistically significant relationships are in the expected direction but two are not. The six security measures associated with a reduced likelihood of guest victimization are using security guards to patrol guest areas, providing adequate lighting in parking areas, controlling access to the parking areas, monitoring

criminal activities in the area of lodging establishment operations, using a written policy to outline procedures and actions to take when a security concern comes to the establishment's attention, and using a method to record criminal and unusual activity in the area of the establishment. Surprisingly, regularly inspecting locking systems and using remote surveillance systems to monitor parking areas were both associated with an increased likelihood that the establishment would report at least one tourist crime.

*Factors that Affect the  
Likelihood of Victimization*

The owners and managers were also asked two open-ended questions regarding the factors that affect the likelihood of tourist victimization. Specifically, they were asked why Tobago tourists became the victims of crime and what could be done to reduce the likelihood of victimization. Although some respondents attributed tourist crime to broader structural problems such as poverty, unemployment, and lack of education, most emphasized that tourists were suitable targets whose routine tourist activities placed them at increased risk. Respondents from all types of establishments indicated that tourists are victimized because they are "low risk/high reward" targets. Their summarized comments included the following:

**Table 4**  
**Bivariate Relationship Between Security Measures and**  
**Reporting at Least One Tourist Crime in the Previous 12 months.<sup>1</sup>**

<b>Security Measures</b>	<b>Reported a Victimization</b>
Security personnel patrol guest room areas	34 %
No security personnel to patrol guest room areas	69 %
Provide adequate lighting in the parking area	38 %
Do not provide adequate lighting in the parking area	80 %
Control access to the parking area to exclude unauthorized persons	37 %
Do not control access to the parking area to exclude unauthorized persons ( $\alpha = .69$ )	53 %
Monitor criminal activity in the area of operations	40 %
Do not monitor criminal activity in the area of operations	69 %
Have a written policy outlining procedures and actions if security concern arises	27 %
Do not have a written policy outlining procedures and actions if security concern arises	55 %
Have a method for recording criminal and unusual activity at establishment	32 %
Do not have a method for recording criminal and unusual activity at establishment	100 %
Regularly inspect locking systems	48 %
Do not regularly inspect locking systems	27 %
Use remote monitoring of the parking area	69 %
Do not use remote monitoring of the parking area	40 %

<sup>1</sup> Row percentages are reported in the table; all relationships significant at .05 with the exception of controlling access to the parking area ( $\alpha = .69$ ).

- They are targeted by young guys who do not work and who think that the tourists are loaded with money;

- Tourists are perceived to have cash and valuables - they are easy targets;
- Basically, they think white people are all rich and that they are easy marks; there are too many people here who just sit around and do nothing, thinking that they can take advantage of people;
- Because they've got money, honey; more money and less risk;
- There are too many youths with nothing to do and a belief that tourists come here with their pockets full of money; they see them as easy targets.

Respondents also stated that tourists are victimized because they are too willing to trust local residents, are careless about their own safety, and often engage in risky behavior or mix with the wrong crowd. The owner of one villa, for example, stated that tourists are easy targets "because they ignore our advice and go where they should not go." Other respondents emphasized that tourists assume that the island is safe, that locals are friendly and, as a result, they "let their guard down." As the manager of one guesthouse put it, "tourists are vulnerable to being taken in by overly-friendly locals and are victimized when they (tourists) take them (locals) to where they are staying."

When we asked them what could be done about tourist victimization in Tobago, the owners and managers of the lodging establishments emphasized that tourists needed to be better educated about the risks of victimization and about measures they can take to increase their safety. One

respondent stated that tourists should be told as soon as they get off the plane that "Tobago is not as safe as it might seem" and that they should be "warned about dangerous places and dangerous activities." The manager of a guesthouse similarly said that "tourists need to use their common sense; they cannot simply befriend everyone they meet on the street—this is especially true of women, who need to understand that there are men and boys here who will take advantage of them."

Another common theme was the need for improvements in police response to tourist crime and for "swift justice" in the courts. For example, one respondent stated that "the police service has to be retrained to deal with modern Tobago needs, responding to crime and collecting evidence properly." Another respondent recommended that the law be changed "so that crimes against tourists get into court right away; now, they fly to London or wherever and don't want to come back for trial." Some respondents also mentioned that tourist victimization could be reduced if lodging establishments had better security measures in place and if street lighting were improved.

## **Discussion**

The focus of this study was crimes against tourists in Tobago, an island in the Caribbean that in recent years has experienced a substantial increase in crimes targeting tourists. Using data gleaned from surveys administered to the managers or owners of 200 lodging establishments in

two high-crime areas, we examined the types of security measures utilized by these establishments, as well as respondents' perceptions of the nature and prevalence of crimes against tourists and their beliefs about the factors that could increase or decrease the likelihood of victimization. We also explored the relationships between establishment characteristics, security measures, and the likelihood of tourist victimization.

The results of our study indicate that many Tobago lodging establishments, particularly villas and guesthouses, provide minimal security for their guests. In fact, the most common "security measures" utilized by these establishments are ensuring that guest areas and parking lots are adequately lit and regularly inspecting locks (which was actually significantly associated with the likelihood that a tourist crime was reported during the past year). Very few establishments of any type employed armed guards, and unarmed guards are found in only two-thirds of villas and less than a third of guesthouses.

Most establishments, regardless of type, do not use remote monitoring or surveillance equipment in guest areas or parking lots, and villas and guest houses are substantially less likely than hotels or resorts to require photo identification at check-in, perform background checks on employees or security guards, or train staff on preventing and responding to crimes against tourists. The summed security scores for villas and guest houses were also significantly lower than those for hotels and resorts.

In the United States, many establishment owners and managers might be surprised to learn that there is an increasing expectation for them to provide security in and around their properties. Rutherford and McConnell (1991) summarized much of the case law (up through the early 1990s) on hotel security. In essence, larger hotels are, by law, required to install and inspect locking systems, provide adequate lighting in halls and other areas, control access to guest areas, use remote monitoring systems (in some situations), employ and train security personnel (and the security personnel must be armed if the hotel is located in a high crime area), train staff in safety and security procedures, monitor local crime activities, and establish processes for notifying guests of dangerous areas and/or known criminal activities around the hotel.

Further, it is clear that the responsibility for the safety and security of guests does not necessarily end at the property lines. United States courts have indicated that hotel operators must be cognizant of the crime patterns in the local vicinity and be prepared to respond accordingly "with due diligence" to ensure the safety of guests in and around the property (Rutherford and McConnell, 1987; 1991). In many situations, simply having written safety and security policies and providing visitors with crime and safety information is essentially enough to establish due diligence.

The fact that security measures are more limited at Tobago villas and guest houses might suggest that tourists staying in these types of establishments may be more vulnerable

than those staying in hotels or resorts. Our findings, however, are not entirely consistent with this inference. Although we did find that the likelihood that an establishment had experienced at least one crime against a tourist in the year before the survey was greater for guesthouses than for hotels and resorts (and for establishments with 2 to 5 units than for smaller or larger establishments), we also found that over 40 percent of *all* burglaries were concentrated at just two resorts and one hotel. The situation is further complicated by our finding that these three establishments had relatively high scores on our composite security index. The relative lack of security measures at villas and guest houses may make guests (or their rooms) suitable targets for victimization, but increased use of security measures at hotels and resorts does not necessarily protect guests from crimes such as burglary and robbery.

Our finding that establishments do not regularly perform background checks on employees or provide training to employees on responding to crimes against tourists also merits comment.<sup>7</sup> The lack of background checks is significant because some owners and managers believed staff members and security personnel are sometimes directly or indirectly involved in crimes against tourists. Security and staff at lodging establishments are cognizant of tourists' travel habits, aware of the valuables and

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<sup>7</sup> Some establishment managers reported that police did not always complete background checks when they were requested.

property they have with them, and often know when they will be leaving the property and the island.

In other words, staff and security personnel are often aware of routine tourist activities and recognize when tourists are most vulnerable. The situation is further exacerbated by employees' lack of training on how to respond to crimes against tourists, which can be a significant concern in situations where tourists were engaging in illegal or risky behavior at the time of the incident and thus are reluctant to report it to the police. Establishment personnel who are informed of a tourist crime incident should be able to assist guests who have been victimized. However, the survey evidence shows that these personnel may not be adequately prepared to respond when these situations arise.

This lack of preparation, however, may improve in the future. The Inter-American Committee Against Terrorism (2006), which was fully established by July 2003, was developed: To strengthen and intensify efforts to disrupt the capacity of terrorist networks to threaten the ability of individuals to travel and move safely between and recreate in Member States, by strengthening the coordination and provision of technical assistance in the establishment and implementation of and compliance with security standards and practices, including those related to tourist and recreational facilities.

As a result, safety and security preparation, training and established security standards at lodging establishments

may improve in the near future in Tobago. Whether those improvements will impact crimes against tourists is, of course, unknown.

Currently, crimes against tourists at lodging establishments in Tobago are not rare events. More than 40 percent of the owners and managers of these establishments reported that at least one guest was victimized in the twelve months prior to the interview, and a fourth indicated that the police responded to a crime at their establishments.

In total, there were 76 burglaries and 35 violent crimes reported in these 200 establishments in the past year. Further, the incidence of crimes against tourists is concentrated at relatively few establishments; 40 percent of the burglaries occurred at just three establishments and nearly half of all robberies occurred at only two establishments.

Clearly, some lodging establishments in Tobago can be characterized as crime "hot dots" (Kuhns and Leach, 2008) and/or particularly risky facilities (Clarke and Eck, 2007), which are ideal locations for increased police attention and situational crime prevention approaches (Clarke and Eck, 2005). This implication was confirmed by one establishment manager, who described a villa property that was the location of repeated tourist victimizations. This villa was located adjacent to a walking path that provided easy access to potential victims. The manager of the villa reported that the owners were considering selling

the property and that some guests were encouraged to bring dogs with them for protection. It would be helpful if property owners ensured that managers and employees (including security personnel) are attentive to crime concerns, trained adequately, working and communicating with police, and aware of the liability risks that owners may face (Clarke and Eck, 2007; Chamard, 2006).

Consistent with past research, respondents from all types of establishments agreed that tourists become victims of crime because they represent low-risk targets (Crotts, 2003; Glensor and Peak, 2004). Similarly, managers of villas and guesthouses said tourists place themselves at risk for victimization by engaging in risky behavior and being too willing to trust locals while on vacation. They also stated that offenders know that the likelihood of arrest for victimizing tourists is low, since many tourists do not report the crimes to the police and those who do file a report often leave the island before an arrest can be made. Managers noted that offenders also believe that even if they are arrested, they will ultimately be released because the victim, who has returned to his or her home country, is unlikely to return to Tobago to testify at trial. Establishment managers/owners recommended better educational programs for tourists on security risks and crime prevention methods, and that increased police patrols, better training of police, and higher clearance rates are vital to reducing tourist crimes.

We also heard several anecdotes from managers and owners about crime victims who had been treated poorly

by police, crime scenes that were either botched or not fully processed, incomplete investigations, and other procedural inadequacies. For example, one manager told us that he had called the police to report a crime more than seven days before our interview but had not yet received a follow-up phone call. Even if we assume that these anecdotal accounts overstate the seriousness of the problem, it is clear that the Tobago police have an image problem with the owners and managers of lodging establishments. Tobago police managers should ensure that their officers receive community policing and customer service training and regularly meet and work with establishment owners to improve relationships and share information (Chamard, 2006).

Considered collectively, the results of our study suggest that crimes against tourists could be reduced by a strategic law enforcement approach targeting crime hot spots and/or hot dots. For a variety of reasons, tourists—and the lodging establishments where they stay—are vulnerable targets for both property and violent crimes. Routine police patrols of communities and neighborhoods where these establishments are concentrated, coupled with a more expeditious response to calls for service and immediate arrests of identified suspects, would help deter offenders and protect potential victims. There is some evidence that increased patrols would be effective. In May of 2006, a Joint Task Force (JTF) composed of Coast Guard and Army personnel was established in Tobago. The task force mounted around-the-clock patrols on the island, provided their contact information to lodging managers,

and responded to crimes when they were in a position to do so. The managers we interviewed held the JTF in high regard, suggesting that the officers were professional and responsive to the concerns of people visiting or living on the island. Unfortunately, the task force was disbanded in May 2007, a common concern when using short-term crackdown approaches to resolve systemic crime problems (Scott, 2004). Sustained community policing and problem solving efforts might improve conditions in the future.

Vacation destinations, such as Tobago, whose economies are closely coupled to the tourism industry, must respond aggressively to crimes against tourists. Doing so will require a multi-faceted strategy that involves tourism officials, local law enforcement, the owners and managers of lodging establishments and other businesses, and the providers of other services to tourists.

The kind of problem diagnosis and results described in this study can be a valuable launching pad for such multi-faceted interventions. Future research projects might expand the knowledge base by exploring the various measurement processes used to capture tourist crime data, including tourist visitation data, arrest and calls for service data, perception-based data, and anecdotal information, and providing clarity on the extent to which tourist crimes represent substantial real risk. Comparisons of rates of tourist crime versus other types of crimes should be encouraged and studies should also assess the extent to which tourists are victimized relative to locals and the extent to which tourists themselves engage in criminal acts

while on travel. Additional research should also focus on the security environment in and around lodging establishments (including integrating Crime Prevention Through Environmental Design concepts).

Further, focused studies on how police and criminal justice systems react to tourist crimes and how those reactions are perceived within and outside the tourist destination should also be pursued. Cross-country comparisons of tourist crime risks would further improve our understanding of the extent of the challenge. Arguably, the reputation of a tourist destination should not be linked to media-driven single events or rare phenomena. On the other hand, tourists should also be truthfully informed of the risks associated with their desired destinations and of the potential consequences of their routine tourist activities while on vacation.

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**APPENDIX A****SURVEY ITEMS INCLUDED IN THE COUNT OF SECURITY MEASURES VARIABLE (0 = NO, 1 = YES):**

1. Systems provide more than minimal security
2. Regularly inspect locking systems
3. Provide adequate lighting
4. Use remote monitoring / surveillance
5. Control access to guest areas
6. Use a metal detector at entrances where guests access the establishment
7. Check photo ID at check in
8. Assign security personnel to the parking areas
9. Provide adequate lighting in the parking areas
10. Control access to the parking areas to exclude unauthorized persons
11. Security personnel (armed and/or unarmed) patrols guest areas
12. Train staff in procedures for reporting and dealing with crime

## **PERCEIVED RISK, FEAR OF GANG CRIME AND RESULTING BEHAVIORAL PRECAUTIONS IN TRINIDAD\***

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Many cities in the United States of America have faced crime and gang problems for decades prompting American scholars to study gangs and their effects on communities. In the last decade or so, these researchers began to study the specific effects of gangs on public fear. Although studies have examined fear in Trinidad, none have examined fear of gang crime. We conducted a random digital survey of 516 Trinidad residents in February 2005 focusing on residents' perceptions of community disorder, diversity, and crime, their perceived risk and fear of specific gang crimes, and the behaviors they used to avoid gang-related victimization. We generally find that Trinidadians did not perceive their communities to have disorder or diversity problems or crime. They also reported low perceived risk and fear of gang crimes. This was true for the total sample and the ethnic and geographical sub-samples. There are some significant differences between these groups on fear and the use of behavioral precautions.

### **Background**

Many cities in the United States of America have faced gang problems for decades. Cities such as Chicago

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and Los Angeles have long established histories of gang crime, while other areas are facing new, emerging gang problems (see Howell, 1998). American scholars have conducted many studies of gangs, discussing issues such as their structure, behaviors, cohesiveness, and the effects of law enforcement efforts on gang activities (e.g., Decker & Van Winkle, 1996; Egley et al., 2006; Huff, 2002; Klein, 1995; Klein & Maxson, 2006). Some scholars have also studied the effects of gangs on communities (e.g., Horowitz, 1987; Venkatesh, 1996; Zatz & Portillos, 2000), and in the last decade researchers began to study their effects in terms of public fear.

Specifically, researchers built upon prior general fear of crime research to examine and predict the public's specific fear of gang-related crimes, such as gang-related harassment, gang-related assault, home invasion robbery, drive-by shootings, and carjacking (Katz, Webb, and Armstrong, 2003; Lane, 2002; Lane and Meeker, 2000, 2003a, 2003b, 2003c, 2004, 2005). Even though there is evidence that gangs affect people in many nations, there have been very few studies of gangs or their effects on communities outside the United States (see Klein, 1997, 2006).

A number of researchers have studied fear of crime outside the United States and in Trinidad, where this study occurred (e.g., Chadee and Ditton, 2003, 2005; Ditton, Chadee, and Khan, 2003; Ditton, Khan, & Chadee, 2005), but to date no studies have examined *fear of gang crime* in Trinidad.

This study is designed to build on prior fear studies in numerous ways. First, it is the first study to examine fear of gang crime outside the United States and in Trinidad. Second, in line with recent research on fear of crime, it measures both perceived risk and fear of specific gang crimes as well as behavioral precautions taken to avoid victimization by gang crime. Third, this study examines Trinidadians' level of concern about community problems known to be related to fear of gang crime (e.g., disorder, diversity, and crime). Fourth, this study disaggregates the sample based on ethnicity and geographical location and uses Analysis of Variance (ANOVA) techniques and t-tests to determine if there are significant differences in these variables across groups.

The research questions addressed in this study include: (1) which racial group was more concerned about disorder and diversity, felt more at risk and more afraid of gang crime? (2) Which behavioral precautions did they take to avoid gang crime? And, (3) how did those living in high crime areas compare to those in lower crime areas? Because this is the first study of gang-related fear in Trinidad, it is important to answer these questions before moving on to more sophisticated analysis designed to predict gang fear.

Understanding fear of gang crime in Trinidad is important first because prior studies there have only studied fear of crime, not fear of gang crime, generally finding that the elderly are not more fearful and do not feel more at risk (Chadee & Ditton, 2003), that fear of crime in the same

individuals can vary over time (Ditton, Chadee, & Khan, 2003; Ditton, Khan, & Chadee, 2005), and that media consumption is not related to fear (Chadee & Ditton, 2005). Second, the issue of gangs and gang violence in Trinidad has over the last few years grown into a major social problem (e.g., Caribbean Media Corporation, 2006, 2008). Media reporting and tabloids' front pages displaying murdered victims may have heightened concern and fear. A study of gang-related fear will assist in better understanding fear and in developing appropriate strategies to address fear levels if they escalate.

### **Prior Studies on Fear of Gang Crime**

There are a limited number of studies on fear of gangs specifically, most of them conducted by Lane and Meeker in California. Lane and Meeker (2000) compared the effects of concerns about sub cultural diversity on fear of crime generally and fear of gangs specifically. They found that concerns about diversity had a stronger impact on fear of gangs than on fear of crime more generally. In addition, they found that people with lower education levels and renters were more afraid of gangs (but not crime generally). They also found that living in the higher crime area had a direct effect on fear of gangs. Katz, Webb, and Armstrong (2003) built on this study and examined fear of gang crime compared to fear of crime generally in Mesa, Arizona. They found that gender was unrelated to fear of gangs but nonwhites were more fearful. They also found that concern about diversity and disorder predicted fear of gangs but concern about community decline did not.

Lane and Meeker (2003c) tested the effects of diversity, disorder and decline independently on fear of gang crime. They found that all three were significant predictors of fear of gang crime, but that the decline and the disorder plus decline models were the most predictive. In their models, females, younger people, and minorities were more afraid of gang crime. Those who lived in the higher crime areas and renters were also more afraid due to diversity and disorder concerns. Whites, in contrast, were more concerned about community decline and therefore afraid of gang crime.

In a qualitative study of Santa Ana, California, Lane (2002) found that residents blamed increasing racial and ethnic diversity (i.e., immigrants) for increasing disorder and therefore community decline leading them to fear gangs. Lane and Meeker (2005) later tested these connections in their quantitative sample, comparing results for Whites and Latinos. They found that concerns about diversity predicted concerns about disorder and then community decline, which predicted fear for the sample generally and for Whites. Disorder had a direct significant effect on fear of gangs for the full sample and the Latinos, but not for Whites. The connection between decline and fear, however, was not significant for Latinos.

Lane and Meeker (2004) also compared perceptions disorder and diversity, perceived risk and fear of gang crime and resulting behavioral precautions among Whites, Latinos and Vietnamese. They found that the Vietnamese were significantly more concerned about diversity and

disorder than Latinos who were significantly more concerned than Whites. They also found that the Vietnamese felt significantly more at risk and afraid than Latinos who felt significantly more at risk and afraid than Whites. In terms of behavioral precautions, they found that Latinos were significantly more likely to avoid areas of the county or the community than were Whites. Interestingly, Lane and Meeker (2005) found no differences across the groups in arming behavior.

Lane and Meeker (2003a, 2003b) conducted two other studies on fear of gangs but not focused on the theoretical concepts mentioned above. In the first (2003a), they examined the effects of using television or newspaper as the primary source of information about crime, comparing Whites and Latinos. They found that for Whites, relying on the newspaper for more information decreased perceived risk and therefore fear of crime and for Latinos, relying on television increased fear both directly and through perceived risk. These authors (2003b) also examined the shadow of sexual assault thesis for women and men, comparing the effects of fear of sexual assault and fear of gang assault generally on fear of multiple gang offenses. They found that fear of rape predicted fear of gang crimes among both men and women, but that fear of assault generally was a stronger predictor.

There are no prior studies on fear of gang crime in Trinidad, so this study modeled its questions after those used in the survey conducted by Lane and Meeker (2003a, 2003b, 2003c, 2004, 2005) in California and used in the

analysis for the articles mentioned above. Due to the unique racial and ethnic distribution of Trinidad and the mix of high and low crime areas, this article begins the focus on Trinidad by modeling Lane and Meeker's (2004) analysis using descriptive statistics and ANOVA to compare the differences in social disorganization perceptions, perceived risk and fear of gang crime and resulting behavioral precautions among the different racial groups and among those living in high crime versus low crime areas. The fear of crime research generally has moved toward examining race and ethnicity effects by disaggregating samples, rather than simply including race/ethnicity as a control variable (e.g., see Chiricos, Eschholz, & Gertz, 1997; Chiricos, Hogan, & Gertz, 1997; Lane & Meeker, 2003a, 2004, 2005).

Our research questions are: (1) which racial group was more concerned about disorder and diversity, felt more at risk and more afraid of gang crime? (2) Which behavioral precautions did they take to avoid gang crime? And, (3) how did those living in high crime areas compare to those in lower crime areas? Descriptive studies such as this one are important to understanding fear of gang crime in areas such as Trinidad, where the topic remains unexplored.

## **Study Methods**

### *Context*

Trinidad has a population of approximately 1.3 million. The ethnic mix consists of 40% Indo-Trinidadians, 38%

Afro-Trinidadians, 21% Mixed persons and 1% Whites, Syrians, Chinese and other ethnic groups. Fifty percent of the population is female. The mean age of the population is 30.5 (SD=20.1). Approximately 19% of the population is between the ages of 16 – 25 and over a quarter of the population (27%) is between the ages of 16 and 30 (Central Statistical Office, 2003). The East-West Corridor, an urban area, occupies about 25% of the land space of Trinidad with approximately 45% of the population living there. Numerous high crime hot spots also exist in this area with over 60% of all serious crimes being committed there (Central Statistical Office, 1999, 2003).

The little that is known in published academic circles about gangs in Trinidad is the result of a study by McCree in the late 1990s. McCree (1998) identified at least three types of gangs in Trinidad: (1) Soft – teenagers who engage in praedial larceny (stealing of agricultural products), (2) Semi-Hardcore - unemployed, youths and adults who engage in burglary, assault, and robbery; and (3) Hardcore - unemployed/working class who commit robberies (organizations, drugs, rapes).

The major reasons for gang membership in Trinidad, according to McCree (1998), include economic deprivation (poverty), social and status deprivation (limited opportunity), social disorganization, cultural forces (values) and identity formation. He argued that people joined Trinidad gangs for the following reasons: material gain, financial security, recreation, protection, avoidance of low paying jobs and the low status of their parents, and as

a form of commitment to the community (because of its traditional association with gangs). He identified four major activities of gangs: robbery-muggings, drug trafficking, assault and making guns, and murders. Members were recruited using a combination of tactics including force/intimidation and enticement by indicating benefits of gang membership (e.g., liquor and girls). The relationship with the community varied from antagonistic/hostile/ non-supportive to mutual cooperation/supportive.

#### *Sample and Data Collection Procedures*

The sample consists of 516 Trinidad residents who responded to a random digit dial survey conducted by the ANSA McAl Psychological Research Centre at the University of the West Indies, St. Augustine Campus from February 15-February 20, 2005.<sup>1</sup> The sampling strategy was designed so that the respondents would represent the Trinidad population, but there was a +/- 4% error rate.<sup>2</sup> The response rate was 67%.<sup>3</sup> The final sample represented the Trinidad population on the following measures: ethnicity, education, sex and county/administrative areas (Central Intelligence Agency, 2008; Central Statistical Office, 2003). Our sample is slightly older than the general Trinidad population, which would be expected because the sample excludes residents under 18. The median age of the Trinidad population is 32.3 years, while our median age category was 40-49. In addition, our respondents have higher incomes than the population as a whole. The median income category in our sample is 10,001-25,000, while only 8% of the population makes 10,000 or more.

About 19% of our sample makes less than \$10,001 (Central Intelligence Agency, 2008). Consequently, the findings here may be limited in their applicability to the lower income groups in Trinidad, and may not well represent younger people.

Table 1 presents the characteristics of the total sample and for each ethnic group included therein. The full sample primarily consisted of Indo-Trinidadian (42%), Afro-Trinidadian (37%), and Mixed race (21%) respondents. The population of Trinidad is 40% Indo, 37% Afro, 21% Mixed, and 2% other (Central Statistical Office, 2003). Less than half of the respondents were males (43%) (50% of the population is), but the majority was married (51%) (Central Statistical Office, 2003). The mean age was 44 years old, and the range was 18 years old to 87 years old. About a third of respondents (30%) were educated only up to primary school, while 41% were educated through secondary (high) school. Only 12% had a university education. Over half of the respondents (55%) indicated that their jobs were among the lower status occupations on the island. Most (62%) indicated that their annual income was less than 50,000 (\$6.3 TT = \$1US). Close to half of the subjects lived in a high crime area (48%).<sup>4</sup>

To determine if there were significant differences across the three ethnic groups on these characteristics, we ran one-way ANOVA using Tukey HSD. Results indicated that the only significant differences were in the areas of education, occupation, location of residence (high crime v. not), and years at their residence. Specifically, Mixed

**Table 1**  
**Demographic Characteristics of the Sample (N = 516)**

		Total Sample		Afro-Trinidadians		Indo-Trinidadians		Mixed	
		N = 516		N = 189		N = 216		N = 106	
	Code	N	%	N	%	N	%	N	%
<b>Ethnicity</b>									
Afro-Trinidadian	1	189	36.6						
Indo-Trinidadian	2	216	41.9						
Mixed									
White	3	106	20.5						
Other	4	4	0.8						
		1	0.2						
<b>Sex</b>									
Male		223	43.2	77	40.7	100	46.3	44	41.5
<b>Age</b> (actual age)									
18-19		22	4.3	4	2.1	8	3.7	9	8.5
20-29		95	18.4	35	18.5	40	18.5	19	17.9
30-39		89	17.2	26	13.8	39	18.1	24	22.6
40-49		114	22.1	48	25.4	45	20.8	19	17.9
50-59		91	17.6	29	15.3	47	21.8	15	14.2
60-69		54	10.5	21	11.1	22	10.2	11	10.4
70 or over		40	7.8	23	12.2	9	4.2	8	7.5
Unknown		11	2.1	3	1.6	6	2.8	1	0.9

Table 1 (continued)

	Total Sample N = 516			Afro-Trinidadians N = 189		Indo-Trinidadians N = 216		Mixed N = 106	
	Code	N	%	N	%	N	%	N	%
<b>Marital Status</b>									
Married	1	265	51.4	85	45.0	123	56.9	55	51.9
Separated	2	9	1.7	4	2.1	3	1.4	2	1.9
Single	3	165	32.0	69	36.5	58	26.9	35	33.0
Common law	4	24	4.7	15	7.9	7	3.2	2	1.9
Divorced	5	14	2.7	5	2.6	7	3.2	2	1.9
Widowed	6	35	6.8	11	5.8	16	7.4	8	7.5
Other/Unknown		4	0.8	0	0	2	1.0	2	1.9
<b>Education</b>									
Up to primary	1	157	30.4	57	30.2	83	38.4	17	16.0
Up to secondary	2	210	40.7	78	41.3	85	39.4	45	42.5
Technical vocational	3	72	14.0	24	12.7	25	11.6	21	19.8
Up to university	4	63	12.2	24	12.7	20	9.3	18	17.0
Other/Unknown		14	2.7	6	3.2	3	1.4	5	4.7
<b>Occupation</b>									
Lower	1	281	54.5	102	54.0	133	61.6	44	41.5
Middle	2	177	34.3	68	36.0	62	28.7	45	42.5
Upper	3	25	4.8	8	4.2	8	3.7	8	7.5
Unknown		33	6.4	11	5.8	13	6.0	9	8.5

Table 1 (continued)

	Total Sample N = 516		Afro-Trinidadians N = 189		Indo-Trinidadians N = 216		Mixed N = 106		
	Code	N	%	N	%	N	%	N	%
<b>Income</b>									
10,000 or less	1	70	13.6	25	13.2	29	13.4	15	14.2
10,001-25,000	2	132	25.6	57	30.2	55	25.5	19	17.9
25,001-50,000	3	116	22.5	42	22.2	40	18.5	32	30.2
50,001-100,000	4	48	9.3	16	8.5	21	9.7	11	10.4
100,001 or more	5	6	1.2	1	0.5	3	1.4	2	1.9
Unknown		144	27.9	48	25.4	68	31.5	27	25.5
<b>Live in high crime area</b>									
Yes	1	247	47.9	119	63.0	58	26.9	66	62.3
<b>Years at residence (actual years)</b>									
Less than 1		6	1.2	2	1.1	2	0.9	2	1.9
1-5		50	9.7	20	10.6	15	6.9	14	13.2
6-10		46	8.9	17	9.0	13	6.0	15	14.2
11-15		46	8.9	21	11.1	15	6.9	9	8.5
16-20		73	14.1	30	15.9	26	12.0	17	16.0
21-30		119	23.1	33	17.5	63	29.2	23	21.7
31-40		75	14.5	29	15.3	32	14.8	13	12.3
41-50		63	12.2	24	12.7	29	13.4	9	8.5
+ 50 years		35	6.8	12	6.3	19	8.8	4	3.8
Unknown		3	0.6	1	0.5	2	0.9	0	0

\*\*\* p &lt; .001 \*\* p &lt; .01 \* p &lt; .05

Trinidadians (mean = 2.45, SD = 1.03) had significantly more education than Afro-Trinidadians (mean = 2.08, SD = .98,  $p < .01$ ) and Indo-Trinidadians (mean = 1.93, SD = .96,  $p < .001$ ). Mixed Trinidadians (mean = 1.63, SD = .63) also had more prestigious occupations than Indo-Trinidadians (mean = 1.38, SD = .56,  $p < .01$ ). Both Mixed (mean = .62, SD = .49,  $p < .001$ ) and Afro-Trinidadians (mean = .63, SD = .48,  $p < .001$ ) were significantly more likely to live in high crime areas than the Indo-Trinidadians (mean = .27, SD = .44). In contrast, Indo-Trinidadians (mean = 4.92, SD = 1.95) were significantly more likely than Mixed-Trinidadians (mean = 4.03, SD = 2.06,  $p < .01$ ) to live at their residence for a longer period of time.

We also ran independent t-tests to determine if there were differences in demographic characteristics by geographical location (high crime area v. not). Results indicated that those living in the higher crime areas were significantly more likely to have more education ( $t = 3.359$ ,  $p < .01$ ) and better occupations ( $t = 3.631$ ,  $p < .001$ ) but had less time at their residence ( $t = -2.897$ ,  $p < .01$ ). Although these results might seem counterintuitive to people outside of Trinidad, the urban areas of the island have better jobs and more educated residents but also contain the most crime.

### *Measures*

*Community Problems.* The first set of questions measured residents' perceptions of community problems, were taken directly from the Lane and Meeker (2003a, 2003b, 2003c, 2004, 2005) studies, and were designed to measure

concerns about community disorder and diversity. The stem read: *"We have a number of questions about your community as you define it. I will read you a list of some things that currently might be problems in your community. After I read each one, please tell me whether you think it is a big problem, somewhat of a problem, a small problem, or no problem in your community."* The specific questions were: poverty and economic hardship, people or landlords allowing their property to become run down, abandoned houses or other empty buildings, graffiti, too many people living in one residence, gunfire, youths hanging out (loitering), gangs, cultural differences between residents, and racial differences among residents. These measures were coded (1=no problem to 4=big problem).

*Crime in the Community.* We also asked the respondents to indicate how much crime they had in their community. The stem read: *"To what extent do the following affect your community? Please rate on a scale from 1 to 4 with 1 being "not at all" and 4 "very much."* The questions were: property crime (like burglary and theft), violent crime (like assault and murder), property crime by gangs, and violent crime by gangs.<sup>5</sup>

*Risk and Fear of Gang Crime.* To follow the tradition of prior fear of crime studies, we asked about both perceived risk and fear of specific gang-related crimes. The risk question had the following stem: *"People usually think of some crimes as more likely to happen to them than others. I would like you to tell me how likely you think it is that you will become a victim of*

*the following crimes in the next two to three years. Is it not likely, somewhat likely, likely or very likely that you will....."*

The fear question used this wording: *"I have one more question I will ask you regarding these particular crimes. I just asked you to rank the likelihood that you will become a victim of these crimes. Now I will ask you about the same crimes, but I would like to know how personally afraid you are of each of them. For each of the following crimes, please tell me if you are not afraid, somewhat afraid, afraid, or very afraid."*

Each of these stems was followed by eight specific gang-related offenses. These were: have/having your property damaged by gang graffiti, have/having a gang member commit a home invasion robbery against you, be/being a victim of a drive-by or random gang-related shooting, be/being physically attacked or assaulted by a gang member, be/being harassed by gang members, be/being a victim of carjacking, be/being raped or sexually assaulted by gang members, and be/being murdered by gang members. Six of these questions were worded exactly as in the Lane and Meeker survey (graffiti, home invasion, drive-by, gang harassment, gang assault, and carjacking). Two of the questions were new and were designed to add to the literature: rape/sexual assault by gang members and murder by gang members. Each of these was coded from 1 (not likely/not afraid) to 4 (very likely/very afraid).

*Behaviors to Reduce the Risk of Gang Crime.* We also report results on twenty-four possible behaviors that residents might have taken to avoid being victimized by gang crime.

Respondents were asked the following question: *“Now I’d like to read a list of some activities some people do to reduce their risk of crimes committed by gangs. For each one, please tell me if you have done it. Have you done any of the following activities so as to reduce your risk of gang specifically?”*

Four questions were worded exactly as Ferraro’s (1995) survey: engraved ID numbers on your possessions, added outside lighting, learned more about self defense (fighting), and started carrying something to defend yourself. Four questions were similar to Ferraro (1995), but the wording was modified slightly: generally avoided unsafe areas during the day because of gang crime, generally avoided unsafe areas during the night because of gang crime, gotten a watch dog, and purchased locks.

Four questions were worded exactly as in the Lane and Meeker survey conducted in 1997 (2004): carried a gun or other weapon when you went out, arranged to go out with someone so you would not be alone, avoided certain areas of your city, and avoided certain areas of your own community. Eleven questions were designed based on knowledge of the Trinidad context: 1) put burglar proofing on your house, 2) obtained a gun, 3) purchased a knife, other weapons or devices excluding a gun for protection, 4) Used barbed/razor wire around the house, 5) Put in special windows (e.g., steel windows), 6) used a caretaker/security guard, 7) put in a high fence/wall, 8) put a burglar alarm in your house, 9) gotten a car alarm, steering wheel or gear locks, etc., 10) had your car/house

blessed to prevent items from being stolen, and 11) prayed not to be a victim.

### *Analysis Approach*

We first present descriptive statistics, including percentages, means, and standard deviations for the total sample and race (Afro-Trinidadians, Indo-Trinidadians, and Mixed Race) and geographical (high crime v. low crime)<sup>6</sup> sub samples on each of the individual variables of interest (all variables measuring community problems, crime in community, perceived risk of gang crime, fear of gang crime, and behaviors to reduce risk of gang crime).

Next, we present ANOVA results by ethnicity for each variable and for indexes measuring community problems, community crime, gang risk, gang fear and behavioral precautions. The indices were created by adding up the variables in that particular index and dividing by the number of items in the index to ensure easy interpretation of the results. For example, for the community problems index, we added the responses to all ten community problems questions noted above and divided by ten.

The indexes had the following Cronbach's alpha reliabilities: community problems index = .82, community crime index = .82, perceived risk index = .91, fear of crime index = .96, and behavioral precautions index = .86. To compare groups, we use Tukey HSD for the racial sub samples and t-tests for the geographical regions.

## Results

### *Ethnicity*

Table 2 presents the descriptive statistics for the individual indicators (variables) for the total sample and the ethnic sub samples. Because very few respondents felt these issues were problems in their communities, we report the percentage of people who said the community problems were “no problem,” the percentages who said crime affected their community “not at all,” the percentages who said that the crimes were “not likely,” to happen to them in the next two to three years, and the percentages who said they were “not afraid” of the crimes. For behavioral precautions, we report the percentage who said “yes” that they did take the precaution, because the percentages vary widely depending upon the specific behavior. In addition, we report the means and standard deviations in this table.

For the community problems index variables, it is clear that an overwhelming majority of respondents in each group thought that their communities faced relatively few problems in terms of diversity and disorder. The percentages indicating that these were “no problem” were more than fifty percent in all cases (and over 70% in most cases), except for poverty and economic hardship (where around 20% said it was “no problem”) and youths hanging out (around 35-45% said it was “no problem”). If we include those who said these issues were “small problems” it adds to a large majority in all cases, except that slightly less than half of Mixed race respondents felt poverty and

economic hardship was not or a small problem. A majority of respondents also felt that crime generally or by gangs affected their community "not at all," except for property crime generally, and only about  $\frac{1}{4}$  said it "not at all." Still, the means indicate that their concern about property crime generally was low.

Similar results are observed for perceived risk and fear of these gang crimes. Interestingly, a large majority of the whole sample and the individual sub samples felt that gang crime was "not likely" to happen to them in the next two to three years. This is true for the less serious crimes (e.g., gang graffiti and harassment) as well as the more serious ones (e.g., random gang-related shooting, sexual assault, and murder). For only carjacking, did fewer than  $\frac{1}{2}$  say it was not likely, and this was only true for the total sample and Mixed race respondents (but not Afro and Indo Trinidadians). This means that most respondents did not think any of these crimes were "likely" or "very likely." For fear of these gang crimes, it is interesting that most were not afraid of some of the gang crimes listed here (e.g., graffiti, drive-by) and  $\frac{1}{3}$  to a half said they were not afraid of the others (e.g., home invasion, gang harassment, carjacking, sexual assault by gang members and murder). This is true for the sample as a whole and for the individual ethnic sub samples, although Afro-Trinidadians were more likely than Indo-Trinidadians or Mixed Race respondents to say they were not afraid of all of the crimes listed here.

**Table 2**  
**Demographic Characteristics of the Sample (N = 516)**

Community Problems Index	Total Sample			Afro-Trinidadians			Indo-Trinidadians			Mixed		
	% No Problem	Mean (Range 1-4)	SD	% No Problem	Mean (Range 1-4)	SD	% No Problem	Mean (Range 1-4)	SD	% No Problem	Mean (Range 1-4)	SD
Poverty and economic hardship	21.1	2.50	1.06	20.3	2.50	1.05	21.7	2.50	1.10	19.2	2.53	1.01
People allowing property to become rundown	65.5	1.56	0.91	64.6	1.56	0.90	68.6	1.50	0.87	60.3	1.70	1.00
Abandoned houses or other empty buildings	72.3	1.38	0.71	69.5	1.42	0.75	77.6	1.29	0.61	66.0	1.49	0.80
Graffiti	77.7	1.34	0.72	79.8	1.32	0.73	77.0	1.34	0.69	74.3	1.39	0.77
Too many people living in one residence	76.9	1.35	0.74	79.4	1.31	0.70	76.3	1.34	0.70	72.4	1.47	0.86
Gunfire	77.6	1.36	0.78	72.0	1.47	0.89	84.5	1.23	0.60	74.0	1.43	0.85
Youths hanging out (loitering)	39.5	2.09	1.09	34.1	2.16	1.08	43.9	1.99	1.07	39.0	2.17	1.14
Gangs	76.6	1.40	0.81	80.1	1.34	0.77	76.1	1.41	0.82	70.0	1.50	0.88
Cultural differences between residents	75.4	1.37	0.74	78.5	1.30	0.66	74.6	1.41	0.81	72.3	1.39	0.71



Table 2 (continued)

<b>Risk of Gang Crime</b>	% Not likely	Mean	SD	% Not likely	Mean	SD	% Not likely	Mean	SD	% Not likely	Mean	SD
Physically attacked/assaulted by gang member	66.9	1.48	0.77	68.2	1.45	0.74	69.0	1.46	0.77	60.0	1.55	0.78
Harassed by gang members	69.6	1.44	0.75	72.2	1.41	0.75	71.0	1.43	0.76	62.9	1.48	0.70
Victim of a carjacking	48.3	1.77	0.89	53.0	1.69	0.89	50.7	1.73	0.86	36.5	1.93	0.86
Sex. assault by gang members	63.3	1.51	0.76	69.2	1.44	0.75	62.0	1.52	0.74	56.7	1.58	0.78
Be murdered by gang members	71.0	1.41	0.72	72.8	1.37	0.68	74.6	1.36	0.70	61.8	1.53	0.79
<b>Fear of Gang Crime</b>	% Not afraid	Mean	SD	% Not afraid	Mean	SD	% Not afraid	Mean	SD	% Not afraid	Mean	SD
Property damaged by graffiti	67.4	1.53	0.87	71.9	1.41	0.74	65.7	1.60	0.94	64.2	1.58	0.89
Gang member commit home invasion against you	47.2	1.87	1.00	53.4	1.71	0.91	42.1	1.96	1.01	46.7	1.95	1.08
Victim of drive-by or random gang shooting	53.4	1.80	1.01	63.3	1.59	0.89	46.3	1.92	1.05	50.5	1.90	1.09
Physically attacked/assaulted by gang member	52.4	1.83	1.05	61.7	1.62	0.93	47.2	1.96	1.11	46.7	1.92	1.07
Harassed by gang members	55.3	1.72	0.95	62.2	1.55	0.82	52.3	1.81	1.01	49.1	1.83	1.00
Victim of a carjacking	42.5	1.94	1.00	53.4	1.71	0.90	36.7	2.04	1.00	35.8	2.15	1.09
Sex. assault by gang members	50.0	1.88	1.06	60.8	1.64	0.93	40.7	2.04	1.09	49.5	1.97	1.15
Be murdered by gang members	54.6	1.81	1.06	64.7	1.56	0.89	49.5	1.94	1.12	47.2	1.96	1.11

Table 2 (continued)

Behaviors to Reduce Risk of Gang Crime	Total Sample			Afro-Trinidadians			Indo-Trinidadians			Mixed		
	% Yes	Mean	SD	% Yes	Mean	SD	% Yes	Mean	SD	% Yes	Mean	SD
Engraved ID numbers on things	14.4	.14	.35	14.8	.15	.36	15.3	.15	.36	12.5	.13	.33
Added outside lighting	68.0	.68	.47	57.7	.58	.50	76.9	.77	.42	68.6	.69	.47
Learned more about self-defense	15.4	.15	.36	10.1	.10	.30	18.6	.19	.39	18.1	.18	.39
Started carrying something to defend self	10.1	.10	.30	4.8	.05	.21	13.4	.13	.34	13.5	.13	.34
Avoided unsafe areas during day	64.3	.64	.48	54.5	.54	.50	72.7	.73	.45	63.8	.64	.48
Avoided unsafe areas at night	75.7	.76	.43	66.7	.67	.47	82.4	.82	.38	78.1	.78	.42
Got a watch dog	53.5	.54	.50	42.0	.42	.50	66.7	.67	.47	45.7	.46	.50
Purchased locks	60.0	.60	.49	49.5	.49	.50	68.5	.69	.47	61.5	.62	.49
Burglar proofed house	51.5	.51	.50	47.6	.48	.50	52.8	.53	.50	54.3	.54	.50
Obtained a gun	0.4	.00	.06	0.0	.00	.00	0.5	.00	.07	1.0	.01	.10
Purchased a knife or other weapon for protection (non-gun)	5.7	.06	.23	4.2	.04	.20	6.1	.06	.24	7.8	.08	.27
Used barbed/razor wire around house	13.4	.13	.34	13.8	.14	.35	13.4	.13	.34	12.5	.13	.33
Put in special windows	29.4	.29	.46	26.7	.27	.44	29.6	.30	.46	33.3	.33	.47
Used caretaker/security guard	4.3	.04	.20	3.2	.03	.18	6.5	.06	.25	1.0	.01	.10
Put in a high fence/wall	25.0	.25	.43	21.2	.21	.41	27.8	.28	.45	26.7	.27	.44



In terms of behavioral precautions taken to reduce the risk of gang crime, there is much more variability in answers. For example, the majority of respondents said that they had done the following: added outside lighting, avoided unsafe areas during the day and at night, gotten a watch dog, purchased locks, burglar proofed their house, prayed not to be a victim, and avoided certain areas of the city. This is true for the sample as a whole and for all the sub samples, except that closer to half of the Afro-Trinidadians said they had gotten a watchdog, purchased locks or burglar proofed their house. In addition, only about 46% of Mixed race respondents had gotten a watch dog. About half of the respondents had avoided certain areas of their own community. About 1/3 to 1/2 had gotten something for their car to make it safer or had the house or car blessed to prevent theft, although more than 60% of Mixed race respondents had gotten a car alarm or steering wheel lock. About 1/4 to 1/3 had put in special windows or a fence or wall to protect themselves from gang crime. Fewer had engraved identification numbers on things, learned more about self-defense, used barbed or razor wire around their homes, gotten a security guard or burglar alarm, obtained a gun or other weapon, carried something to defend themselves, or carried a gun or other weapon when they went out.

We ran one-way ANOVAs with Tukey HSD to determine if there were significant differences across the racial groups with regard to the individual factors and with regard to the indexes. Table 3 reports the results for the indexes, and we report the results for the individual

indicators in the text only. There were only two individual community problems for which there were significant differences across racial groups. Mixed race respondents saw abandoned houses and other empty buildings as a significantly greater problem than did Indo-Trinidadians respondents ( $p < .05$ ). Afro-Trinidadians thought gunfire was a significantly greater community problem than did East Indian respondents ( $p < .01$ ). Consequently, there were no significant differences across racial groups on the community problems index. For perceptions of community crime, there were significant differences across racial groups only with regard to how much property crime by gangs affected the community. Mixed race respondents were significantly more likely than Indo-Trinidadians ( $p < .05$ ) to think that property crime by gangs affected their community. Again, on the index, there were no significant differences across groups.

There were no significant differences across groups on any individual indicators for perceived risk or on the perceived risk index. However, there were significant differences in fear across racial groups for seven of the eight crimes (all but graffiti). Indo-Trinidadians were significantly more afraid than Afro-Trinidadians ( $p < .05$ ) of having a gang member commit a home invasion robbery against them. Indo-Trinidadians and Mixed Race respondents were significantly more afraid of being harassed (Indo  $p < .05$ ; Mixed  $p < .05$ ), becoming a victim of a drive-by or other random gang-related shooting (Indo  $p < .01$ ; Mixed  $p < .05$ ), being physically attacked (Indo  $p < .01$ ; Mixed  $p < .05$ ), being sexually assaulted (Indo  $p < .001$ ; Mixed  $p < .05$ ),

**Table 3**  
**ANOVA Results by Ethnicity**

	Community Problems	Community Crime	Gang Risk	Gang Fear	Behaviors to Avoid Gang Crime
Afro-Trinidadians (N)	153	178	174	182	97
Indo-Trinidadians (N)	186	215	203	215	56
Mixed (N)	81	102	99	104	52
Afro-Trinidadians Mean (SD)	1.56 (.48)	1.48 (.53)	1.45 (.56)	1.57 (.72)	.27 (.20)
Indo-Trinidadians Mean (SD)	1.54 (.53)	1.44 (.53)	1.48 (.60)	1.91 (.94)	.37 (.18)
Mixed Mean (SD)	1.66 (.57)	1.57 (.64)	1.60 (.62)	1.91 (.95)	.35 (.18)
F	1.665	1.96	2.189	8.972***	6.571**
Df (Between, Within)	2, 417	2, 492	2,473	2, 498	2, 202
<b>Significant Contrasts</b>					
Tukey HSD				Indo > Afro***	Indo > Afro**
				Mixed > Afro**	Mixed > Afro*

\*\*\* p < .001 \*\* p < .01 \* p < .05

being carjacked (Indo  $p < .01$ ; Mixed Race  $p < .01$ ), and being murdered (Indo  $p < .001$ ; Mixed  $p < .01$ ) than were Afro-Trinidadians. On the gang fear index, a similar pattern emerged. Indo-Trinidadians ( $p < .001$ ) and Mixed-race respondents ( $p < .01$ ) were significantly more afraid than Afro-Trinidadians.

In terms of behavioral precautions, there were significant differences among the races for a number of the variables but not most. Indo-Trinidadians were significantly more likely than Afro-Trinidadians to have added outside lighting ( $p < .001$ ), learned more about self-defense ( $p < .05$ ), avoided unsafe areas during the day ( $p < .001$ ) and at night ( $p < .01$ ) and purchased locks ( $p < .001$ ) to reduce the risk of gang crime. Both Indo-Trinidadians ( $p < .05$ ) and Mixed-Race ( $p < .05$ ) respondents were significantly more likely than Afro-Trinidadians to have started carrying something to defend themselves.

Indo-Trinidadians were significantly more likely than either Afro-Trinidadians ( $p < .001$ ) or Mixed-Race people ( $p < .01$ ) to have gotten a watch dog. Mixed-race respondents were significantly more likely than either Afro-Trinidadians ( $p < .001$ ) or Indo-Trinidadians ( $p < .01$ ) to have gotten a car alarm, steering wheel or gear locks to reduce the risk of gang crime. As one might expect, then, there were also significant differences by race with regard to the behaviors index - both Indo-Trinidadians ( $p < .01$ ) and Mixed-Race Trinidadians ( $p < .05$ ) were significantly more likely than Afro-Trinidadians to have taken behavioral precautions overall.

*High versus Low Crime Area*

Our next set of analyses examined the differences between people who lived in high crime versus low crime areas of Trinidad. Again, we first report information for the individual indicators constituting each of the indexes—community problems, crime in the community, perceived risk of gang crime, fear of gang crime, and resulting behavioral precautions. Because there were only two groups, we ran t-tests to examine statistical differences.

Table 4 shows the descriptive statistics for each variable included in the indexes. As before, because most people were not concerned about community problems and had lower perceived risk and fear of gang crime, we report the percentages who responded that the issues were “no problem” in their community, said it was not likely, and they were not afraid. Interestingly, a large majority of people in both the low and high crime areas said that eight of the ten community problems were “no problem.” About 20% of the groups said that poverty and economic hardship were no problem, and close to 40% said that youths hanging out was no problem. So, most saw these two issues as at least a small problem in their communities, but the means indicate that they did not generally see them as big problems.

The vast majority also saw crime in their community as not a problem, except for property crime generally, regardless of whether or not they lived in a high crime area.

**Table 4**  
**Descriptive Statistics for Individual Indicators**  
**by Geographical Area**

<b>Community Problems Index</b>	High Crime Area			Not High Crime Area		
	% No Problem	Mean (Range 1-4)	SD	% No Problem	Mean (Range 1-4)	SD
Poverty and economic hardship	22.2	2.55	1.08	20.1	2.45	1.05
People allowing property to become rundown	57.0	1.76	1.02	73.3	1.39	.75
Abandoned houses or other empty buildings	68.9	1.45	.79	75.4	1.31	.62
Graffiti	78.3	1.38	.81	77.2	1.30	.62
Too many people living in one residence	74.8	1.43	.84	78.7	1.28	.62
Gunfire	67.5	1.57	.95	86.6	1.18	.53
Youths hanging out (loitering)	38.4	2.21	1.17	40.4	1.97	1.01
Gangs	76.3	1.44	.87	76.8	1.36	.76
Cultural differences between residents	73.5	1.41	.80	77.1	1.33	.68
Racial differences between residents	75.7	1.38	.76	81.1	1.31	.73
<b>Crime in Community Index</b>	% Not at all	Mean (Range 1-4)	SD	% Not at all	Mean (Range 1-4)	SD
Property Crime	26.0	2.09	.90	28.7	1.88	.72
Violent Crime	61.5	1.52	.78	69.4	1.36	.61
Property crime by gangs	73.5	1.37	.73	82.0	1.22	.52
Violent crime by gangs	78.9	1.32	.70	88.4	1.15	.46

**Table 4 (continued)**

<b>Risk of Gang Crime</b>	High Crime Area			Not High Crime Area		
	% Not likely	Mean	SD	% Not likely	Mean	SD
Property damaged by graffiti	74.8	1.36	.70	76.7	1.33	.69
Gang member commit home invasion against you	47.7	1.81	.92	63.9	1.53	.81
Victim of drive-by or random gang shooting	63.3	1.52	.78	69.3	1.43	.74
Physically attacked/assaulted by gang member	60.9	1.58	.83	72.0	1.39	.70
Harassed by gang members	62.1	1.54	.79	76.1	1.34	.70
Victim of a carjacking	41.6	1.91	.95	54.3	1.64	.81
Sex. assault by gang members	66.5	1.47	.76	60.4	1.54	.76
Be murdered by gang members	63.5	1.51	.78	77.4	1.32	.67
<b>Fear of Gang Crime</b>	% Not afraid	Mean	SD	% Not afraid	Mean	SD
Property damaged by graffiti	71.6	1.43	.78	63.6	1.62	.94
Gang member commit home invasion against you	48.0	1.83	.97	46.5	1.91	1.02
Victim of drive-by or random gang shooting	57.8	1.70	.95	49.4	1.88	1.06
Physically attacked/assaulted by gang member	51.6	1.75	.94	53.2	1.90	1.14
Harassed by gang members	52.2	1.69	.85	58.0	1.75	1.03
Victim of a carjacking	42.5	1.90	.95	42.5	1.98	1.04
Sex. assault by gang members	56.8	1.70	.96	43.9	2.03	1.12
Be murdered by gang members	54.1	1.72	.95	55.0	1.88	1.15

**Table 4 (continued)**

<b>Behaviors to Reduce Risk of Gang Crime</b>	High Crime Area			Not High Crime Area		
	% Yes	Mean	SD	% Yes	Mean	SD
Engraved ID numbers on things	12.6	.13	.33	16.0	.16	.37
Added outside lighting	60.2	.60	.49	75.1	.75	.43
Learned more about self-defense	15.0	.15	.36	15.7	.16	.36
Started carrying something to defend self	11.0	.11	.31	9.3	.09	.29
Avoided unsafe areas during day	55.7	.56	.50	72.1	.72	.45
Avoided unsafe areas at night	69.5	.70	.46	81.4	.81	.39
Got a watch dog	38.0	.38	.49	67.7	.68	.47
Purchased locks	59.0	.59	.49	61.0	.61	.49
Burglar proofed house	61.4	.61	.49	42.4	.42	.50
Obtained a gun	0.4	.00	.06	0.4	.00	.06
Purchased a knife or other weapon for protection (non-gun)	8.9	.09	.29	2.6	.03	.16
Used barbed/razor wire around house	18.4	.18	.39	8.9	.09	.29
Put in special windows	34.0	.34	.48	25.3	.25	.44
Used caretaker/security guard	5.7	.06	.23	3.0	.03	.17
Put in a high fence/wall	24.0	.24	.43	26.0	.26	.44
Put burglar alarm in house	18.4	.18	.39	11.9	.12	.32
Got a car alarm, steering wheel lock, etc.	42.4	.42	.50	43.9	.44	.50
Had car/house blessed to prevent theft	27.6	.28	.45	61.2	.61	.49

**Table 4 (continued)**

Behaviors to Reduce Risk of Gang Crime	High Crime Area			Not High Crime Area		
	% Yes	Mean	SD	% Yes	Mean	SD
Prayed not to be a victim	87.3	.87	.33	87.0	.87	.34
Carried a gun or other weapon when you went out	4.1	.04	.20	4.9	.05	.22
Arranged to go out with someone so you would not be alone	43.9	.44	.50	32.7	.33	.47
Avoided certain areas of your city	67.1	.67	.47	63.9	.64	.48
Avoided certain areas of your own community	45.9	.46	.50	49.3	.49	.50
Other	16.1	.16	.37	1.6	.02	.13

The proportion who thought property crime was “no problem” was similar in the high crime (26%) and low crime areas (28.7%). The means indicate that respondents also did not think they would be victimized by crime, and most said these crimes were “not likely.”

However, slightly fewer than half in the high crime area thought it was “not likely” that they would become a victim of home invasion or carjacking in the next two to three years. Most in both areas were also “not afraid” of the gang crimes, although slightly less than half in both areas said they were not afraid of being a victim of home

invasion robbery or carjacking. People in the lower crime areas were more likely to say they were at least a little afraid of drive-by and sexual assault by gang members, although the means indicate their fear was not high.

We ran t-tests to statistically examine these relationships. [Table 5](#) reports the t-tests for the indexes, but the results for the individual variables are presented in the text only.

**Table 5**  
**T-tests by Geographical Area**

Index	T
Community Problems	-3.319**
Community Crime	-3.481**
Gang Risk	-2.514*
Gang Fear	2.268*
Behaviors	2.924**

\*\*\* $p < .001$     \*\*  $p < .01$     \*  $p < .05$

For the community problems index, people who lived in the high crime area were significantly more concerned ( $t = -3.319$ ,  $p < .01$ ). For the variables that constituted this index, people in the high crime area were significantly more concerned about people allowing their property to become run down ( $t = -4.631$ ,  $p < .001$ ), abandoned houses ( $t = -2.176$ ,  $p < .05$ ), too many people living in one residence ( $t = -2.171$ ,  $p < .05$ ), gunfire ( $t = -5.515$ ,  $p < .001$ ) and youths hanging out ( $t = -2.484$ ,  $p < .05$ ). For the community crime

index, people living in the high crime area, also indicated significantly more crime ( $t = -3.481, p < .01$ ). People in the high crime area also indicated that there was more of each type of crime affecting their communities—property crime ( $t = -2.791, p < .01$ ), violent crime ( $t = -2.471, p < .05$ ), property crime by gangs ( $t = -2.741, p < .01$ ), and violent crime by gangs ( $t = -3.198, p < .01$ ).

People in the high crime area felt more perceived risk of gang crime ( $t = -2.514, p < .05$ ) generally. They also felt significantly more at risk of five of the eight individual crimes that constitute the index. These included home invasion robbery ( $t = -3.638, p < .001$ ), gang-related physical assault ( $t = -2.758, p < .01$ ), gang-related harassment ( $t = -2.944, p < .01$ ), carjacking ( $t = -3.386, p < .01$ ), and gang-related murder ( $t = -3.016, p < .01$ ). Interestingly, however, those in the *lower crime* areas were more afraid of gang-related crime generally ( $t = 2.317, p < .05$ ). This was true also for three of the individual crimes that constituted the fear index—gang graffiti ( $t = 2.533, p < .05$ ), drive-by ( $t = 2.122, p < .05$ ) and rape by gang members ( $t = 3.548, p < .001$ ).

Next we examine behavioral precautions by geographical area. The majority of people in both the high and low crime areas had prayed not to be a victim, added outside lighting, purchased locks, avoided unsafe areas during the day and at night and avoided certain areas of their city. The biggest visual differences between the two groups were in the percentages who got a watch dog and got their house blessed, which was much higher in the lower crime

area, and the percentages who burglar-proofed their house, which was much higher in the high crime area.

The t-tests show that those in the *lower crime areas* were more likely to take behavioral precautions generally ( $t=2.942$ ,  $p < .01$ ). They were significantly more likely to have added outside lighting ( $t = 3.647$ ,  $p < .001$ ), gotten a watch dog ( $t = 7.036$ ,  $p < .001$ ), had their car or house blessed to prevent gang crime ( $t = 8.120$ ,  $p < .001$ ), generally avoided unsafe areas during the day ( $t = 3.919$ ,  $p < .001$ ) and at night ( $t = 3.147$ ,  $p < .01$ ). Those living in the *high crime areas* were significantly more likely to have burglar proofed their house ( $t = -4.384$ ,  $p < .001$ ), purchased a knife or other weapons for protection ( $t = -3.071$ ,  $p < .01$ ), used barbed or razor wire around their homes ( $t = -3.118$ ,  $p < .01$ ), put in special windows ( $t = -.2165$ ,  $p < .05$ ), put a burglar alarm on their house ( $t = -2.041$ ,  $p < .05$ ) and arranged to go out with someone so they would not be alone ( $t = -2.618$ ,  $p < .01$ ).

## **Discussion and Conclusions**

### *Summary of Findings*

In summary, most people in the entire sample, the ethnic sub-samples, and the geographical area sub-samples felt that disorder and diversity problems were not major issues in their own neighborhood. We did not ask about Trinidad as a whole, and therefore cannot comment on whether or not the respondents thought these were issues generally on the island. Only Mixed-Race respondents felt

that poverty and economic hardship were more than a small problem in their neighborhoods. They were significantly more likely than Indo-Trinidadians to see abandoned buildings as issues in their communities, but Afro-Trinidadians were more likely than the Indo-Trinidadians to think gunfire was a problem in their communities. People living in the high crime communities were significantly more concerned about community problems than were those living in the lower crime areas.

In addition, an overwhelming majority of the respondents felt that general crime and gang crime barely affected their communities. Mixed-race respondents were more likely than Indo-Trinidadians to think that gang-related property crime was in their community. People in the high crime areas were significantly more likely than others to say crime affected their communities.

Respondents perceived risk and fear of general crime and gang crime was low—whether we examine the sample as a whole, the ethnic sub samples, or the geographic sub samples. There were no significant differences across ethnic groups in perceived risk, but Indo-Trinidadians and Mixed Race respondents were significantly more afraid than Afro-Trinidadians of most of the gang crimes. This is true even though Indo-Trinidadians were significantly less likely than the other two groups to live in the high crime area. These findings parallel previous research on fear of crime in Trinidad (see Chadee, 2003a, 2003b; Chadee & Ditton, 2003, 2005).

In contrast, people in the high crime areas felt more at risk than those in the low crime areas, but those in the lower crime areas were more afraid generally and of some of the specific crimes (i.e., graffiti, drive-by and rape by gang members). This is an interesting finding that parallels early research finding that those who are most at risk are not necessarily more afraid both in the United States (see Warr, 1994, for a review) and in Trinidad (see Chadee, 2003a, 2003b; Chadee & Ditton, 2003, 2005). Interestingly, those who faced more objective risk (lived in the high crime areas), seemed to know it.

Gang violence is concentrated in the East-West corridor of Trinidad, especially the suburbs of the capital, which is also where poverty and crime generally are concentrated. In 2008, three years after this study was conducted, there were over 500 murders in Trinidad. These recent crime numbers point to the need for more research on these gangs and their effects on Trinidad communities.

The low perceptions of risk and fear are interesting given that the media has reported that gangs are a major problem recently (see Caribbean Media Corporation, 2006, 2008) and some in the government have lately put pressure on the Prime Minister to resign if he cannot quickly reduce crime (see Trinidad and Tobago Guardian, 2008).

It is also interesting in that prior research often finds that people are afraid of crime, even when their risk is low. It may be that generally Trinidad residents see crime as something that happens to others or happens in other communities rather than something they are likely to experience personally.

Still, those in the lower crime areas expressed more fear than those in the higher crime areas (although this was not true for risk). The difference may be due to the fact that those in higher crime areas are more aware of the real crime problem, and hence their risk, while those in the lower crime areas are left to imagine what types of things might happen to them. Still, the results indicate that their fear was not overwhelming in either area. It may also be that they had taken behavioral precautions to reduce their fear of crime.

A majority of respondents as a whole and in the ethnic and geographic sub samples had taken many of the behavioral precautions to reduce their risk of gang crime. There were significant differences across the ethnic groups and geographical areas in terms of which ones they were more likely to choose to protect themselves.

Interestingly, Indo-Trinidadians were significantly more likely than Afro-Trinidadians to take many of the behavioral precautions. So, in sum, Indo-Trinidadians were more afraid and took more precautions than Afro-Trinidadians, even though they were significantly less likely to live in the high crime areas.

In terms of geographical comparisons, people living in the high crime areas took more proactive steps to protect themselves (e.g., burglar proofing their home, adding locks, better windows, or razor wire, and obtaining weapons) whereas those living in the lower crime areas took possibly "easier" precautions (for example, adding outside

lighting or watchdogs, having their belongings blessed, and avoiding unsafe areas both during the day and at night).

Prior research (Chadee, 2003a) on ethnicity and fear of crime has shown similar findings. In Trinidad, ethnicity is an important variable in the control for political power due to the ethnic composition and sociopolitical history of Trinidad, although there is no overt ethnic conflict as other countries might experience. It may therefore be an important factor to consider when examining the impact of community factors (such as diversity, disorder and gangs) on fear.

The fear-risk paradox, that is, those who are least likely to be at risk and most likely to be afraid (e.g., those in rural areas), reported here is also reported in Chadee (2003b). This paradox may be contextualized by ethnicity since Indo-Trinidadians are more likely to be found in low crime areas than Afro-Trinidadians.

In other words, both Indo Trinidadians and Mixed residents' fear was higher than their perceived risk (and possibly their objective risk), showing inconsistencies between their cognitive and emotional thoughts about victimization by gangs.

These differences may have resulted in cognitive dissonance (see Festinger, 1957) and resulted in strategies (such as behavioral precautions) to bring consistency between cognitive and emotional states.

*Comparison with Prior Literature*

This study was the first to examine fear of gangs in Trinidad, but it showed interesting results compared to prior studies of gang-related fear conducted in the United States. Possibly most interesting is the fact that most saw few problems of disorder or diversity in their communities, felt that crime was really not a problem in their communities, and that the perceived risk and fear of gang crime in the area was low. This was true even in the high crime areas, and regardless of ethnicity. This was not necessarily true in the US, and is likely due to context differences.

The studies conducted in the US were in communities with long histories of gangs and gang crime (e.g., California and Arizona), but Trinidad's history with gangs is not so storied. In addition, in the United States, ethnic minorities (e.g., African Americans and Latinos) are most likely to have experience with gangs. This is also true in Trinidad, where the majority of gangs are found in poverty-stricken urban areas (Laventille, Morvant), and gangs are more likely to be Afro-Trinidadians, even though Afro-Trinidadians only represent about 40% of the Trinidad population.

Yet, even without as much gang history as in the US, it is interesting that perceived risk and fear of gang crime was not absent in Trinidad. In fact, many said they had taken precautions to protect themselves from gangs (and probably crime in general), including avoiding unsafe

areas during the day and at night, burglar proofing the house, buying locks, adding outside lighting and praying not to be a victim.

Due to the Trinidad context, this study asked about some behavioral precautions not generally studied in the United States (e.g., having the car or house blessed, praying not to be a victim), and so adds to the literature in that way. Interestingly, one of the most common approaches to protecting oneself was avoiding unsafe areas either in the community or elsewhere and during the day and at night. This is consistent with results found in the United States (see Ferraro, 1995; Lane & Meeker, 2004).

### *Policy Implications*

Clearly, because of the unique population in Trinidad, policy implications should be specific to that area. First, fear of gang crime in this sample was generally low, even though gang crime has made local headlines in the last few years and has been the focus of some policy concern. This could mean that Trinidadians have realistic perceptions of the gang problems in their communities.

However, because gangs have not been established for decades (as in the United States) and people may not be worrying so much about them, policy makers might want to notify residents when they should take precautions to protect themselves from gang crime (i.e., when their risk has increased). Second, given differences in fear across ethnic groups, policy makers should take into

consideration how gangs and gang-related fear affect these different groups.

As in many other studies of fear in the US and Trinidad, fear levels do not correspond nicely to risk levels. Where fear levels are not justified based on objective risk, policymakers and practitioners might take action to notify residents of their real likelihood of being victimized to calm their fears. Clearly, allowing them to rely on media reports alone will not present them with an accurate picture of their personal risk or need to worry about gang crime.

Yet, if policy makers work with the media to systematically report specific locations of crimes, this may help rural residents understand that their risk of gang-related victimization is low, a possible strategy to reduce unnecessary fear. This, of course, could increase fears of some urban residents, because crime is more common there.

Though the media generally accurately report crime levels by geographical area, reports are often sensationalized. Policy makers may consider notifying the public directly and making them aware of the possibility that media reports may be more alarming than necessary. Police and other practitioners may want to work with communities to hold meetings and forums where police and the community can have conversations about gang issues and possible solutions that are relevant and important in the local context.

Finally, further empirical research is needed to obtain more information about fear of gang crime and to establish the degree of change over time. Such research should be the basis on which policy decisions are made.

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**ENDNOTES**

Interviewers introduced themselves, asked for consent and respondents were informed that they could, if they desired, terminate the interview at anytime. Respondents were given contact numbers for verification.

The margin of error is greater for the subsamples (i.e., each ethnicity and each geographical area).

The response rate was calculated as percent of completed interviews out of eligible calls. The sample included only persons with landlines phones. In the 2000 Census, over 187,000 households (62% of the population) indicated that they had landlines. Since 2000, the Gross Domestic Product (GDP) of Trinidad has increased. Trinidad is an oil and gas producing country. This sample may not be representative of those residents without landlines, because the survey did not include them (although, as noted in the methods, the survey represents the population on some important demographic characteristics). Tobago was not included in the sample, because Tobago citizens are demographically different than those in Trinidad.

Community crime level was determined by the geographical location of the respondents and the crime statistics for that geographical area. Persons who lived in the rural areas were categorized as living in low crime areas and those who lived in the urban areas were categorized as living in high crime areas.

The questions were taken directly from the instrument used by Lane and Meeker, but the answer options used here are different. Lane and Meeker's survey read "a lot, a moderate amount, a small amount or none."

One reviewer noted concern that we rated urban areas as "high crime" and rural areas as "low crime" for this analysis, arguing that there was much variation within urban areas regarding crime levels. In addition, the reviewer argued that the focus may better be termed "urbanicity." We agree in part but have aggregated the areas this way for two reasons. First, our sample is not large enough to reliably examine differences across multiple neighborhoods within Trinidad cities. Second, crime data for Trinidad suggest that over 60% of all serious crimes occur in the urban areas, so urbanicity and crime tend to be correlated. Even if

one who lives in the urban area is not living in one of the highest crime neighborhoods, his/her likelihood of coming into contact with more crime is greater than someone in the rural/lower crime areas because they likely move around the city during their daily activities. It is a limitation of this study that it cannot separate issues related to urbanicity (e.g., such as crime and population density).

## **POLICING PEOPLE WITH MENTAL ILLNESS IN TRINIDAD AND TOBAGO\***

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The literature concerning police practices and citizens with mental illness is expanding in the US and other developed nations. Little is known, however, about what factors affect interactions between the police and such citizens in the developing world where police resources are not abundant and the cultural interpretations of mental illness may vary. Muir's seminal work on policing in the US provides a taxonomy of officer behavior based upon their levels of passion and perspective. While this framework was originally constructed to help police departments anticipate problems among officers, it may be useful in understanding police attitudes toward dealing with the mentally ill. This study investigates the applicability of Muir's typology using survey data from 234 constables and their immediate supervisors in the Trinidad and Tobago Police Service. An explanatory model is developed and tested using OLS regression. The findings suggest that the model has very limited utility in predicting officer attitudes concerning mental health referrals. Recommendations for further study of this important issue are presented.

### **Introduction**

Mental illness is a public health problem that exists

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universally, presenting police departments the challenge of keeping people with mental illness as safe as the rest of society. The twin island nation of Trinidad and Tobago is not immune to the problems associated with mental illness as evidenced by high rates of suicide (Hutchinson et al., 1999), stigma around mental illness (Maharajh and Parasram, 1999) and a dearth of mental health treatment facilities (James, 1986; Pan-American Health Organization, 2005). These problems, especially the lack of mental health facilities, often leave the police as the only responders to people with mental illness in the community. They, by default, become the caretakers of last resort.

Specialized police response units such as crisis intervention teams have become popular in the U.S. These programs typically involve a special cadre of officers trained to respond to citizens with mental illness who may be in crisis. The programs are designed to improve officers' abilities to effectively, respectfully and safely interact with such persons and to divert more of them away from the criminal justice system and into mental health services. A key feature of these units is that they are staffed by volunteers. The reliance upon volunteers implies that not all officers are inclined or well-suited to respond to incidents involving people with mental illness.

There is anecdotal evidence that some officers are dismissed from special response unit training because they are deemed by police executives to be unsuitable. It is unclear what if any criteria can be used to determine which officers will be most compassionate toward the mentally ill. Front line officers have a great deal of discretion in their interactions with not only people with mental illness but all citizens. This discretion allows police officers to eschew formal application of the law when they

deem it appropriate. Scholars estimate that when police officers are called to situations that meet arrest criteria, the officers rely on third parties such as family members or mental health professionals to resolve approximately 12% of the encounters without arrest (Terrill and Paoline, 2007).

Research on police interactions with people with mental illness in the US and other developed countries is small but growing. The findings of this research are sufficient to support the construction of a testable explanatory model to predict officers' attitudes toward referring the ill to mental health services. This article seeks to expand knowledge on the topic by testing the utility of such a model with data collected in a developing country where the resources available to the police and the mental health system are significantly below those in developed nations.

### **Building the Conceptual Model**

#### *Police Discretion*

Officers exercise a great deal of discretion in their interactions with citizens. While this interaction is frequently characterized by the use of force and arrest decisions (Alpert et al., 2004; Chappell et al., 2006), recent research has focused on the non-arrest alternatives and concluded that police are more likely to not arrest than to arrest (Terrill and Paoline, 2007). Non-arrest alternatives are particularly pertinent in understanding police interaction with people with mental illness as their illness may be a protective factor (Engel and Silver, 2001; Novak and Engel, 2005) decreasing the likelihood of arrest and formal criminal justice response.

Most police work is low-visibility, occurring in settings

where officers are not monitored by any external authority. In this context, discretion is not restricted to one decision – to arrest or not – but instead at a series of decision points— 1) when to stop a suspect, 2) how to approach the suspect, 3) when to use force and finally 4) whether formal sanctions such as arrest are necessary (Walker, 1993; Walker and Katz, 2005).

Officers rely on their knowledge, training and available information to navigate citizen encounters (Walker, 1993). While extant research explores officers' use of training and cues in making the arrest decision, only a few studies explore the factors that shape officers responses to people with mental illness (see Engel and Silver, 2001; Finn and Stalans, 1997; Finn and Stalans, 2002; Morabito, 2007; Ruiz and Miller, 2004). Evidence suggests that the considerations affecting outcomes include community factors such as the availability and accessibility of mental health services, situational factors such as the seriousness of the crime and individual factors like the officer's knowledge and previous interactions with the citizen.

William Muir's (1977) seminal work, *Police: Streetcorner Politicians*, provides a basis from which to explore officer beliefs about people with mental illness. Muir observed police officers in the fictionalized "Laconia" Police Department to learn more about their characteristics and working styles. Based on these experiences and Weber's (1957) professional political model, he posits that police work involves making judgments in the present as a way to predict future events and consequently how to interact with the community. These judgments are based on external cues but also on individual officers' beliefs about the citizens they police and the human condition.

Muir identifies a four-fold taxonomy to describe the types of police officers based on the constructs of passion and perspective. Passion refers to an officer's comfort with the coercive nature of policing. According to Muir, officers who use coercion in a principled manner -- as needed and judiciously -- and simultaneously enjoy their jobs are considered to have the most passion. Perspective is best understood as the understanding of human conduct. It is denoted by two contrasting outlooks on the human condition and Muir contends that all officers eventually move toward one or the other. Based on their beliefs about the human condition, officers have either a cynical or tragic perspective of human behavior. Although this framework was originally developed to help police departments anticipate problems among officers, it may prove helpful in understanding police interactions with people with mental illness.

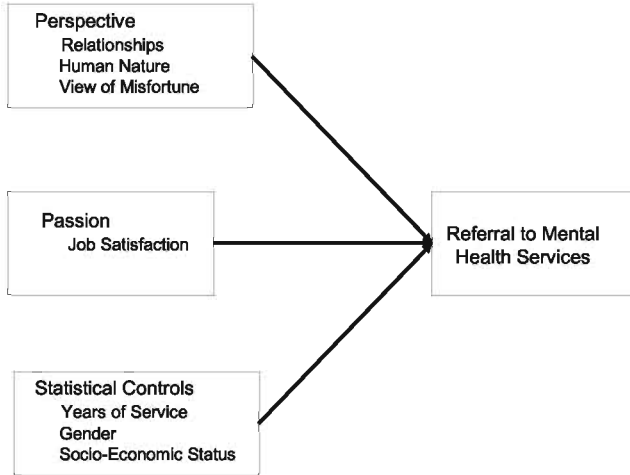
According to Muir's taxonomy, we can extrapolate three sets of beliefs about human nature that define where an officer falls on the cynical - tragic continuum. These sets of beliefs provide insight into how an officer will make judgments during encounters with citizens, including the decision to provide help to vulnerable populations. The first set of beliefs focuses on feelings about the importance of relationships and can provide insight into the officer's perceptions of his/her place in the police organization and the community. Officers with a cynical viewpoint are individualistic, meaning that they dismiss the importance of relationships, do not form attachments, and therefore may not relate to fellow officers or the citizens whom they police. These officers are unlikely to believe that their fellow police officers, including their supervisors, or citizens would be willing to come to their aid if needed. Officers with a tragic viewpoint believe in the necessity of

human interdependence and more easily interact with fellow officers, experiencing better relationships with their supervisors as well as with citizens.

The second set involves beliefs about human nature that officers use in making judgments. Cynical officers see a duality of humankind, meaning that there are morally good individuals and bad individuals, and they place themselves in the "good" category and offenders in the "bad." These officers are likely to see the bad in people and the situations they encounter. Officers that take a more tragic viewpoint see all of mankind sharing common goals and objectives, and thus they may better identify with citizens they encounter.

Finally, the third set of beliefs involves officers' views on misfortune. Officers with a cynical viewpoint believe that people are responsible for their own misfortune whereas officers with a tragic perspective believe that chance is interwoven with free will and accidents and that individuals do not entirely choose their life circumstances. This set of beliefs can erect a wall between police and members of the community, as police often see citizens at their worst. We would, therefore, expect that officers with a cynical viewpoint would have difficulty maintaining positive interactions with the community whereas officers holding a tragic perspective would be more apt to have positive encounters. A model that incorporates these factors is presented in Figure 1.

**Figure 1**  
**Model of Police Beliefs**



### *Mental Illness*

Following deinstitutionalization in the United States during the 1960s, people with mental illness returned to live in the community. Despite plans for community care, few resources were made available for them. As people with mental illness became increasingly caught up in the criminal justice system, some scholars perceived a “criminalization” of the condition (Abramson, 1972; Teplin, 1984) such that mental illness was equated with criminal behavior and therefore required criminal justice intervention. These findings have come under question, most notably by Engel and Silver (2001). They found that when other factors are controlled, police are less likely to arrest people with mental illness as compared to other suspects and that mental illness can serve in some instances as a protective factor. If the criminalization hypothesis is correct and police are disproportionately arresting people with mental illness, statistical analyses

should show that factors traditionally predictive of arrest are less important than the mental status of the citizen encountered. In contrast, other studies argue a third position— that people with mental illness are not arrested at rates different from their friends and neighbors of comparable socioeconomic status (Draine et al., 2002; Engel and Silver, 2001; Novak and Engel, 2005).

The decision to arrest is, however, only one component of police encounters with citizens. Officers make many important decisions about citizens before an encounter actually occurs (Crank, 2004). They predict the outcome of an encounter based on previous experiences in similar situations and their own beliefs (Klinger, 1997), so individual belief systems may be relevant to understanding the police response to the mentally ill. Evidence suggests that police officers particularly dislike encounters with this population because they can be time-consuming and ultimately frustrating because criminal justice and mental health officials release people with mental illness from jails or hospitals soon after admission (c.f., Bittner, 1967).

Most of the research examining officer perspectives on people with mental illness is scenario-based and only a few studies have moved beyond the fictionalized scenarios to explore the general feelings and opinions of police officers concerning mental illness (Finn and Stalans, 2002; Ruiz and Miller, 2004). This research on officer perspectives is limited because it is difficult to measure police interactions with people with mental illness. Both in the United States and cross-nationally, little hard data exist detailing these encounters. If the police do not make an arrest—which is often the outcome following interactions with the mentally ill— no record exists of the encounter

beyond the officer's field notes. The lack of records is even more problematic in the developing world where there are fewer resources for record management systems and general record keeping. As a result, researchers must employ novel methods such as surveys and interviews to learn about these encounters rather than relying on official records.

### *The Trinidad and Tobago Context*

This study seeks to determine the utility of the existing, developed nation-based literature on police belief systems regarding the mentally ill when it is applied to constables and their supervisors in the developing nation of Trinidad and Tobago. Trinidad and Tobago is a two-island nation of approximately 1.3 million people (Pan-American Health Organization, 2005). It gained its independence from the United Kingdom in 1962 and became a republic in 1976. As with police organizations in most developing nations, training and operations resources have been sub-optimal. A 1994 survey of constables and supervisors in the Trinidad and Tobago Police Service (TTPS) posts in the capital city found only 41% agreed or strongly agreed that "The quality of personal equipment (uniform, guns, etc.) provided by the TTPS is good" and only 24% agreed or strongly agreed that "the quality of facilities (charge room, vehicles, etc.) provided by the TTPS is good." Respondents also believed that the basic training for new constables was inadequate.<sup>i</sup>

Although official data about mental health service usage in the nation are lacking, it is known that the majority of care is provided in a hospital setting and most people with mental illness are sent to one hospital because community programs are underdeveloped (Pan American Health

Organization, 2005). There is a great deal of stigma attached to mental illness (Gray, 2002) and no clear line drawn between religion and psychiatry in the minds of some doctors who still believe that mental illness could be caused by spirits (Hutchinson et al., 1999; Maharajh and Parasram, 1999).

Members of the media and politicians have expressed concern that while the exact number of people with mental illness in Trinidad and Tobago has not been determined, a crisis is emerging (Castillo, 2007). For example, the rate of suicide in Trinidad and Tobago is estimated at 12 per 100,000 population—one of the highest recorded rates in the Caribbean (Roxborough, 2000) and an unusual finding for a developing nation but indicative of mental illness and stress (Maharajh and Parasram, 1999).

People with mental illness in Trinidad and elsewhere may not choose to seek treatment for a variety of reasons: 1) a lack of available resources, 2) the apparent inability of Western medicine to “cure” mental illness and 3) the stigma associated with the condition (Hutchinson et al., 1999; Maharajh and Parasram, 1999). The lack of treatment may result in people with mental illness coming to the attention of government service representatives such as the police. In Trinidad, the perception among citizens is that the police are too busy to respond to vulnerable populations such as people with mental illness and the homeless (Small, 2005). There is also the belief that it is not the responsibility of the police to respond to such problems (Hutchinson et al., 1999).

In a study of medical students in Trinidad and Tobago, Hutchinson et al (1999) found the overwhelming majority (88%) indicated that when problems arise with a mentally

ill person, the hospital rather than the police should be called. This preference was made law under the Mental Health Act of 1999 which requires constables who encounter a person with mental illness to contact specially trained mental health nurses. Despite the legislation, the lack of available mental health care resources means that by necessity constables are left to respond to these people when they are in crisis.

## **Methods**

### *Data Collection*

The data for this study were collected from police constables and their immediate supervisors in Trinidad and Tobago in early 2007. The survey sample was created by a two-tier process. First, all police stations (i.e., designated police districts) located within the corporate limits of the capital, Port of Spain, were selected. Only stations in the capital area were selected because rural policing is very different from urban policing and the distance from headquarters was thought by the Force's senior officers to be negatively associated with central command's control and the constables' consistency of performance. Second, every constable and their first-level supervisor assigned for duty during the week the survey was administered were asked to participate which excluded those on vacation, administrative leave, sick leave, etc.<sup>ii</sup>

Prior to fielding the survey, the research team personally met with the commander and his/her staff to discuss its administration. The shift commander, usually an inspector, then distributed the necessary number of questionnaires to the sergeants to deliver to their corporals and constables. The self-administered questionnaire was

anonymous. The officers were instructed to place their completed forms in the plain envelopes provided, to seal them and then drop them into the locked box provided to each station by the researcher. This procedure was adopted to further insure that the respondent's information was protected and the survey truly anonymous.

The questionnaire was a professionally constructed survey booklet with 13 pages of items, the majority of them using Likert scale-type response categories. There were 109 questions and it took respondents an average of 20 minutes to answer them. The instrument asked about demographic characteristics, personal and station equipment, crime trends, training, communications, supervision, discipline, police-citizen relations, job satisfaction, rule breaking, how time is spent, community policing, handling people with mental illness and social relations as well as other topics.

The response rate was below what was expected but still within acceptable social science limits. Of the 411 officers on duty during the week of the administration of the survey in the Port of Spain area, only 234 officers responded to the survey, resulting in a response rate of 56.9%.<sup>iii</sup>

### *Measurement*

To measure the constables' attitudes, the dependent variable of *Referral to Mental Health Services* was created based on the officers' perception about the efficacy of referring citizens with mental health issues to a social service, health or welfare agency. Prior research suggests

that officers are more likely to rely on social services when they perceive them to be effective (Finn and Stalans, 2002; Ruiz and Miller, 2004). The higher the score on the scale, the less likely the officer would refer a mentally ill person encountered in the course of one's duties to a program or hospital. The seven independent variables in the model were measured either by single items or by scales created through additively combining two or more items. The first three variables are grouped under the Perspective section of the model.

*Relationships* measures the officers' attitudes about the importance of forming and maintaining relationships with others. It was created by combining two items which measured the level of communication among the officers and with their supervisors. Evidence suggests that communications between officers and supervisors can have a significant effect on officers' practices (cf., Engel and Worden, 2003). Reliability analysis indicated that the scale achieved a Cronbach's Alpha of .576. The higher the score on the scale, the greater the level of relationships.

The second variable, *Human Nature*, was measured by combining four items into a scale which measured an officer's level of cynicism and was adapted from the work of Regoli and Poole (1978, 1979). A factor analysis determined that the scale was unidimensional as all four items loaded on the same factor which accounted for 76% of the variance. This scale evidenced a Cronbach's Alpha of .600. The higher the score on this variable, the more cynical the respondent is considered to be.

The third variable, *View of Misfortune*, measured the officers' perceptions of the relationship they have with the public. This scale was based on three items that tap the

perception of the officer concerning citizens' respect and their support of the police. Factor analysis showed that all items loaded on one factor which explained 61% of the variance and achieved a Cronbach's Alpha of .678. The higher the scale score, the more likely the officer perceives support from the citizens.

One variable, *Job Satisfaction*, comprises the Passion portion of the model. The scale is composed of four items that measure the level of job satisfaction of the officer. This scale was adapted from the Michigan Organizational Assessment Questionnaire (Cammann et al., 1983). Factor analysis showed that all items loaded on one factor which explained 60% of the variance and produced a Cronbach's Alpha of .778. The higher the scale score, the more satisfied the officer is with his/her job on the force.

The remaining three variables were used as control variables in the model. *Years of Service* was a five-category variable measuring the number of years since the officer graduated from the police training academy. *Gender* was a self-reported, dichotomous variable where 1 equaled male and 0 equaled female.

Finally, *Socio-Economic Status* was defined as the constable's father's occupation and was measured as a categorical variable that ranged from 7 (professional) to 1 (sporadic employment history). The independent variables included in the model, their measurement and hypothesized effect on the dependent variable are summarized in Table 1.

**Table 1**  
**Measurement of Variables and Predicted Direction**

Variable	Measurement	H <sub>1</sub>
<b>Perspective</b>		
Relationships	2 item scale, $\sqrt{\lambda} = .576$	Neg.
Human Nature	4 item scale, 1 factor <sup>a</sup> , 76% <sup>b</sup> , $\sqrt{\lambda} = .600$ <sup>c</sup>	Pos.
View of Misfortune	3 item scale, 1 factor, 61%, $\sqrt{\lambda} = .678$	Pos.
<b>Passion</b>		
Job Satisfaction	4 item scale, 1 Factor, 60% $\sqrt{\lambda} = .778$	Neg.
<b>Controls</b>		
Years of Service	1 item, categorical variable, range from 1 to 5	<sup>d</sup> ?
Gender	1 item, dichotomous variable, male = 1	Pos.
Socio-Economic Status	1 item, categorical variable, range from 1 to 7	Neg.
<b>Dependent Variable</b>		
Referral to Mental Health Services	1 item, Likert Scale, range from 1 to 5	-----

<sup>a</sup> Factor Analysis using Principal Component Analysis

<sup>b</sup> Variance explained by component

<sup>c</sup> Cronbach's Alpha

<sup>d</sup> The direction of the Years of Service was not predicted

## Findings

Ordinary least squares regression (OLS) was employed to determine the effect of the independent variables on *Referral to Mental Health Services*. Preliminary analyses looking at the distributions of each variable and analyzing the regression residuals and collinearity diagnostics indicated that the assumptions of OLS were not violated. Table 2 presents the means and standard deviations of the eight variables in the analysis.

**Table 2**  
**Means and Standard Deviations of Variables in the Model<sup>a</sup>**

Variable	Means	Standard Deviation
<b>Perspective</b>		
Relationships	8.29	1.27
Human Nature	15.62	3.13
View of Misfortune	6.31	1.48
<b>Passion</b>		
Job Satisfaction	13.03	4.01
<b>Controls</b>		
Years of Service	3.24	1.49
Gender	.83	.38
Socio-Economic Status	3.79	1.33
<b>Dependent Variable</b>		
Referral to Mental Health Services	2.27	1.26

<sup>a</sup>  
N = 167

The dependent variable was found to be normally distributed with the mean falling in the middle of its range of 1 to 5. The remaining variables in the model were slightly skewed but the skewness was within acceptable means. The *Human Nature* scale was slightly skewed towards higher levels of cynicism (SK = .590) on the 6- to 20-point scale. The *Years of Service* variable was also somewhat skewed to longer lengths of service with a mean of 3.24 on a 1 to 5 range, but again the skew statistic was well within normal range. The same was true of the *View of Misfortune* variable which had a mean skewed to the high range on a 3- to 12-scale. The sample was composed of a majority of males (83%) and thus the gender variable

was skewed. The same can be said of the *Relationship* variable where the mean of 8.29 fell at the higher end of the 2- to 10-scale.<sup>iv</sup>

The findings of the regression analysis, reported in Table 3, were disappointing as the entire model explained only 10% of the variation in *Referral to Mental Health Services*.<sup>v</sup> In addition, the only explanatory variable in the model which reached significance was *Socio-Economic Status*. That is, officers who come from backgrounds of higher social standing are more likely to view mental health referrals as not wasting the officer's time.

This finding is not entirely surprising because those who come from families with higher social standing are also more educated, may be more aware of the benefit of mental health services and may have better access to services for themselves and their own families. What is surprising is that it was the only variable that reached significance in the model. It obviously also had the greatest effect on *Referral to Mental Health Services* ( $\beta = -.196$ ). Although not statistically significant, the second largest effect and in the predicted direction was for the variable *Human Nature* ( $\beta = .146$ ). The third largest and predicted effect, again not significant, was the variable *View of Misfortune* ( $\beta = -.126$ ).

**Table 3**  
**Regression Estimates, Standard Errors, and t-Statistics for**  
**Predictor Variables Regressed on Referral**  
**to Mental Health Services**

Variable	OLS Estimate	Standard Error	Beta	t-statistic
<b>Perspective</b>				
Relationships	-.035	.079	-.036	-.447
Human Nature	.059	.033	.146	1.811
View of Misfortune	.108	.068	.126	1.593
<b>Passion</b>				
Job Satisfaction	-.034	.027	-.106	-1.226
<b>Controls</b>				
Years of Service	.087	.069	.104	1.279
Gender	-.155	.274	-.047	-.564
Socio-Economic Status	-.187	.072	-.196	<b>-.2601</b>

N = 167

R = .3.18

R<sup>2</sup> = .101

F = 2.554; p. < .05

Bold = p. < .05

Although the three largest coefficients were all in the predicted direction only one reached statistical significance and thus can be presented as a probable effect. It appears that our operationalization of Muir's model does not explain the officers' beliefs concerning the efficacy of referral. Rather, a demographic characteristic of the officer, *Socio-Economic Status*, drives the small amount of variation that the model is explaining.

## Conclusion and Discussion

This research relied upon Muir's conceptualization of officers' world views and attempted to test whether his taxonomy can help explain police officers' perceptions of the efficacy of referring people with mental illness to health services. Muir (1977) theorized that officers' passion and perspective determine their behavior in police-citizen encounters. Based upon his theorizing, a conceptual model was created and tested using survey data collected from police officers in Trinidad and Tobago. The model was tested using ordinary least squares regression. None of hypothesized explanatory variables in the model achieved statistical significance. The only variable to do so was the socio-economic status of the officer, not surprising because persons raised in households of higher socio-economic status may be better informed about mental illness and its treatment.

There are several possible reasons why the model was unable to adequately explain variation in police mental health referrals. First, Muir's model may only hold explanatory power for one police department. Muir did not extend his investigation to other agencies and his findings may be the result of that department's organizational culture rather than general police attitudes. Wilson (1968) and Crank (2004), to name a few scholars, demonstrate that organizational characteristics and organizational cultures vary greatly based upon the structural characteristics of the community in which they operate. It is very possible that the cultures of Muir's department and TTPS are different enough that the model developed in one is not applicable to the other.

Second, it is also possible that his model only applies to

police agencies in the United States where there is long tradition of law enforcement by the rule of equality under the law. Until 1962, Trinidad and Tobago was a colony of the United Kingdom and was policed under the Irish Constabulary model. As Harriott (2000) aptly demonstrates, post-colonial Caribbean nations like Trinidad and Tobago had difficulty in transforming the police from a colonial security force to a law enforcement agency. This ongoing transformation might be confounding the officers' perspective and passion concerning police-citizen encounters. In addition, there are differences in the operation of American police departments in the 1970s and the TTPS today. For example, female officers were not included in Muir's original investigation whereas they are more prominent in today's TTPS. Although the findings indicated that gender did not have a direct effect, it is still reasonable to assume that it might have an indirect effect upon organizational culture.

Third, the lack of explanatory value of the model might also be a product of the state of mental health services in Trinidad and Tobago. Officers may be unwilling to refer people with mental illness for treatment or assistance because past experience has told them that this is a useless endeavor, as minimal services are available even for those most in need. As early as 1967, researchers in the United States noted the difficulties that police in developed countries have in trying to link vulnerable populations with the mental health system (cf., Bittner, 1967). Many mental health services are available only for those in acute crisis, are only open during regular business hours and are not organized to accept referrals from the police. As a result, the beliefs of officers in Trinidad and Tobago about mental health services may be valid descriptors of their

interactions with their own system rather than an indication of their personal refusal to assist people with mental illness. Thus this model may not accurately capture officers' beliefs about mental illness but instead be measuring their attitudes about the accessibility and availability of mental health services in the capital city.

In addition, the unwillingness to refer people with mental illness might be a result of an interaction between the legal requirement to refer those afflicted to mental health services regardless of personal belief and the knowledge that the services referred to in the Parliamentary Act are lacking in the community. Thus, officers may be unsure about their responsibilities and the range of options available to them when interacting with people who are mentally ill.

Police in Trinidad and Tobago, like police in the United States, are struggling with how to respond to calls for service involving people with mental illness. In both nations, lack of appropriate services is a systemic problem. People with mental illness may be in crisis after service providers have closed their doors, leaving police to respond to problems they are poorly prepared to handle. As such, police referral and access are only parts of the problem. Without linkages among personnel within the criminal justice and mental health systems, even having readily available services may not be enough. If police personnel are not made aware of how to navigate the mental health system, they must rely on their own criminal justice system when problems are severe enough to warrant action. While training is important, it must also be coupled with building linkages across the organizations.

Finally, the model's inability to account for variation in referrals might be a function of the operationalization of Muir's basic constructs. Muir's constructs of passion and perspective are challenging to operationalize even under the best of conditions. The variables used in this study to measure passion and the three elements of perspective are admittedly crude proxies of Muir's constructs. As an example, satisfaction with the job was employed to measure an officer's passion. This measure tapped only one of the myriad of dimensions of this construct. Thus, the failure of this analysis to explain referral could very well be based upon the invalid measures chosen to operationalize his constructs.

The failure of this model to explain police officer behavior should not dissuade researchers from investigating this very important issue. As social and economic stressors increase in magnitude across the Caribbean and other developing regions of the world, more and more individuals will experience various forms of mental illness. Since services to this population are unlikely to increase in these hard economic times, the police will be called upon more frequently to be the first and only responders to those afflicted. Future research could profitably investigate not only officers' attitudes towards persons with mental illnesses but also access to viable services, organizational structure and culture, and the relationship between police and mental health services personnel.

This study is part of a larger research project which includes very similar surveys in two other developing Caribbean nations. Hopefully, with more variation in levels of mental health services, police organizational

policies and differences in national culture, analyses on the complete data set will advance our understanding of officers' encounters with people with mental illness.

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## ENDNOTES

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<sup>i</sup> In responding to the statement "The recruit training course at St. James Barracks adequately prepares the probationary officer to deal with problems on the street," only 27% of the constables sampled agreed or strongly agreed with the statement while 63% disagreed or strongly disagreed with the statement. This 1994 study was conducted by the second author (unpublished data). In the current study fielded in early 2007, those responding to a similar statement "The quality of personal equipment (uniform, guns, etc.) provided by the TTPS is good," only 21% of the constables sampled agreed or strongly agreed while 73% disagreed or strongly disagreed with the statement. Likewise, in responding to the statement "the quality of facilities (charge room, vehicles, etc.) provided by the TTPS is good," only 11% of the constables sampled agreed or strongly agreed while 82% disagreed or strongly disagreed with the statement. Again, in the current study those responding to the statement "The recruit training course at St. James Barracks adequately prepares the probationary officer to deal with problems on the street," only 25% of the constables sampled agreed or strongly agreed while 70.3% disagreed or strongly disagreed with the statement. It appears that the perceived conditions within the TTPS have gotten worse over the past 13 years.

<sup>ii</sup> This procedure creates a representative sample of officers if one assumes that vacation, administrative and sick leaves are random. We make this assumption and treat the sample as representative. Thus, we employ inferential statistical tests.

<sup>iii</sup> This study is a continuation of a study first fielded in 1994. In the original survey, the researcher had just completed 250 hours of observation in the TTPS posts located in the Port of Spain region and was known to the constables as a former police officer and as a serious researcher. In that administration, the survey received a response rate of 80%. In the 2007 survey, only a few officers remembered the researcher from his earlier work so more officers were suspicious of the intent of the survey. It is interesting to note that in the stations where several of the constables knew the researcher from the prior study, the response rate was over 80%. In addition, during the time of the original survey, little police research was being conducted in Trinidad. During the time of this administration, the constables had recently participated in two government-sponsored surveys that might have created survey fatigue. Due to the analysis program's use of list-wise case deletion, only 167 of the 234 respondents' information was used in the analyses. Although each variable and scale had missing data, the one variable that accounted for the most missing data was father's occupation.

<sup>iv</sup> The standard value used to determine if the skewness of a variable is so great that it will confound OLS regression is greater than 1.00. When greater than this level, data correction measures should be undertaken prior to using OLS. Only *Gender* evidenced a skew of greater than one. However, correction of a dichotomous.

<sup>v</sup>  $R^2$  was employed rather than  $R^2_{adj}$  because there were only 7 regressors and a sample of 167 respondents.

## **YOUTH PERCEPTIONS OF THE POLICE IN TRINIDAD AND TOBAGO\***

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This study details young adult's perceptions of the police in Trinidad and Tobago. Data come from the 2006 Trinidad and Tobago Youth Survey (N=2,376), which examined attitudes toward the police, self-reported delinquency and gang involvement, neighborhood and family characteristics, and other attitudes and behaviors. We first explore young people's views of the police across a variety of domains, and then examine the correlates of youth perceptions of police fairness, responsiveness, use of force, and overall satisfaction using multivariate analyses. We compare and contrast our findings with studies conducted with adolescents in the United States and other nations, and discuss the implications of the results for policing in Trinidad and Tobago.

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## Introduction

Effectively policing a democracy requires the cooperation and involvement of its citizens. In the absence of citizen cooperation, policing either devolves into the oppressive style often seen in dictatorships or the police retreat from interactions with the populace and become ineffective agents of social control. Two streams of recent criminal justice scholarship support the view that cooperation between the police and the public is crucial for effective policing in democracies.

The first source of support comes from the scholars of legal legitimacy and public respect for the law, criminal justice, and the police. Tyler and his colleagues (Sunshine & Tyler, 2003; Tyler & Huo, 2002; Tyler, 2006) have found that people are more likely to comply with the law and to assist police if they view the police and the law as legitimate. Legitimacy, according to these scholars, is rooted in procedural justice. To the extent that police officers treat citizens with respect and handle matters in a fair manner, they will be viewed as legitimate. A closely related stream of scholarship has investigated the *defiance hypothesis*, which posits that citizens who experience interactions with the criminal justice system which they view as unfair are more likely to reoffend in the future (Paternoster, Brame, Bachman, & Sherman, 1997; Sherman, 1993).

The second source of support for the importance of public opinion concerning the criminal justice system comes from a loose grouping of scholarship called "citizens as coproducers of police productivity." This co-producer viewpoint is based on observations that police in democracies tend to be reactive and rely heavily upon

information and cooperation from citizens in order to be effective at crime control (Skogan & Antunes, 1979). In the United States, for example, the majority (between 60 and 87 percent) of interactions between police officers and citizens are initiated by citizens (Reiss, 1971; Parks, Mastrofski, Dejong, & Gray 1999). Police effectiveness is hampered when citizens do not report crime. For instance, approximately 60 percent of violent crime victims in the United States do not report their victimization to the police (Pastore & Maguire, 2003, p. 209). It is difficult for the police to investigate crimes which they know nothing about.

Given the importance of citizen involvement for effective policing, scholars have long investigated public perceptions of the police. The majority of the academic research on this topic has examined the views of adults, and much of it has been conducted in Western democracies where people generally hold favorable views of the police and perceive them to be effective. It is important that research on citizen attitudes toward the police is expanded to include different groups and numerous contexts, so that theories and findings can be compared cross-culturally.

The present study adds to our body of knowledge in two ways. First, we examine youth attitudes toward the police. Investigating the views of young adults is a necessary step for developing a more comprehensive understanding of how the public views the police. Given their high offending rates, young people are likely to have contact

with police, and the attitudes they form in adolescence will have a lifelong impact. Second, the data for this study come from Trinidad and Tobago, a developing nation that has faced an epidemic increase in violent crime in recent years, and where the police are often viewed as corrupt, aggressive, and ineffective (MORI International, 2003; 2005). The results of this research have important implications for the future of police-citizen relationships in Trinidad and Tobago.

## **Background**

### *Youth Attitudes Toward The Police*

Although research has investigated young people's attitudes about the police in the United States since the pioneering work of W.E.B. DuBois in 1904 (Hurst & Frank, 2000), the literature on youth attitudes has expanded greatly since the 1960s. Some of this research examines attitudes toward legal institutions or legal authority (combining police and the courts together) (e.g. Clark & Wenninger, 1964), while other studies investigate attitudes toward the police more specifically. The latter set of research studies is further divided into two groups: those which focus on general or diffuse attitudes toward police (such as overall satisfaction with, or support for, the police), often measured with scales that combine numerous items tapping perceptions of police behaviors, activities, and effectiveness (e.g., Griffiths & Winfree, 1982; Hurst, McDermott, & Thomas, 2005; Taylor et al., 2001), and those that focus on specific topics, such as procedural justice and legitimacy (e.g. Fagan & Tyler, 2005; Hinds, 2007; Piquero et al., 2005), perceived interactions with police (Brandt & Marcus, 2000), or trust in police (Lacks & Gordon, 2005).

Overall, studies find that young people report less favorable attitudes towards the police than do adults. Indeed, prior studies in the United States indicate that about 40 percent of youth feel favorably about the police (Taylor et al., 2001), whereas adult favorable approval rates run between 60 and 80 percent (see Hurst and Frank (2000) for a review). In order to understand the formation of youth attitudes toward the police, researchers have generally investigated three classes of variables: individual level attributes; individual level experiences; and community and contextual level variables.

We briefly discuss each of these groups of independent variables below, although we caution the reader that some analyses do not subject their variables to multivariate analysis and there are issues with the differential operationalization of the dependent variables, as noted above.

### *Individual Level Attributes*

Individual level variables include attributes of the adolescents themselves, such as race/ethnicity, gender, age, education, and income level. Research on attitudes towards the police in the United States demonstrates that race is one of the strongest predictors of young people's views and that the dimensionality of police attitudes also varies by the racial/ethnic background of youth (Sullivan, Dunham, & Alpert, 1987).

Studies show that black youth report the least favorable attitudes towards the police (Fine, Freudenberg, Payne, Perkins, Smith, & Wanzer, 2003; Geistman & Smith, 2007; Hurst & Frank, 2000; Leiber, Nalla, & Farnworth, 1998; Rusinko, Johnson, & Hornung, 1978; Sharp & Atherton, 2007; Taylor, Turner, Esbensen, & Winfree, 2001), while white youth report the most favorable attitudes towards the police (Fine et al., 2003). This pattern also holds true for black girls, as compared to white girls (Hurst, McDermott, & Thomas, 2005). Latinos, when studied, generally report attitudes towards the police between those of blacks and whites (Taylor et al., 2001).

Similarly, a study comparing white and Native American students found that Native American youth had less favorable attitudes toward the police (Cockerham & Forslund, 1975). Taylor et al. (2001) found that the attitudes of Asian youth are similar to those of white youth, while the attitudes of Native American young people mirror those of Hispanic youth. These findings concerning youth and ethnicity are generally replicated with adults in the United States (Hurst & Frank, 2000; Webb & Marshall, 1995), although some studies find that race differences disappear when other variables are held constant (such as Hurst, Frank, & Browning, 2000).

Researchers have also studied the influence of gender and age on adolescent attitudes towards the police. Most studies either find no difference between male and female youth (Clark & Weninger, 1964; Cockerham & Forslund, 1975; Fine et al., 2003; Geistman & Smith, 2007; Winfree & Griffiths, 1977), or find that girls rate the police more favorably than do boys (Brandt & Marcus, 2000; Fine et al., 2003; Hurst et al., 2000; Taylor et al., 2001). Hurst and

Frank (2000) however, found that female high school students reported less favorable attitudes towards the police even when other variables were controlled.

In addition to gender, Hurst et al. (2000) and Hurst et al. (2005) found that older adolescents, and older girls, rate the police more favorably than do younger adolescents and younger girls, respectively. Smith and Hawkins (1973) found that younger whites held more negative views of the police than did older whites, while age did not have a significant effect on the police attitudes of blacks. Finally, although income and education have been shown to predict adult attitudes toward the police, studies of juveniles have not focused on these variables.

#### *Individual Level Experiences*

Contact with police, victimization, and delinquency also influence adolescents' attitudes toward the police. Researchers have investigated how young people's interactions with police influence their attitudes towards the police. Griffiths and Winfree (1982) found that contact with the police (both positive and negative) was among the most important variables predicting attitudes toward the police among American and Canadian youth. Generally, juveniles reporting that they experienced a positive interaction with a police officer reported more favorable attitudes (Hurst & Frank, 2000; Hurst et al., 2005; Rusinko, Johnson, & Hornung, 1978). Conversely, youth who experienced a negative contact with a police officer (such as being arrested or detained), and youth reporting

that they experienced a negative interaction with a police officer expressed negative attitudes towards the police (Brandt & Marcus, 2000; Geistman & Smith, 2007; Hurst & Frank, 2000; Hurst et al., 2005; Leiber et al., 1998; Rusinko et al., 1978), although one study found that contact had no effect (Giordano, 1976). Personal and vicarious experiences of racial discrimination, harassment, and misconduct may be one reason that minority young people in the United States and England have more negative attitudes toward police than other groups (Brunson, 2007; Brunson & Miller, 2006; Fine et al., 2003; Sharp & Atherton, 2007).

Indeed, studies examining police legitimacy find that the quality of the interaction between the police and young people is important. Perceived police legitimacy is linked to procedural justice: perceived legitimacy increases when young people believe the police treat them with respect and fairness (Fagan & Tyler, 2005; Hinds, 2007; Piquero et al., 2005). Similarly, Guarino-Ghezzi and Carr (1996) argued that negative attitudes toward the police among youth in Boston were rooted in the belief that the police make decisions and enforce the law inconsistently and unfairly. Jones-Brown (2000) also noted that the quality of the interaction between police and young black men is an important component of their attitudes toward police.

Young people appear to develop attitudes vicariously about the police in the absence of direct contact, and these vicarious experiences influence their views of the police. For instance, juveniles reporting that they heard about improper police behavior experienced by someone else were less likely to hold favorable opinions about the police (Hurst et al., 2000; Hurst & Frank, 2000). In a study of girls, vicarious exposure to police misconduct was the

strongest predictor of attitudes toward police in a multivariate analysis (Hurst et al., 2005). Victimization has also been shown to influence the attitudes of juveniles toward the police. Studies show that young people who had been victimized reported less favorable opinions of the police (Geistman & Smith, 2007; Hurst & Frank, 2000; Hurst et al., 2000), though one study on young girls found no significant effect (Hurst et al., 2005).

In addition to contact and victimization, studies indicate that delinquency is also an important predictor of youth attitudes toward the police. Past research shows that young people who are involved in delinquency or who express delinquent attitudes hold less favorable attitudes toward the police, specifically (Cox & Falkenberg, 1987; Leiber, Nalla, & Farnworth, 1998; Levy, 2001; Rusinko et al., 1978), and toward legal institutions more generally (Clark & Wenninger, 1964). Moreover, Geistman and Smith (2007) found that acceptance of drugs and personal drug use were the strongest predictors of youth attitudes toward police in their multivariate analyses.

#### *Community/Contextual Factors*

Community and contextual factors, such as the socioeconomic status of the community, neighborhood crime rates, or community demographics, may also affect young people's attitudes toward the police. Janeksela (1999) cited two unpublished studies that found youth from lower socioeconomic backgrounds had more negative views of the police than young people from

higher socioeconomic strata. Hurst and Frank (2000) found that youth who thought their community crime rate was greater than other communities rated the police less favorably, as did youth in urban (as opposed to rural) schools. In contrast, Griffiths and Winfree (1982) found that neither socioeconomic status nor urban residence had much of an influence on the police attitudes of American and Canadian youth. Finally, in an exploratory study of youth living in high crime, low income communities, Lacks and Gordon (2005) found that young black boys and girls reported greater respect for and confidence in the police than has been found in studies of adults in similar neighborhoods (a finding that is inconsistent with the past studies on age and police attitudes noted above).

As this review of the research demonstrates, the body of knowledge about youth attitudes toward the police is small, but growing. However, much of the research is limited to examining the views of youth in Western, developed countries where public attitudes toward the police are generally positive. This study extends the literature by examining the views of young people in Trinidad and Tobago, a developing nation where the public generally lacks confidence in the police. Given the dearth of previous research in this setting, the present research is primarily descriptive and exploratory.

### **Research Setting and Methods**

The Republic of Trinidad and Tobago is a two-island nation located in the eastern Caribbean, about seven miles off the northeast coast of Venezuela. Although Trinidad and Tobago obtained its independence from Great Britain in 1962, it remains a member of the Commonwealth of

Nations (a voluntary association consisting largely of former British colonies) and the British influence is evident in many sectors. The country's official language is English and its legal system is modeled after English common law.

As Harriott (2000) notes, many of the constabularies in the ex-colonial nations in the Caribbean have struggled to maintain the confidence of the public, and Trinidad and Tobago is no exception. Indeed, Trinidad and Tobago has experienced an epidemic increase in violent crime since 2000, and the Trinidad and Tobago Police Service (TTPS) has faced serious public image problems as a result. Surveys of the general public reveal that the TTPS is viewed as ineffective, corrupt, and brutal (MORI International 2003; 2005).

### *Survey Questionnaire*

Data for this study come from the 2006 Trinidad and Tobago Youth Survey (TTYYS), which was modeled after the 2006 Arizona Youth Survey (AYS) and designed to collect reliable and valid information on substance abuse, anti-social behavior, and risk and protective factors among youth.<sup>1</sup> Although Trinidad and Tobago is an English-

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<sup>1</sup> Many of the questions contained within the TTYYS were originally developed by the Social Development Research Group at the University of Washington in the United States. The questions were later refined through the Diffusion Consortium Project, which involved seven states, the National Institute of Drug Abuse (NIDA), the Safe and Drug Free Schools Program, the Office of Juvenile Justice and Delinquency Prevention, and the Center for Substance Abuse Prevention. The survey is currently being used as the core instrument for the U.S. *Monitoring the Future* survey (Arizona Criminal Justice Commission, 2006).

speaking nation, important differences in language and culture were taken into account during instrument development; officials from Trinidad and Tobago's Ministry of Education assisted in modifying the AYS to reflect local language and culture. The final survey instrument contained 222 survey items designed to measure sixteen risk factors and thirteen protective factors falling within four domains: community, school, family, and peer/individual. The instrument also included a series of questions measuring attitudes toward the police, as well as questions tapping alcohol use, drug use (including marijuana and cocaine), and delinquent behavior (including gang involvement, gun use, gambling, theft, and fighting).

### *Survey Participants*

The target population for the Trinidad and Tobago Youth Survey was defined as all public secondary students who attended one of the nation's five largest school districts and were enrolled in forms three and five (roughly the equivalent of the eighth and tenth grades in the United States). According to the Ministry of Education, 67 schools met the criteria, but 19 were ineligible because of a concurrent education-based research project being administered by a local university. Of the 48 eligible schools, 22 (46%) agreed to participate in this research project.<sup>2</sup>

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<sup>2</sup> Thus, the sample covers 62.5 percent (5 of 8) of the public school districts and 23.7 percent (22 of 93) of the public secondary schools in Trinidad and Tobago. Surveys were collected from schools in the following districts: Port-of-Spain and the surrounding environs (10 of 15 schools), St. George East (3 of 15), Northeastern Division (2 of 10), Caroni (5 of 13), and Victoria (2 of 14). The school-level response rate was fairly typical by international standards, and was moderately high compared with other studies conducted in developing nations (Bulmer, 1993; Gfroere et al., 1997; Kellerman et al., 2003; Prais, 2003; Wild et al., 2003).

The TTYS was administered to 2,552 students during their homeroom period between March and June 2006.<sup>3</sup> The survey took approximately 30-50 minutes for students to complete. A number of the 2,552 surveys were excluded from the following analyses because of missing data or concerns about the validity of self-report data. At the end of the survey, all respondents were asked: "How honest were you in filling out this survey?" If the respondent did not answer the question or indicated "I was not honest at all" his or her responses were not included in the analyses reported here. Similarly, if a respondent admitted to using the non-existent drug phenoxydine, or failed to answer a single question on the instrument, his or her survey was also excluded. After removing these cases, 2,376 surveys remained in the dataset and were used for the present study.

A profile of the 2,376 students is shown in Table 1. The students ranged in age from 13 to 18 with a mean age of 15.35. Nearly 60 percent were female. About 41 percent of

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<sup>3</sup> One limitation of this study is that only about 36 percent of eligible students took the survey (those interested in obtaining information on the number of respondents by school can contact the third author). As a comparison, similar school based studies in the United States had response rates of 40-70 percent (Beyers *et al.*, 2004). Determining the accuracy of the response rate is very difficult, however. Indeed, several inquiries were made about enrollment and absenteeism in participating schools for the purposes of calculating a response rate. Several officials in the Ministry of Education stated that such data were not routinely collected and that the enrollment data that were available were not accurate. School officials estimated that 5-10 percent of students are absent from school on any given day. The Education Ministry officials explained that those who skip school most often are also those who are involved in the most delinquency. Thus, the findings in this study only reflect the perspectives of those students who were present in their homeroom on the day the survey was administered, and may not be generalizable to all youth in Trinidad and Tobago.

the respondents were African and 23.7 percent were East Indian (compared with national population figures of 37.5 percent African and 40 percent East Indian).<sup>4</sup> English was the primary language spoken at home for 94.2 percent of the respondents.

### *Dependent Variables and Coding*

Eleven questions in the TTYS measured attitudes toward the police, and are listed in Table 2. Response options for these items ranged from “strongly disagree” to “strongly agree” on a four-point scale. Four of the items, measuring perceptions of fairness, responsiveness, use of force, and overall satisfaction, were selected for more detailed multivariate analysis (and are marked as such in Table 2).

Two of these items were chosen because they best represent the concepts that are usually examined in police attitudes research: procedural justice (fairness) and general support for the police (satisfaction). The remaining two items were selected because they represent two issues that are currently very salient in Trinidad and Tobago: responsiveness and use of force. For the multivariate analyses, the response options for these variables were collapsed into “agree” (coded 1) and “disagree” (coded 0) categories and analyzed using logistic regression analysis.

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<sup>4</sup> We lack sufficient data to state with confidence why East Indian students are under-represented in our sample. Local authorities explained to us that the East Indian population is wealthier on average than the African population and therefore more likely to send their children to private schools (which were not included in the sample).

**Table 1**  
**Descriptive Statistics**

	Minimum	Maximum	Mean	SD	Percentage%	Alpha
Fairness DV	0	1			36.1 %	
Responsiveness DV	0	1			43.0 %	
Use of force DV	0	1			55.2 %	
Satisfaction DV	0	1			36.8 %	
Age	10	19	15.35	1.09		
Male	0	1			40.3 %	
African	0	1			41.3 %	
East Indian	0	1			23.7 %	
Afro/Indian	0	1			14.9 %	
Other	0	1			20.1 %	
Alcohol use in past 30 days	0	1			34.3 %	
Marijuana use in past 30 days	0	1			4.6%	
Gang involvement	0	1			19.7 %	
Antisocial behavior index	0	7	.17	.47		.79
Attitudes favorable toward antisocial behavior index	1	4	1.41	.50		.75
Academic failure	1	5	2.11	.57		
Low commitment to school	1	5	1.38	.74		
Parental attitudes favorable toward drug use	1	4	1.08	.36		
Parental attitudes favorable toward alcohol	1	4	1.55	.87		
Parental attitudes favorable toward anti-social behavior index	1	4	1.38	.52		.66

**Table 1 (continued)**

Antisocial peers index	0	4	.742	.59		.67
Drug using peers	0	4	.65	1.26		
Community disorganization index	1	4	1.94	.77		.75

### *Independent Variables and Coding*

Several independent variables were included in the regression models. As suggested by previous research, the models included measures of academic failure, low commitment to school, and attitudes favorable toward antisocial behavior, as well as recent alcohol use, recent marijuana use, antisocial behavior, and gang-involvement. Given the important influence of peers and parents on youth, the models also included measures tapping contact with antisocial peers and peers who use drugs, as well as parental attitudes favorable toward drug use, alcohol use, and antisocial behavior. Basic demographic and background variables were also included. Descriptive statistics for these variables are shown in Table 1 (based on the coding described below); the specific items and original response options are shown in the Appendix.

Academic failure was measured by asking respondents about their grades the previous year. Response options ranged from “mostly 80-100” (coded 1) to “mostly 29 and below” (coded 5). Low commitment to school was measured with the question: How important do you think the things you are learning in school are going to be for your later life? Scores on this variable ranged from “very important” (coded 1) to “not at all important” (coded 5). Dummy variables measured recent alcohol and marijuana

use. Respondents who reported drinking alcohol in the past 30 days were coded 1, those who did not drink alcohol recently were coded 0. Similarly, those who reported marijuana use in the past 30 days were coded 1, while those who did not use the drug recently were coded 0. Gang involvement was also a dummy variable, coded 1 if the respondent reported that s/he was currently in a gang or had been a gang member in the past, and 0 if the respondent had never been in a gang.

The attitudes favorable toward antisocial behavior index was created by averaging the responses to six questions tapping views about the acceptability of behaviors like taking a gun to school, picking a fight with someone, or stealing. Scores on this index ranged from 1 to 4, with higher values indicating more favorable attitudes toward antisocial behavior. The alpha for the index was .75. The antisocial behavior index was created by averaging responses to eight questions which examined the student's actual behavior in the past twelve months (e.g. carrying a handgun, being suspended from school, being arrested, etc). This index ranged from 0 to 7, with higher scores indicating more antisocial behavior. The alpha for the antisocial behavior index was .79.

Peer drug use was measured with the question: Think of your four best friends. In the past year, how many of your best friends have used marijuana? Response options ranged from 0 to 4. The antisocial peers index was created by averaging responses to six items tapping the behavior of the respondent's best friends in the last year. The index

ranged from 0 to 4, with higher scores indicating more antisocial behavior. The alpha for this index was .67.

Parental attitudes toward drug and alcohol use were measured with the following items, respectively: How wrong do your parents feel it would be for you to smoke marijuana? and How wrong do your parents feel it would be for you to drink beer, wine or hard liquor regularly? Response options for each item ranged from "very wrong" (coded 1) to "not wrong at all" (coded 4). The parental attitudes favorable to antisocial behavior index was calculated by averaging responses to three items measuring perceived parental approval for the respondent stealing, drawing graffiti on buildings, and picking a fight with someone. The index ranged from 1 to 4, with higher scores indicating parental attitudes favorable toward antisocial behavior. The alpha for this index was .66.

Basic demographic and background variables included gender (male=1, female=0), age (in years), race/ethnicity (dummy variables for African, Indian (omitted), Afro-Indian and Other Race) and community disorganization. The community disorganization index was calculated by averaging the responses to four questions about the presence of physical and social disorder in the respondent's neighborhood (specifically, crime and/or drug selling, fighting, empty/abandoned buildings, and lots of graffiti). The community disorganization index ranged from 1 to 4, with higher scores indicating more disorganization. The alpha for the index was .75.

## Findings

### *Youth Perceptions of the Police*

The distribution of responses to the eleven policing items is shown in Table 2. As these results demonstrate, young people in Trinidad and Tobago were almost evenly divided when asked about the service quality of the TTPS. For example, just under half of respondents (43.2%) believed that the quality of services provided by the police is consistent and predictable (combining the strongly and somewhat agree categories). A slightly larger percentage (54.9%) agreed that the police are easy to contact. However, only one third of respondents (36.1%) believed that it was easy to get the police to come to them when needed. Similarly, only 43.0 percent of young people reported that the TTPS is responsive to the needs of citizens.

Several questions measured perceptions of police treatment and procedural justice. Only 34.6 percent of the youth in Trinidad and Tobago agreed that the police address citizens in a respectful manner and appropriate tone, though slightly more (42.4%) reported that the police show care and concern for the citizens they deal with. However, only one in three young people (36.1%) believe the police are fair and neutral when dealing with citizens. The pattern continues when respondents were asked about police misconduct. Only 39.1 percent of respondents agreed that the police know how to carry out their duties properly, and over half (56.8%) believe the police accept

payments or favors from known criminals. About the same percentage of young people (55.2%) report that the police use too much force with citizens.

In sum, it is clear that young people in Trinidad have a relatively negative view of the police, regardless of whether they are asked about service quality, fairness of treatment, or police misconduct. Considering all the results above, it is perhaps not surprising that only 36.8 percent of respondents agreed that they are satisfied with the services provided by the police. Indeed, most (41.5%) disagreed strongly on this issue. In order to examine the factors that influence youth perceptions of the police, we now turn to multivariate analyses of four of the police items – fairness, responsiveness, use of force, and overall satisfaction.

### *Multivariate Results*

The results of the multivariate analyses appear in [Table 3](#). Four logistic regression models were calculated; one for each of the dependent variables (fairness, responsiveness, use of force, and overall satisfaction), and each model appears as a column in [Table 3](#). The same independent variables were used in each of the four models, and both logistic regression coefficients and odds ratios ( $e^b$ ) are shown. To ease the interpretation of [Table 3](#), statistically significant variables are marked with an asterisk, and our review below focuses on the significant independent variables.<sup>5</sup>

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<sup>5</sup> The total Ns for the models in [Table 3](#) are lower than the Ns reported for the dependent variables in [Table 2](#) because listwise deletion of missing data was used for the logistic regression analyses. This strategy produced better fitting and more stable models than other strategies for addressing missing data.

**Table 2**  
**Youth Perceptions of the Police in Trinidad and Tobago**

	<b>Percentage Distribution</b>
<b>The quality of service provided by the TTPS is consistent and predictable.</b>	
Strongly disagree	28.7 %
Somewhat disagree	28.1
Somewhat agree	29.0
Strongly agree	14.2
(N)	(2162)
<b>It's easy to contact the police when I need them</b>	
Strongly disagree	25.6
Somewhat disagree	19.5
Somewhat agree	29.9
Strongly agree	25.0
(N)	(2310)
<b>It's easy to get the police to come to me when I need them</b>	
Strongly disagree	37.9
Somewhat disagree	26.0
Somewhat agree	22.8
Strongly agree	13.3
(N)	(2270)
<b>TTPS constables know how to carry out their official duties properly.</b>	
Strongly disagree	30.9
Somewhat disagree	30.0
Somewhat agree	26.7
Strongly agree	12.4
(N)	(2211)
<b>The TTPS is responsive to the needs of citizens.*</b>	
Strongly disagree	29.0 %
Somewhat disagree	27.9
Somewhat agree	26.7
Strongly agree	16.3
(N)	(2176)

\* Dependent variable in the multivariate analyses.

Table 2 (continued)

	<b>Percentage Distribution</b>
<b>TTPS constables are neutral and fair when dealing with citizens.*</b>	
Strongly disagree	34.2
Somewhat disagree	29.7
Somewhat agree	24.3
Strongly agree	11.8
(N)	(2205)
<b>TTPS constables address citizens in a respectful manner and appropriate tone.</b>	
Strongly disagree	36.9
Somewhat disagree	28.4
Somewhat agree	23.3
Strongly agree	11.3
(N)	(2190)
<b>TTPS constables show care and concern for the welfare of the citizens they deal with on the job.</b>	
Strongly disagree	30.3
Somewhat disagree	27.2
Somewhat agree	29.4
Strongly agree	13.0
(N)	(2169)
<b>TTPS constables use too much force with citizens.*</b>	
Strongly disagree	22.0
Somewhat disagree	22.8
Somewhat agree	29.4
Strongly agree	25.8
(N)	(2176)
<b>TTPS constables accept payments or favors from known criminals.</b>	
Strongly disagree	24.7
Somewhat disagree	18.5
Somewhat agree	26.5
Strongly agree	30.3
(N)	(2158)
<b>Overall, I am satisfied with the services provided by the TTPS.*</b>	
Strongly disagree	41.5
Somewhat disagree	21.7
Somewhat agree	22.5
Strongly agree	14.3
(N)	(2226)

\* Dependent variable in the multivariate analyses.

Six independent variables (male, African ethnicity, alcohol use in past 30 days, gang involvement, low school commitment and community disorganization) are all significantly related to perceptions of police fairness in the first multivariate model in Table 3. Most of these variables affect perceptions of police fairness as expected. Youth who have used alcohol recently, who have low school commitment, who are involved in gangs, and who are African all perceive the police as less fair. Similarly, youth from communities that are more disorganized perceive the police as less fair than their counterparts in less disorganized communities. The results also show that boys are more likely than girls to perceive the police as fair.

Five independent variables significantly affect perceptions of police responsiveness (Model 2 in Table 3). Older youth, those who have recently used alcohol, youth with a low commitment to school, and those from disorganized communities all rated the police as being less responsive to the needs of citizens. Oddly, adolescents who are facing academic failure rate the police as more responsive to citizen's needs.

Model 3 in Table 3 shows the results for the use of force logistic regression. Three variables predict the perception that the police use too much force with citizens. Youth who have used alcohol in the past 30 days are more likely to report that the police use too much force than young people who have not used alcohol recently. Contrary to expectations, young people who are involved in gangs and

**Table 3**  
**Logistic Regression Analysis of Youth Perceptions**  
**of the Police in Trinidad and Tobago**

	Fairness			Responsiveness			Use of Force			Satisfaction		
	B	S.E.	OR	B	S.E.	OR	B	S.E.	OR	B	S.E.	OR
Age	-0.091	0.052	0.913	-0.119*	0.050	0.888	-0.011	0.049	0.989	-0.078	0.051	0.925
Male	0.264**	0.108	1.328	0.033	0.104	1.033	-0.008	0.103	0.992	0.254*	0.107	1.290
East Indian (Reference category)												
African	-0.387**	0.135	0.679	-0.005	0.132	0.995	0.152	0.131	1.164	-0.093	0.134	0.911
Afro-Indian	-0.257	0.171	0.774	-0.095	0.166	0.909	0.152	0.165	1.164	-0.061	0.170	0.940
Other	-0.269	0.157	0.764	-0.075	0.152	0.927	0.203	0.151	1.225	-0.165	0.156	0.848
Alcohol use in the past 30 days	-0.303*	0.121	0.739	-0.449**	0.115	0.638	0.234*	0.114	1.264	-0.228	0.119	0.796
Marijuana use in the past 30 days	-0.181	0.316	0.834	0.099	0.288	1.104	0.280	0.285	1.323	-0.179	0.379	0.836
Gang involvement	-0.333*	0.159	0.717	-0.248	0.150	0.780	-0.526**	0.147	0.591	-0.437**	0.159	0.646
Antisocial behavior index	0.007	0.133	1.007	-0.057	0.133	0.945	-0.318*	0.136	0.727	-0.135	0.151	0.874
Attitudes favorable toward antisocial behavior index	-0.162	0.145	0.850	-0.192	0.138	0.825	0.015	0.131	1.015	-0.148	0.143	0.862
Academic failure	0.124	0.098	1.132	0.294**	0.094	1.342	-0.089	0.094	0.915	0.088	0.096	1.092
Low commitment to school	-0.379**	0.083	0.684	-0.392**	0.077	0.675	-0.045	0.070	0.956	-0.446**	0.084	0.640
Parental attitudes favorable toward drug use	-0.022	0.194	0.978	-0.199	0.187	0.820	-0.031	0.173	0.969	-0.189	0.201	0.828
Parental attitudes favorable toward alcohol	-0.062	0.070	0.940	0.050	0.065	1.051	0.082	0.065	1.085	-0.046	0.068	0.955
Parental attitudes favorable toward anti-social behavior index	0.098	0.134	1.102	0.058	0.127	1.060	-0.206	0.124	0.814	0.164	0.131	1.178
Antisocial peers index	0.127	0.115	1.136	0.141	0.108	1.151	0.053	0.108	1.055	0.102	0.113	1.108
Drug using peers	-0.053	0.051	0.949	-0.048	0.048	0.953	0.073	0.047	1.076	-0.063	0.050	0.939
Community disorganization index	-0.342**	0.075	0.710	-0.330**	0.071	0.719	0.102	0.070	1.107	-0.151*	0.073	0.859
N		1753			1791			1734			1769	
Nagelkerke R Square		0.097			0.095			0.032			0.075	

\* p < .05, \*\* p < .01

young people who display antisocial behavior are significantly less likely to believe the police use too much force.

Three independent variables are significantly related to satisfaction with the police, as shown in the fourth model of [Table 3](#). Boys report higher satisfaction levels than girls, while youth who are involved in gangs, who have a low commitment to school, and who live in disorganized communities are all less satisfied with police. With the exception of gender (for which previous studies find mixed results) these effects are in the expected direction.

## **Discussion**

Overall, the four multivariate models in [Table 3](#) reveal two overarching themes about youth attitudes towards the police in Trinidad and Tobago. First, several of the variables found to significantly affect youth attitudes towards the police in Western countries do not significantly affect young people's attitudes towards the police in Trinidad and Tobago. Second, despite the general failure of many of the independent variables to significantly affect youth attitudes, several commonalities emerged across the four multivariate models. We address each theme in turn below as well as the policy recommendations of our findings.

The findings show that several of the variables that were important predictors of youth attitudes toward the police in the U.S. and other countries were not consistently

significant predictors of young people's perceptions of the police in Trinidad and Tobago. For example, although age, gender, and race/ethnicity have been shown to consistently influence attitudes toward the police in many past studies, age and race (African) were each significant predictors in only one of the four regression models, while gender was significant predictor in only two models. At the same time, several of the variables that were important in past studies also emerged as significant predictors of youth attitudes in this study, such as delinquency (including alcohol use, gang-involvement, and antisocial behavior).

Several explanations for the differences across studies are plausible. Perhaps the most straightforward explanation is that context matters - the nature of police-youth relations and the factors that influence young people's attitudes toward the police may be different in Trinidad and Tobago than they are in other countries. However, several methodological explanations may also help explain why the results reported here do not mirror the findings from past studies.

First, our analyses differ from previous research because we have operationalized attitudes towards the police as four distinct attitudes (fairness, responsiveness, use of force, and satisfaction) whereas some prior studies combined such views into one homogeneous variable. Further, we used multivariate analyses which let us control for the simultaneous effects of the other independent variables. In contrast, many prior studies of youth attitudes toward the police have relied only on bivariate analyses. Third, our analyses do not include several variables that past research suggests are important predictors of young people's views of the police, such as

personal or vicarious contact with the police, and victimization. Despite the methodological differences between past research and the present study, the failure of many of the independent variables to significantly and consistently affect attitudes in the multivariate context is notable and suggests that the social forces which influence the police-related attitudes of young adults in Trinidad and Tobago may not be the same as those which influence their counterparts in other countries.

Although some of the variables in the multivariate analyses did not perform as expected, several did have generally consistent significant effects across the models. For example, the findings suggest that youth who use alcohol perceive the police as less fair and less responsive to the needs of citizens, and were more likely to believe that the police use excessive force when dealing with citizens. Similarly, young people who are involved with gangs perceive the police as less fair and are less satisfied with the police than youth who are not involved in gangs. It is plausible that young people who use alcohol or who are involved in gangs have greater contact with the police and these contacts might be slightly aversive, thus leading to their less favorable perceptions of the police.

A clear relationship between a young person's low commitment to school and his/her more negative rating of the police on fairness, responsiveness, and overall satisfaction with the police is also evident. Perhaps youth who have a low commitment to school develop negative attitudes about authority figures (such as teachers) and

these attitudes diffuse to the police. Or perhaps youth who are less committed to school spend more time on the streets and thus have more interactions with police officers. If the latter explanation is correct, we would expect that young people who have dropped out of school (and are therefore not included in our survey) may have even more negative evaluations of the police than were captured in this study.

The community disorganization variable also had a consistent effect across three of the four models, indicating that youth who come from disorganized communities hold less favorable views of the police in terms of fairness, responsiveness, and overall satisfaction than their counterparts in more organized communities. Finally, it is noteworthy that neither the parental attitude variables, nor the peer variables, influence youth perceptions of the police in any of the models.

### **Conclusions**

The results of this research have important implications for the future of policing in Trinidad and Tobago. As discussed previously, public opinion polls show that the general population has a negative assessment of the Trinidad and Tobago Police Service. Unfortunately, the results of this study indicate that young people in Trinidad and Tobago also have quite negative perceptions of the police. If these attitudes hold as the youth get older, the TTPS will continue to face a serious public image problem, and continue to have difficulty developing the positive police-community partnerships that are necessary for effective policing.

As this study shows, young people who are committed to school, who stay out of gangs, and who refrain from delinquent behaviors have more positive views of the police. One avenue for improving the relationship between the TTPS and young people might be to develop police/community programs, such as athletic leagues or police-youth clubs (see Leiber et al., 1998). Moreover, the TTPS may be able to improve students' commitment to school while simultaneously improving youth attitudes towards the police by creating programs modeled on School Resource Officers (SRO) or Gang Resistance Education and Training (GREAT) (Esbensen et al., 2001). Both programs post police officers in schools so that students and officers interact informally, as well as during scheduled educational activities which are conducted by the police officers. These educational activities are carefully designed to prevent students from joining gangs, and evaluations indicate that students' attitudes about the police are also improved by these interactions. To the extent that the police can help foster attachment to school or other pro-social activities among the youth of Trinidad, they should reap more positive ratings from the citizens they serve.

Another avenue for improving the relationship between the TTPS and juvenile and adult residents in Trinidad is by developing neighborhood-based community-oriented policing programs. Given the results of this research, developing positive police-citizen partnerships is particularly important in more disorganized communities. Many community policing programs in the U.S. use

problem-oriented policing (POP) strategies to address physical and social disorder in neighborhoods. Incorporating POP strategies that involve police-citizen partnerships to improve conditions in disorganized communities may be another way for the TTPS to improve public perceptions of their organization. To be sure, the importation of any police-school innovations or community-oriented policing strategies from the U.S. would require that they be tailored to reflect cultural differences in Trinidad and Tobago, and officers must be carefully selected for such programs.

Given the exploratory nature of this study, more research on the police-related attitudes of young people in Trinidad and Tobago (as well as other developing countries) is needed. Future studies should examine the dimensionality of youth attitudes toward police and explore additional correlates of these views, including potentially important variables such as positive and negative contact with the police. Moreover, studies should examine the perceptions of adolescents who do not attend school (and may score higher on delinquency measures) as their views and experiences likely differ from the students who were sampled for this study. Finally, future studies should further consider how context matters, and why the views of young people in Trinidad and Tobago may differ from their counterparts in developed nations like the United States or Canada.

**APPENDIX**  
**Table A.1 - Items and Index Construction**

Question Item	Original Response Options
<b>Alcohol use in past 30 days</b> On how many occasions (if any) have you had beer, wine or hard liquor to drink during the past 30 days?	Never; 1-2; 3-5; 6-9; 10-19; 20-29; 30-39; 40+
<b>Marijuana use in past 30 days</b> On how many occasions (if any) have you used marijuana during the past 30 days?	Never; 1-2; 3-5; 6-9; 10-19; 20-29; 30-39; 40+
<b>Gang involvement</b> Have you ever belonged to a gang?	No; No, but would like to; Yes, in the past; Yes, belong now; Yes, but would like to get out
<b>Antisocial behavior index</b> How many times in the PAST YEAR (12 months) have you:	Never; 1-2; 3-5; 6-9; 10-19; 20-29; 30-39; 40+
a) Been suspended from school?	Same as above
b) Carried a handgun?	Same as above
c) Sold illegal drugs?	Same as above
d) Stolen or tried to steal a motor vehicle such as a car or motorcycle?	Same as above
e) Been arrested?	Same as above
f) Attacked someone with the intention of seriously hurting them?	Same as above
g) Been drunk or high at school?	Same as above
h) Taken a handgun to school?	Same as above
<b>Attitudes favorable toward antisocial behavior index</b> How wrong do you think it is for someone your age to:	Very wrong; Wrong; A little bit wrong; Not wrong at all
a) Take a handgun to school?	Same as above
b) Steal anything worth more than \$30?	Same as above
c) Pick a fight with someone?	Same as above
d) Attack someone with the intention of seriously hurting them?	Same as above
e) Stay away from school all day when their parents think they are at school?	Same as above
f) Take a handgun to school?	Same as above
<b>Academic failure</b> Putting them all together, what were your grades like last year?	Mostly 29 & below; mostly 30-39; mostly 40-59; mostly 60-79; mostly 80-100
<b>Low commitment to school</b> How important do you think the things you are learning in school are going to be for your later life?	Very important; Quite important; Fairly important; Slightly important; Not at all important

## APPENDIX

Table A.1 - Items and Index Construction (continued)

Question Item	Original Response Options
<b>Parental attitudes favorable toward drug use</b>	
How wrong do your parents feel it would be for YOU to smoke marijuana?	Very wrong; Wrong; A little bit wrong; Not wrong at all
<b>Parental attitudes favorable toward alcohol use</b>	
How wrong do your parents feel it would be for YOU to drink beer, wine, or hard liquor (for example vodka, whiskey, or gin) regularly?	Very wrong; Wrong; A little bit wrong; Not wrong at all
<b>Parental attitudes favorable toward anti-social behavior index</b>	
How wrong do your parents feel it would be for YOU to steal something worth more than \$30?	Very wrong; Wrong; A little bit wrong; Not wrong at all
How wrong do your parents feel it would be for YOU to draw graffiti, write things, or draw pictures on buildings or other property (without the owner's permission)?	Same as above
How wrong do your parents feel it would be for YOU to pick a fight with someone?	Same as above
<b>Antisocial peers index</b>	
Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have...	
a) Been suspended from school?	0, 1, 2, 3, 4
b) Carried a handgun?	Same as above
c) Sold illegal drugs?	Same as above
d) Stolen or tried to steal a motor vehicle such as a car or motorcycle?	Same as above
e) Been arrested?	Same as above
f) Dropped out of school?	Same as above
<b>Drug using peers</b>	
Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have used marijuana?	0, 1, 2, 3, 4
<b>Community disorganization index</b>	
How much does each of the following statements describe your neighborhood:	NO!, no, yes, YES!
a) Crime and/or drug selling?	Same as above
b) Fights?	Same as above
c) Lots of empty or abandoned buildings?	Same as above
d) Lots of graffiti?	

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