

Road Traffic Injury Epidemic in Jamaica: Implications for Governance and Public Policy

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Abstract

Road traffic accidents, the leading cause of death in adolescents and young adults are being recognized as a growing public health problem in Jamaica. The study examines road traffic accident injuries and fatalities in Jamaica among road users, as well as by categories of fatalities, gender, motor-vehicle, time-of-day and location. In the period 2001 to 2005, the highest number of victims was between 20 - 29 years of age. Of the 1,856 road traffic accident victims from 2001 to 2005, the highest number occurred in 2002 (408), while the least in 2005 (326). There was a greater incidence of road traffic accidents during daytime between 0600h and 1800h (53.2%) and mainly on weekends (52.6%). Pedestrians were the most likely victims of road traffic accidents, thus accounted for 30.2% (667), followed by private motor car drivers 16.9% (374) and private motor car passengers 16.6% (368). The study concludes that road traffic injuries impacts on long and short-term wealth, affecting families and public health.

Keywords: Accidents, Motor vehicle, Fatalities, Safety, Risk, Gender

1. Introduction

Road traffic accidents are an emerging global epidemic. Road traffic injuries are a major cause of death and disability globally, with a disproportionate number of occurrences in developing countries (Murray & Lopez, 1996). In 2000, road traffic injuries were the ninth leading cause of disability-adjusted-life years lost and are projected to become third by 2020 (Peden et *al.*, 2001). Each year, over 20 million people are injured or crippled, and 1.17 million are killed, due to road traffic crashes (Peden *et al.*, 2001).

Developing countries account for over 85% of the deaths, and close to 90% of the disability caused by road traffic crashes globally (Krug, 1999). In developing countries, rapidly increasing motorization is outpacing the development of transportation infrastructure. This fact is the primary reason for the increasing numbers and rates of motor vehicle injuries in developing countries (Jacob *et al.*, 2000). Causes of motor vehicle crashes are multifactorial and involve the interaction of a number of pre-crash factors that include people, vehicles and the road environment (Robertson, 1992). Human error is estimated to account for between 64 and 95% of all causes of traffic crashes in developing countries (Transport and Research Laboratories, 1990). Other factors that contribute to the high rate of crashes in less developed countries include a high prevalence of old vehicles that often carry many more people than they are often designed to carry, lack of safety belt and helmet use, poor road design and maintenance and the traffic mix on roads are (Odero *et al.*, 1997). This problem draws significant attention in Jamaica where road accidents are high and still increasing.

Jamaica with a land area of 11, 424 km² is the largest English-speaking island in the Caribbean. The country is divided into 14 parishes. Its largest city is Kingston, the country's capital on the Southeast Coast. Road traffic accidents are a major public health problem in Jamaica despite the introduction of breathalyzer, seat belt and helmet legislation (Ministry of Health, 2002). A study conducted in 1996 demonstrated that 21.1% of private motor vehicle drivers and 13.6% of front seat passengers voluntarily wore seat belts in Kingston, where there was no law requiring this at the time (Crandon *et al.*, 1996). In 1999, Jamaica introduced seat belt legislation mandating fines for non-compliant drivers and passengers. An observational cross-sectional study conducted in Kingston in 2004 showed that seat belts were used by 81.2% of private motor vehicle drivers and 74.0% of front seat passengers (Crandon *et al.*, 2006). However, the occurrence and cost of motor vehicle accidents continue to be a cause for great concern. It is

established that these accidents constitute a major source of preventable mortality. Police accident statistics indicate that the consistently high level of road traffic injuries and fatalities are directly attributable to poor judgment on the part of road users (National Road Safety Council of Jamaica, 2004). In 1999, motor vehicle accidents represented the twelfth leading cause of deaths island-wide (National Road Safety Council of Jamaica, 2004).

In Jamaica with its rapid expansion of road construction, creation of new highways and increase in the number of vehicles, road traffic accidents are becoming an increasing serious public health problem. The magnitude of the problems would be greatly reduced if appropriate measures were taken concerning road user' behaviour. The present study was undertaken to examine road traffic accidents and fatalities by categories of gender, age, road users, motor-vehicles, time-of-day, location and outcome of motor vehicle accidents. The socio-economic implications are also noted, and recommendations are made for risk reduction and safety as elements towards strategic and policy development.

2. Materials and Methods

The present study reports on road traffic accidents and fatalities in Jamaica, with implications for governance and public policy. The study is informed by quantitative and qualitative designs that permit primary and secondary analyses. For the purpose of the study, a road traffic accident was defined as an accident that took place on the road between two or more moving objects, one of which must be any kind of moving vehicle. An injury on the road without involvement of a vehicle (eg. a person slipping and falling on the road and sustaining injury) or injury involving a stationary vehicle (eg. a person getting injured while washing or loading a vehicle) were excluded from the study. The motor vehicle accidents statistics used in this study was taken from the Jamaica Constabulary Force (JCF), field research of 122 cases from emergency patients at four (4) hospitals, as well as information from seven (7) general insurance companies in Jamaica. These insurance companies wish to remain anonymous, hence labeled from A to G for the purpose of this study. The study is based on the collection of data about all motor vehicle accidents that occurred in Jamaica during the period January 1, 2000 to December 31, 2006. The annual statistical report contains information such as the number and nature of accidents, causes of road accidents, number of fatalities and casualties, accident date, time, location, age and gender of the victims. The Statistical Package for Social Scientists (SPSS) is used for data analysis. The analytical procedure is descriptive statistics involving cross tabulation, frequency and percentages.

3. Results

The data obtained from the Jamaica Constabulary Force (JCF) represent cases by categories of road traffic accident fatalities by gender, age, road users, motor-vehicles, time-of-day, location and outcome of accidents. Other data include insurance claims honoured for motor vehicle accidents for six (6) years (2001-2006) by seven (7) general insurance companies in Jamaica.

Males are far more likely to be killed in road traffic accidents than females (Table 1). In the two years 2005 and 2006, of the total 592 victims, 466 (78.7%) were males and 126 (21.3%) were females. In the period 2001 to 2005, the highest number of victims (20.7%) was between 20 - 29 years of age. Approximately 62.2% of the victims were under 40 years of age. There were 91 children (4.9%) below 10 years of age. The highest road fatalities in any of the years occurred in 2002 (408) and represent an increase of 2.5% from the previous year (Table 2). The following years (2003-2005) show a steady decline of approximately 1.6%.

During the period 2001-2006, pedestrians were prone to road traffic fatalities than any other users (Table 3). This represents 667 (30.2%) pedestrians, followed by private motor car drivers 374 (16.9%) and private motor car passengers 368 (16.6%). Two hundred and fifty nine (11.7%) pedal cyclists were killed followed by 206 (9.3%) motor cyclist. The least likely to be involved are commercial motor car passengers and drivers (3.0% and 1.9% respectively) and pillion passengers (1.9%). In addition, based on the feedback from the 122 respondents of this study, 46 percent blamed accidents on having to swerve from potholes and uneven road surface, in order to prevent damage to their motor-vehicles.

The period 2001-2006 highlights road traffic accidents as per time of day, and shows that 53.2% of road traffic accidents occurred during the day between 0600h and 1800h. There was a greater incidence of road traffic accidents (52.6%) during weekends, between 0600h on Friday and Monday 0600h, compared to mid-week days (Table 4). This was consistent throughout all the 14 parishes of Jamaica. The road traffic accidents were mainly concentrated in the parishes of St. Andrew (30,063) and St. Catherine (7,720) over the period 2000-2005 (Table 5). It is ascertained that this is as a result of frequent travels out of town for weekend vacation. The least prevalent experience is in the parishes of Hanover (734), St. Thomas (1,312) and Trelawny (1,341). Table 6 shows a steady increase of approximately 15-25 percent each year as total claim honoured for motor vehicle accidents over the period 2001-2006. This also includes theft of motor vehicles that are comprehensively insured. While there is no significant difference in the sum honoured by insurance companies A to G for the period 2001 and 2002, there is a marginal increase during

2003-2005, and an escalated sum of US\$27,614,023.34 in 2006. Companies F and G consistently reflect a higher dollar amount for motor vehicle mishaps.

4. Discussion

This study shows that the various variables (fatality, gender, age, road users, location and time of accidents) bear relationship with road traffic accidents in Jamaica. The finding that adolescents and young adults are at high risk of traffic injury and death is well documented in many reviews on the subject. In the present study the highest number of road traffic accident victims (20.7%) was found in the age group 20 - 29 years. This study also found that 40.7% of the victims were between 20 and 39 years of age. An earlier study by Ganveer and Tiwari (2005) in India reported that 75% of the road traffic accident victims were in the age group 18 - 37 years. Other studies have reported that those in the age group 15 - 39 years comprised between 46 - 75% (mean 58%) of all road traffic accident casualties (Sayer & Hitchcock 1984; Jayasuriya, 1991). The higher incidence of accidents in these age groups can be attributed to the risk-taking behaviours of youths. The findings demonstrate that the people of the most active and productive age group are involved in road traffic accidents. This has important economic impacts as these are people in their most economically productive years. In addition there is significant expenditure incurred in the treatment of these victims. It also has implications for the design and implementation of more targeted interventions. The present study also shows that below and above the age group 20 and 49 years, the proportion of road traffic accidents was low. The reason may be that children were taken care of by elders and there is less use of vehicles in the adolescent age group. Lower proportion of road traffic accidents in those aged 60 and above could be due to the generally less mobility of these persons.

The road traffic accident fatalities were 3.7 times higher in males than in females according to the study. In a previous report, there were 12,230 road traffic accidents for 2003, representing a slight decrease of 2% compared with 2002. For the period 1991 – 2003, 80.9% of road traffic accident fatalities were males, while 19.1% were females, giving a ratio of four to one. For the same period, 95% of the drivers that died as a result of road traffic accidents were males and 5% females. The overwhelming majority of the males were in the productive years and the age cohort 20-29 years was the most affected (National Road Safety Council of Jamaica, 2004). A study by Escoffrey and Shirley (2002) showed that of the trauma-related deaths at the University Hospital of the West Indies in Jamaica between 1983 and 1997, motor vehicle accidents accounted for 44.9%. The 21 – 30 age group was the most commonly affected and the overall male: female ratio was 4:1. Other studies have described casualties by sex showing consistent predominance of males over female, with males comprising between 67 and 99.5% (mean 80%). In a review of traffic accidents in developing countries by Odero et al. (1997) the male to female ratio was > 2 in all studies examined, but > 3 in 83% of the studies. This can be explained by the greater exposure of men to traffic or increased risk due to other factors.

Pedestrians constituted 30.2% of the road users involved in road traffic accidents followed by followed by private motor car drivers (16.9%) and private motor car passengers (16.6%). Odero et al. (1997) reported that pedestrian fatalities were highest in 75% of the studies accounting for between 41 and 75%, followed by passengers (38 - 51%) in 62% of the studies. Drivers were third in 55% of the studies, and never ranked first in any country. A report by Peden et al. (2004) showed that pedestrians are nine times more likely to be affected by road traffic accidents, while bicyclists are eight times more likely. Compared with a person in a car, a motorized two-wheeler is 20 times more likely to be killed for each kilometer traveled. In addition, persons in a car are 10 times more likely to be killed than a passenger in a bus or coach, and 20 times more likely than a passenger in a train (Peden et al., 2004). While most motor vehicle drivers are men, a high proportion of males involved as pedestrians, passengers or cyclists, suggests the co-existence of other social and behavioural factors contributing to their vulnerability. Pedestrians are most vulnerable to injury and death. This may be due to a number of factors, including lack of pedestrian facilities in road design, poor knowledge and practice of road safety measures by the general population, discourteous behaviour of motorists, high speed driving, and low levels of vehicle ownership. The high proportions of passenger fatalities appear to be associated with extensive use of public transport, types and condition of such vehicles, and driving skill of their operator. While this study did not attempt to investigate specific potential factors that would explain the observed gender differences, the authors believe that such a study should be done in order to access and correct for levels of exposure by gender.

In this study, there was a greater incidence of reported road traffic accidents during the day between 0600h and 1800h, and on weekends. It is ascertained that the greater incidence of road traffic accidents on weekends could be due to frequent travels out of town for weekend vacation. Other studies have substantiate these findings and in a review of traffic injuries in developing countries by Odero et al. (1997), there was a greater incidence of traffic injury during weekends, between 0600h on Friday and Monday 0600h, compared to mid-week days, in 79% of the 19 studies that provided data. Of the total weekly figure, an average of 52% occurred during weekends (range 36 - 74%). Odero et al. (1997) also reported that between 60 and 80% of casualties were injured during the day and approximately one-third of traffic injuries occurred during the night with highest incidence between 1800h and 2400h. There is sufficient evidence in support of a high incidence of day-time casualties. This can be explained by greater traffic volume during

the day resulting in greater risk of accident involvement as people travel to work, children go to school, and commercial enterprises are open for business. The relative decline in traffic casualties at night may be explained by less night-time activity and travel.

The use of alcohol was not involved in our analyses as the data was unavailable. However, the role of alcohol in impairing driving ability is well documented. As the blood alcohol content increases, risk of crash involvement increases dramatically due to increase impairment. There are two studies conducted in Jamaica which examined morbidity, health and social problems from alcohol abuse. One of the studies identified that in blood samples of 31 motor vehicle fatalities, evidence of alcohol intake was found in 77.5% of the fatalities and 35% had alcohol levels above the legal acceptable limits (Francis et al., 1991). The other done by three doctors revealed that alcohol was found in the bodies of 43% of drivers involved in traffic accidents (Jamaica Gleaner, 2000). According to Peden et al. (2004), in low and middle income countries, increased blood alcohol level was present in 33-69% of fatally injured drivers and in 8-29% of drivers involved in crashes (but not fatally injured). A study in Bangalore showed that 44% of drivers of two wheelers which crashed were under the influence of alcohol (Jagnoor, 2006). Alcohol use is involved in up to 70% of road crashes in the United States (Bliff et al., 2004) but as low as < 2% in China (Wang and Jiang, 2003). These are indicative of local and regional differences in road accidents epidemiology. The introduction of blood alcohol content limits is associated with a decrease in alcohol-related crashes, and subsequent lowering of such limits leads to further reductions, though the magnitude of such effects varies widely. The most effective way to deter drunk driving is to raise drivers' perceived risk of getting caught (Sweedler, 1995) Sobriety checkpoints and random breath testing have been found to lower-related crashes by about 20% (Elder et al., 2002).

A high incidence of road traffic accidents in Jamaica is also due to poor enforcement of traffic safety regulations due to inadequate resources, administrative problems, and corruption. Corruption extends to vehicle and driving licensing agency. Corrupt practices include: (a) issuing of licences to individuals in order to allow them to drive a much heavier type motor vehicle than the one they were examined for; (b) issuing of driver's licence to the literacy challenged, many of whom are not efficient at interpreting the road code; (c) issuing of licence to persons who have not done a driving test; (d) issuing of certificate of fitness without the proper scrutiny/examination of the motor vehicle; and (d) police taking money from motorists who disobey road safety regulations/rules, and refrain from charging them for an offence. The findings of a study (comprising 446 motorists) done by the Pan American Health Organization and the National Road Council of Jamaica reveal that 71% of the persons who obtained drivers licence without being examined, met in accidents, while for those who obtained drivers licences legally, 40% met in accidents (Davidson, 2006).

Frequent breaches of the Road Traffic [Amendment] Act and Regulations 2005 include: disobeying traffic lights and road signs; motor vehicles not having the prescribed number of reflectors, along with specificity of measurements (Jamaica Laws, 1964); reckless or dangerous driving; driving under the influence of drugs; accommodating more than one pillion riders on a motor cycle; inadequate provision of lights and/or horns; disobeying the rules governing the number of carriers as per specific motor-vehicles; and the improper use of the pedestrian crossing. Other risk factors that contribute to improper use of roads are improper display or the absence of appropriate road marking; the absence of street lights and lane reflectors on very dark roads; speeding; the use of cellular phones; music *inter alia*. Of the 122 cases, 12% who were involved in an accident were playing loud fast rhythmic music. The respondents note that the fast rhythm of the music stimulates their emotions or "pumps up their vibes." While the effort of the Government of Jamaica to discourage the playing of loud music on public transportation is considered reasonable, motorists believe that this would be a violation of their right when it comes to their private motor-vehicles. Loud music tends to create distraction from hearing the horns of other vehicles and the observing of other warnings.

Road traffic deaths and injuries impose a huge economic burden on developing economies, amounting to one to two percent of Gross National Product (GNP) in Latin America and the Caribbean, thus representing US\$18.9 billion annual crash cost. Overall cost in low and middle income countries falls within the range of US\$64.5 billion to US\$100 billion (Jacobs *et al.*, 2000), which are comparable to the total bilateral overseas aid contributed by the industrialized countries, thus amounted to US\$106.5 billion in 2005 (Commission for Global Road Safety, 2006). These estimates account only for the direct economic costs (mainly lost productivity) rather than the full social cost often recognized by industrialized countries. There is also the direct impact on health services, with road traffic victims accounting for almost half the hospital bed occupancy in surgical wards in some low and middle income countries. In 2002, 408 people died in motor vehicle accidents in Jamaica, a rate of 15.5/100,000 population. The cost of these motor vehicle accidents for that year was approximately J\$518 million (US\$7.6 million). In 2002, there were 12,484 visits to the Accident and Emergency Departments at Government Hospitals by clients seeking care due to motor vehicle accidents. The figure was 12,230 for 2003, representing a slight decrease of 2% (National Road Safety Council of Jamaica, 2004). During the first United Nations Global Road Safety Week in Jamaica (April 23-29, 2007), Dr. Elizabeth Ward reported that in 2005, the estimated cost of direct patient care resulting from road accidents was J\$234 million (US\$3.4 million). The indirect cost (loss of earnings, disability, follow-up treatment and psychological costs) was three to ten times the

direct cost. The number of victims of road traffic injuries treated at seven major hospitals across the island of Jamaica, contributes to the total direct and indirect cost of J\$205 billion (US\$3 billion) in 2005 (Messam, 2007).

Fatalities or injuries as a result of road accidents usually result in medical expenses, possible permanent disability, funeral expenses, legal fees, job insecurity, loss of income, psychosocial impact, the possibility of poverty, insurance cost, ambulance cost or taxi fare to transport the injured to hospital. In addition, the insurance premium of the survivor would increase. Information obtained from the seven (7) general insurance companies in Jamaica show that there has been a steady increase in the sum paid to honour claims during the period 2001-2006 for road accidents. This reflects a total of US\$93.5 million. The year 2006 shows the most sum being paid out for motor-vehicle accident, and the least paid was in 2001-2002. This does not mean that the sum paid is indicative of an increased number of claims being honoured. There is no evidence which shows the number of claims submitted to and honoured by the insurance companies in question. Although this period reflects the various levels of coverage, it is not indicative of the number of road traffic accidents. This is because while insurance coverage for 2001-2002 reflects a lower payment, these periods were among the highest crashes, and visa versa.

In conclusion, road traffic accidents continue to be one of the major causes of death in Jamaica. On the basis of these findings it is recommended that strict licensure procedure should be followed and minimum level of education regarding road safety required for applicants of road licence, especially the youths. Road traffic injuries besides being a major health hazard leading to high rate of morbidity, disability and death, have great socio-impact on the victim, his family and the nation as a whole. Therefore while the Government of Jamaica continues to embark upon educating its people on road traffic accident/fatality issues through mass media and other avenues, the absence of political will and commitment to road safety make these campaigns, policies, and plan of actions unsuccessful.

5. Recommendations

The following recommendations are proposals for further policy-legislative framework and strategic plan of actions.

(1) Attention should be paid to the economic cost of road accidents and fatalities, and the extent to which it impinges on the resources allocated by the government to public hospitals, and how it prohibits other illnesses from getting full attention.

(2) This study shows that the number of persons killed as a result of road traffic accidents reflects only those who succumbed to injuries shortly after the accident, and not those who succumbed in the long-term. Therefore, cause of death for such individuals would not be recorded as motor-vehicle accident. In an effort to ensure statistical accuracy, follow-up should be made on seriously injured individuals.

(3) The Government of Jamaica should provide special lanes alongside major roads in urban areas for pedal and motor cyclists. It should be mandatory for both pedal and motor cyclists to wear helmets. Sanctions should be imposed on the pedal bicyclists who break the rules of one-way streets.

(4) It should be made mandatory for motor-vehicle headlights to be turned on during the daytime while driving, as research has shown that this reduces risk for accidents.

(5) Sanctions should be imposed against pedestrians who refuse to use overhead bridges to cross the major streets, as they expose themselves and other road users to accidents.

(6) The Government of Jamaica should encourage car pooling; walking and cycling. This would significantly reduce crashes, noise and pollution from vehicle emission.

(7) Speed cameras should be installed in urban areas and road traffic offenders brought to justice. This would increase compliance with speed laws and commitment to safety.

(8) Sanctions should be brought against motorists who display customized licence plates on their vehicles. These individuals are likely to "hit and run."

(9) The playing of abnormally loud music and the use of mobile phones without head set/ear piece while driving and/or crossing the street should be prohibited.

(10) Whenever roads are under construction, the signage "Men at Work" should be displayed at least 250 metres before reaching the scene, rather than immediately at where work is in progress. This would also reduce accident.

(11) The reports from the general insurance companies have a combined sum which includes accidents, fatalities, stolen vehicle, and other motor vehicle claims. For statistical accuracy, this should be separated to specificity.

(12) Relevant sections from the Road Traffic Amendment Act 2005 should be highlighted as slogans during the various road safety campaigns.

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Table 1. Road traffic accident fatalities by gender for 2005 & 2006

	<u>20</u>	<u>05</u>	<u>200</u>	<u>)6</u>		
Age group		Gend	er			
	Male	Female	Male	Female	Total	
0 - 9	11	5	9	8	33	
0 - 19	26	11	38	9	84	
20 - 29	60	10	54	13	137	
30 - 39	44	12	42	8	106	
40 - 49	26	6	41	11	84	
50 - 59	18	3	25	8	54	
60 - 69	19	7	15	2	43	
70+	21	4	17	9	51	
Total	225	58	241	68	592	

Table 2. Road traffic accident fatalities by age groups from 2001 - 2005

			Years			
Age group	2001	2002	2003	2004	2005	Total
Unknown	2	0	21	27	41	91
0 - 9	27	28	23	17	16	111
0 - 19	37	55	43	25	37	197
20 - 29	85	85	81	63	70	384
30 - 39	84	87	70	73	57	371
40 - 49	41	62	53	56	31	243
50 - 59	27	32	42	31	21	153
60 - 69	29	28	24	43	27	151
70+	29	31	34	25	26	145
Total	361	408	391	360	326	1856

Table 3.	Categories	of road	user's	fatalities	(2001 -	- 2006)
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			Yea	rs			
Categories	2001	2002	2003	2004	2005	2006	Total
edestrian	115	126	119	96	110	101	667
Pedal cyclist	59	41	51	46	29	33	259
Motor cyclist	32	41	37	29	32	35	206
Pillion passeng	ers 9	5	4	11	8	6	43
PV passenger	s 13	26	21	19	16	29	124
MC passenge	rs 53	68	61	70	60	56	368
MC passenge	rs 17	13	12	5	8	12	67
PV drivers	5	11	10	10	12	15	63
MC drivers	51	72	67	68	44	72	374
MC drivers	7	5	9	6	7	7	41
otal	361	408	391	360	326	366	2212

PMC - private motor car; CMC - commercial motor car; PPV - private passenger vehicle

Table 4. Motor vehicle accidents by time of day and year

			Year	rs			
Categories	2001	2002	2003	2004	2005	2006	Total
000h – 0300h	21	27	24	31	18	30	151
300h - 0600h	16	42	20	22	28	29	157
600h - 0900h	40	29	34	43	43	46	235
900h – 1200h	41	41	35	24	37	28	206
200h - 1500h	48	62	61	35	43	37	286
500h – 1800h	68	51	67	44	34	46	310
800h - 2100h	52	69	69	68	47	55	360
100h - 2400h	37	47	46	41	35	39	245
Total	323	368	356	308	285	310	1950

Table 5. Road Traffic Accidents by Location (2000-2005)	ccidents by Loca	tion (2000-2005)					
Location	2000	2001	2002	2003	2004	2005	TOTAL
St. Andrew	4,536	7,314	5,120	5,346	4,228	3,519	30,063
Kingston	1,451	1,288	1,115	1,150	1,144	1,111	7,259
St. Catherine	1,160	1,594	1,631	1,262	1,017	1,156	7,820
St. Thomas	379	169	231	216	166	151	1,312
St. James	208	250	347	502	495	489	2,291
Westmoreland	317	391	359	288	327	319	2,001
Hanover	86	123	116	118	134	157	734
Trelawny	266	247	257	228	173	170	1,341
St. Ann	835	885	1,025	971	1,021	919	5,656
St. Mary 473	505	531	1 444		525	510 2	2,988
Portland 204	229	239	9 234		291	248 1	1,445
Manchester	334	409	653	1,131	1,071	959	4,557
Clarendon	621	501	351	484	434	417	2,808
St. Elizabeth	275	350	255	211	260	213	1,564

		An	Annual Claims Paid (USS)	(NSS)			Total (US\$)
Company A	Company B	Company C	Company D	Company E	Company F	Company G	
564,602.69	950,472.58	590,718.64	554,111.05	808,173.03	2,517,605.42	3,694,817.24	9,680,500.65
827,528.08	1,092,175.60	751,611.94	543,926.78	653,696.88	1,579,140.01	4,418,892.76	9,866,972.05
1,381,847.70	1,027,709.32	1,231,893.12	918,870.99	505,692.58	2,613,740.84	4,769,029.34	12,448,783.89
2,115,725.75	1,682,961.25	1,389,809.45	1,098,367.14	487,526.61	3,505,535.20	4,739,691.78	15,019,617.18
3,305,530.62	2,119,950.36	1,472,476.65	1,276,651.16	475,689.96	4,778,007.26	5,479,199.06	18,907,505.07
65	3,245,235.65 1,691,454.10	1,676,657.52	1,663,115.13	6,008,879.67	6,921,893.17	6,406,788.10	27,614,023.34
11,440,470.49	8,564,723.21	7,113,167.32	6,055,042.25	8,939,658.73	21,915,921.90	29,508,418.29	93,537,402.19

Table 6. Annual insurance coverage for motor vehicle mishap (2001-2006)