FOREWORD

Nigeria is greatly committed to the United Nations Decade of Action on Road Safety. As part of the expectations of the Decade, data gathering and management is of great importance. The Federal Road Safety Commission as the lead agency in Road Safety Management in Nigeria has been building strong, credible and reliable databank on licensing of drivers and vehicle, road conditions through the road audit, crashes, arrest records and other operational details.

Coming on the heels of the recently published report on articulated vehicles (tankers and trailers) crashes in Nigeria, is the present effort on Road Traffic Crashes Involving Buses on Nigerian roads (2007 – 2010).

The issue of road crashes involving commuter buses on Nigerian roads has over the years become worrisome to the Federal Road Safety Corps in particular and the public in general. The business of acquiring fleet of buses by persons who have little or no knowledge about fleet management, drivers who are not properly trained to operate these buses, coupled with the poor conditions of our roads have contributed significantly to crashes involving buses. These crashes usually result in deaths, injuries, sometimes with permanent disability and damage to or loss of vehicles.

The Federal Road Safety Corps through the Corps Transport Standardization Office has taken the issue of entrenching safety consciousness in fleet management in Nigeria to the front burner. All fleet operators are mandated by the laws, particularly in Section 115 of the National Road Traffic Regulation 2004 pursuant to Sections 5 and 10 the Federal Road Safety Commission (Establishment) Act, to establish Safety units to be manned by competent Safety Managers, with the goal of better road safety

culture which will ultimately lead to reduction on road traffic crashes.

This particular effort, the Report on RTC involving Buses on Nigerian roads, is to have an in-depth analysis of bus crashes. Why do they occur, where and when? It is believed that with a better understanding, there will be evolution of effective strategies to curb the menace. It is my hope that this publication will assist all stakeholders in our collective efforts to have safer bus operation in Nigeria.

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July, 2011

ROAD TRAFFIC CRASHES (RTC) INVOLVING BUSES ON NIGERIAN ROADS (2007 – 2010)-A REPORT

A. INTRODUCTION

Following the recent spate of increases in Road Traffic Crashes (RTCs), the Federal Road Safety Corps (FRSC) saddled with the responsibility of regulating the road transport safety sector of the economy has become more interested in tackling the challenges by building a strong data base with proper in-depth analysis with a view to putting to use the results of such researches for achieving safer roads. It is believed that deductions could be made from the scientific propping to identify where and why these crashes occur and proffer sustainable solutions to the problem.

The target group in the present effort concerns the buses plying the Nigerian roads. The Corps finds this important due to the bus high occupancy ratio. Faced with the acquisition and fleet renewal problem and operators who do not have adequate knowledge of modern Fleet Management techniques, and other harsh operating environment, high incidences of bus crashes become inevitable.

Buses on our roads could be used for economic benefits aiding smooth transportation and communication systems when operated in accordance with the rules on safety and when that is not the case; the same buses would become vehicles for quantum of human and material loses, through RTC.

This report covering between 2007 and 2010 captures RTCs involving buses plying our roads as compiled by the Corps Transport Standardization Office (CTSO) of the FRSC is to assist in appraising the situation with the aim of evolving better and safer bus operations in Nigeria.

B. METHODOLOGY

The methodology employed include:-

a. Data collection

(i) Data on Road Traffic Crashes (RTCs) involving Buses as recorded by the FRSC and in some cases, police were collated from all the states of Nigeria.

(ii) The data on every recorded crash in 2007, 2008, 2009 and 2010 were captured with the following details:-

- Date of Road Traffic Crash (RTC)
- Day of the week
- Vehicle Registration number
- Vehicle Type
- Route
- Location
- Time of the day
- Number of persons killed
- Number of persons injured
- Total casualties
- Number of persons involved
- Total number of vehicles involved and
- Causes of Road Traffic Crashes (RTCs)

b. **DATA ANALYSIS**

The data collated were analyzed using simple descriptive statistics such as percentages, while graphs and pie charts were also used for graphical illustrations.

Fatality and severity indexes were also calculated for the years using the formulae:

(i) **NUMBER KILLED PER RTC** = $\frac{\text{NUMBER KILLED}}{\text{TOTAL RTC}}$

(ii) **CASUALTY PER RTC** = $\frac{\text{NUMBER KILLED + NUMBER INJURED}}{\text{TOTAL RTC}}$

(iii) **SEVERITY INDEX** = $\frac{\text{NUMBER KILLED PER RTC}}{\text{CASUALTY PER RTC}}$

c. LIMITATIONS OF THE REPORT

The report is basically on the recorded RTC involving buses as many of the crashes would have not been captured and no contacts made with any of the drivers/operators involved. The competence or otherwise of the drivers were not assessed just like the qualification in terms of possession of Driver's License and fitness of the drivers were not considered. The road and other variables in the operating environment were also not assessed in the report. The scope of the report is basically on the bus crashes that were documented.

C. FINDINGS

Find presented below the results of the analysis of the collated RTC data.

(i) TOTAL CRASHES

The analysis revealed that between 2007 and 2010, a total of 5,828 crashes involving buses were recorded on Nigeria roads with a yearly average of 1,457 cases and monthly average of 121 crashes. 2007 had 997 number of bus crashes. This figure rose to 1,367 in 2008 which

is a 37.11% increase. In 2009, the recorded crashes increased to 1693 which is by 23.84% and by 2010, 1,771 crashes were recorded indicating an increase of 4.607 (4.61%) (See Table 1 and Figure 1). The monthly crash average also revealed 83.08 (83) in 2007, 113.92 (114) in 2008, 141.08 (141) in 2009 and 147.58 (148) in 2010. (See Table 1b and Figure 1b).

The analysis also showed data that an average of 2.73 (3) crashes occurred daily in 2007. This rose to 3.75 (4) in 2008, 4.64 (5) in 2009 and 4.85 (5) in 2010.

b. **NUMBER KILLED**

Between 2007 and 2010, a total of 5,583 persons were killed in Bus crashes with a yearly average of 1,395.75 (1,396). 983 persons died in 2007. This figure rose to 1,549 in 2008 representing 57.57% increments. In 2009, 1,567 lives were lost with an increment of 1.16% and by 2010, 1,484 deaths were occurred which is 5.20% decrease. (See Table 1 and Figure 1)

On the average 116.31 (116) persons were killed monthly in Bus crashes between 2007 and 2010. An average of 81.92 (82) persons lost their lives monthly in 2007, the figure rose to 129.08 (129) in 2008, 130.58 (131) in 2009 and 123.67 (124) in 2010.

It was also revealed that while an average of 2.69 (3) persons got killed per day in 2007, the figure increased to 4.24 (4) in 2008, 4.29 (4) in 2009 and 2010 also had daily average death figure of 4.07 (4). Thus, between

2007 and 2010 and average of 3.82 (4) persons were killed daily in Bus crashes on Nigerian roads (See Tables 1b and 1c and Figures 1b and 1c).

c. **NUMBER OF PERSONS INJURED**

During the period, a total of 27,791 persons were injured in Bus crashes with a yearly average of 6,947.75 (6,948). On monthly and daily average 578.98 (579) and 19.03 (19) respectively were recorded. In 2007, 4,654 persons got injured. In 2008, the figure rose to 7,305 which represent 93.84%. This further increased to 7,809 representing 40.42% in 2009. Also 8,023 injured persons were recorded in 2010 which is 2.74% increase. (See Table 1 and Figure 1). On monthly basis, an average of 387.83 (388) persons were injured in 2007, 608.75 (609) in 2008, 650.75 (651) in 2009 and 668.58 (669) in 2010. The number of persons injured resulting from Bus crashes on a daily average basis increased from 12.75 (13) in 2007, to 20.01 (20) in 2008, 21.39 (21) in 2009 and 21.98 (22) in 2010 (See Tables 1b, 1c and Figures 1b and 1c).

d. **TOTAL CASUALTIES**

A total number of 33,374 persons were either injured or killed in Crashes involving Buses between 2007–2010. This represents 8,343.50 (8,344) casualties on yearly average. 5,637 cases were recorded in 2007, 8,854 in 2008, 9,376 in 2009 and 9,507 in 2010 representing a 57.06% increase in 2008, 5.89% further increase in 2009 and additional 1.39% increase in 2010 respectively. (See Table 1 and Figure 1)

On monthly basis, an average of 695.29 (695) persons were either killed or injured in Bus Crashes on Nigerian roads during the considered period. Further analysis indicated that 2007 had monthly average casualties figure of 469.75 (470). In 2008 the figure increased to 737.83 (738) and to 781.33 (781) in 2009 and rose to 792 casualties per month in 2010. It was also discovered that15.44 (15) casualties on the average were recorded daily in 2007, 24.26 (24) in 2008, 25.69 (26) in 2009 and 26.05 (26) in 2010. (See Tables 1b and 1c Figures 1b and 1c).

e. **NUMBER OF PERSONS INVOLVED**

65,132 persons were involved in bus crashes between 2007 and 2010. This gives an annual average of 16,283 persons. In 2007, 10,584 persons were involved in Bus crashes with 51.28% increase in 2008 which recorded 16,012 numbers of persons. In 2009, 18,870 road users were recorded involved with a 17.84% increase and a total figure of 19,666 in 2010 representing 4.21% increment. (See Table 1 and Figure 1)

Generally an average of 1,356.92 (1,357) persons were involved on monthly basis and 44.61 (45) persons daily in Road Traffic Crashes involving buses on Nigeria roads. In 2007, the monthly average was 882 persons while the daily average of number of persons involved was 29. 2008 had 1,334.33 (1,334) monthly average and 43.87 (44) daily average recorded. These figures rose to 1572.50 (1,573) monthly and 51.70 (52) daily in 2009 respectively and by 2010, the monthly figure for persons

involved in bus RTC on the average had a noticeable rise in the number of persons involved with 1,638.38 (1,638) and 53.88(54) daily average. (See Tables 1b and 1c and Figure 1b and 1c).

f. **TOTAL NUMBER OF VEHICLES INVOLVED**

On the number of crashed buses, the data revealed that 9,488 buses were crashed between 2007 and 2011 which gives a yearly average of 2,372.

The data collated nationwide showed that 1,514 vehicles were involved in crashes in 2007. 2008 had an increase of 41.61% as the figure rose to 2,144 while 2009 had an increase of 37.40% over 2008 with 2,94 crashed vehicles. The figure reduced to 2,884 vehicles in 2010 representing 2.10% decrease in recorded crashed buses compared with 2009 figures. (See Table 1 and Figure 1). An average of 197.67 vehicles were crashed monthly between 2007 and 2010 with a daily average of 6.50 (7) buses.

The rise in the risk involvement is further proven as the figures rose from average 126 monthly crashed vehicles in 2007 to 178.67 (179) in 2008, 245.50 (246) in 2009 and 240.33 (241) in 2010. The daily average of crashed vehicles rose from 4.15 (4) in 2007, to 5.87 (6) in 2008 and 8.07 (9) in 2009. In 2010, it was revealed that an average of 7.90 (8) vehicles crashed per day. (See Tables 1b and 1c and Figures 1b and 1c).

Table 1: **BUS RTC: RECORD OF CRASHES INVOLVING BUSES (2007 - 2010)**

	TOTAL RTC	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSONS INVOLVED	NUMBER OF VEHS. INVOLVED
2007	997	983	4654	5637	10584	1514
2008	1367	1549	7305	8854	16012	2144
2009	1693	1567	7809	9376	18870	2946
2010	1771	1484	8023	9507	19666	2884
TOTAL	5828	5583	27791	33374	65132	9488
AVERAGE	1457	1395.75	6947.75	8343.5	16283	2372

SOURCE: FRSC

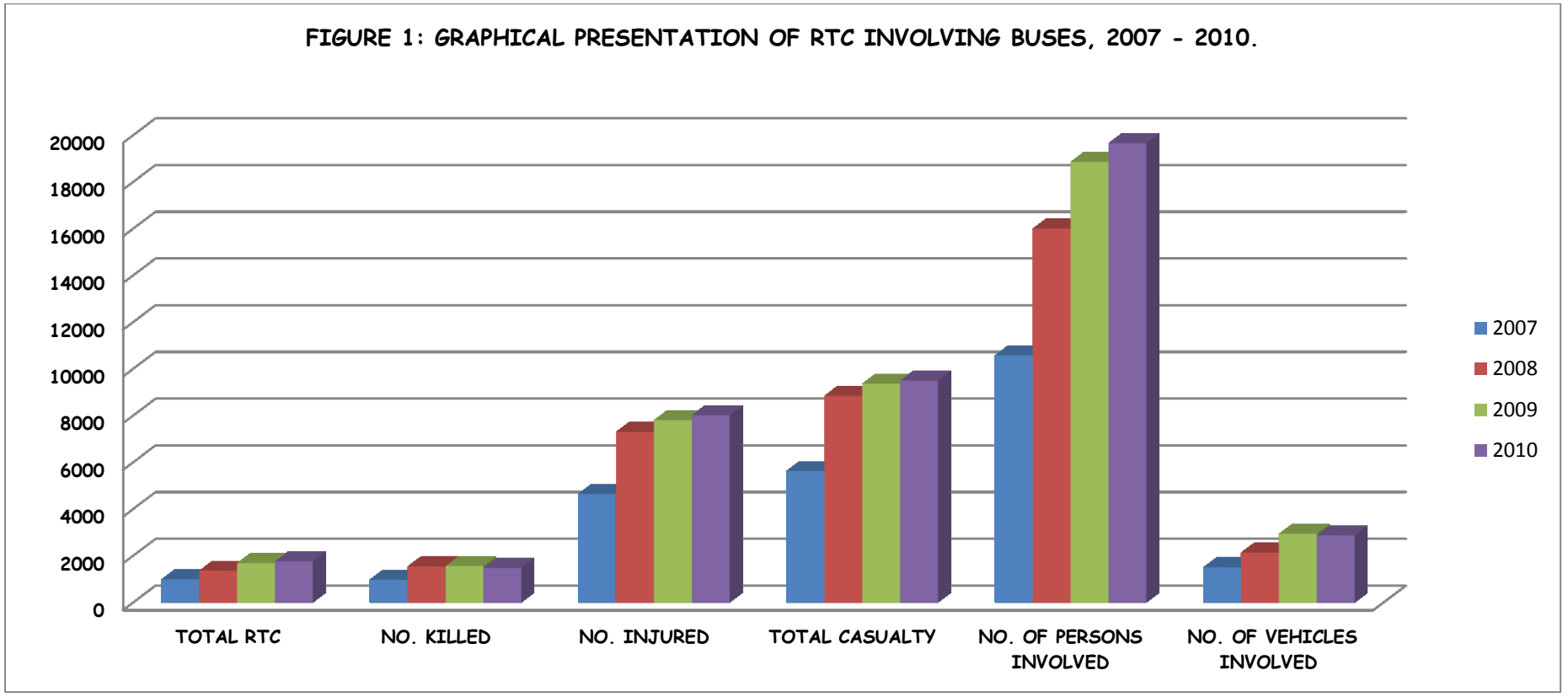
TABLE 1b: AVERAGE MONTHLY BUS CRASH RECORDS						
	TOTAL RTC	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSONS INVOLVED	NUMBER OF VEHS. INVOLVED
2007	83.08	81.92	387.83	469.75	882.00	126.17
2008	113.92	129.08	608.75	737.83	1334.33	178.67
2009	141.08	130.58	650.75	781.33	1572.50	245.50
2010	147.58	123.67	668.58	792.25	1638.83	240.33
2007-2010	121.42	116.31	578.98	695.29	1356.92	197.67

SOURCE: FRSC

TABLE 1c: AVERAGE DAILY BUS CRASH RECORDS						
	TOTAL RTC	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSONS INVOLVED	NUMBER OF VEHS. INVOLVED
2007	2.73	2.69	12.75	15.44	29.00	4.15
2008	3.75	4.24	20.01	24.26	43.87	5.87
2009	4.64	4.29	21.39	25.69	51.70	8.07
2010	4.85	4.07	21.98	26.05	53.88	7.90
2007 – 2010	3.99	3.82	19.03	22.86	44.61	6.50

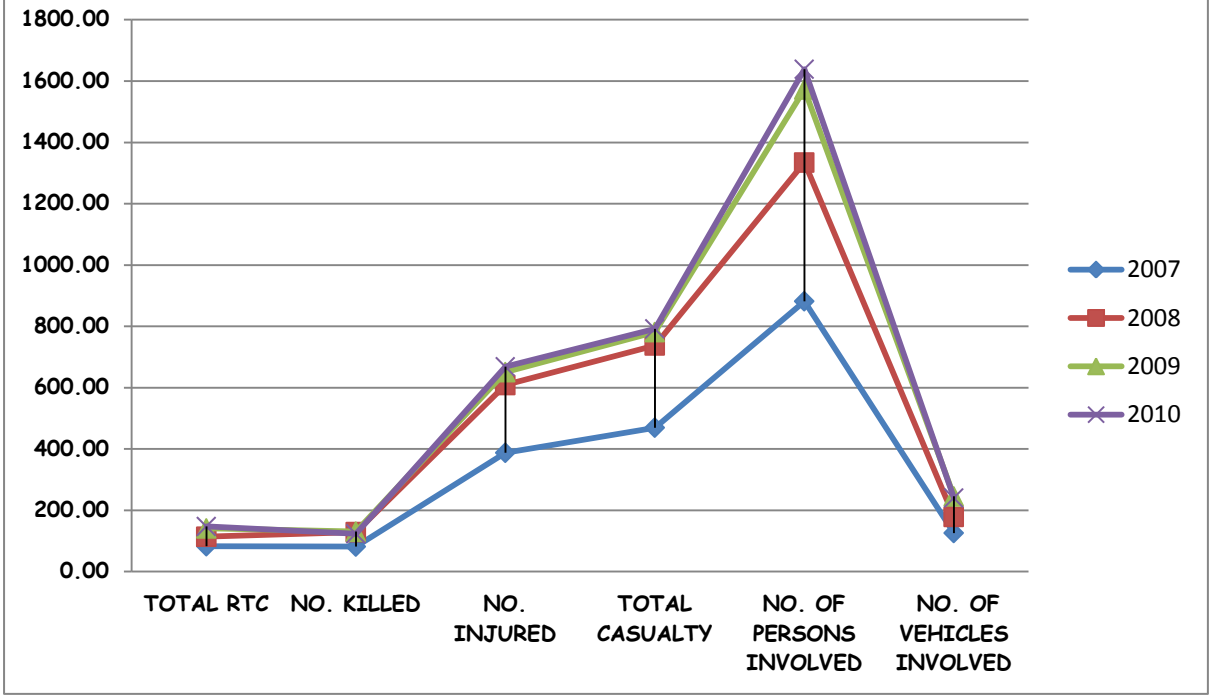
SOURCE: FRSC

FIGURE 1: **BUS RTC: GRAPH OF ROAD TRAFFIC CRASHES INVOLVING BUSES (2007 – 2010)**



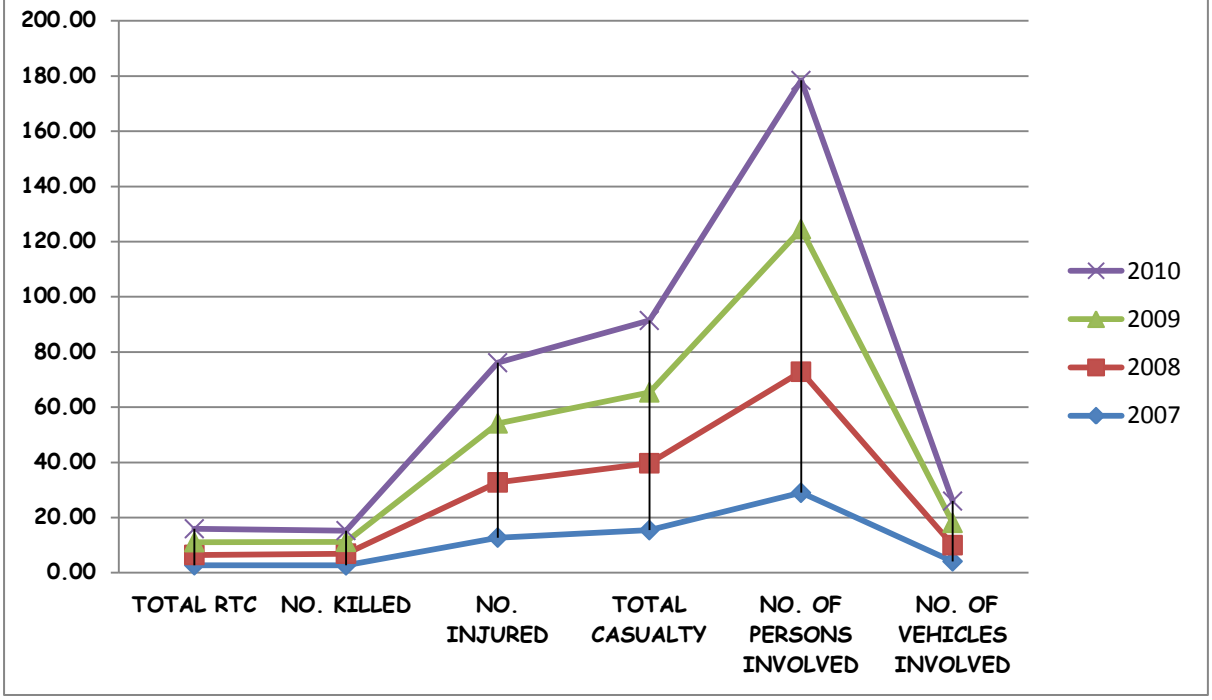
SOURCE: FRSC

FIGURE 1 b: BUS RTC: GRAPHICAL REPRESENTATION OF AVERAGE MONTHLY BUS CRASH RECORDS.



SOURCE: FRSC

FIGURE 1 C: BUS RTC: GRAPHICAL REPRESENTATION OF AVERAGE DAILY BUS CRASH RECORDS.



SOURCE: FRSC

STATE BY STATE RECORDS OF RTC INVOLVING BUSES (2007 – 2010) ON STATE BASIS

Between 2007 and 2010, a total of 5,828 RTC were recorded nationwide with 5,583 killed, 27,791 injured with 65,132 and 9,488 persons and vehicles involved respectively.

Kaduna State recorded the highest cases of 543 (9.4%), Ogun 535 cases (9.2%), Ondo had 345 cases (5.9%) Osun with 331 cases (5.7%) Oyo with 316 (5.44%), Lagos 313 cases (5.39%) and FCT 288 cases representing 5.0% of the total RTC. Zamfara State recorded the least with 17 cases (0.3%), other states with low records comparatively include Kebbi 28 (0.5%), Sokoto 31 (0.5%), Taraba 34 (0.6%), Plateau 40 (0.7%) and Borno 48 (0.8%). (See Table 2a, fig 2a)

From 2007 to 2010, 5,583 persons were killed in RTC involving buses. Out of this, Kaduna State also recorded the highest death of 495 persons (8.9%). Ondo with 441 deaths (7.9%), Katsina with 418 deaths (7.5%). Anambra had 275 deaths (5.0%), while Edo recorded 274 deaths (4.9%). Nasarawa also had 267 deaths (4.8%), Oyo 250 (4.5%) and Ogun 242 (4.3%) of total RTC. Zamfara State still recorded the least number of persons killed with 11 deaths (0.2%), other states with low records of persons killed are Taraba 15 (0.3%), Plateau 17 (0.3%) and Akwa Ibom 21 (0.4%). (See Table 2a Figure 2b).

27,791 people were injured in the 5,828 RTC involving buses from 2007 to 2010. Out of this, Kaduna State recorded the highest figure of 3, 264, and (11.7%), Ogun recorded 2035 injuries (7.3%), Ondo had 1,998 (7.2%), Osun 1,761(6.3%), Oyo 1,629 (5.9%), Lagos 1,353 (4.9%), Katsina 1,311(4.7) and Niger 1,184 (4.3%). The least number of injured persons were recorded in Zamfara state of 112

persons representing (0.4%). Comparatively, other states with low injuries recorded are; Sokoto 14 (0.5%), Ekiti 147 (0.5%), Plateau 133 (0.5%) and Jigawa 331 (1.2%). (See Table 2a Figure 2c)

During the period, 33,374 casualties were recorded. Kaduna State had 3,759 (11.3%), Ondo State with 2,439 (7.3%), Ogun 2,277 (6.8%), Osun 2,002 (6.0%), Oyo 1,879 (5.6%), Katsina 1,729 (5.2%) and Niger 1,416(4.2%). The least number of casualties was recorded in Zamfara State with 122 persons (0.4%), other states within the low belt include Plateau 150 (0.5%), Taraba 152 (0.5%), Sokoto 164 (0.5%), and Akwa Ibom 167 (0.5%). (See Table 2a Figure 2d)

65,132 persons were involved in bus RTC during the period under consideration. Ogun state recorded 7,032 persons (10.8%), Kaduna 5941 (9.1%), Ondo 5,033 persons (7.7%), Osun 3,207 persons, (4.9%), FCT 3,094 (4.8%), OYO 3,048 (4.7%), Lagos 3,000 (4.6%) Niger 1,841 (2.8%), while Kebbi State recorded the lowest number of people involved with 228 persons representing (0.3%). Other states with low rates include Zamfara with 231 persons (0.4%), Taraba with 248 persons (0.4%), Ekiti with 301 persons (0.5%) and Sokoto with 348 persons (0.5%). (See Table 2a Figure 2c)

The total number of vehicles involved in RTC involving buses is 9,488. Out of this Ogun state recorded the highest with 964 (10.1%), Kaduna 687 (7.2%), Ondo 635 (6.7%), FCT 583 (6.1%), Lagos 528 (5.6 %,) Oyo 527 (5.5%), Anambra 486 (5.1%) and Osun 439 (4.6%). The least number of vehicles was recorded in Zamfara state with 20 vehicles representing (0.2%) of total crashed vehicles. Other states with low figures are Kebbi with 29 vehicles (0.3%), Sokoto with 32 vehicles (0.4%), Ekiti with 40 vehicles (0.4%) and Taraba with 46 vehicles (0.5%). (See Table 2a Figure 2a)

From 2007–2010, Anambra State recorded the highest figure of death per crash with 2.81 (3), followed by Kano State with 1.71 (2) and Kogi State with 1.65 (2). The least figures were recorded in Akwa Ibom, Ebonyi and FCT with 0.33, 0.36 and 0.40 death per crash respectively. (See Table 2b Figure 2g)

The highest injury per crash occurred in Borno State with 7.52 (8), followed by 6.85 (7) in Kaduna State and Kogi State recorded 6.25 (6). (See Table 2b Figure 2h)

The states with high casualty per crash were in Borno State with a figure of 8.46 (8), closely followed by Kwara State with 8.36 (8) and Anambra State with 8.21 (8). Conversely, the lowest casualty per crash were recorded in Akwa Ibom, Ebonyi and Bayelsa States with 2.65 (3), 2.91 (3) and 3.24 (3) respectively. (See Table 2b Figure 2i)

On the other hand, Anambra State has the highest severity index of 0.34, followed by Kano State with 0.28 and Cross River with 0.25. Furthermore, Zamfara State recorded the lowest severity index figure with 0.08, followed by Taraba State with 0.10. Therefore, Anambra State is the most dangerous state in terms of severity of crashed buses. (See Table 2b and Figure 2j).

On yearly basis, records of bus crashes revealed that in 2007, the highest cases of RTC involving Buses occurred in Ogun State with 106 cases (10.87%) of the total RTC cases in Nigeria. Lagos state recorded 88 cases (9.03%), Katsina, 62 cases (6.36%), Enugu, 61 cases (6.3 %), Ondo 61 cases (6.3%), Kogi 47 cases (4.8%), Nasarawa 43 cases (4.4%), and Oyo 35 cases (3.59%). The least bus crashes were recorded in Ekiti, with 2 cases (0.21%). Other states in the low rate brackets includes; Zamfara 3 cases (0.3%), Sokoto 4 cases (0.4%) and both Jigawa and Akwa Ibom 6 cases (0.6% each). (See Table 3. and Figures 3a-3e)

In 2008, Kaduna State had the highest RTC involving Buses with 175 cases (12.8%), Osun, 91 cases (6.66%), Katsina 80 cases (5.85%), Oyo 72 cases (5.27%), Ondo 68 cases (4.97%), Nasarawa 66 cases (4.83%) and Edo 55 cases (4.02%). The least crashes were recorded in Kebbi and Zamfara states with 4 cases each of RTC representing 0.29% of total RTC. Other States with low crashes includes; Sokoto 8 (0.6%), Ebonyi 9 (0.7%), Taraba 7 (0.5%) and Jigawa 6 (0.4%). (See Table 4 and Figures 4a-4f)

In 2009, Ogun State recorded the highest RTC with 194 cases (11.46%), Kaduna 157 cases (9.3%), Ondo and Oyo with 120 cases (7.1%) each, FTC 88 cases (5.2%), Osun 74 cases (4.4%) and Nasarawa 68 cases representing 4.0% of total crashes. Sokoto and Zamfara States recorded the least RTC with 7 cases each representing 0.4% of total crashes. Other States with low rates includes; Ekiti 7 (0.4%), Kebbi 8 (0.5%), Taraba 9 (0.5%) and Borno 10 (0.6%). (See table 5 and Figures 5a-5f)

In 2010, Ogun State also recorded the highest RTC with 187 cases (10.6), Kaduna State 153 cases (8.6%), FCT 145 cases (8.2%), Osun 141 cases (8%), Lagos 107 cases (6.0%), Ondo 96 cases (5.4%) and Oyo 89 cases representing (5.0%) of total crashes. Zamfara and Plateau States recorded the least RTC with 3 cases each representing 0.17% of the total crashes involving Buses. Other States with safer bus RTC in 2010 are; Kebbi 8 (0.5%), Taraba 7 (0.4%), Ekiti 8 (0.5%) and Borno 10 (0.6%). (See Table 6 and Figures 6a-6f)

TABLE 2a: **BUS RTC: RTC INVOLVING BUSES DATA 2007 TO 2010.**

S/N	*SECTOR*	*TOTAL RTC*	TOTAL KILLED	TOTAL INJURED	TOTAL CASUALTIES	TOTAL PERSONS	TOTAL VEHICLE
1	RS 1.1, KADUNA	**543**	**495**	**3264**	**3759**	**5941**	**687**
2	RS 1.2, KANO	**132**	**226**	**567**	**793**	**1876**	**190**
3	RS 1.3, KATSINA	**280**	**418**	**1311**	**1729**	**2783**	**349**
4	RS 1.4, JIGAWA	**75**	**69**	**331**	**400**	**706**	**95**
5	RS 2.1, LAGOS	**313**	**179**	**1353**	**1532**	**3000**	**528**
6	RS 2.2, OGUN	**535**	**242**	**2035**	**2277**	**7032**	**964**
7	RS 3.1, ADAMAWA	**114**	**48**	**442**	**490**	**968**	**253**
8	RS 3.2, GOMBE	**104**	**75**	**621**	**696**	**1178**	**145**
9	RS 3.3, TARABA	**34**	**15**	**137**	**152**	**248**	**46**
10	RS 4.1, PLATEAU	**40**	**17**	**133**	**150**	**361**	**79**
11	RS 4.2, BENUE	**83**	**107**	**462**	**569**	**997**	**119**
12	RS 4.3, NASARAWA	**236**	**267**	**1103**	**1370**	**2432**	**360**
13	RS 5.1, EDO	**189**	**274**	**989**	**1263**	**2627**	**331**
14	RS 5.2, DELTA	**118**	**72**	**391**	**463**	**1557**	**217**
15	RS 5.3, ANAMBRA	**98**	**275**	**530**	**805**	**878**	**486**
16	RS 6.1, RIVERS	**152**	**146**	**535**	**681**	**1395**	**240**
17	RS 6.2, C/RIVERS	**54**	**63**	**193**	**256**	**623**	**96**
18	RS 6.3, A/IBOM	**63**	**21**	**146**	**167**	**517**	**88**
19	RS 6.4, BAYELSA	**71**	**37**	**193**	**230**	**384**	**80**
20	RS 7.1, FCT	**288**	**114**	**915**	**1029**	**3094**	**583**
21	RS 7.2, NIGER	**197**	**232**	**1184**	**1416**	**1841**	**322**
22	RS 8.1, KWARA	**155**	**234**	**1062**	**1296**	**2249**	**249**
23	RS 8.2, EKITI	**26**	**30**	**147**	**177**	**301**	**40**
24	RS 8.3, KOGI	**127**	**210**	**794**	**1004**	**2336**	**164**
25	RS 9.1, ENUGU	**202**	**204**	**662**	**868**	**1900**	**315**
26	RS9.2, EBONYI	**66**	**24**	**168**	**192**	**736**	**68**
27	RS 9.3, ABIA	**73**	**65**	**309**	**374**	**566**	**94**
28	RS 9.4, IMO	**82**	**79**	**268**	**347**	**1057**	**151**
29	RS 10.1, SOKOTO	**31**	**23**	**141**	**164**	**348**	**32**
30	RS 10.2, KEBBI	**28**	**47**	**156**	**203**	**228**	**29**
31	RS10.3, ZAMFARA	**17**	**10**	**112**	**122**	**231**	**20**
32	RS 11.1, OSUN	**331**	**241**	**1761**	**2002**	**3207**	**439**
33	RS 11.2, ONDO	**345**	**441**	**1998**	**2439**	**5033**	**635**
34	RS 11.3, OYO	**316**	**250**	**1629**	**1879**	**3048**	**527**
35	RS 12.1, BAUCHI	**133**	**117**	**667**	**784**	**1442**	**209**
36	RS 12.2, BORNO	**48**	**45**	**361**	**406**	**514**	**67**
37	RS 12.3, YOBE	**129**	**171**	**721**	**892**	**1498**	**191**
TOTAL		**5828**	**5583**	**27791**	**33374**	**65132**	**9488**

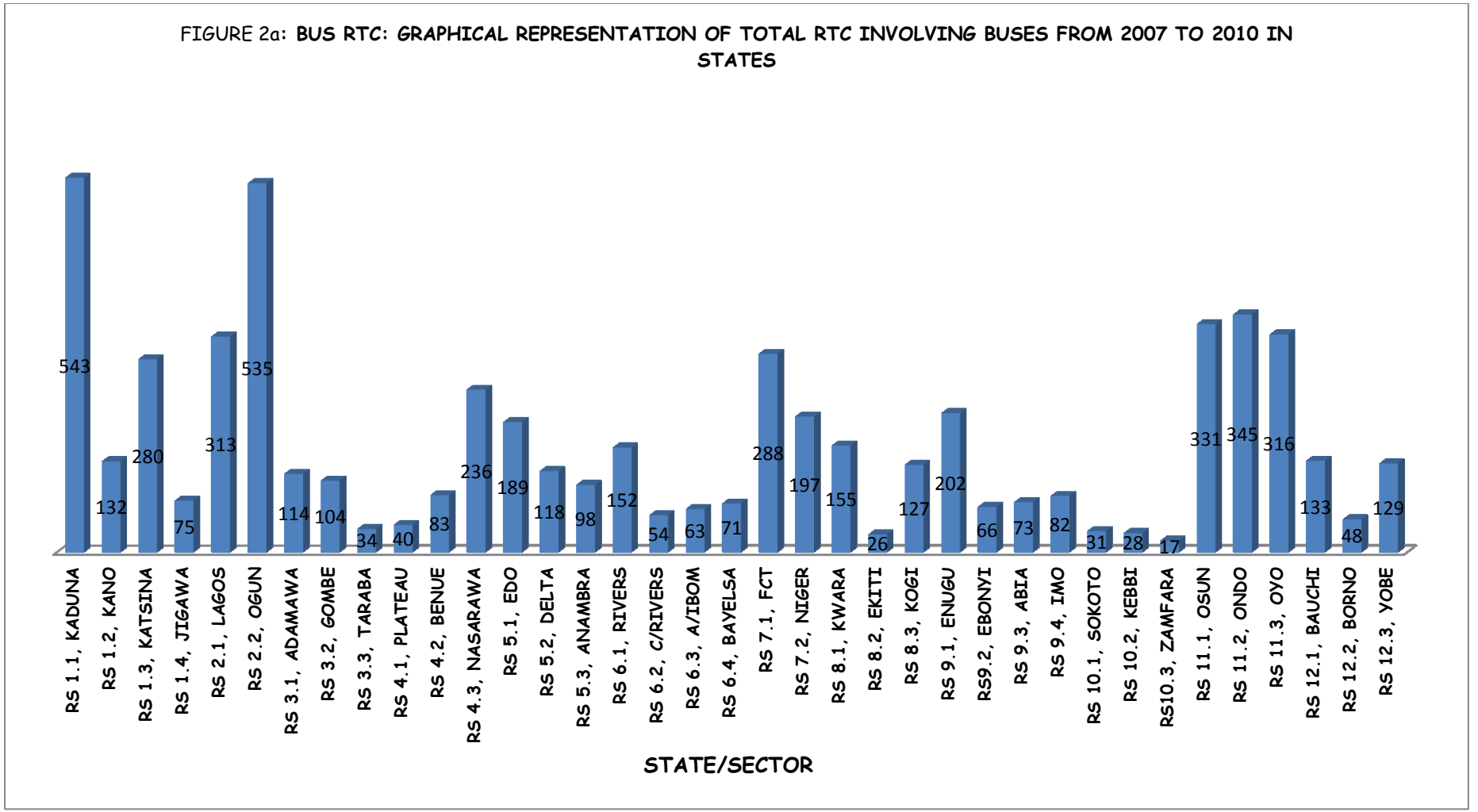
SOURCE: FRSC

TABLE 2b: **BUS RTC: RTC INVOLVING BUSES (2007 TO 2010) IN STATES**

S/N	SECTOR	TOTAL RTC	TOTAL KILLED	TOTAL INJURED	TOTAL CASUALTIES	DEATH PER CRASH	INJURY PER CRASH	CASUALTY PER CRASH	SEVERITY INDEX
1	RS 1.1, KADUNA	**543**	**495**	**3264**	**3759**	**0.91**	**6.01**	**6.92**	**0.13**
2	RS 1.2, KANO	**132**	**226**	**567**	**793**	**1.71**	**4.30**	**6.01**	**0.28**
3	RS 1.3, KATSINA	**280**	**418**	**1311**	**1729**	**1.49**	**4.68**	**6.18**	**0.24**
4	RS 1.4, JIGAWA	**75**	**69**	**331**	**400**	**0.92**	**4.41**	**5.33**	**0.17**
5	RS 2.1, LAGOS	**313**	**179**	**1353**	**1532**	**0.57**	**4.32**	**4.89**	**0.12**
6	RS 2.2, OGUN	**535**	**242**	**2035**	**2277**	**0.45**	**3.80**	**4.26**	**0.11**
7	RS 3.1, ADAMAWA	**114**	**48**	**442**	**490**	**0.42**	**3.88**	**4.30**	**0.10**
8	RS 3.2, GOMBE	**104**	**75**	**621**	**696**	**0.72**	**5.97**	**6.69**	**0.11**
9	RS 3.3, TARABA	**34**	**15**	**137**	**152**	**0.44**	**4.03**	**4.47**	**0.10**
10	RS 4.1, PLATEAU	**40**	**17**	**133**	**150**	**0.43**	**3.33**	**3.75**	**0.11**
11	RS 4.2, BENUE	**83**	**107**	**462**	**569**	**1.29**	**5.57**	**6.86**	**0.19**
12	RS 4.3, NASARAWA	**236**	**267**	**1103**	**1370**	**1.13**	**4.67**	**5.81**	**0.19**
13	RS 5.1, EDO	**189**	**274**	**989**	**1263**	**1.45**	**5.23**	**6.68**	**0.22**
14	RS 5.2, DELTA	**118**	**72**	**391**	**463**	**0.61**	**3.31**	**3.92**	**0.16**
15	RS 5.3, ANAMBRA	**98**	**275**	**530**	**805**	**2.81**	**5.41**	**8.21**	**0.34**
16	RS 6.1, RIVERS	**152**	**146**	**535**	**681**	**0.96**	**3.52**	**4.48**	**0.21**
17	RS 6.2, C/RIVERS	**54**	**63**	**193**	**256**	**1.17**	**3.57**	**4.74**	**0.25**
18	RS 6.3, A/IBOM	**63**	**21**	**146**	**167**	**0.33**	**2.32**	**2.65**	**0.13**
19	RS 6.4, BAYELSA	**71**	**37**	**193**	**230**	**0.52**	**2.72**	**3.24**	**0.16**
20	RS 7.1, FCT	**288**	**114**	**915**	**1029**	**0.40**	**3.18**	**3.57**	**0.11**
21	RS 7.2, NIGER	**197**	**232**	**1184**	**1416**	**1.18**	**6.01**	**7.19**	**0.16**
22	RS 8.1, KWARA	**155**	**234**	**1062**	**1296**	**1.51**	**6.85**	**8.36**	**0.18**
23	RS 8.2, EKITI	**26**	**30**	**147**	**177**	**1.15**	**5.65**	**6.81**	**0.17**
24	RS 8.3, KOGI	**127**	**210**	**794**	**1004**	**1.65**	**6.25**	**7.91**	**0.21**

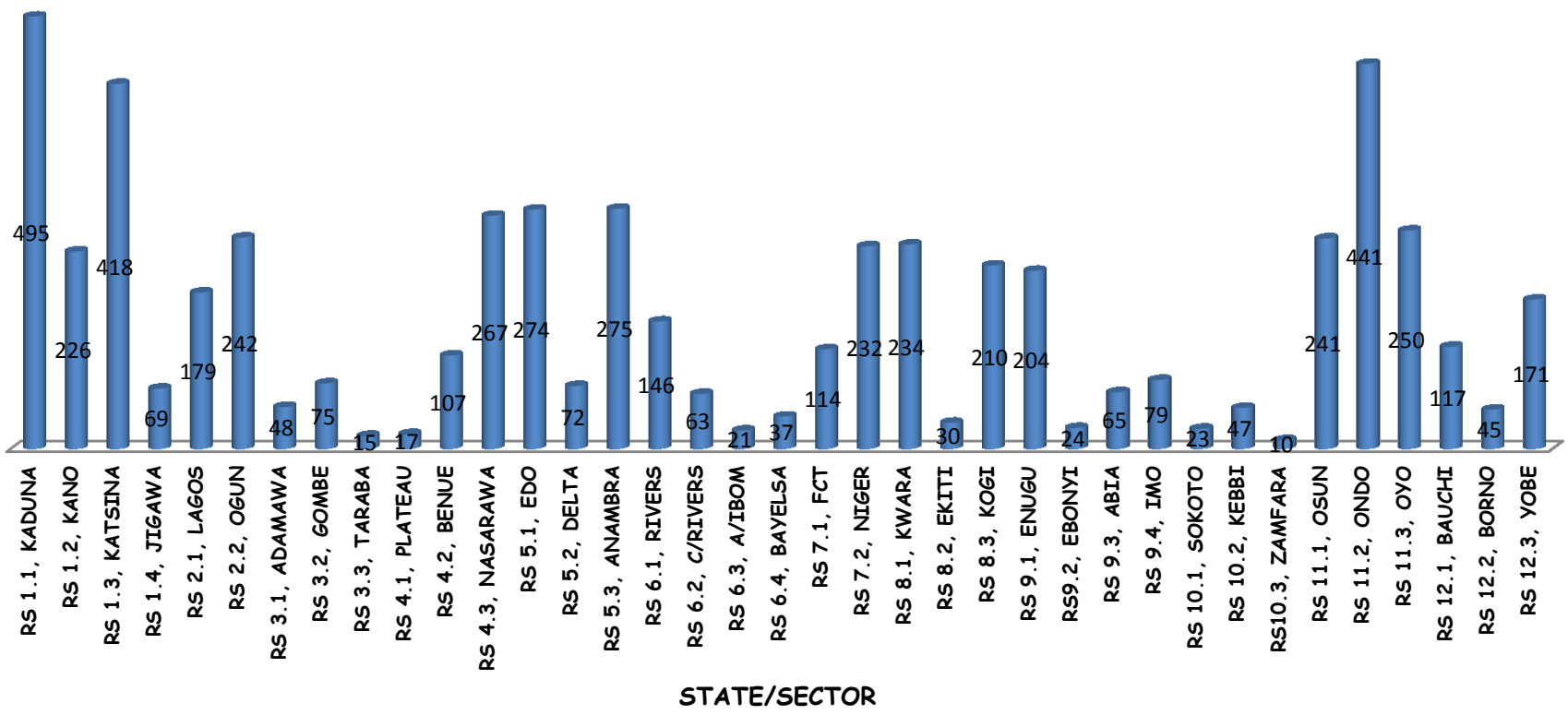
25	RS 9.1, ENUGU	202	204	662	868	1.01	3.28	4.30	0.24
26	RS9.2, EBONYI	66	24	168	192	0.36	2.55	2.91	0.13
27	RS 9.3, ABIA	73	65	309	374	0.89	4.23	5.12	0.17
28	RS 9.4, IMO	82	79	268	347	0.96	3.27	4.23	0.23
29	RS 10.1, SOKOTO	31	23	141	164	0.74	4.55	5.29	0.14
30	RS 10.2, KEBBI	28	47	156	203	1.68	5.57	7.25	0.23
31	RS10.3, ZAMFARA	17	10	112	122	0.59	6.59	7.18	0.08
32	RS 11.1, OSUN	331	241	1761	2002	0.73	5.32	6.05	0.12
33	RS 11.2, ONDO	345	441	1998	2439	1.28	5.79	7.07	0.18
34	RS 11.3, OYO	316	250	1629	1879	0.79	5.16	5.95	0.13
35	RS 12.1, BAUCHI	133	117	667	784	0.88	5.02	5.89	0.15
36	RS 12.2, BORNO	48	45	361	406	0.94	7.52	8.46	0.11
37	RS 12.3, YOBE	129	171	721	892	1.33	5.59	6.91	0.19
TOTAL		**5828**	**5583**	**27791**	**33374**	**0.96**	**4.77**	**5.73**	**0.17**

FIGURE 2a: **BUS RTC: GRAPHICAL REPRESENTATION OF TOTAL RTC INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



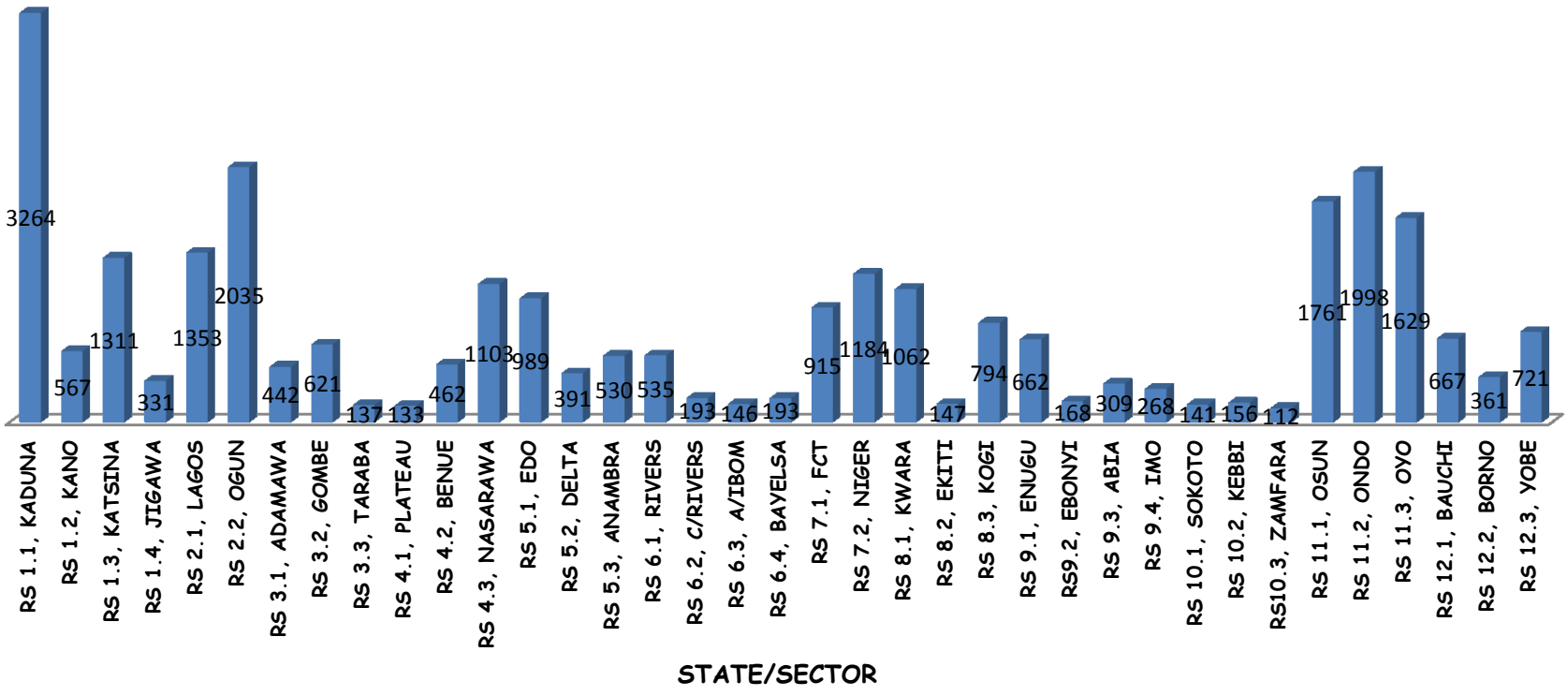
SOURCE : FRSC

FIGURE 2b: **BUS RTC: GRAPHICAL REPRESENTATION OF TOTAL NUMBER OF PERSONS KILLED INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



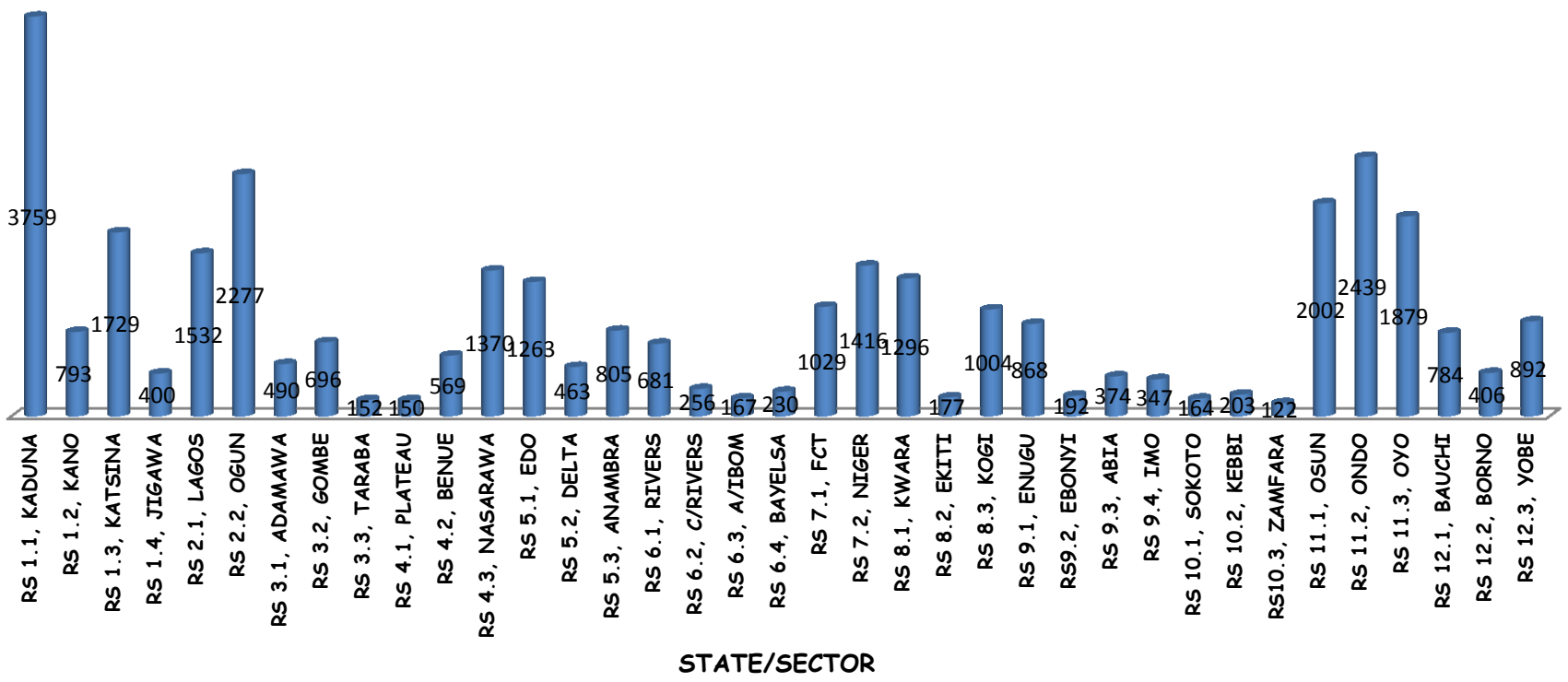
SOURCE : FRSC

FIGURE 2c: **BUS RTC: GRAPHICAL REPRESENTATION OF TOTAL NUMBER OF PERSONS INJURED INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



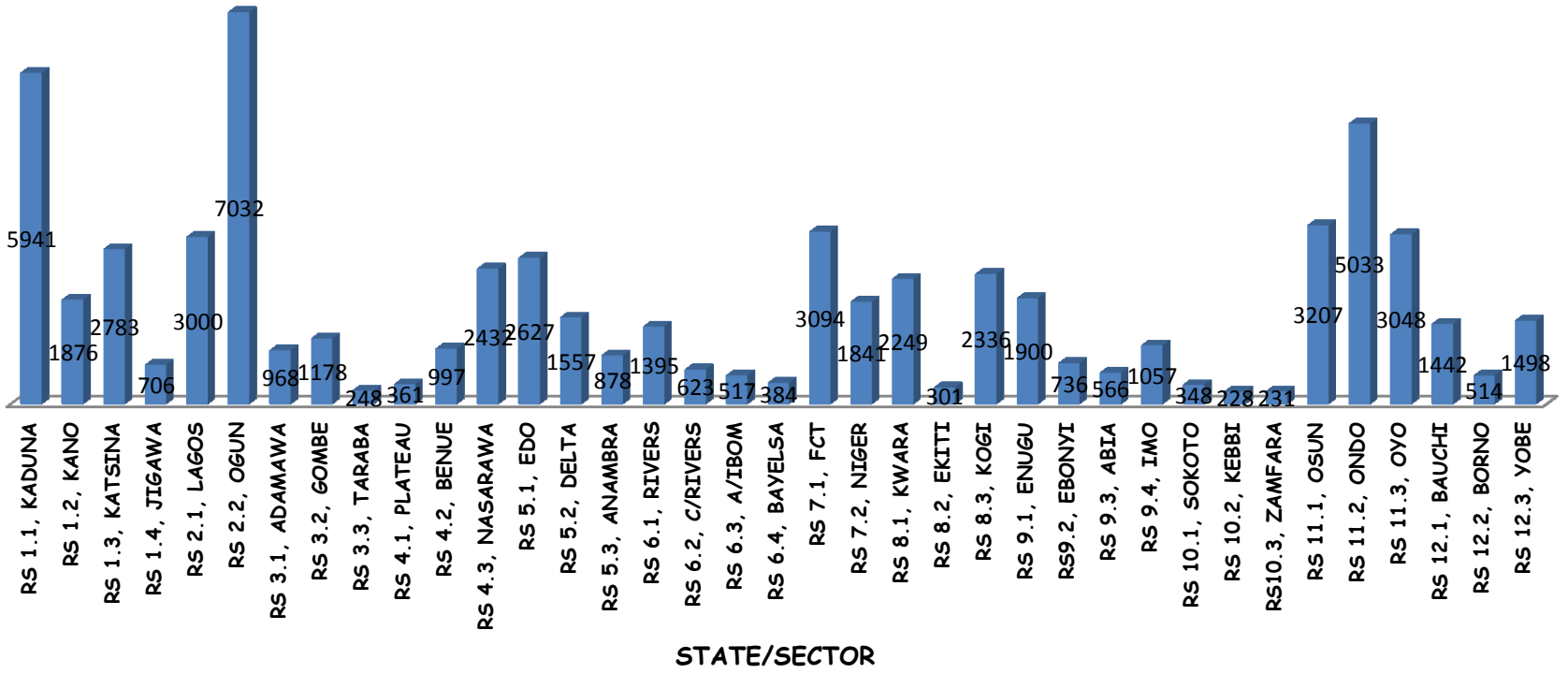
SOURCE : FRSC

FIGURE 2d: **BUS RTC: GRAPHICAL REPRESENTATION OF TOTAL NUMBER OF CASUALTIES INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



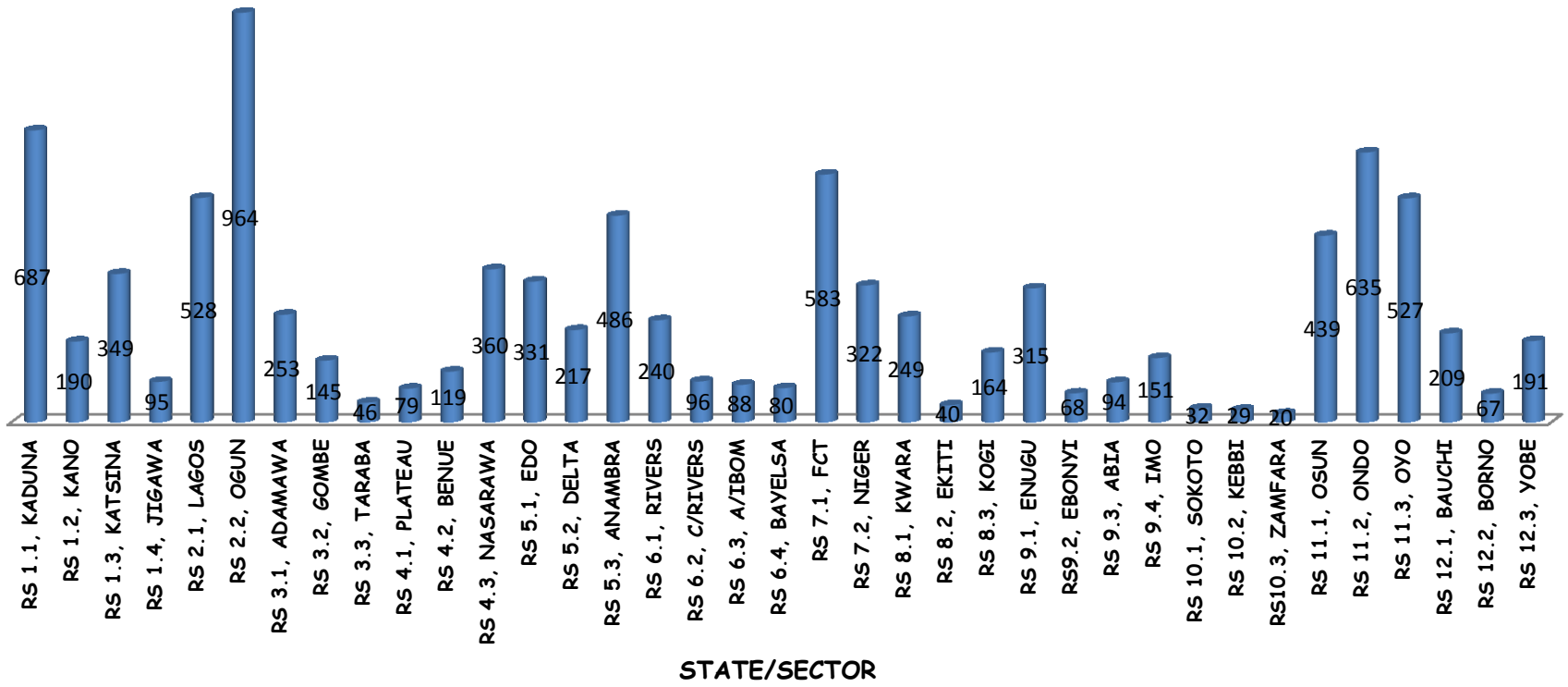
SOURCE : FRSC

FIGURE 2e: **BUS RTC: GRAPHICAL REPRESENTATION OF TOTAL NUMBER OF PERSONS INVOLVED RTC INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



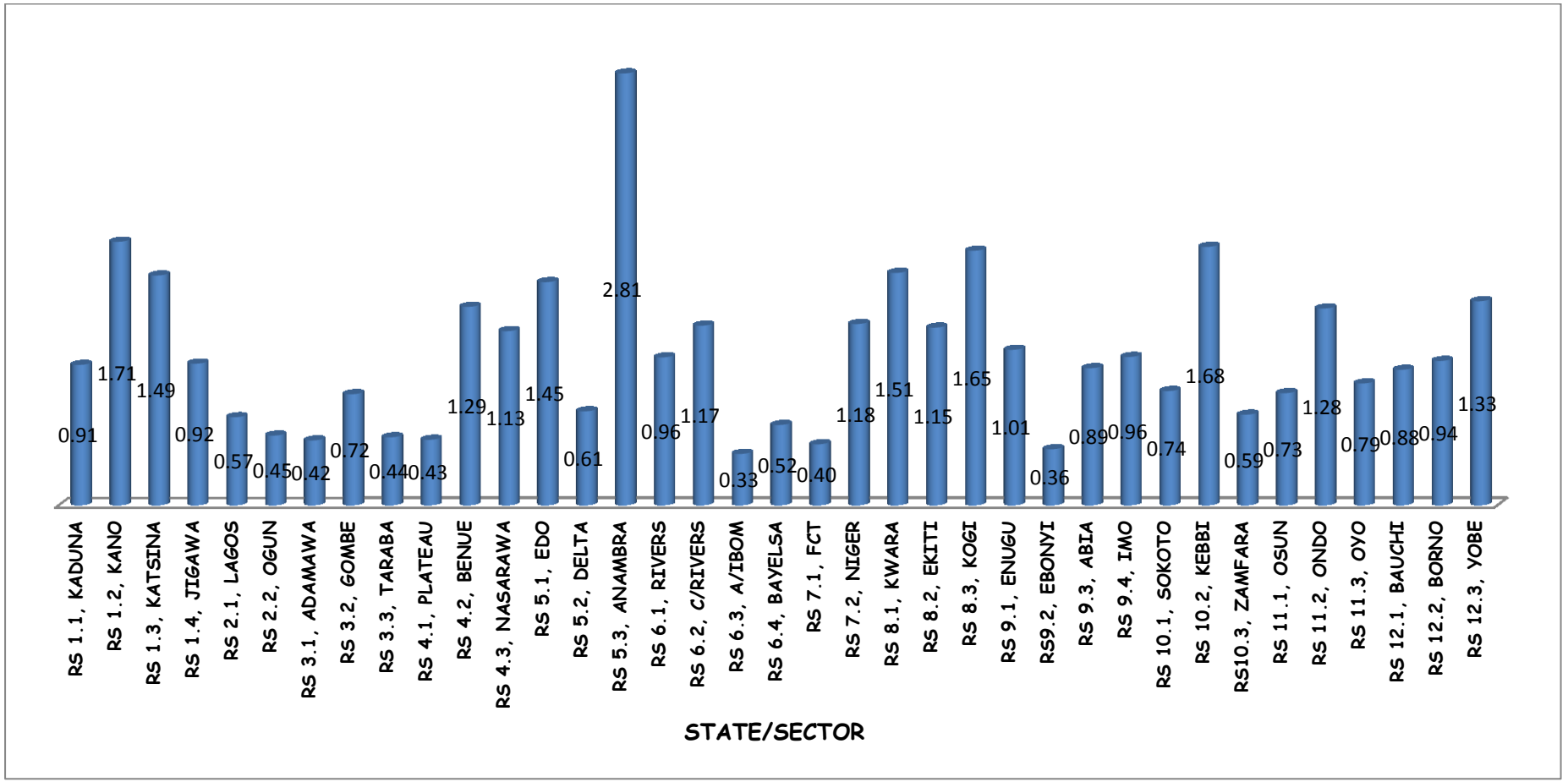
SOURCE : FRSC

FIGURE 2f: **BUS RTC: GRAPHICAL REPRESENTATION OF TOTAL NUMBER OF VEHICLES INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



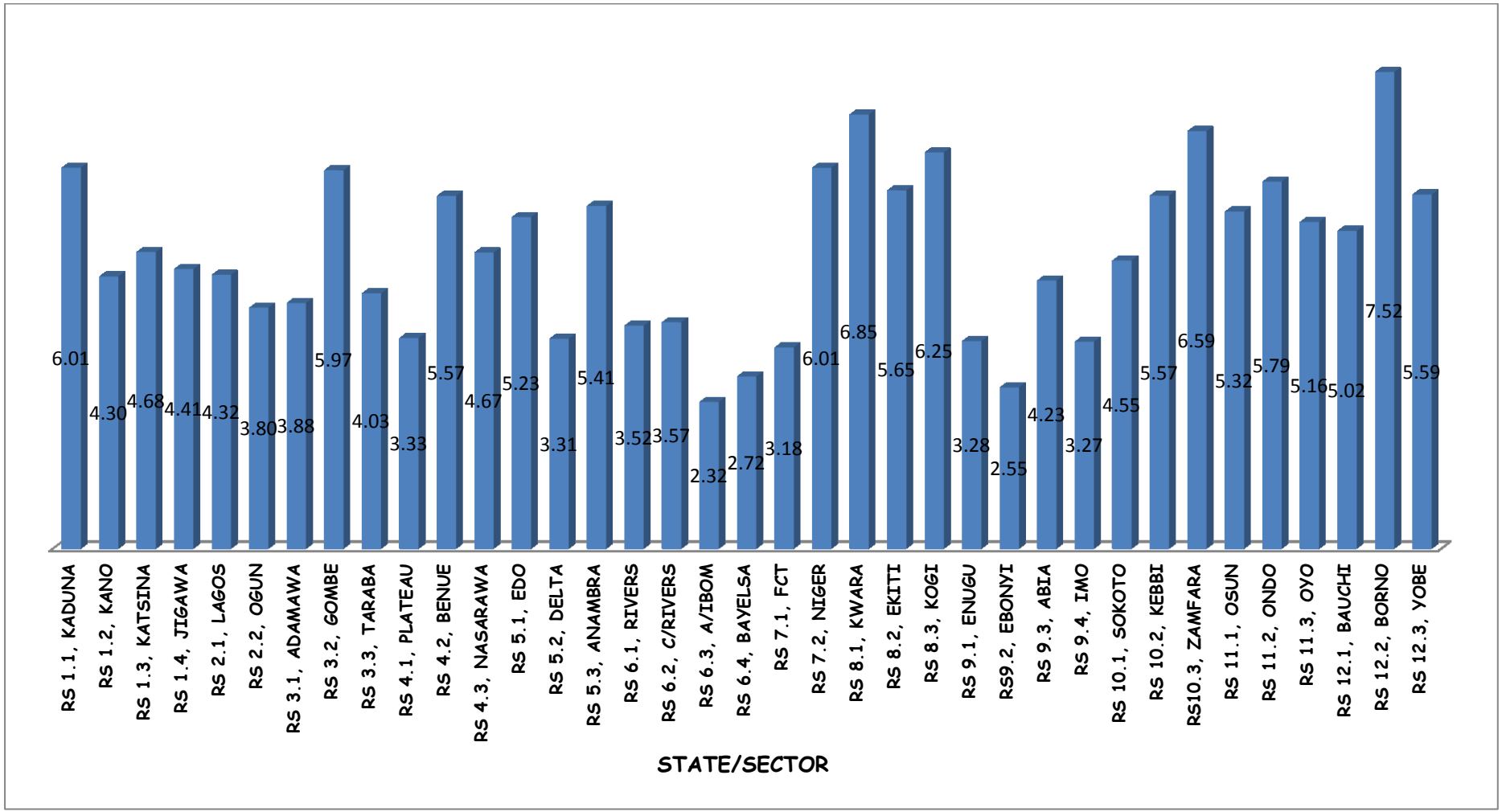
SOURCE: FRSC

FIGURE 2g: **BUS RTC: GRAPHICAL REPRESENTATION OF DEATH PER CRASH INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



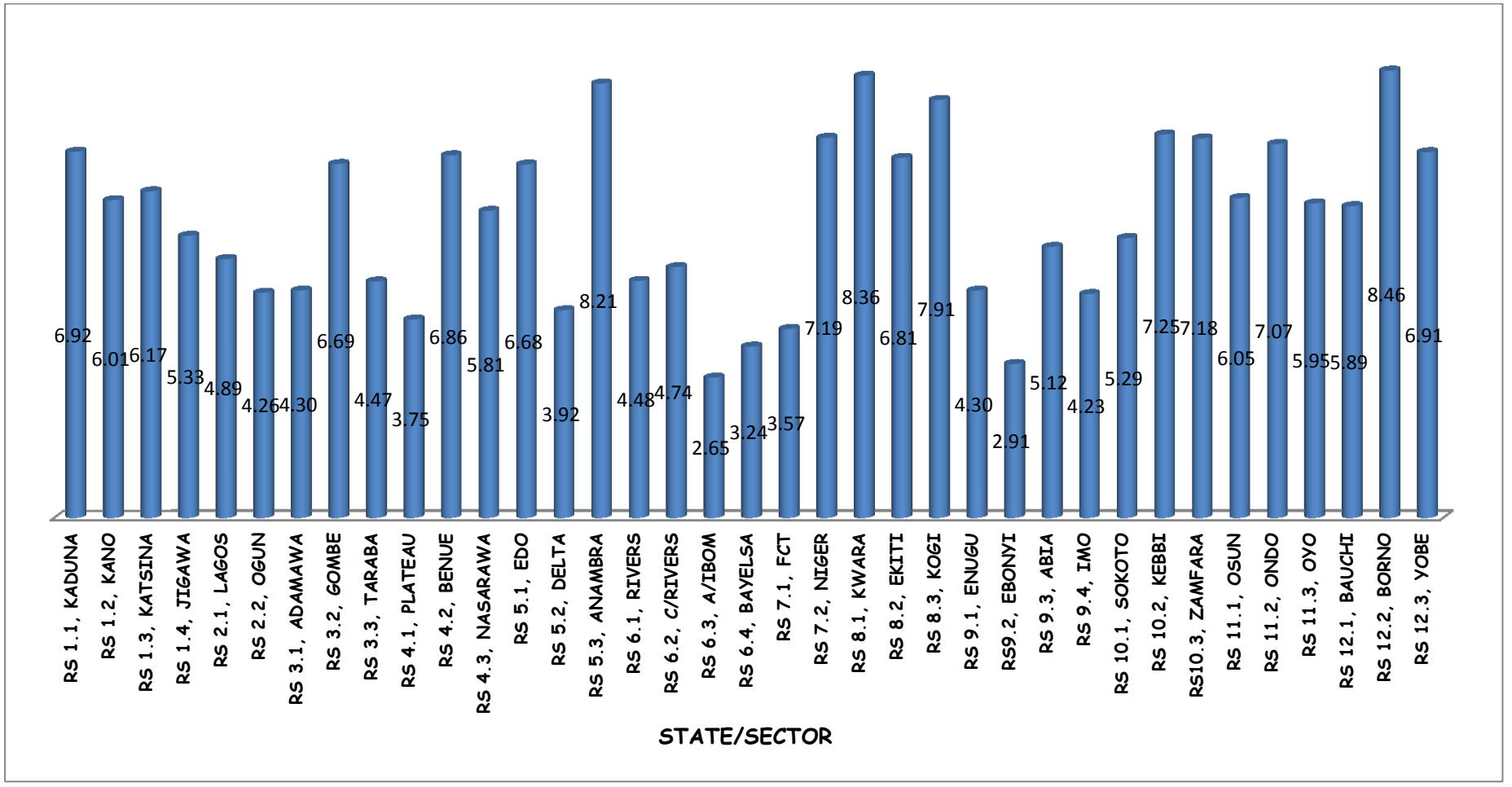
SOURCE: FRSC

FIGURE 2h: **BUS RTC: GRAPHICAL REPRESENTATION OF INJURY PER CRASH INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



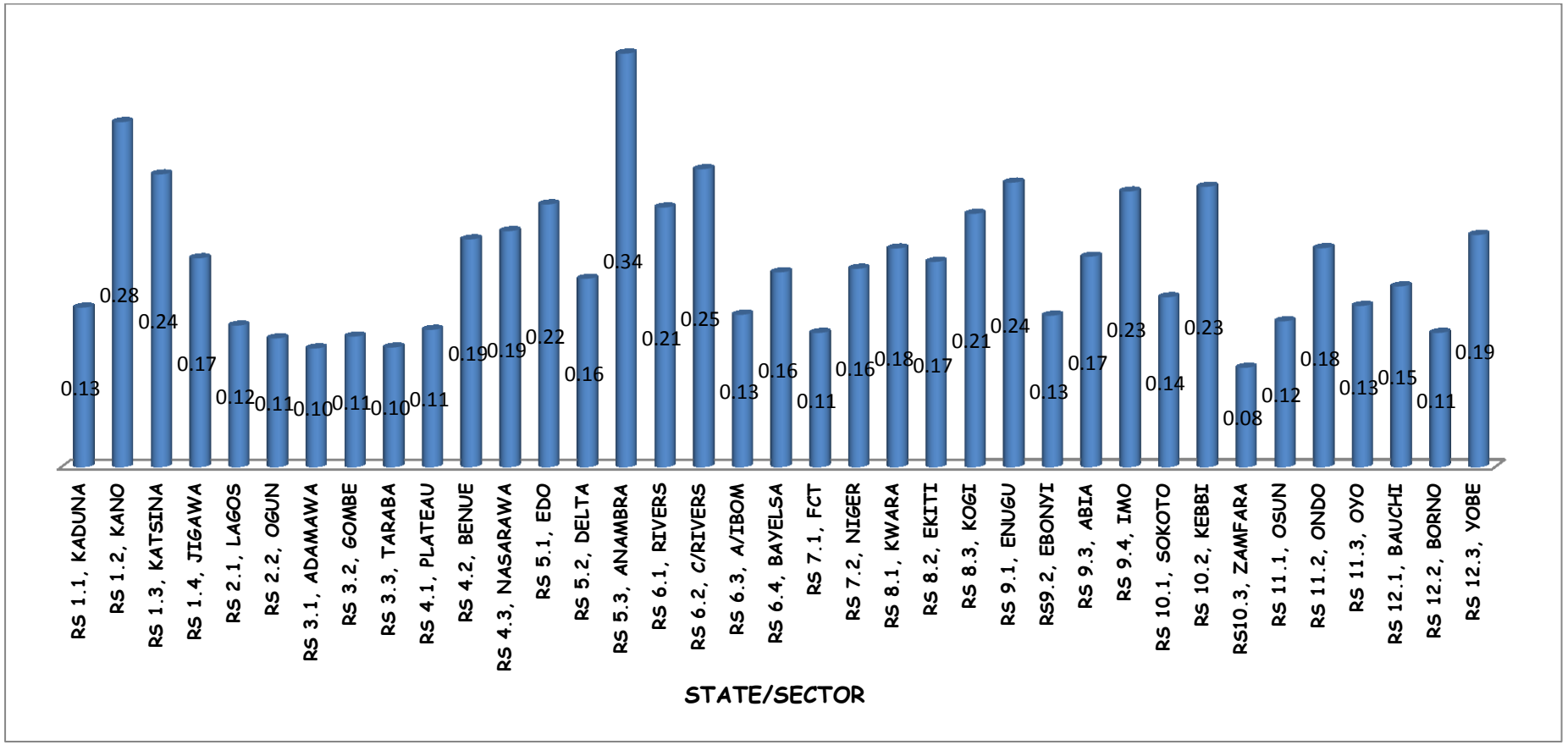
SOURCE: FRSC

FIGURE 2i: **BUS RTC: GRAPHICAL REPRESENTATION OF CASUALTY PER CRASH INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



SOURCE: FRSC

FIGURE 2j: **BUS RTC: GRAPHICAL REPRESENTATION OF SEVERITY INDEXES INVOLVING BUSES FROM 2007 TO 2010 IN STATES**



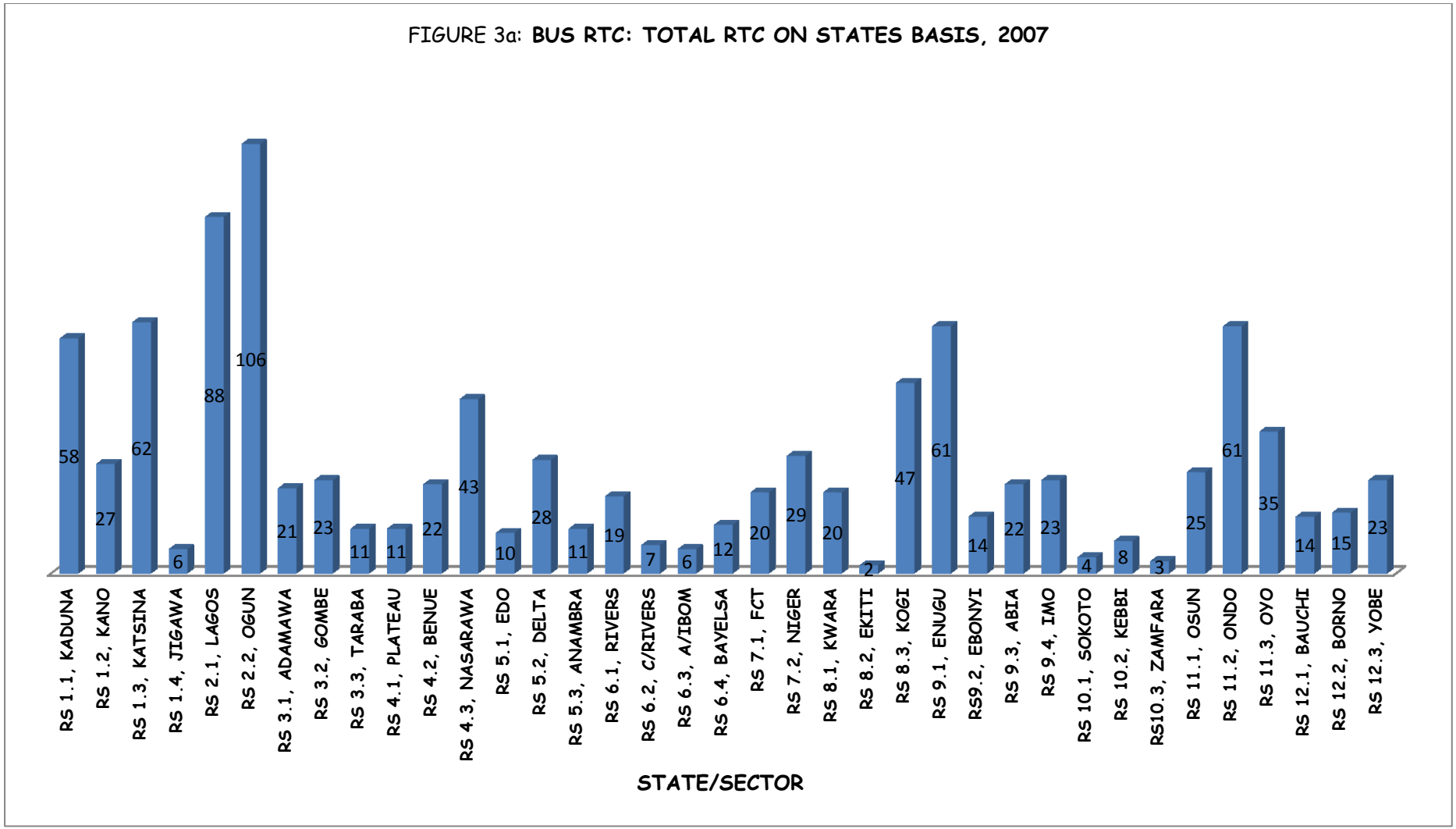
SOURCE: FRSC

TABLE 3: **BUS RTC: 2007 BUS ROAD TRAFFIC CRASHES (RTCs) IN THE STATES.**

S/N	*SECTOR/STATE*	*TOTAL RTC*	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSON INVOLVED	NO. OF VEH. INVOLVED
1	RS 1.1, KADUNA	58	75	390	465	590	64
2	RS 1.2, KANO	27	47	83	130	359	35
3	RS 1.3, KATSINA	62	75	248	323	433	69
4	RS 1.4, JIGAWA	6	7	29	36	62	9
5	RS 2.1, LAGOS	88	40	412	452	868	146
6	RS 2.2, OGUN	106	93	458	551	1388	188
7	RS 3.1, ADAMAWA	21	11	100	111	160	30
8	RS 3.2, GOMBE	23	20	142	162	307	35
9	RS 3.3, TARABA	11	12	45	57	87	13
10	RS 4.1, PLATEAU	11	8	14	22	63	22
11	RS 4.2, BENUE	22	39	228	267	378	43
12	RS 4.3, NASARAWA	43	33	166	199	333	57
13	RS 5.1, EDO	10	9	81	90	149	14
14	RS 5.2, DELTA	28	29	140	169	415	54
15	RS 5.3, ANAMBRA	11	7	54	61	90	59
16	RS 6.1, RIVERS	19	41	22	63	150	36
17	RS 6.2, C/RIVERS	7	2	12	14	62	13
18	RS 6.3, A/IBOM	6	1	17	18	105	11
19	RS 6.4, BAYELSA	12	11	58	69	112	13
20	RS 7.1, FCT	20	1	42	43	163	37
21	RS 7.2, NIGER	29	24	124	148	225	43
22	RS 8.1, KWARA	20	63	206	269	449	35
23	RS 8.2, EKITI	2	0	8	8	36	4
24	RS 8.3, KOGI	47	66	249	315	752	63
25	RS 9.1, ENUGU	61	69	219	288	656	77
26	RS9.2, EBONYI	14	7	49	56	110	12
27	RS 9.3, ABIA	22	23	59	82	90	23
28	RS 9.4, IMO	23	9	61	70	180	39
29	RS 10.1, SOKOTO	4	1	3	4	28	4
30	RS 10.2, KEBBI	8	10	32	42	67	6
31	RS10.3, ZAMFARA	3	1	19	20	44	4
32	RS 11.1, OSUN	25	15	139	154	167	42
33	RS 11.2, ONDO	61	47	373	420	870	97
34	RS 11.3, OYO	35	21	128	149	191	38
35	RS 12.1, BAUCHI	14	7	45	52	72	27
36	RS 12.2, BORNO	15	23	73	96	98	22
37	RS 12.3, YOBE	23	36	126	162	275	30
TOTAL		**997**	**983**	**4654**	**5637**	**10584**	**1514**

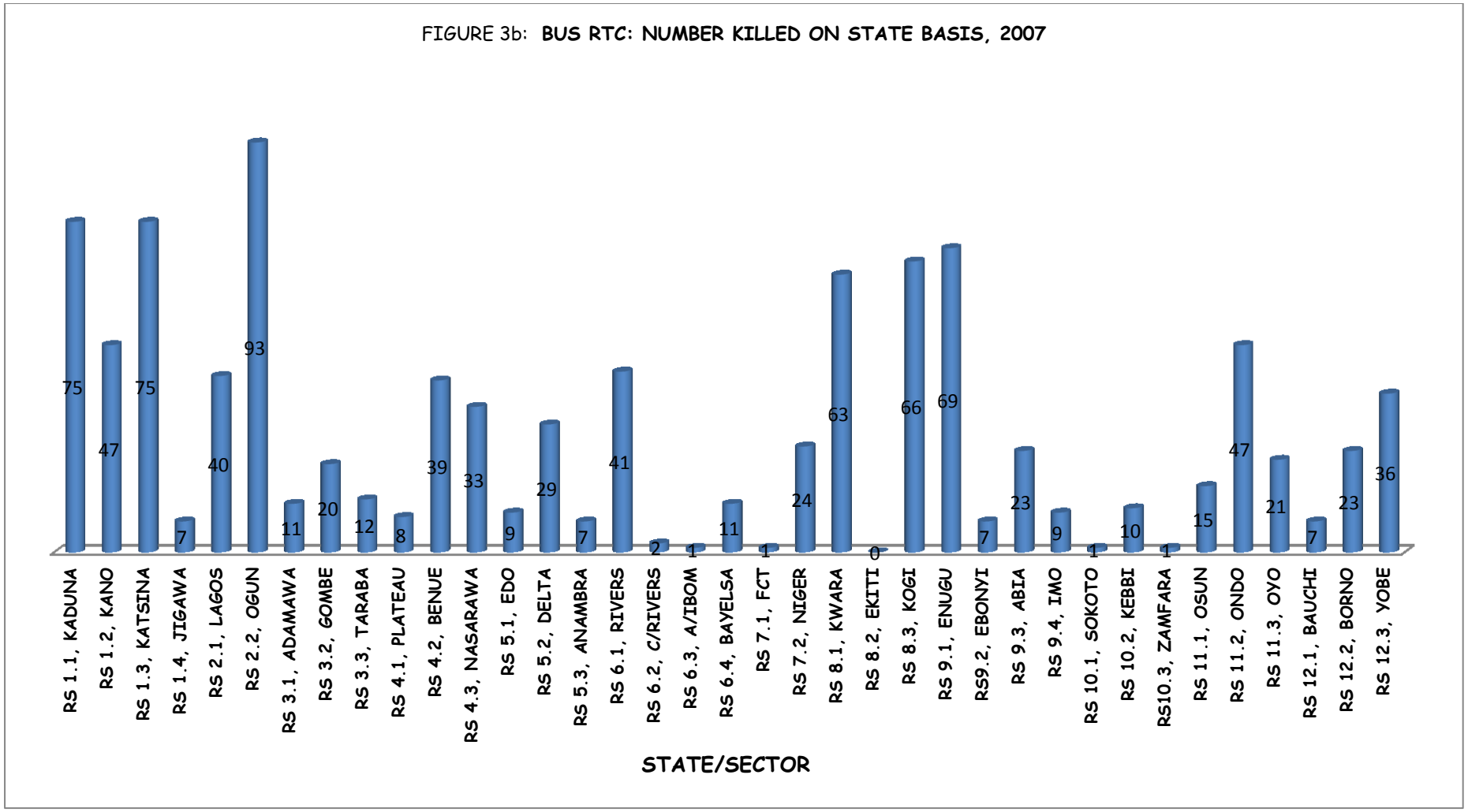
SOURCE: FRSC

FIGURE 3a: **BUS RTC: TOTAL RTC ON STATES BASIS, 2007**



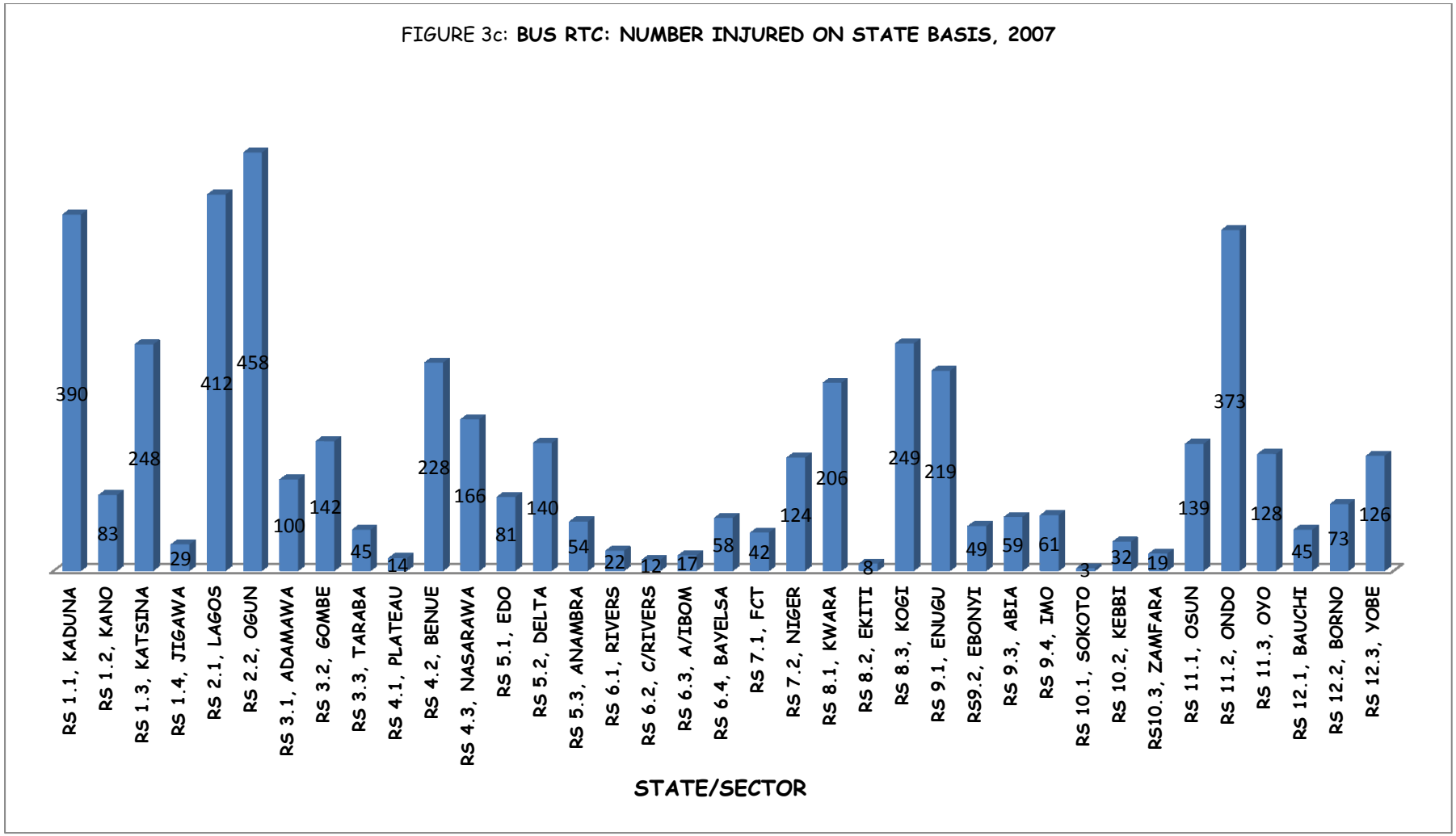
SOURCE: FRSC

FIGURE 3b: **BUS RTC: NUMBER KILLED ON STATE BASIS, 2007**



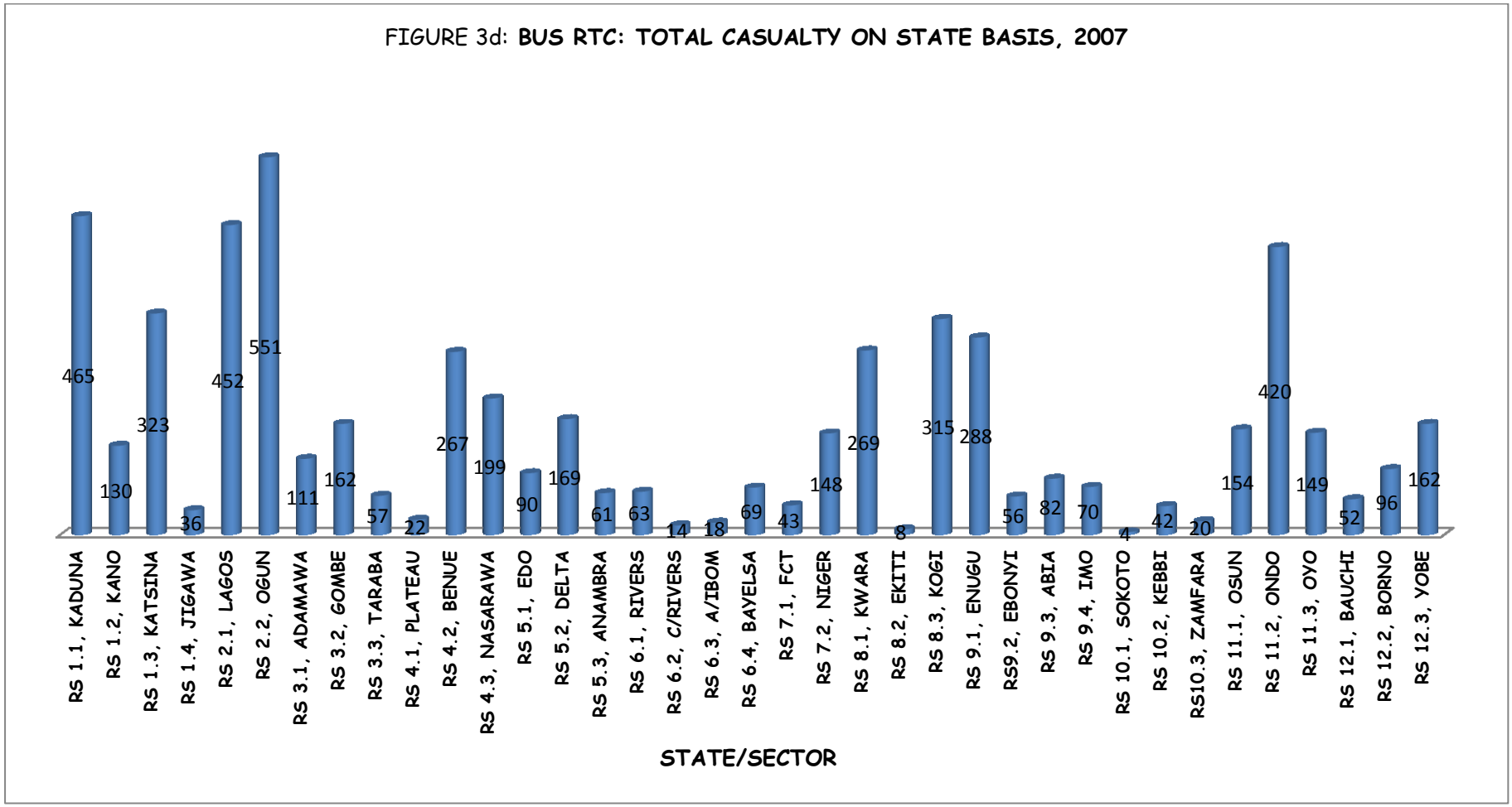
SOURCE: FRSC

FIGURE 3c: **BUS RTC: NUMBER INJURED ON STATE BASIS, 2007**



SOURCE: FRSC

FIGURE 3d: **BUS RTC: TOTAL CASUALTY ON STATE BASIS, 2007**



SOURCE: FRSC

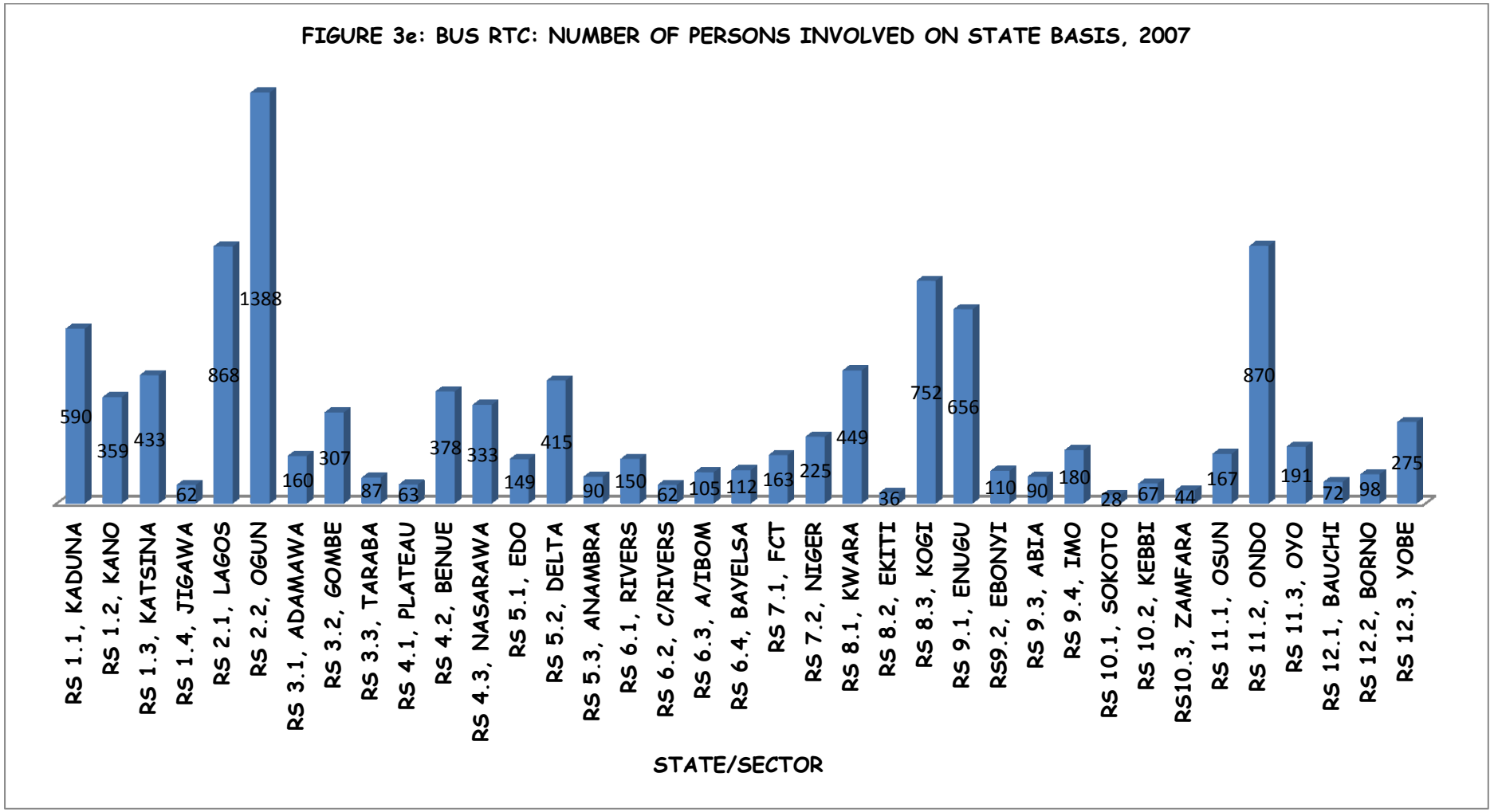
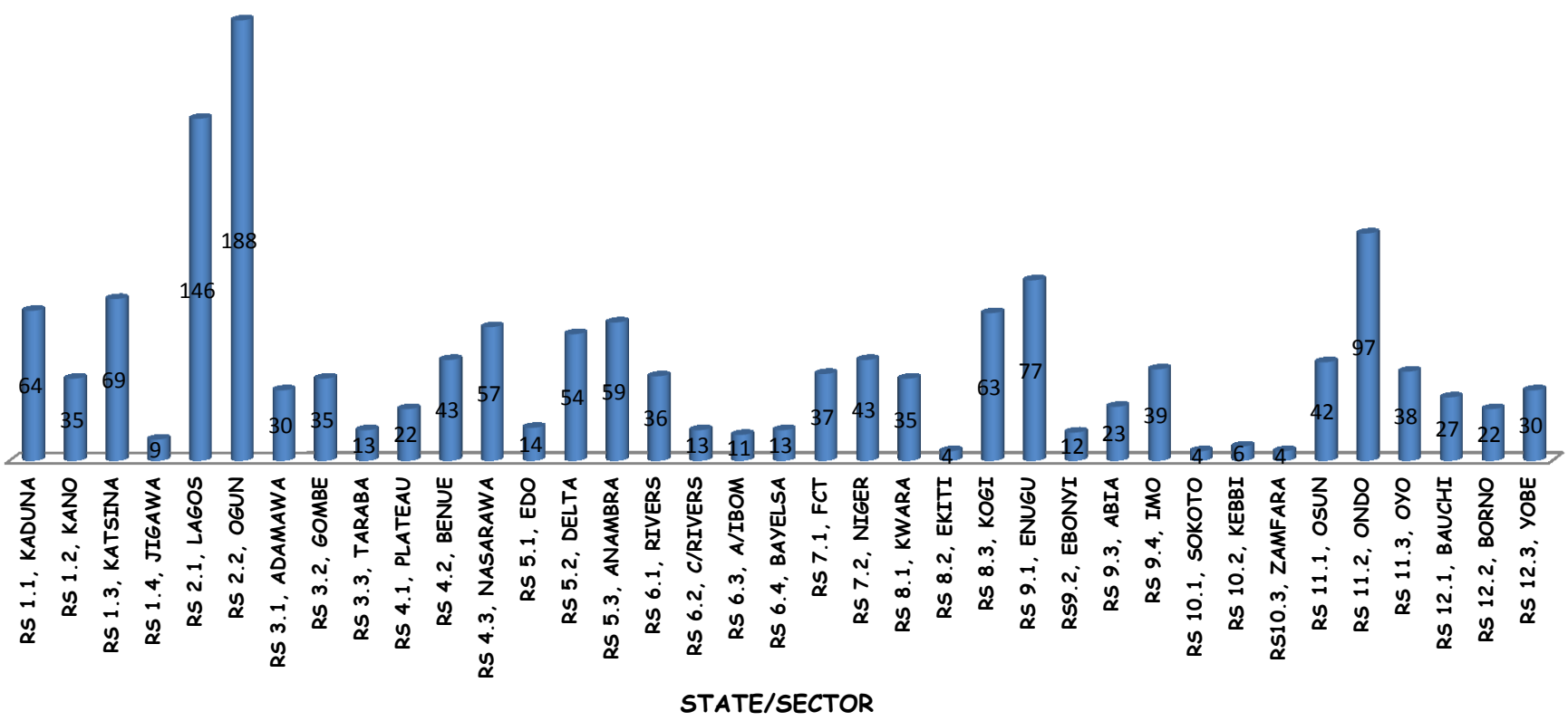


FIGURE 3e: BUS RTC: NUMBER OF PERSONS INVOLVED ON STATE BASIS, 2007
590
359
433
62
868
1388
160
307
87
63
378
333
149
415
90
150
62
105
112
163
225
449
36
752
656
110
90
180
28
67
44
167
870
191
72
98
275
RS 1.1, KADUNA
RS 1.2, KANO
RS 1.3, KATSINA
RS 1.4, JIGAWA
RS 2.1, LAGOS
RS 2.2, OGUN
RS 3.1, ADAMAWA
RS 3.2, GOMBE
RS 3.3, TARABA
RS 4.1, PLATEAU
RS 4.2, BENUE
RS 4.3, NASARAWA
RS 5.1, EDO
RS 5.2, DELTA
RS 5.3, ANAMBRA
RS 6.1, RIVERS
RS 6.2, C/RIVERS
RS 6.3, A/IBOM
RS 6.4, BAYELSA
RS 7.1, FCT
RS 7.2, NIGER
RS 8.1, KWARA
RS 8.2, EKITI
RS 8.3, KOGI
RS 9.1, ENUGU
RS9.2, EBONYI
RS 9.3, ABIA
RS 9.4, IMO
RS 10.1, SOKOTO
RS 10.2, KEBBI
RS10.3, ZAMFARA
RS 11.1, OSUN
RS 11.2, ONDO
RS 11.3, OYO
RS 12.1, BAUCHI
RS 12.2, BORNO
RS 12.3, YOBE
STATE/SECTOR

SOURCE: FRSC

FIGURE 3f: **BUS RTC: NUMBER OF VEHICLES INVOLVED ON STATE BASIS, 2007**



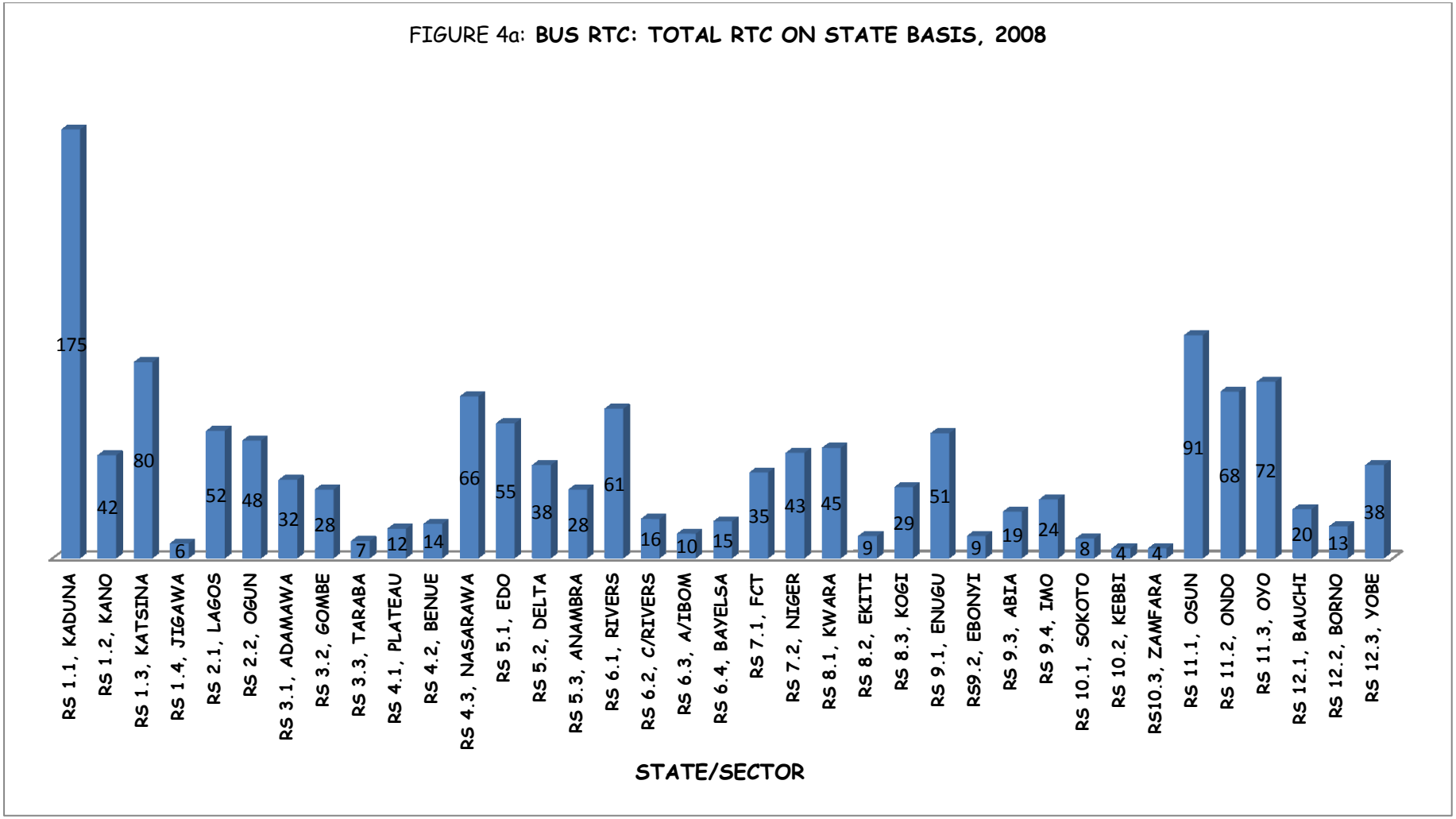
SOURCE: FRSC

TABLE 4: BUS RTC: 2008 BUS ROAD TRAFFIC CRASHES (RTCs) IN THE STATES.

S/N	SECTOR	TOTAL RTC	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSON INVOLVED	NUMBER OF VEH. INVOLVED
1	RS 1.1, KADUNA	175	167	1094	1261	2046	200
2	RS 1.2, KANO	42	115	204	319	629	54
3	RS 1.3, KATSINA	80	151	325	476	1088	96
4	RS 1.4, JIGAWA	6	9	40	49	88	9
5	RS 2.1, LAGOS	52	16	187	203	360	69
6	RS 2.2, OGUN	48	29	235	264	542	74
7	RS 3.1, ADAMAWA	32	18	89	107	196	131
8	RS 3.2, GOMBE	28	21	214	235	351	31
9	RS 3.3, TARABA	7	-	22	22	50	12
10	RS 4.1, PLATEAU	12	4	48	52	125	20
11	RS 4.2, BENUE	14	3	41	44	87	18
12	RS 4.3, NASARAWA	66	97	327	424	659	99
13	RS 5.1, EDO	55	112	301	413	874	95
14	RS 5.2, DELTA	38	22	96	118	521	69
15	RS 5.3, ANAMBRA	28	91	306	397	315	78
16	RS 6.1, RIVERS	61	25	161	186	381	90
17	RS 6.2, C/RIVERS	16	15	49	64	172	29
18	RS 6.3, A/IBOM	10	2	30	32	65	15
19	RS 6.4, BAYELSA	15	2	36	38	76	20
20	RS 7.1, FCT	35	21	95	116	409	71
21	RS 7.2, NIGER	43	41	295	336	421	71
22	RS 8.1, KWARA	45	21	246	267	503	61
23	RS 8.2, EKITI	9	19	70	89	125	16
24	RS 8.3, KOGI	29	52	211	263	562	39
25	RS 9.1, ENUGU	51	39	246	285	548	82
26	RS9.2, EBONYI	9	3	25	28	162	7
27	RS 9.3, ABIA	19	22	121	143	183	24
28	RS 9.4, IMO	24	42	98	140	316	42
29	RS 10.1, SOKOTO	8	3	53	56	133	8
30	RS 10.2, KEBBI	4	14	21	35	35	5
31	RS10.3, ZAMFARA	4	-	33	33	55	5
32	RS 11.1, OSUN	91	109	624	733	1168	142
33	RS 11.2, ONDO	68	78	477	555	1081	130
34	RS 11.3, OYO	72	86	390	476	783	128
35	RS 12.1, BAUCHI	20	20	110	130	280	35
36	RS 12.2, BORNO	13	9	161	170	200	17
37	RS 12.3, YOBE	38	71	224	295	423	52
TOTAL		1367	1549	7305	8854	16012	2144

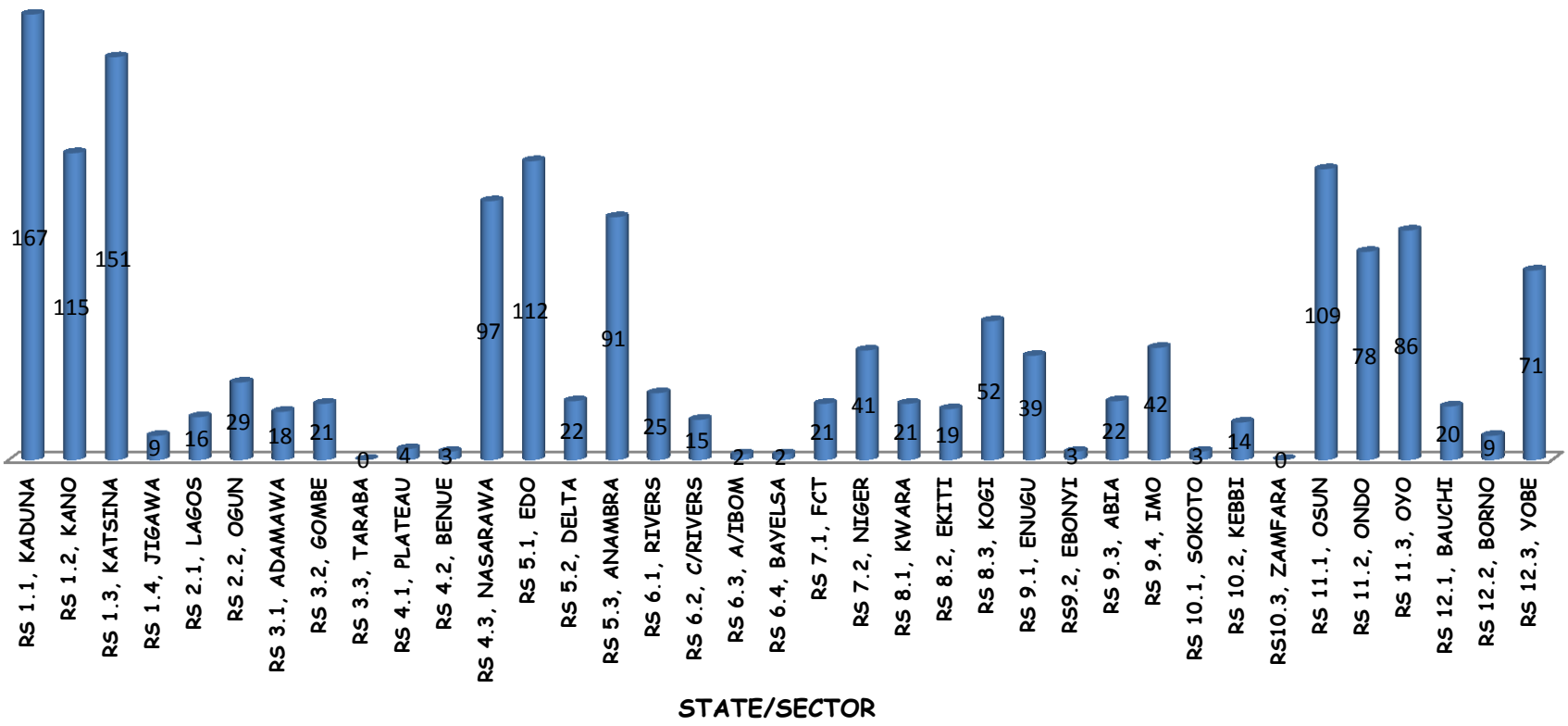
SOURCE: FRSC

FIGURE 4a: **BUS RTC: TOTAL RTC ON STATE BASIS, 2008**



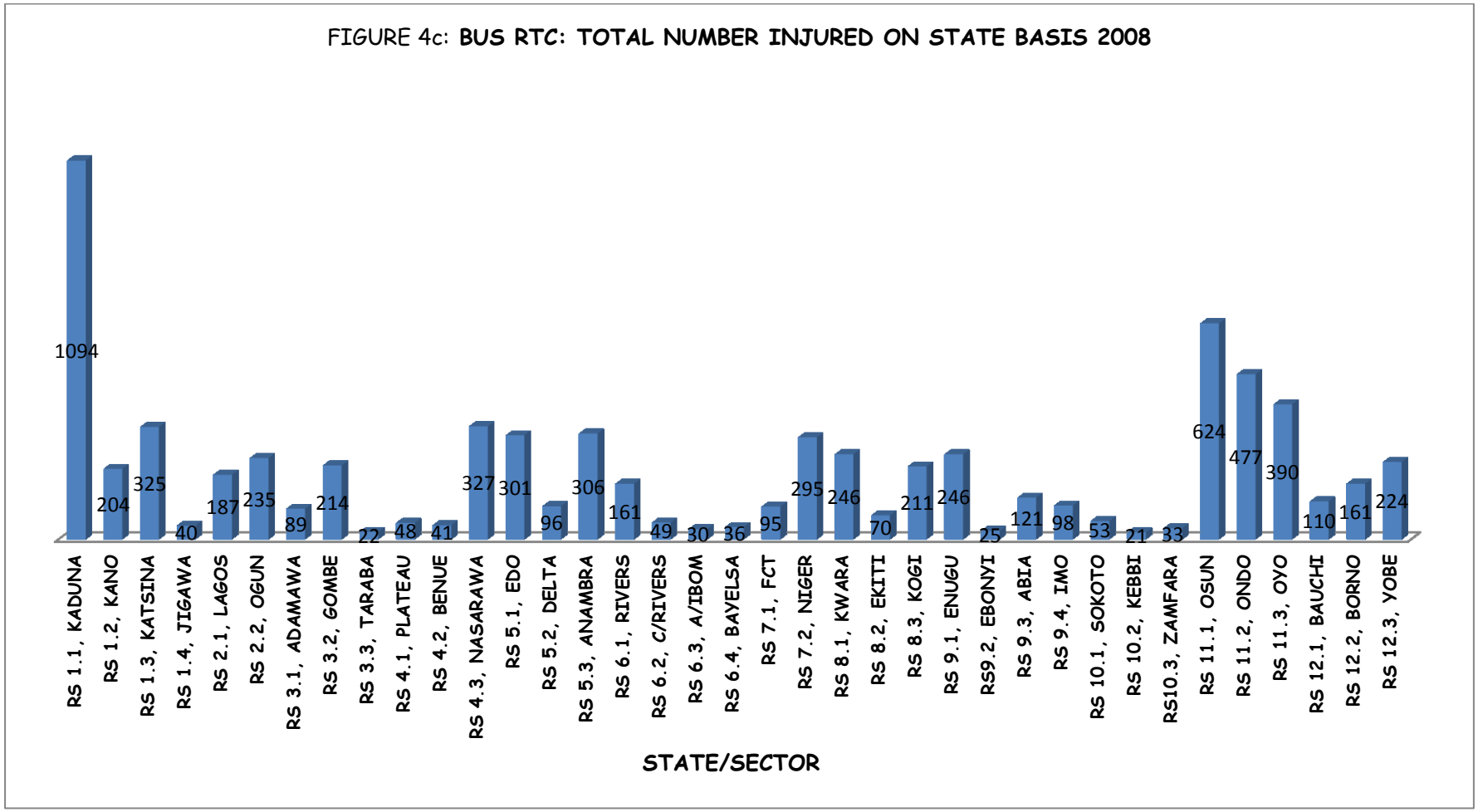
SOURCE: FRSC

FIGURE 4b: **BUS RTC: TOTAL NUMBER KILLED ON STATE BASIS, 2008.**



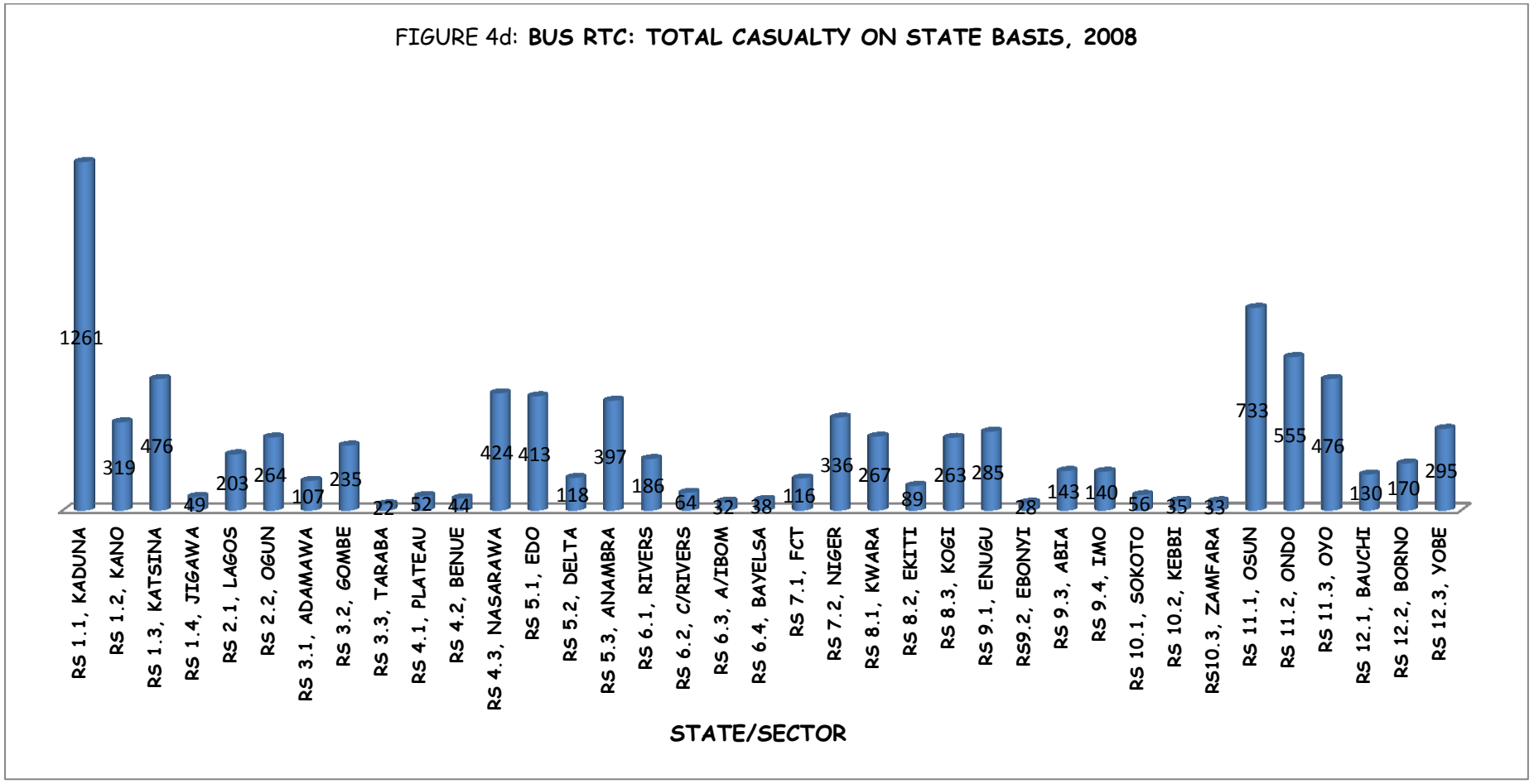
SOURCE: FRSC

FIGURE 4c: **BUS RTC: TOTAL NUMBER INJURED ON STATE BASIS 2008**



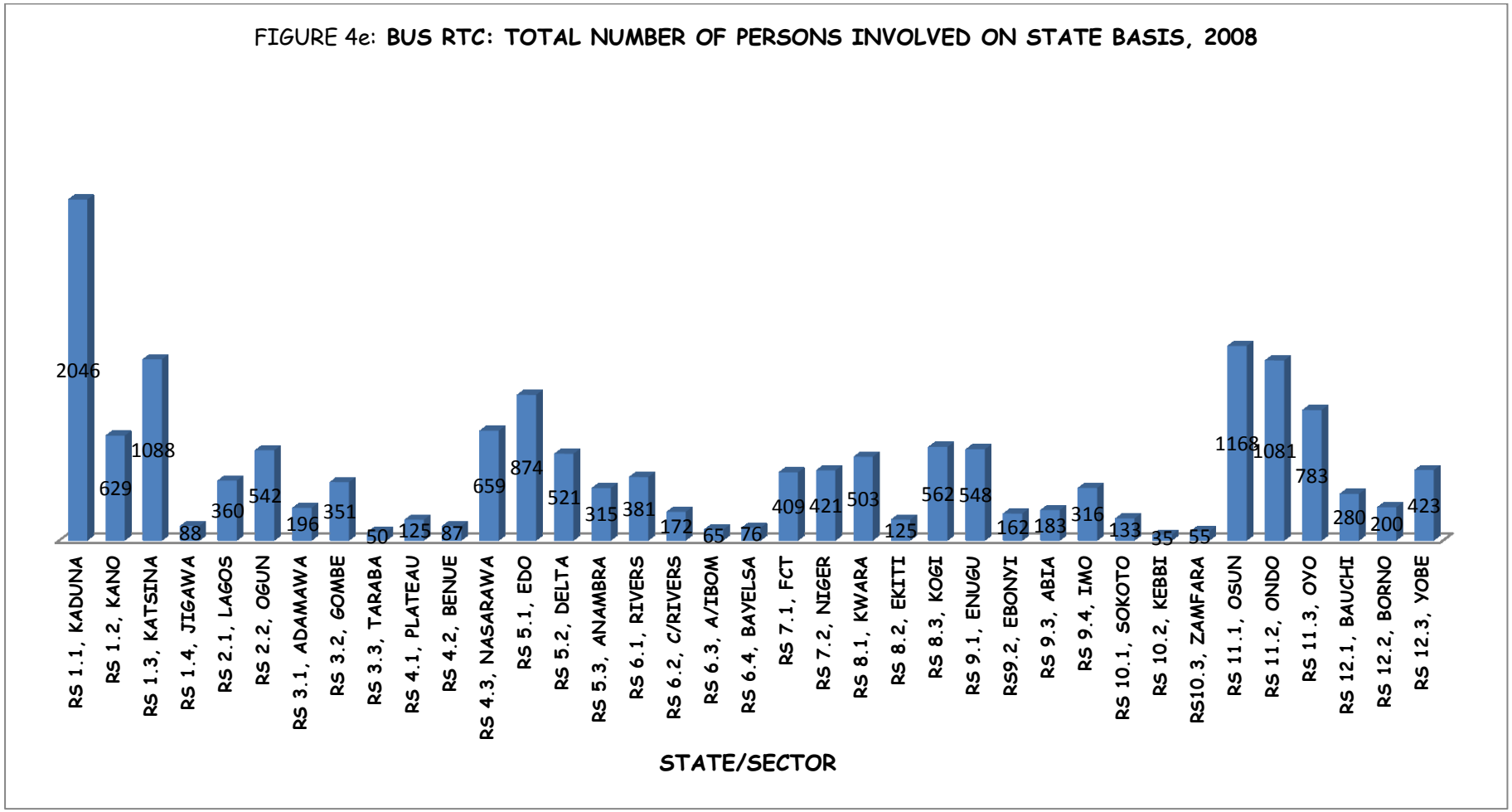
SOURCE: FRSC

FIGURE 4d: **BUS RTC: TOTAL CASUALTY ON STATE BASIS, 2008**



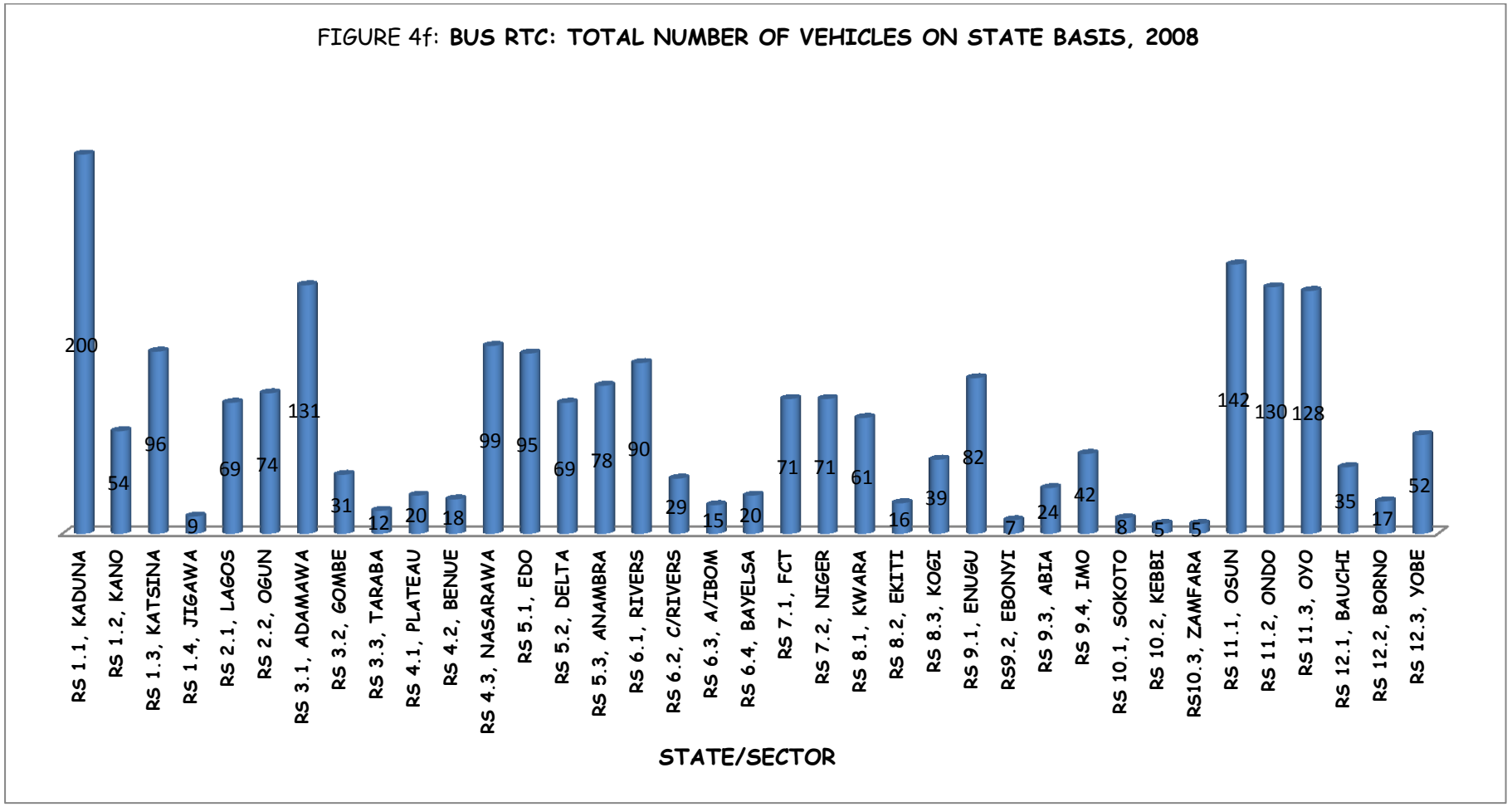
SOURCE: FRSC

FIGURE 4e: **BUS RTC: TOTAL NUMBER OF PERSONS INVOLVED ON STATE BASIS, 2008**



SOURCE: FRSC

FIGURE 4f: **BUS RTC: TOTAL NUMBER OF VEHICLES ON STATE BASIS, 2008**



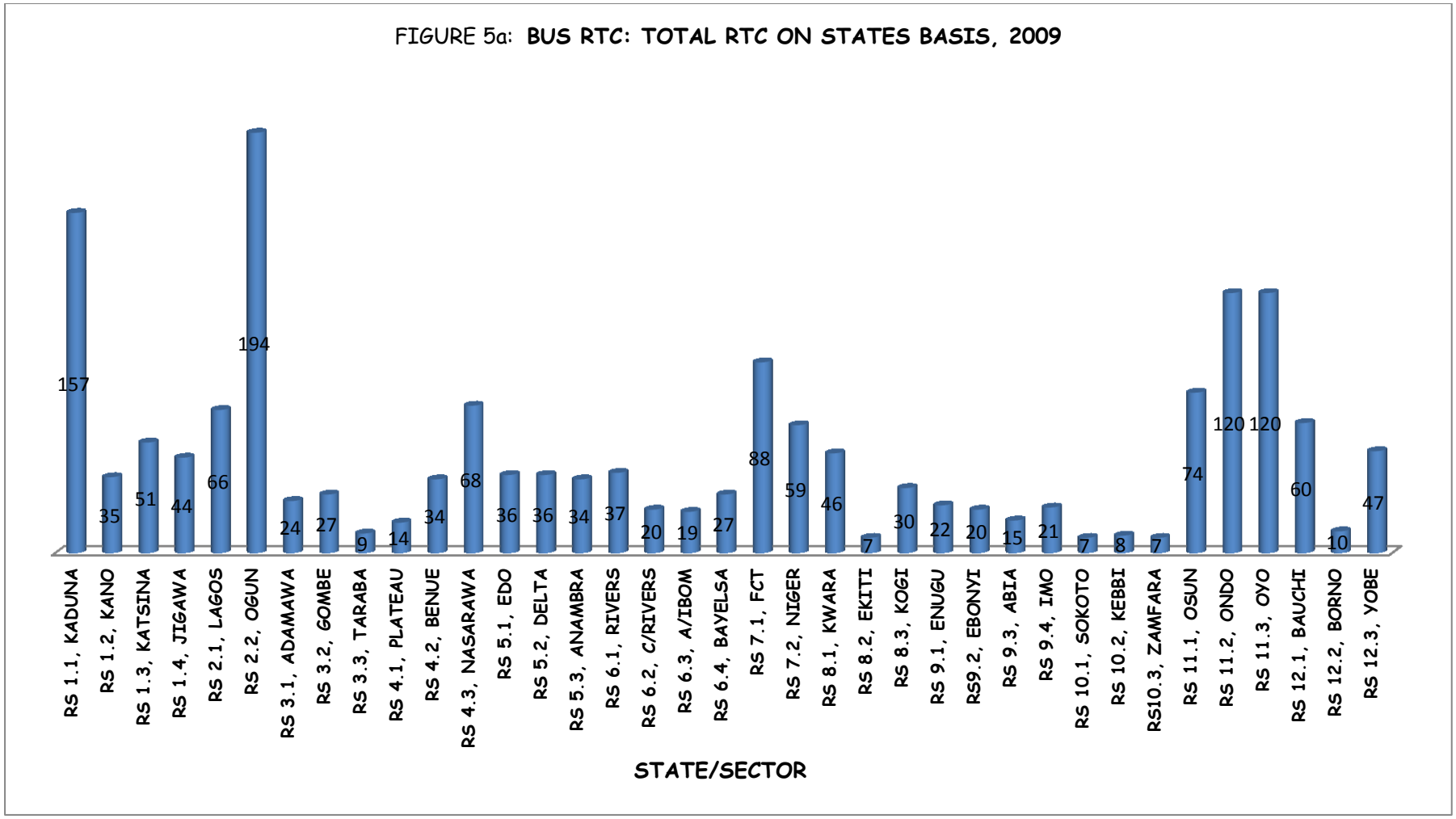
SOURCE: FRSC

TABLE 5: BUS RTC: 2009 BUS ROAD TRAFFIC CRASHES (RTCs) ON STATE BASIS.

S/N	SECTOR	TOTAL RTC	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSON INVOLVED	NO. OF VEH. INVOLVED
1	RS 1.1, KADUNA	157	149	860	1009	1667	222
2	RS 1.2, KANO	35	43	184	227	499	52
3	RS 1.3, KATSINA	51	63	256	319	447	73
4	RS 1.4, JIGAWA	44	45	199	244	380	52
5	RS 2.1, LAGOS	66	50	215	265	540	126
6	RS 2.2, OGUN	194	66	701	767	2565	359
7	RS 3.1, ADAMAWA	24	4	61	65	167	33
8	RS 3.2, GOMBE	27	13	137	150	234	38
9	RS 3.3, TARABA	9	3	47	50	70	13
10	RS 4.1, PLATEAU	14	5	59	64	158	29
11	RS 4.2, BENUE	34	60	154	214	440	45
12	RS 4.3, NASARAWA	68	69	350	419	791	102
13	RS 5.1, EDO	36	51	243	294	471	87
14	RS 5.2, DELTA	36	6	97	103	409	64
15	RS 5.3, ANAMBRA	34	85	114	199	228	213
16	RS 6.1, RIVERS	37	41	196	237	394	39
17	RS 6.2, C/RIVERS	20	32	102	134	239	23
18	RS 6.3, A/IBOM	19	10	51	61	168	26
19	RS 6.4, BAYELSA	27	16	54	70	100	29
20	RS 7.1, FCT	88	34	263	297	1075	222
21	RS 7.2, NIGER	59	77	365	442	572	100
22	RS 8.1, KWARA	46	113	296	409	677	72
23	RS 8.2, EKITI	7	2	29	31	34	9
24	RS 8.3, KOGI	30	70	233	303	734	38
25	RS 9.1, ENUGU	22	18	48	66	234	43
26	RS9.2, EBONYI	20	11	47	58	236	19
27	RS 9.3, ABIA	15	12	47	59	61	21
28	RS 9.4, IMO	21	24	78	102	328	40
29	RS 10.1, SOKOTO	7	8	31	39	64	7
30	RS 10.2, KEBBI	8	10	47	57	57	10
31	RS10.3, ZAMFARA	7	6	37	43	81	8
32	RS 11.1, OSUN	74	55	440	495	883	114
33	RS 11.2, ONDO	120	133	539	672	1437	205
34	RS 11.3, OYO	120	80	582	662	1212	232
35	RS 12.1, BAUCHI	60	61	330	391	628	91
36	RS 12.2, BORNO	10	11	61	72	109	13
37	RS 12.3, YOBE	47	31	256	287	481	77
TOTAL		**1693**	**1567**	**7809**	**9376**	**18870**	**2946**

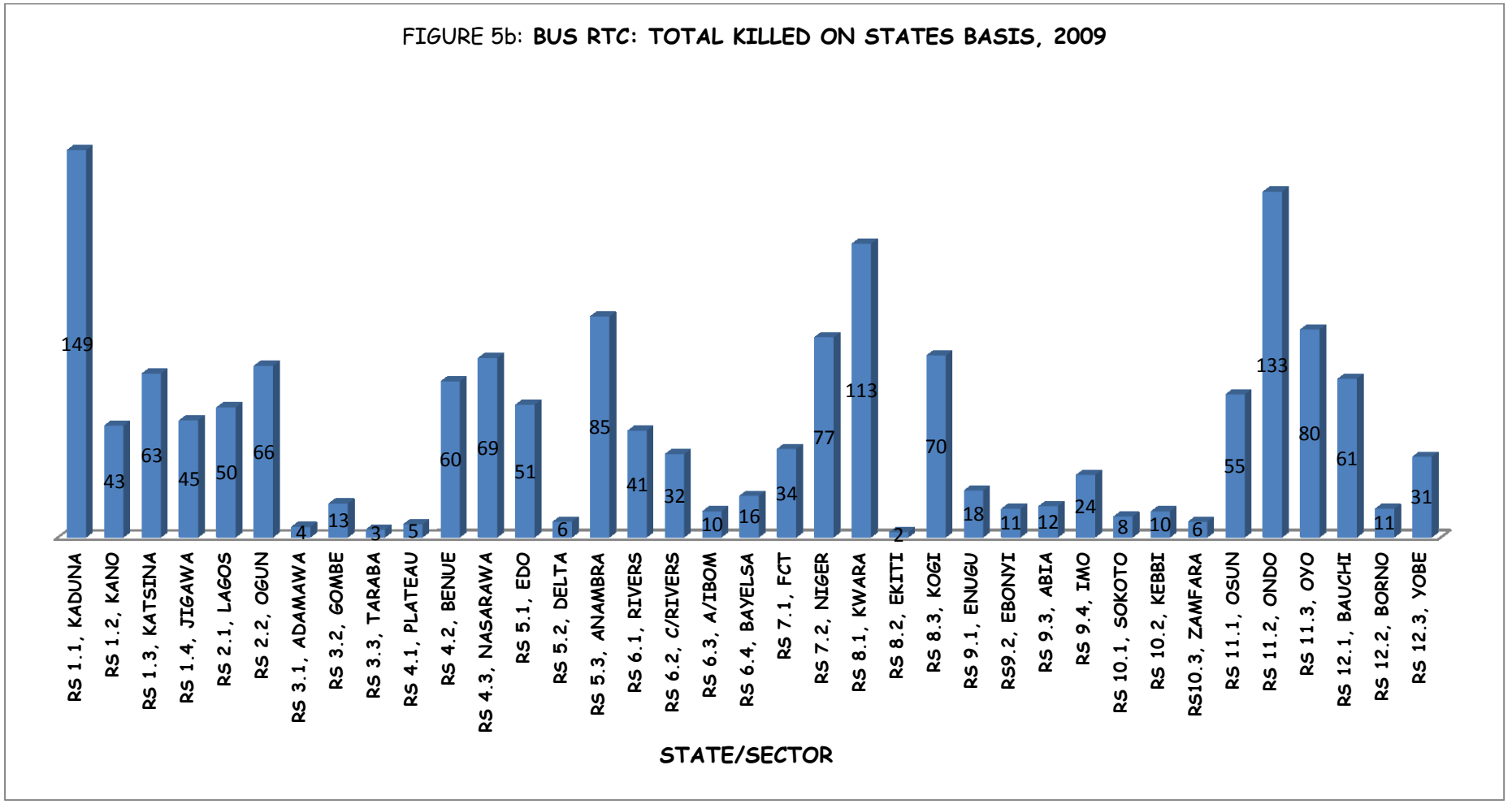
SOURCE: FRSC

FIGURE 5a: **BUS RTC: TOTAL RTC ON STATES BASIS, 2009**



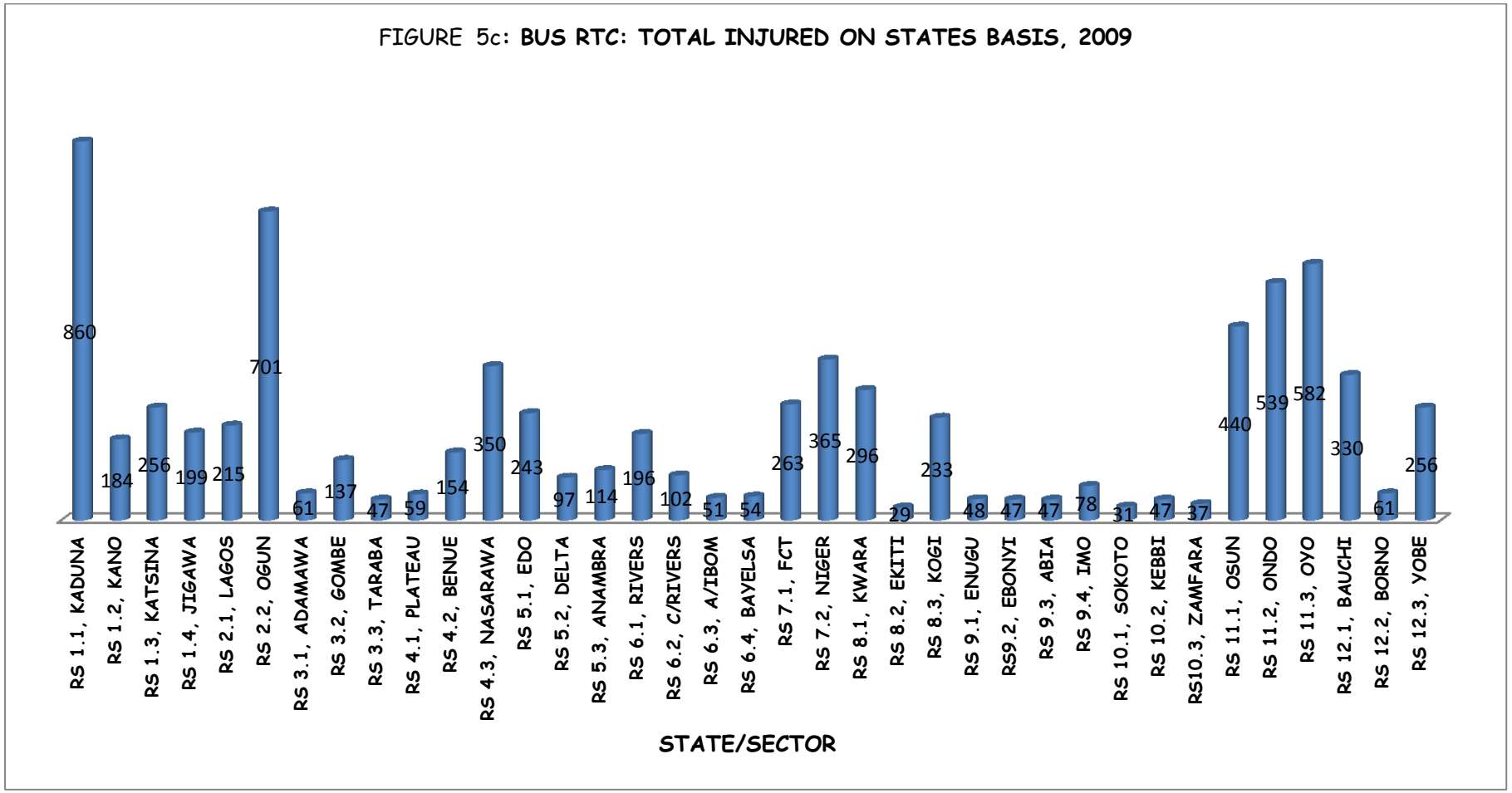
SOURCE : FRSC

FIGURE 5b: **BUS RTC: TOTAL KILLED ON STATES BASIS, 2009**



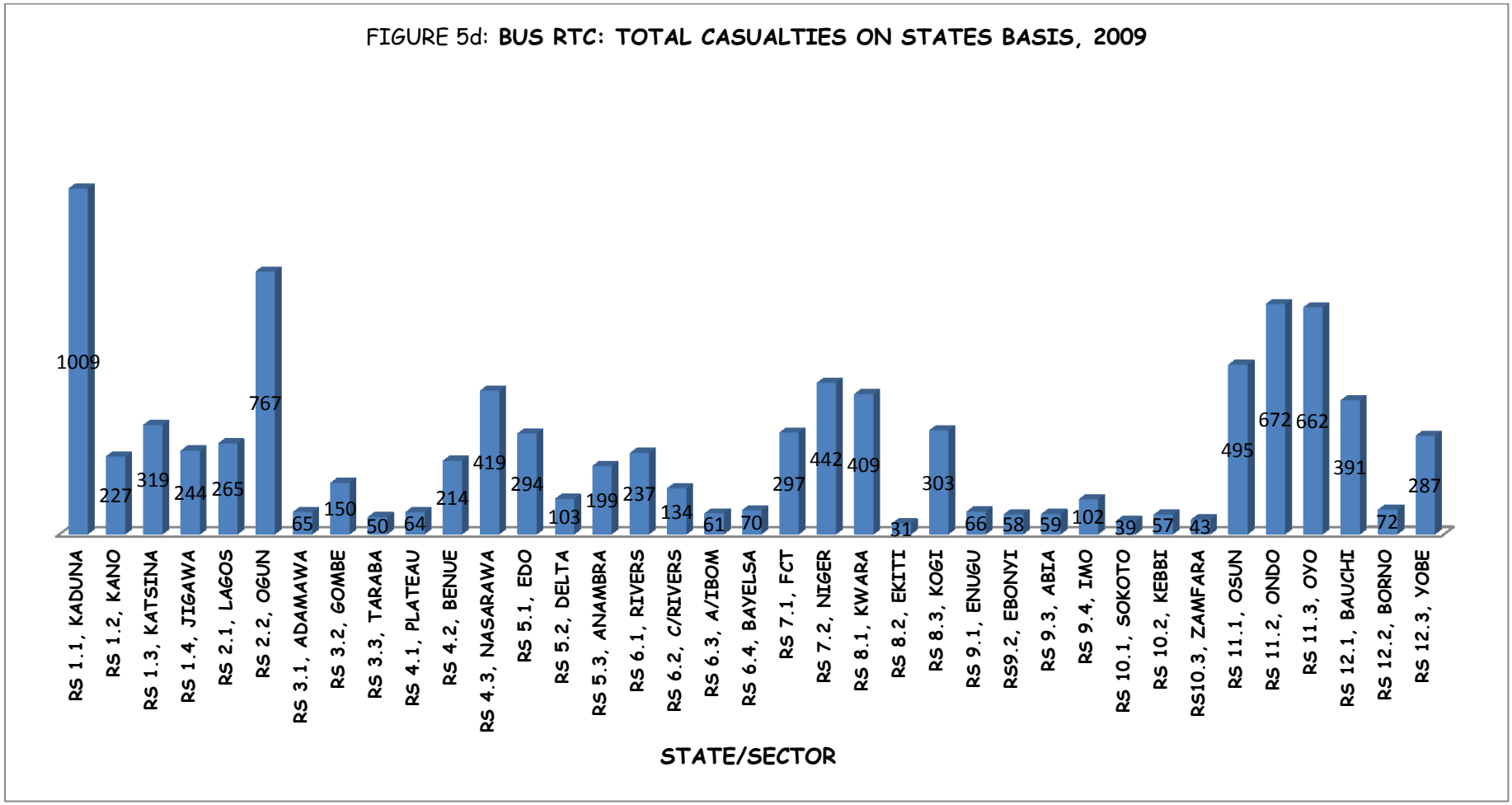
SOURCE : FRSC

FIGURE 5c: **BUS RTC: TOTAL INJURED ON STATES BASIS, 2009**



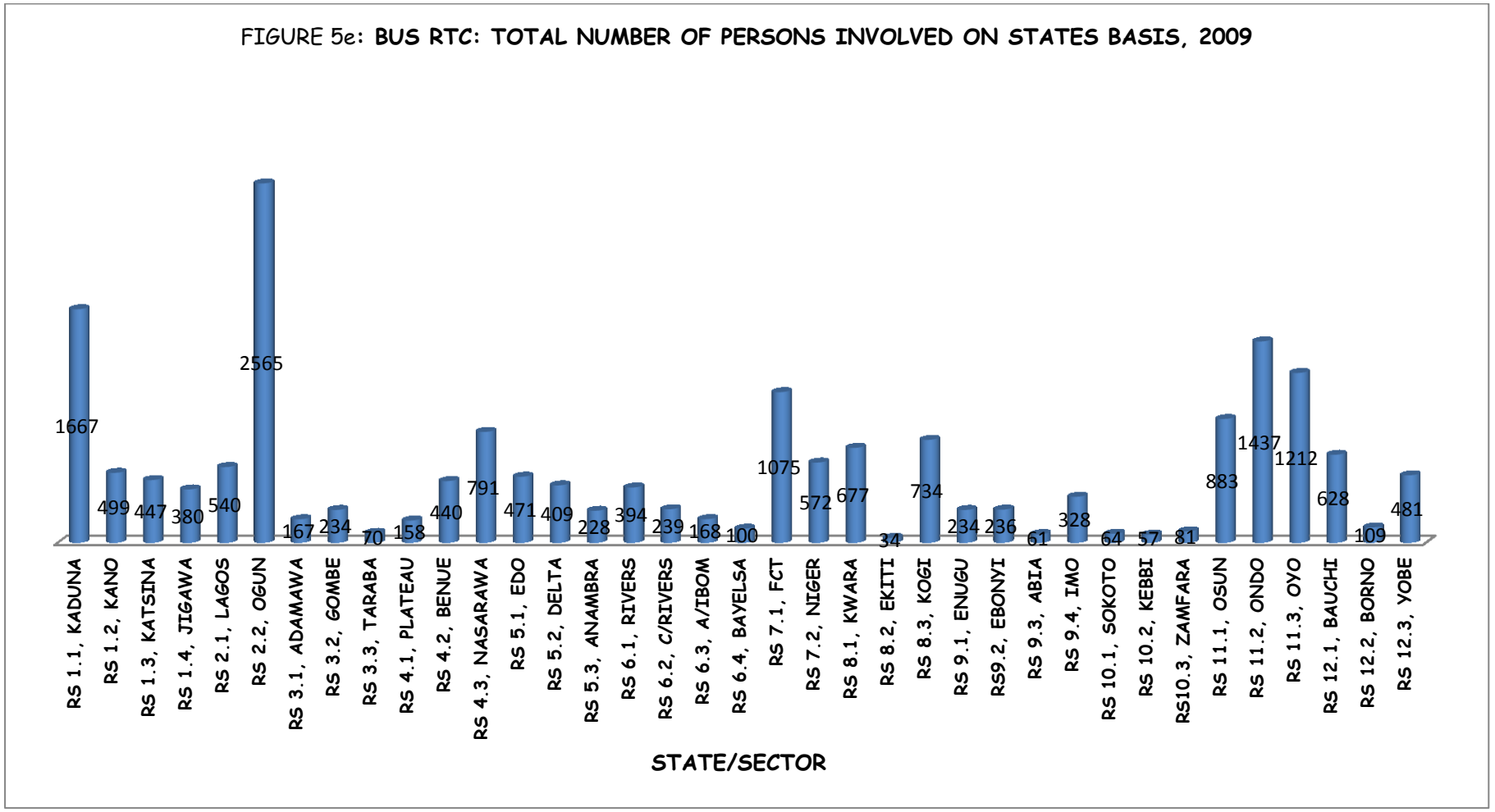
SOURCE : FRSC

FIGURE 5d: **BUS RTC: TOTAL CASUALTIES ON STATES BASIS, 2009**



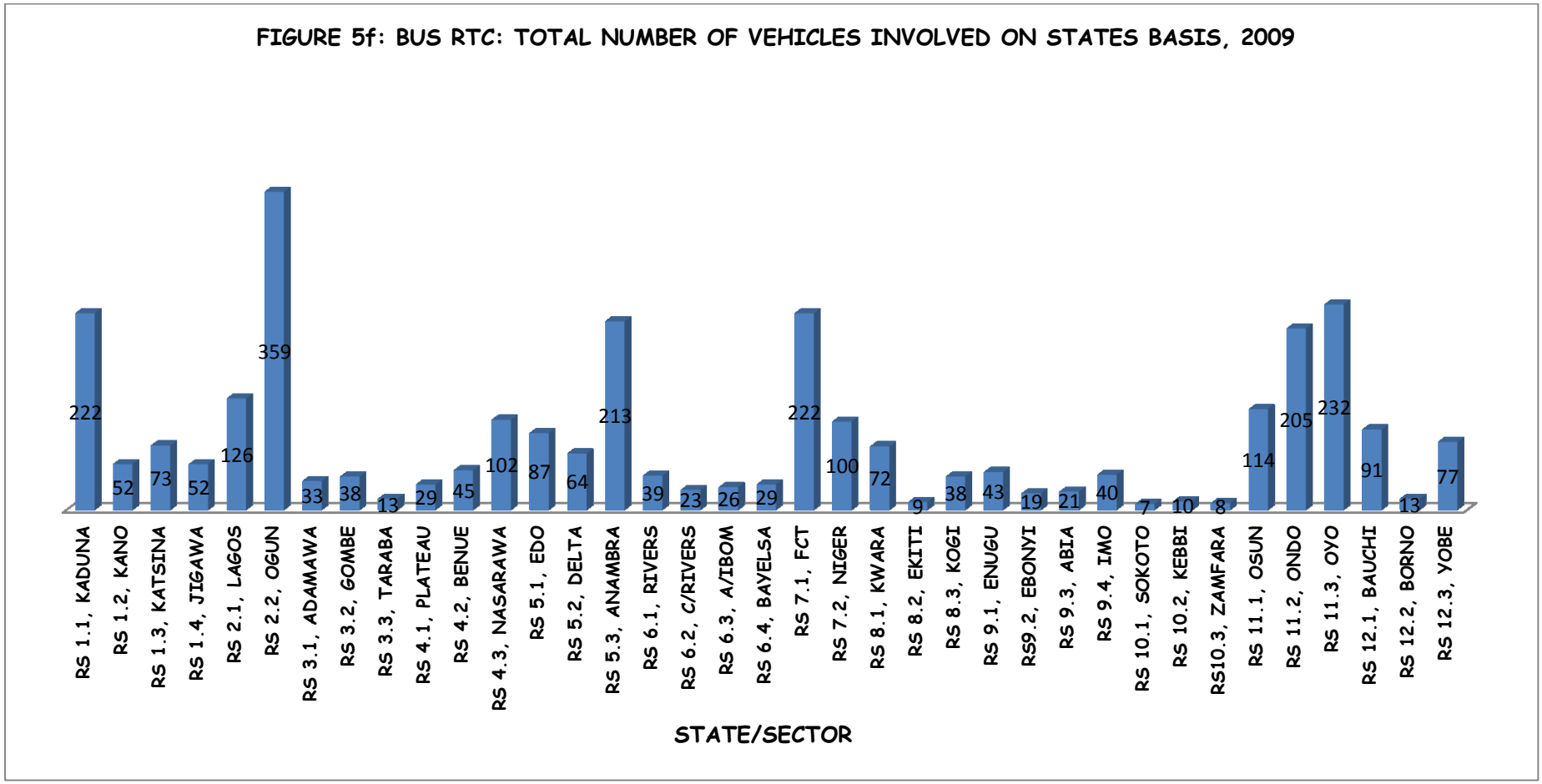
SOURCE : FRSC

FIGURE 5e: **BUS RTC: TOTAL NUMBER OF PERSONS INVOLVED ON STATES BASIS, 2009**



SOURCE : FRSC

FIGURE 5f: BUS RTC: TOTAL NUMBER OF VEHICLES INVOLVED ON STATES BASIS, 2009



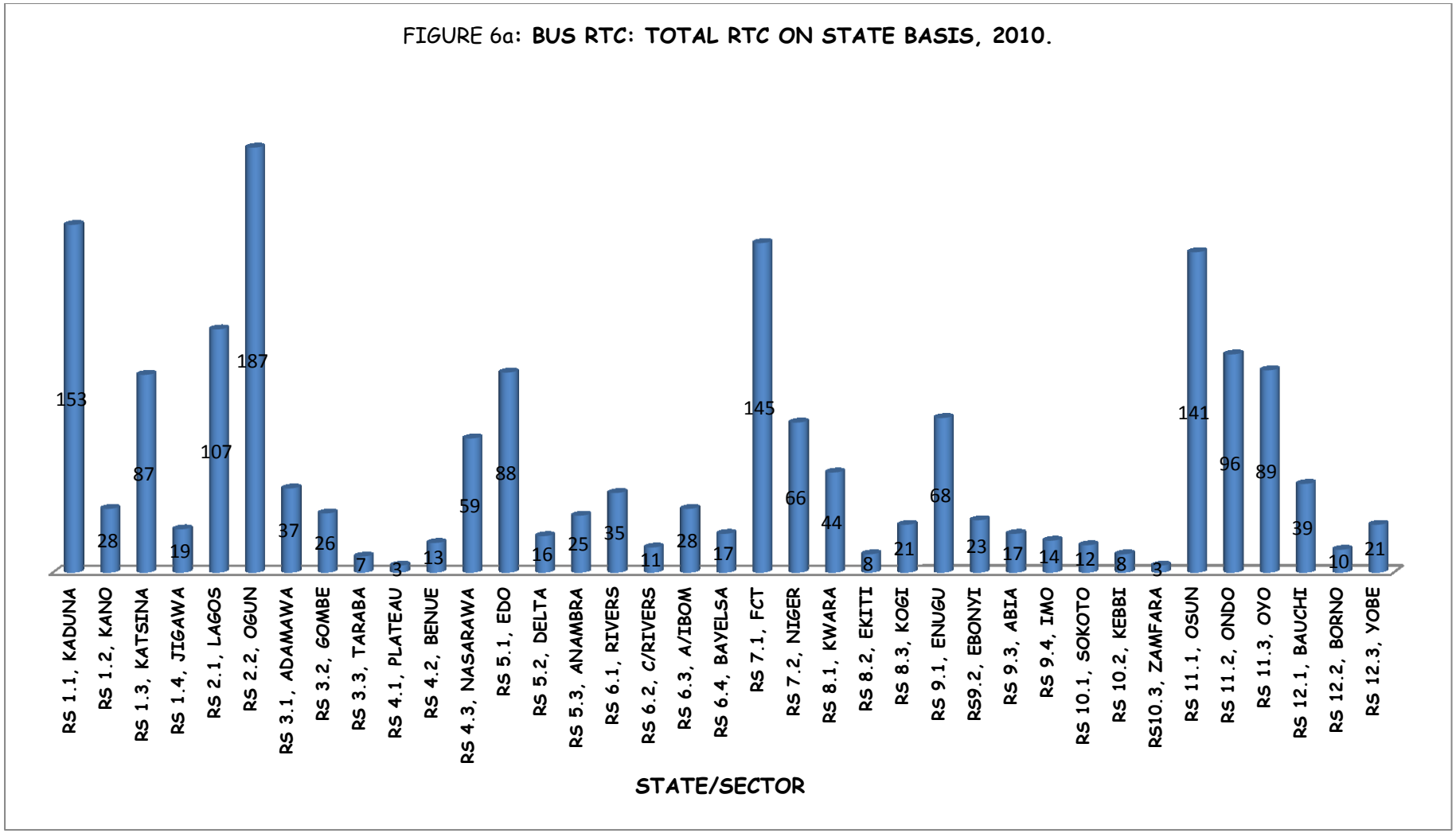
SOURCE : FRSC

TABLE 6: BUS RTC: 2010 BUS ROAD TRAFFIC CRASHES (RTCs) IN THE STATES.

S/N	SECTOR	TOTAL RTC	NO. KILLED	NO. INJURED	TOTAL CASUALTY	NO. OF PERSON INVOLVED	NO. OF VEH. INVOLVED
1	RS 1.1, KADUNA	153	104	920	1024	1638	201
2	RS 1.2, KANO	28	21	96	117	389	49
3	RS 1.3, KATSINA	87	129	482	611	815	111
4	RS 1.4, JIGAWA	19	8	63	71	176	25
5	RS 2.1, LAGOS	107	73	539	612	1232	187
6	RS 2.2, OGUN	187	54	641	695	2537	343
7	RS 3.1, ADAMAWA	37	15	192	207	445	59
8	RS 3.2, GOMBE	26	21	128	149	286	41
9	RS 3.3, TARABA	7	0	23	23	41	8
10	RS 4.1, PLATEAU	3	0	12	12	15	8
11	RS 4.2, BENUE	13	5	39	44	92	13
12	RS 4.3, NASARAWA	59	68	260	328	649	102
13	RS 5.1, EDO	88	102	364	466	1133	135
14	RS 5.2, DELTA	16	15	58	73	212	30
15	RS 5.3, ANAMBRA	25	92	56	148	245	136
16	RS 6.1, RIVERS	35	39	156	195	470	75
17	RS 6.2, C/RIVERS	11	14	30	44	150	31
18	RS 6.3, A/IBOM	28	8	48	56	179	36
19	RS 6.4, BAYELSA	17	8	45	53	96	18
20	RS 7.1, FCT	145	58	515	573	1447	253
21	RS 7.2, NIGER	66	90	400	490	623	108
22	RS 8.1, KWARA	44	37	314	351	620	81
23	RS 8.2, EKITI	8	9	40	49	106	11
24	RS 8.3, KOGI	21	22	101	123	288	24
25	RS 9.1, ENUGU	68	78	149	227	462	113
26	RS9.2, EBONYI	23	3	47	50	228	30
27	RS 9.3, ABIA	17	8	82	90	232	26
28	RS 9.4, IMO	14	4	31	35	233	30
29	RS 10.1, SOKOTO	12	11	54	65	123	13
30	RS 10.2, KEBBI	8	13	56	69	69	8
31	RS10.3, ZAMFARA	3	3	23	26	51	3
32	RS 11.1, OSUN	141	62	558	620	989	141
33	RS 11.2, ONDO	96	183	609	792	1645	203
34	RS 11.3, OYO	89	63	529	592	862	129
35	RS 12.1, BAUCHI	39	29	182	211	462	56
36	RS 12.2, BORNO	10	2	66	68	107	15
37	RS 12.3, YOBE	21	33	115	148	319	32
TOTAL		1771	1484	8023	9507	19666	2884

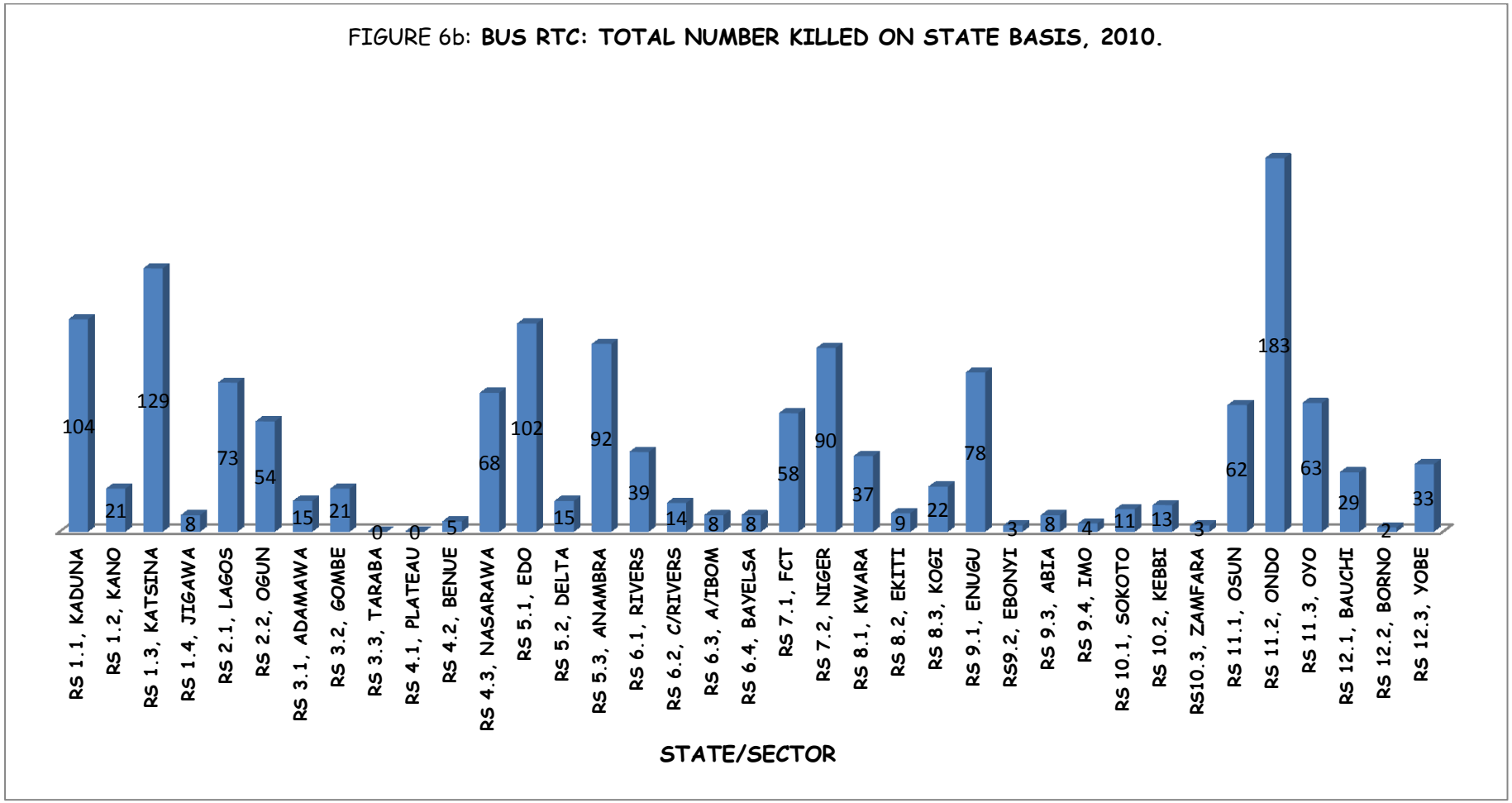
SOURCE: FRSC

FIGURE 6a: **BUS RTC: TOTAL RTC ON STATE BASIS, 2010.**



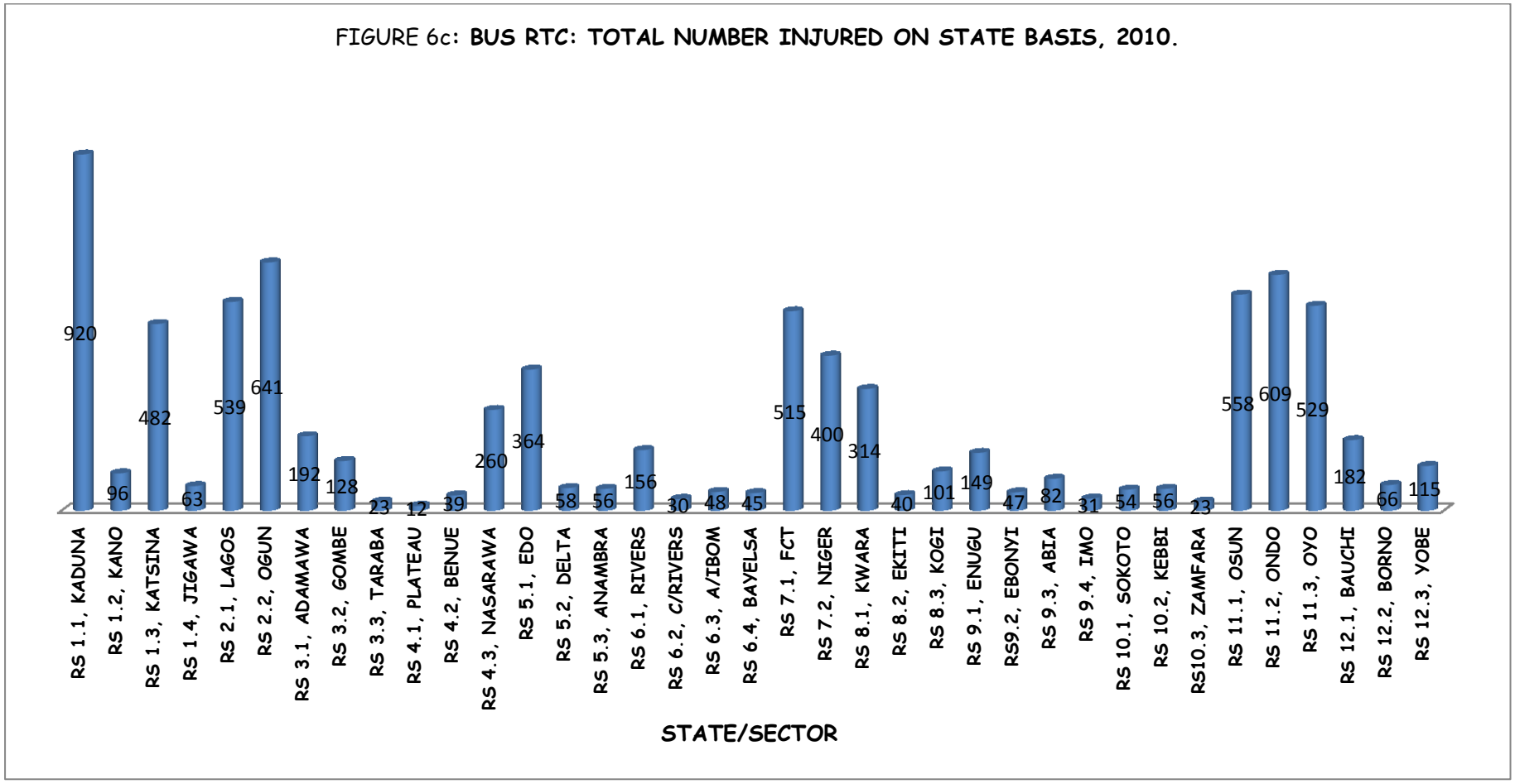
SOURCE : FRSC

FIGURE 6b: **BUS RTC: TOTAL NUMBER KILLED ON STATE BASIS, 2010.**



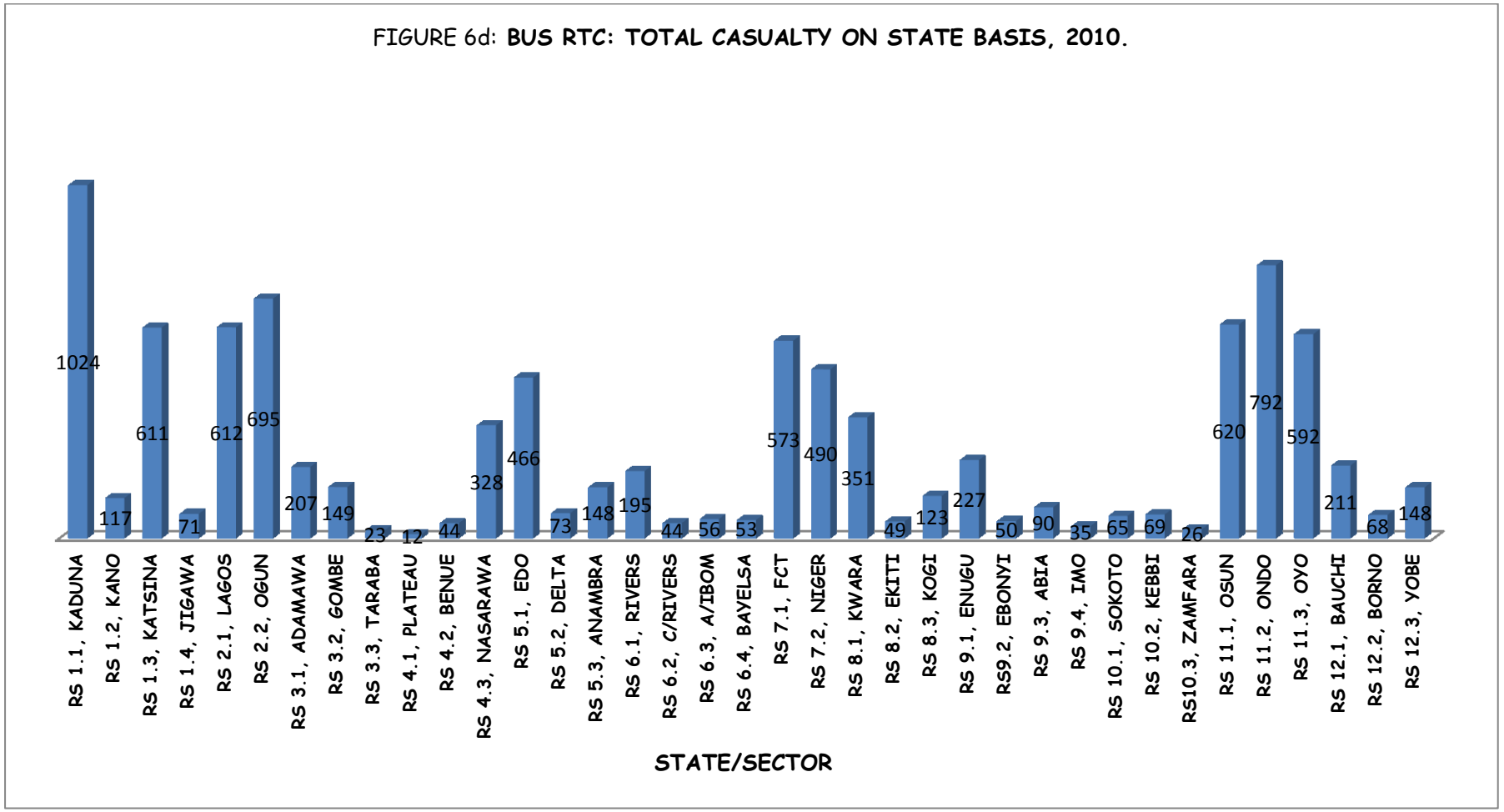
SOURCE : FRSC

FIGURE 6c: **BUS RTC: TOTAL NUMBER INJURED ON STATE BASIS, 2010.**



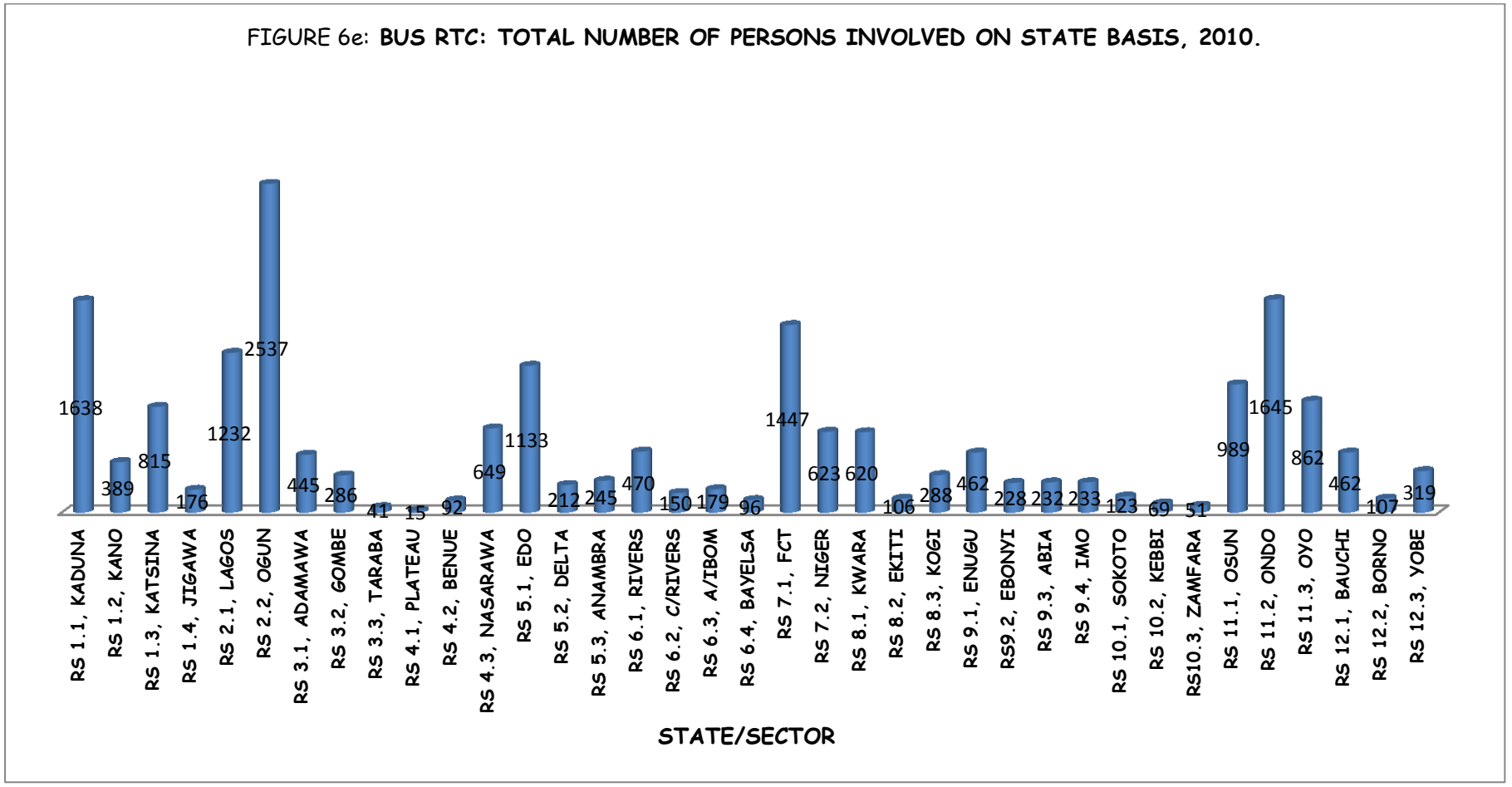
SOURCE : FRSC

FIGURE 6d: **BUS RTC: TOTAL CASUALTY ON STATE BASIS, 2010.**



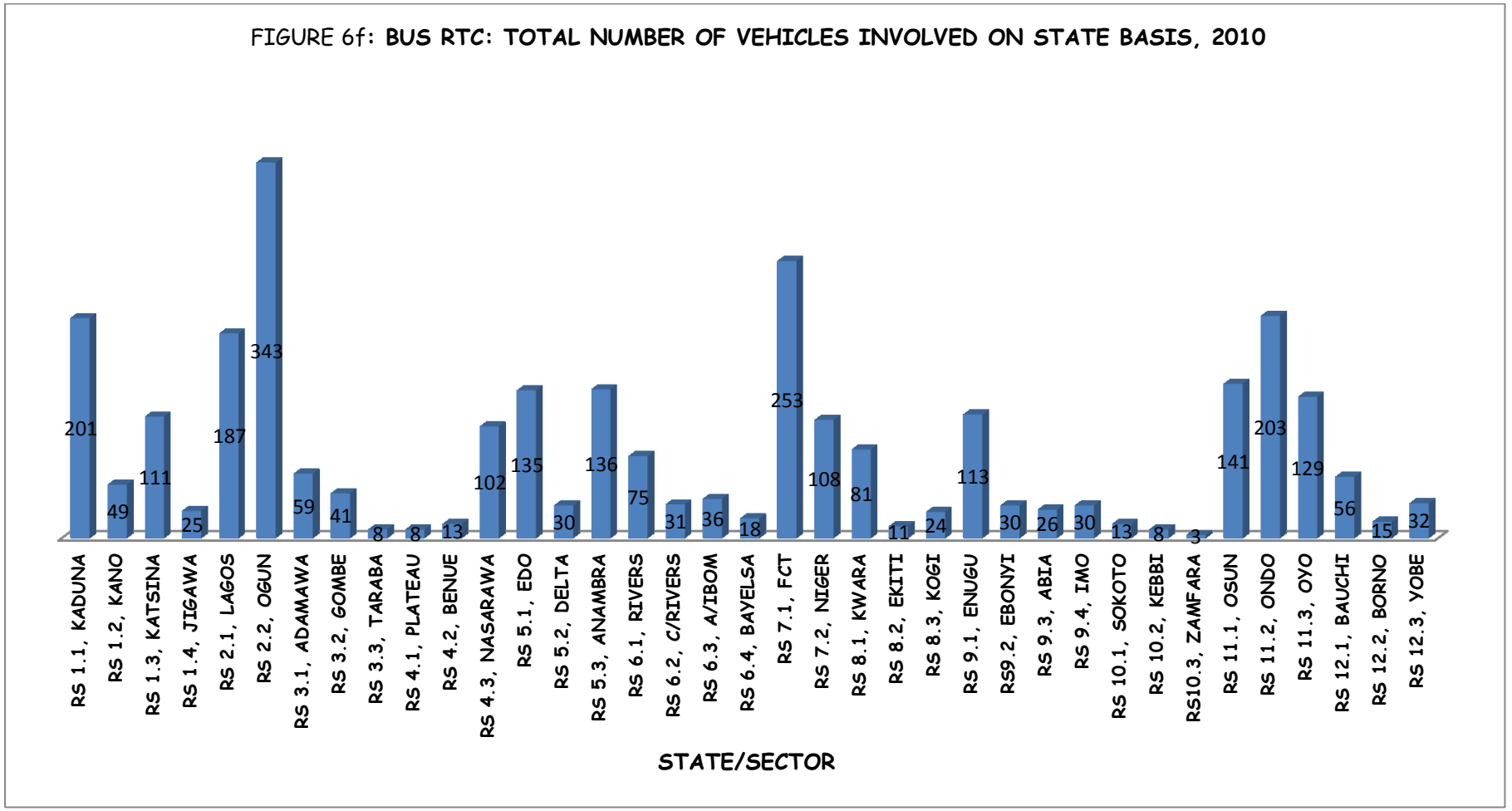
SOURCE : FRSC

FIGURE 6e: **BUS RTC: TOTAL NUMBER OF PERSONS INVOLVED ON STATE BASIS, 2010.**



SOURCE : FRSC

FIGURE 6f: **BUS RTC: TOTAL NUMBER OF VEHICLES INVOLVED ON STATE BASIS, 2010**



SOURCE: FRSC

ROUTE ANALYSIS ON RTC INVOLVING BUSES

During the 2007 – 2010 periods, a total of 78 major routes were captured in which the bulk of the total 5,828 RTC occurred, with 5,583 deaths and 27,791 persons injured and total casualties of 33,374. A total of 65,132 and 9,488 persons and vehicles were also involved respectively.

Between 2007 and 2010, Lagos-Ibadan Expressway recorded the highest cases of RTC involving buses in Nigeria major roads with 391 cases (6.73%). Kaduna-Zaria road recorded 226 cases (3.89%), Abuja-Lokoja recorded 113 cases (1.95%), Asaba-Onitsha road recorded 103 cases (1.77%), Ore-Lagos recorded 77 cases(1.33%), Abuja – keffi recorded 75 cases (1.29%), Abeokuta-Lagos road recorded 74 cases (1.27%), Kubwa-Abuja road recorded 66 cases (1.14%), Berni/Kebbi-Jeg road recorded the least with 2 cases representing 0.03% of RTC involving buses from 2007-2010 (See Table 7a Figure 7).

In 2007, out of 997 cases of RTC involving buses on Nigeria major roads, 86 cases (8.6%) were recorded along Lagos-Ibadan Expressway, 28 cases (2.8%) were recorded along Lagos-Ore- Benin Expressway, 25 cases (2.5%) were recorded along Asaba - Onitsha road, 23 cases (2.3%) recorded along Badagry tollgate road, 22 cases (2.2%) along Abuja Lokoja road, 21 cases (2.1%) recorded along Abeokuta-Lagos road. The lower RTC were recorded along Markurdi – Gboko road, Markurdi –Aliade road, Irrua-Ewu road, Sagbama – Zarama road.

In 2008, Lagos-Ibadan road also recorded 85 cases (6.2%) out of 1,367 RTC involving buses in Nigeria major road which is 2.0%. Kaduna - Zaria road recorded 37 cases (2.7%), Kaduna-Abuja 26

cases (2.0%), Abuja-Lokoja recorded 25 cases (1.8%), Osogbo-Sekona 24 cases (2.0%).

In 2009, 1,693 RTC involving buses were recorded with Lagos-Ibadan Expressway topping with 120 incidences (7.0%), Kaduna-Zaria road recorded 96 cases (6.0%), Abuja-keffi Expressway recorded 38 cases (2.3%), Asaba-Onitsha recorded 30 cases (2.0%), Abuja-Lokoja recorded 26 cases (2.0%) and Awka-Onitsha road recorded 20 cases (1.2%) of RTC.

In 2010, Lagos-Ibadan Expressway again recorded 100 cases out of the 1,771 RTC involving buses on Nigeria major roads which is 6.0%, Kaduna-Zaria road recorded 71 cases (4.0%), Abuja-Lokoja road 40 cases (5.6%), Abeokuta-Lagos road recorded, 27 cases 91.2%), Benin-Sapele road recorded 24 Cases, Kubwa-Abuja road 23 cases(1.3%), Abuja- keffi road recorded 20 cases (1.1%).

During the period under review, 2007 – 2010, the highest death per crash on route basis occurred in Irrua–Ewu route with a figure of 4.77 (5) deaths and Jimeta Municipal with a figure of 4.09 (4) deaths. (See Figures 7b and 7c)

On the injury per crash considerations, the highest injury per crash occurred in Ikere Town, Ibadan-Ife and Bode Sa'adu-Jebba routes with 12.33 (12) persons, 10.47 (10) injured persons and 10.15 (10) injuries respectively. On the hand the lowest figures were recorded in Third Mainland Lagos with 0.38, followed by 0.54 (1) in Hong-Mubi route and 1.00 (1) in Birnin-Kebbi-Jega route. (See Figures 7d and 7e)

Again, the highest casualty per crash were recorded in Ikere Town, Bode Sa'adu-Jebba and Jimeta Municipal routes with 15.65 (16) casualties, 15.46 (15) persons and 13.36 (13) persons respectively. On the other hand, the least casualty per crash records showed that

Birnin-Kebbi-Jega route recorded 1.00 (1), followed by Hong-Mubi with 1.31 and Abeokuta-Lagos with 1.34. (See Figures 7f and 7g)

The Severity indexes records showed that Third Mainland, Lagos, Hong-Mubi, and Calabar-Ikang routes with the highest figures of 0.81 (1), 0.59 (1) and 0.58 (1) respectively indicating that these routes are quite dangerous. Birnin-Kebbi-Jega and Ifaki Town recorded 0.00 (O) and Lagos-Badagry-Seme with 0.04 which means they are relatively safer. (See Figures 7h and 7i)

TABLE 7a: BUS RTC: ROUTE ANALYSIS ON RTC INVOLVING BUSES

S/NO	ROUTE	NO OF CASES				TOTAL	% OF RTC
		2007	2008	2009	2010		
1	KADUNA - ABUJA	19	43	31	21	**114**	**3.44**
2	KADUNA TOWNSHIP	13	14	18	14	**59**	**1.78**
3	KADUNA - ZARIA	21	38	96	71	**226**	**6.82**
4	KADUNA - SOKOTO ROAD	8	18	9	9	**44**	**1.33**
5	KANO TOWNSHIP	6	2	6	2	**16**	**0.48**
6	KANO - GWARZO	6	3	10	4	**23**	**0.69**
7	FUNTUA - ZARIA	2	4	3	12	**21**	**0.63**
8	FUNTUA - KANO	4	14	9	5	**32**	**0.97**
9	LAGOS - IBADAN	86	85	120	100	**391**	**11.79**
10	LAGOS-BADAGRY-SEME	45	19	18	28	**110**	**3.32**
11	JIBOWU - YABA	8	4	6	10	**28**	**0.84**
12	3RD MAINLAND	4	2	4	3	**13**	**0.39**
13	ABEOKUTA - LAGOS	21	-	26	27	**74**	**2.23**
14	HONG - MUBI	4	4	2	3	**13**	**0.39**
15	JIMETA MUNICIPAL	2	3	2	4	**11**	**0.33**
16	GOMBE-KALTUNGO - YOLA	4	10	10	19	**43**	**1.30**
17	GOMBE - BAUCHI	15	10	7	11	**43**	**1.30**
18	JALINGO - WUKARI	9	7	8	5	**29**	**0.87**
19	JOS - ZARIA	9	9	6	6	**30**	**0.90**
20	JOS - BAUCHI	7	4	4	2	**17**	**0.51**

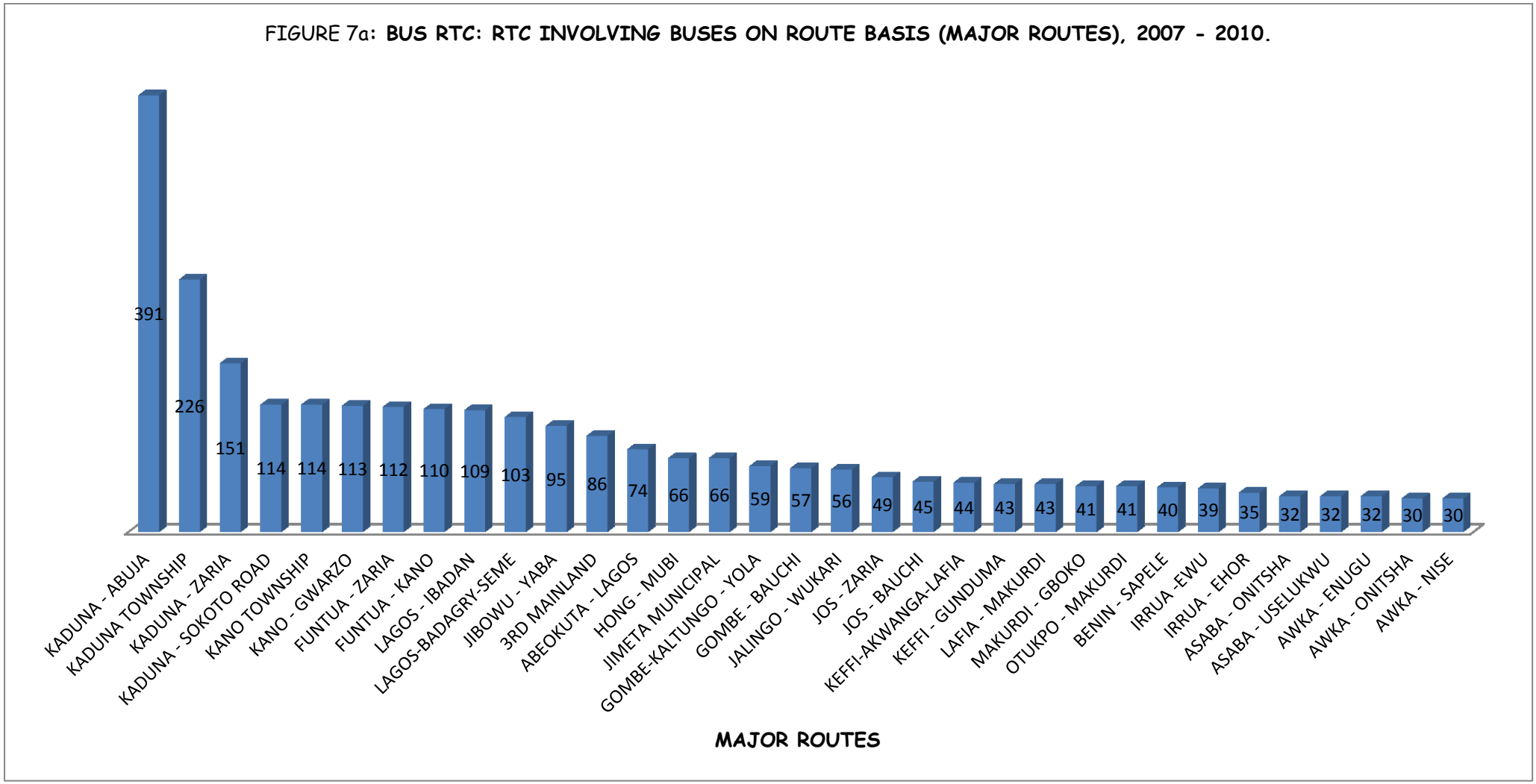
21	KEFFI-AKWANGA-LAFIA	16	24	25	30	**95**	**2.86**
22	KEFFI - GUNDUMA	3	4	5	5	**17**	**0.51**
23	LAFIA - MAKURDI	4	22	18	13	**57**	**1.72**
24	MAKURDI - GBOKO	0	3	5	1	**9**	**0.27**
25	OTUKPO - MAKURDI	0	2	12	4	**18**	**0.54**
26	BENIN - SAPELE	4	6	11	24	**45**	**1.36**
27	IRRUA -EWU	0	3	3	6	**12**	**0.36**
28	IRRUA - EHOR	5	0	11	9	**25**	**0.75**
29	ASABA - ONITSHA	25	37	30	11	**103**	**3.11**
30	ASABA - USELUKWU	5	1	5	5	**16**	**0.48**
31	AWKA - ENUGU	6	2	8	4	**20**	**0.60**
32	AWKA - ONITSHA	1	5	20	15	**41**	**1.24**
33	AWKA - NISE	2	1	3	3	**9**	**0.27**
34	AHOADA - PORT HARCOURT	5	4	6	15	**30**	**0.90**
35	CALABAR - AKAMKPA	6	7	8	6	**27**	**0.81**
36	CALABAR - ITUA	8	3	12	9	**32**	**0.97**
37	PORT HARCOURT TOWNSHIP	1	5	2	2	**10**	**0.30**
38	CALABAR - IKANG	1	2	2	2	**7**	**0.21**
39	IKOTEKPENE - ABA	4	4	1	8	**17**	**0.51**
40	UMUAHIA - IKOTEKPENE	1	4	1	0	**6**	**0.18**
41	YENOGOA TOWNSHIP	2	2	3	1	**8**	**0.24**
42	YENOGOA - IGBOGENE	3	1	7	0	**11**	**0.33**
43	SAGBAMA - ZARAMA	-	6	10	6	**22**	**0.66**

44	ABUJA - KEFFI	10	19	52	33	**114**	**3.44**
45	KUBWA - ABUJA	10	15	18	23	**66**	**1.99**
46	ABUJA - LOKOJA	22	25	26	40	113	**3.41**
47	MOKWA - BIDA	5	5	2	4	**16**	**0.48**
48	MOKWA - JEBBA	8	3	11	10	**32**	**0.97**
49	BODE'SAADU - JEBBA	5	6	2	-	13	**0.39**
50	OMU ARA - ILORIN	4	4	7	6	**21**	**0.63**
51	BODE' SAADU - KANBI	3	2	6	7	**18**	**0.54**
52	IKERE	1	1	0	1	**3**	**0.09**
53	IFAKI	0	1	1	2	**4**	**0.12**
54	LOKOJA - OKENE	14	6	8	7	35	**1.06**
55	ENUGU - PORTHARCOURT	13	17	17	19	**66**	**1.99**
56	ENUGU - ONITSHA	22	38	21	31	**112**	**3.38**
57	ABAKALIKI - ENUGU	2	9	15	15	41	**1.24**
58	ABAKALIKI -OGOJA	1	2	3	1	**7**	**0.21**
59	UMUAHIA - PORT HARCOURT	5	3	7	3	**18**	**0.54**
60	ABA - UMUAHIA	6	2	2	1	**11**	**0.33**
61	OWERRI - UMUAHIA	1	13	16	9	**39**	**1.18**
62	OWERRI - ABA	1	3	2	2	8	**0.24**
63	OWERRI - PORT HARCOURT	1	5	1	2	**9**	**0.27**
64	SOKOTO - JEGA	2	6	2	4	**14**	**0.42**
65	SOKOTO - GUSAU	2	1	6	3	**12**	**0.36**
66	SOKOTO - ILLELA	1	1	3	-	**5**	**0.15**
67	B/KEBBI - JEGA	1	1	-	-	2	**0.06**
68	OSOGBO - SEKONA	14	24	8	3	**49**	**1.48**
69	AKURE - ILESA	29	54	32	36	**151**	**4.55**

70	OYO - OGBOMOSHO	6	10	4	4	24	**0.72**
71	IKARE - OWO	2	6	8	2	**18**	**0.54**
72	LAGOS-ORE-BENIN	28	21	32	28	**109**	**3.29**
73	IBADAN - IFE	11	17	15	13	56	**1.69**
74	IBADAN - OYO	10	18	38	20	**86**	**2.59**
75	BAUCHI - MAIDUGURI	2	3	2	3	**10**	**0.30**
76	ALKELERI - BAUCHI	1	2	2	1	6	**0.18**
77	MAIDUGURI - DAMATURU - POTISKUM	8	10	11	11	**40**	**1.21**
78	POTISKUM - KANO	4	1	7	2	14	**0.42**

SOURCE: FRSC

FIGURE 7a: **BUS RTC: RTC INVOLVING BUSES ON ROUTE BASIS (MAJOR ROUTES), 2007 - 2010.**



SOURCE: FRSC

TABLE 7b: **BUS RTC: ROUTE ANALYSIS OF BUS RTC 2007 – 2010.**

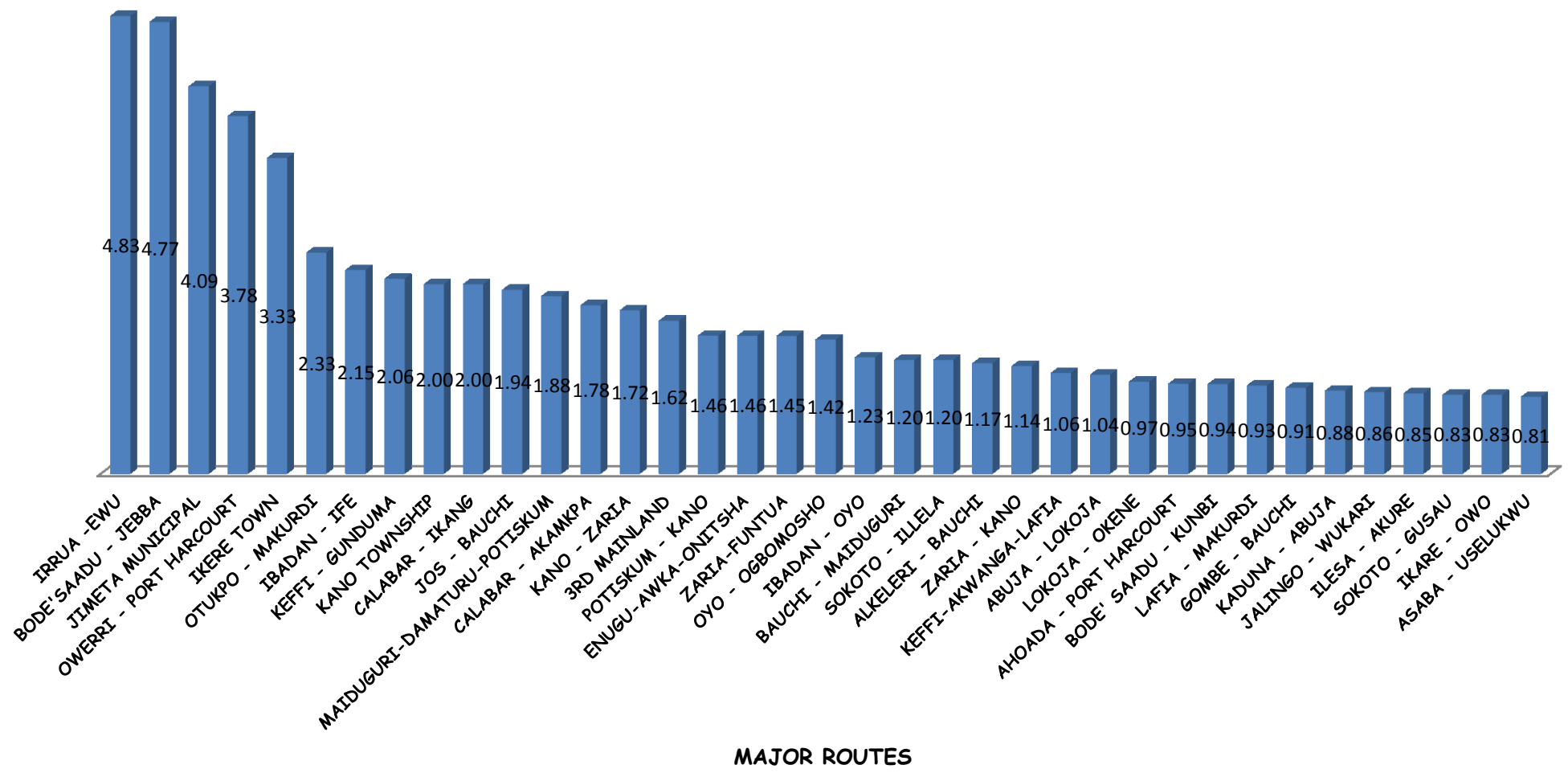
S/N	ROUTE	CASES	KILLED	INJURED	TOTAL CASUALTY	DEATH PER CRASH	INJURY PER CRASH	CASUALTY PER CRASH	SEVERITY INDEX
1	KADUNA - ABUJA	114	100	726	826	0.88	6.37	7.25	0.12
2	KADUNA TOWNSHIP	59	11	152	163	0.19	2.58	2.76	0.07
3	KADUNA - ZARIA	226	115	900	1015	0.51	3.98	4.49	0.11
4	KADUNA - SOKOTO	44	21	247	268	0.48	5.61	6.09	0.08
5	KANO - ZARIA	58	100	350	450	1.72	6.03	7.76	0.22
6	KANO TOWNSHIP	16	32	79	111	2.00	4.94	6.94	0.29
7	KANO - GWARZO	23	6	49	55	0.26	2.13	2.39	0.11
8	ZARIA-FUNTUA	53	77	272	349	1.45	5.13	6.58	0.22
9	ZARIA - KANO	22	25	87	112	1.14	3.95	5.09	0.22
10	LAGOS - IBADAN	391	225	1526	1751	0.58	3.90	4.48	0.13
11	LAGOS-BADAGRY-SEME	110	28	600	628	0.25	5.45	5.71	0.04
12	JIBOWU - YABA	28	2	42	44	0.07	1.50	1.57	0.05
13	3RD MAINLAND	13	21	5	26	1.62	0.38	2.00	0.81
14	ABEOKUTA - LAGOS	74	20	79	99	0.27	1.07	1.34	0.20
15	HONG - MUBI	13	10	7	17	0.77	0.54	1.31	0.59
16	JIMETA MUNICIPAL	11	45	103	147	4.09	9.36	13.36	0.31
17	GOMBE-KALTUNGO - YOLA	43	24	165	189	0.56	3.84	4.40	0.13
18	GOMBE - BAUCHI	43	39	214	253	0.91	4.98	5.88	0.15
19	JALINGO - WUKARI	29	25	112	137	0.86	3.86	4.72	0.18
20	JOS - ZARIA	30	13	75	88	0.43	2.50	2.93	0.15
21	JOS - BAUCHI	17	33	154	187	1.94	9.06	11.00	0.18
22	KEFFI-AKWANGA-LAFIA	95	101	501	602	1.06	5.27	6.34	0.17

23	KEFFI - GUNDUMA	17	35	95	130	2.06	5.59	7.65	0.27
24	LAFIA - MAKURDI	57	53	229	282	0.93	4.02	4.95	0.19
25	MAKURDI - GBOKO	9	6	51	57	0.67	5.67	6.33	0.11
26	OTUKPO - MAKURDI	18	42	43	85	2.33	2.39	4.72	0.49
27	BENIN - SAPELE	45	24	245	269	0.53	5.44	5.98	0.09
28	IRRUA -EWU	12	58	55	113	4.83	4.58	9.42	0.51
29	IRRUA - EHOR	25	14	189	203	0.56	7.56	8.12	0.07
30	ASABA - ONITSHA	103	59	325	384	0.57	3.16	3.73	0.15
31	ASABA - USELUKWU	16	13	65	78	0.81	4.06	4.88	0.17
32	ENUGU-AWKA-ONITSHA	182	265	535	800	1.46	2.94	4.40	0.33
33	AHOADA - PORT HARCOURT	40	38	281	319	0.95	7.03	7.98	0.12
34	CALABAR - AKAMKPA	27	48	128	176	1.78	4.74	6.52	0.27
35	CALABAR - ITUA	32	22	111	133	0.69	3.47	4.16	0.17
36	CALABAR - IKANG	7	14	10	24	2.00	1.43	3.43	0.58
37	IKOTEKPENE - ABA	17	4	46	50	0.24	2.71	2.94	0.08
38	UMUAHIA - IKOTEKPENE	6	1	29	30	0.17	4.83	5.00	0.03
39	YENOGOA TOWNSHIP	8	2	11	13	0.25	1.38	1.63	0.15
40	YENOGOA - IGBOGENE	11	5	21	26	0.45	1.91	2.36	0.19
41	SAGBAMA - ZARAMA	22	11	59	70	0.50	2.68	3.18	0.16
42	ABUJA - KEFFI	114	46	318	364	0.40	2.79	3.19	0.13
43	KUBWA - ABUJA	66	30	216	246	0.45	3.27	3.73	0.12
44	ABUJA - LOKOJA	113	118	426	544	1.04	3.77	4.81	0.22
45	MOKWA - BIDA	16	4	48	52	0.25	3.00	3.25	0.08
46	MOKWA - JEBBA	32	17	117	137	0.53	3.66	4.28	0.12
47	BODE'SAADU - JEBBA	13	62	132	201	4.77	10.15	15.46	0.31
48	OMU ARA - ILORIN	21	12	134	146	0.57	6.38	6.95	0.08
49	BODE' SAADU - KUNBI	18	17	57	74	0.94	3.17	4.11	0.23
50	IKERE TOWN	3	10	37	47	3.33	12.33	15.67	0.21

51	IFAKI TOWN	4	0	23	23	0.00	5.75	5.75	0.00
52	LOKOJA - OKENE	35	34	54	88	0.97	1.54	2.51	0.39
53	ENUGU - PORTHARCOURT	66	50	129	179	0.76	1.95	2.71	0.28
54	ABAKALIKI - ENUGU	41	20	130	150	0.49	3.17	3.66	0.13
55	ABAKALIKI -OGOJA	7	5	15	20	0.71	2.14	2.86	0.25
56	UMUAHIA-ABA-PORT HARCOURT	29	22	121	143	0.76	4.17	4.93	0.15
57	OWERRI - UMUAHIA	39	13	154	167	0.33	3.95	4.28	0.08
58	OWERRI - ABA	8	4	43	47	0.50	5.38	5.88	0.09
59	OWERRI - PORT HARCOURT	9	34	61	95	3.78	6.78	10.56	0.36
60	SOKOTO - JEGA	14	7	73	80	0.50	5.21	5.71	0.09
61	SOKOTO - GUSAU	12	10	46	56	0.83	3.83	4.67	0.18
62	SOKOTO - ILLELA	5	6	24	30	1.20	4.80	6.00	0.20
63	B/KEBBI - JEGA	2	0	2	2	0.00	1.00	1.00	0.00
64	OSOGBO - SEKONA	49	31	252	283	0.63	5.14	5.78	0.11
65	ILESA - AKURE	151	128	1090	1218	0.85	7.22	8.07	0.11
66	OYO - OGBOMOSHO	24	34	172	206	1.42	7.17	8.58	0.17
67	IKARE - OWO	18	15	60	75	0.83	3.33	4.17	0.20
68	LAGOS-ORE-BENIN	109	83	627	710	0.76	5.75	6.51	0.12
69	IBADAN - IFE	86	185	900	1085	2.15	10.47	12.62	0.17
70	IBADAN - OYO	35	43	226	269	1.23	6.46	7.69	0.16
71	BAUCHI - MAIDUGURI	10	12	64	76	1.20	6.40	7.60	0.16
72	ALKELERI - BAUCHI	6	7	19	26	1.17	3.17	4.33	0.27
73	MAIDUGURI-DAMATURU-POTISKUM	40	75	294	369	1.88	7.35	9.23	0.20
74	POTISKUM - KANO	24	35	133	168	1.46	5.54	7.00	0.21

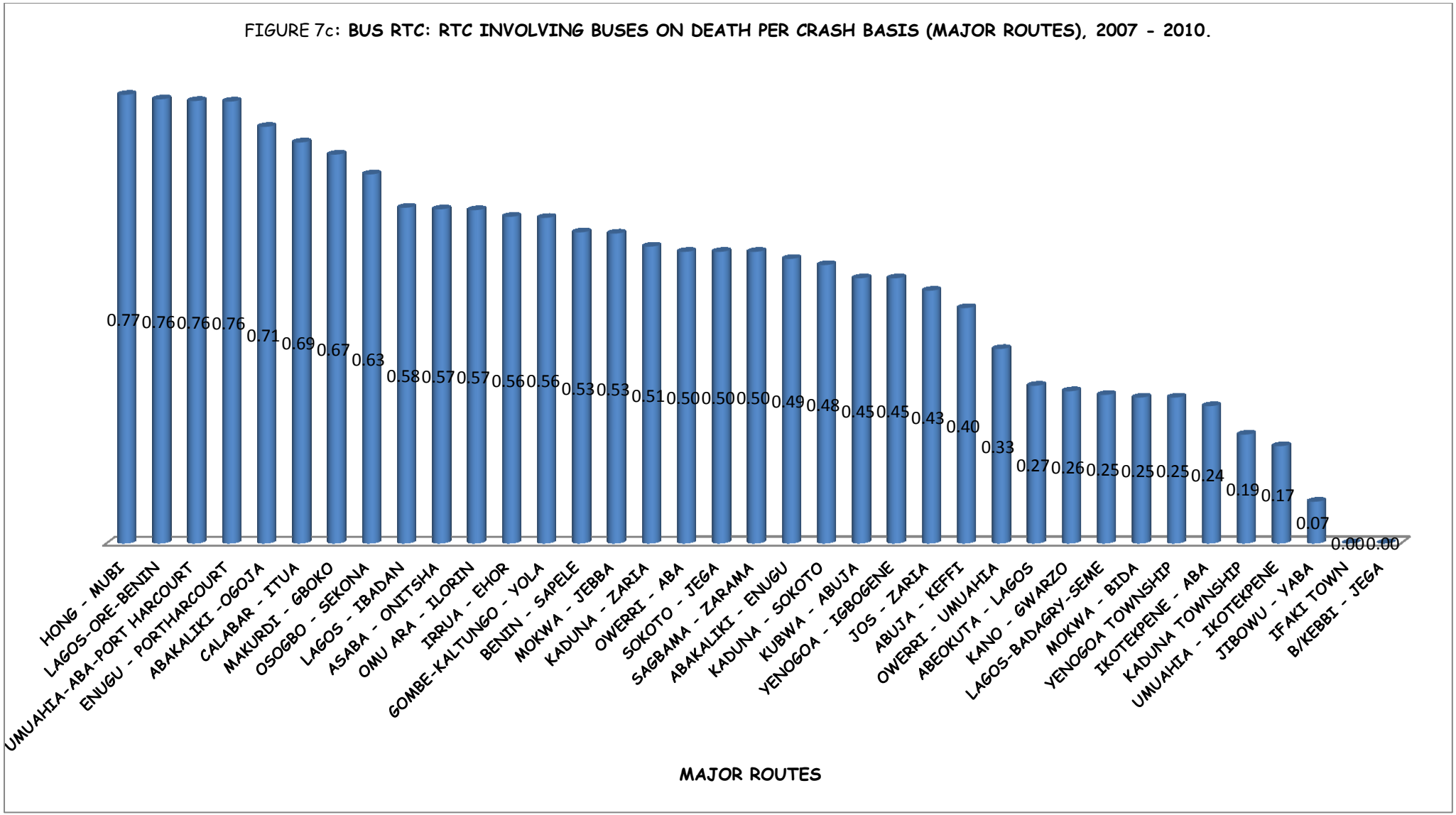
SOURCE: FRSC

FIGURE 7b: **BUS RTC: RTC INVOLVING BUSES ON DEATH PER CRASH BASIS (MAJOR ROUTES), 2007 - 2010.**



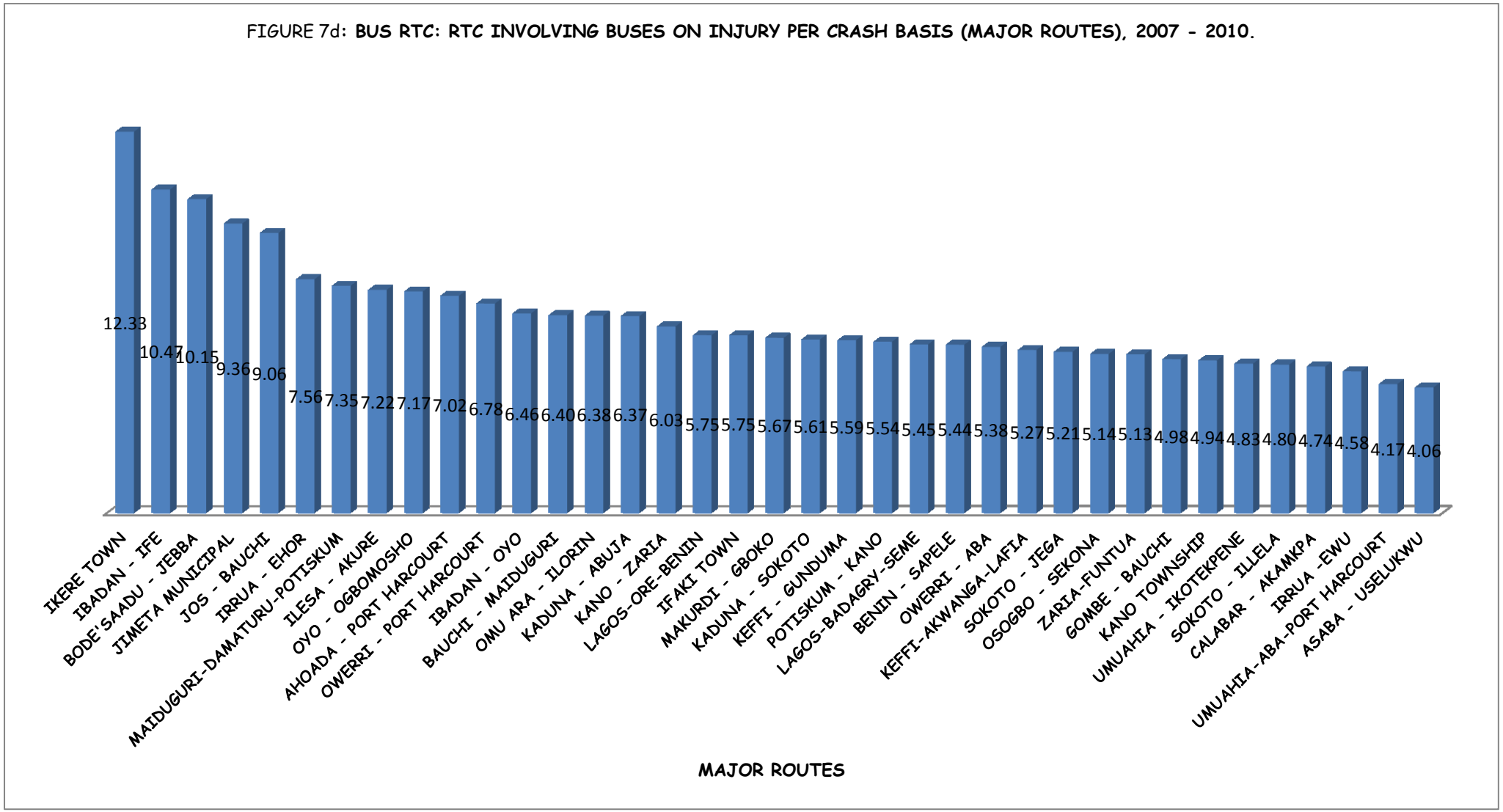
SOURCE: FRSC

FIGURE 7c: **BUS RTC: RTC INVOLVING BUSES ON DEATH PER CRASH BASIS (MAJOR ROUTES), 2007 - 2010.**



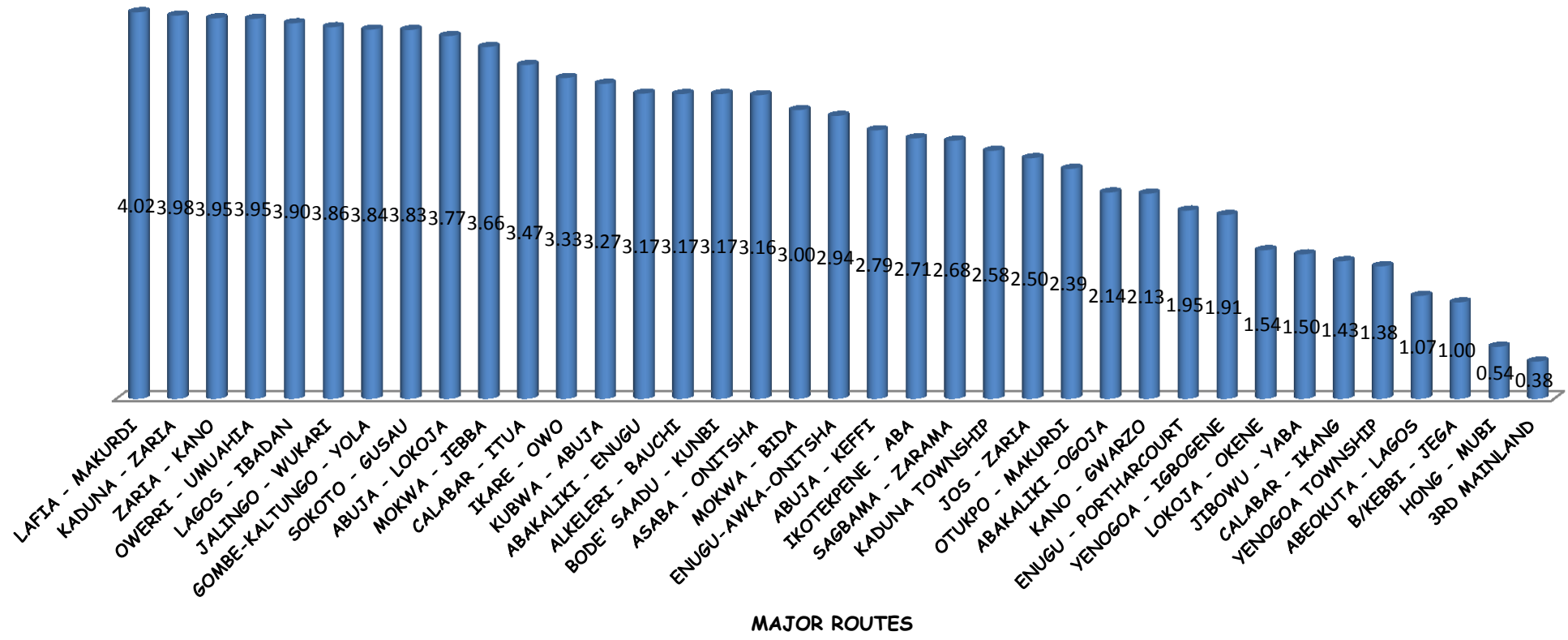
SOURCE: FRSC

FIGURE 7d: **BUS RTC: RTC INVOLVING BUSES ON INJURY PER CRASH BASIS (MAJOR ROUTES), 2007 - 2010.**



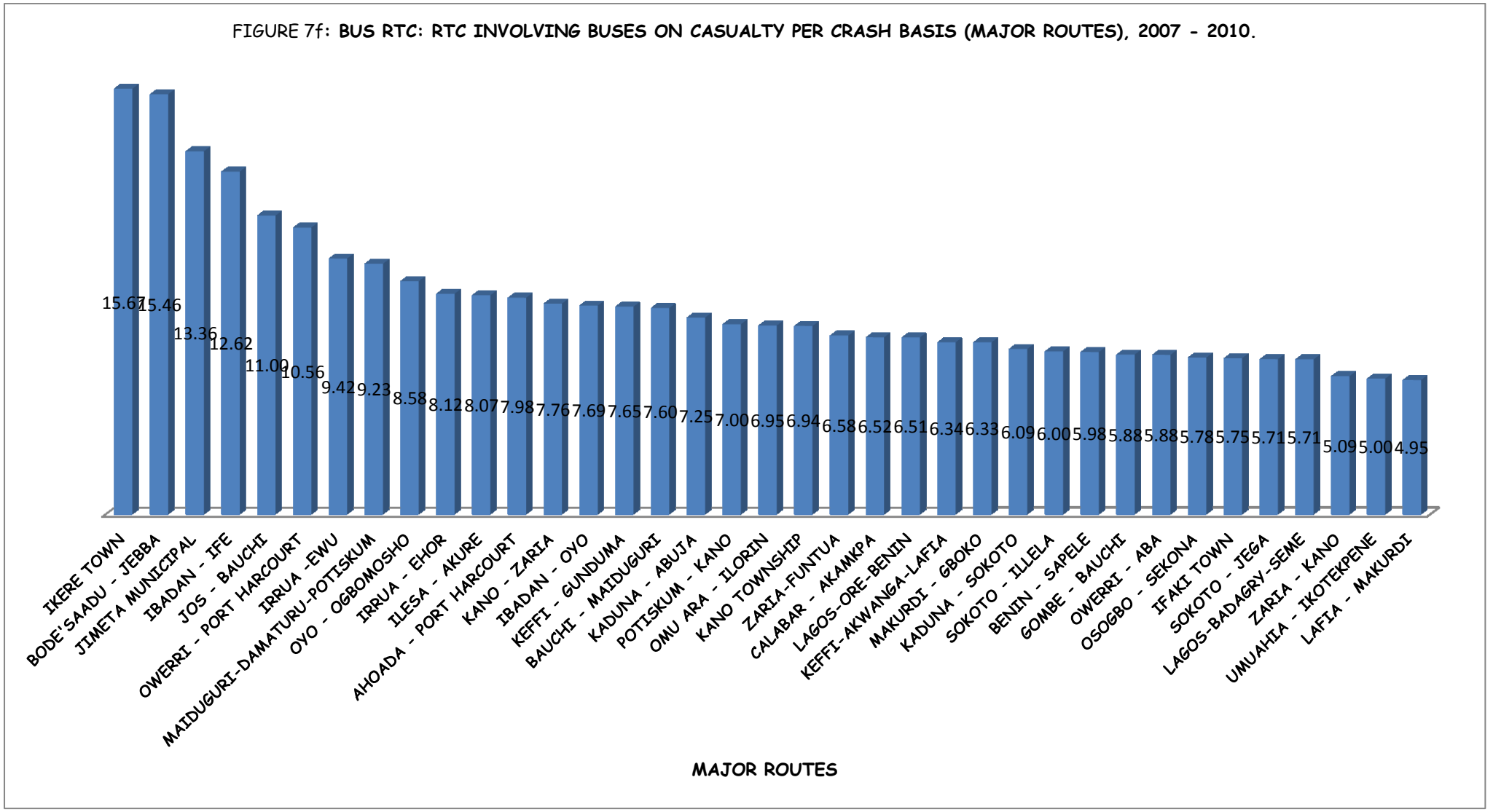
SOURCE: FRSC

FIGURE 7e: **BUS RTC: RTC INVOLVING BUSES ON INJURY PER CRASH BASIS (MAJOR ROUTES), 2007 - 2010.**



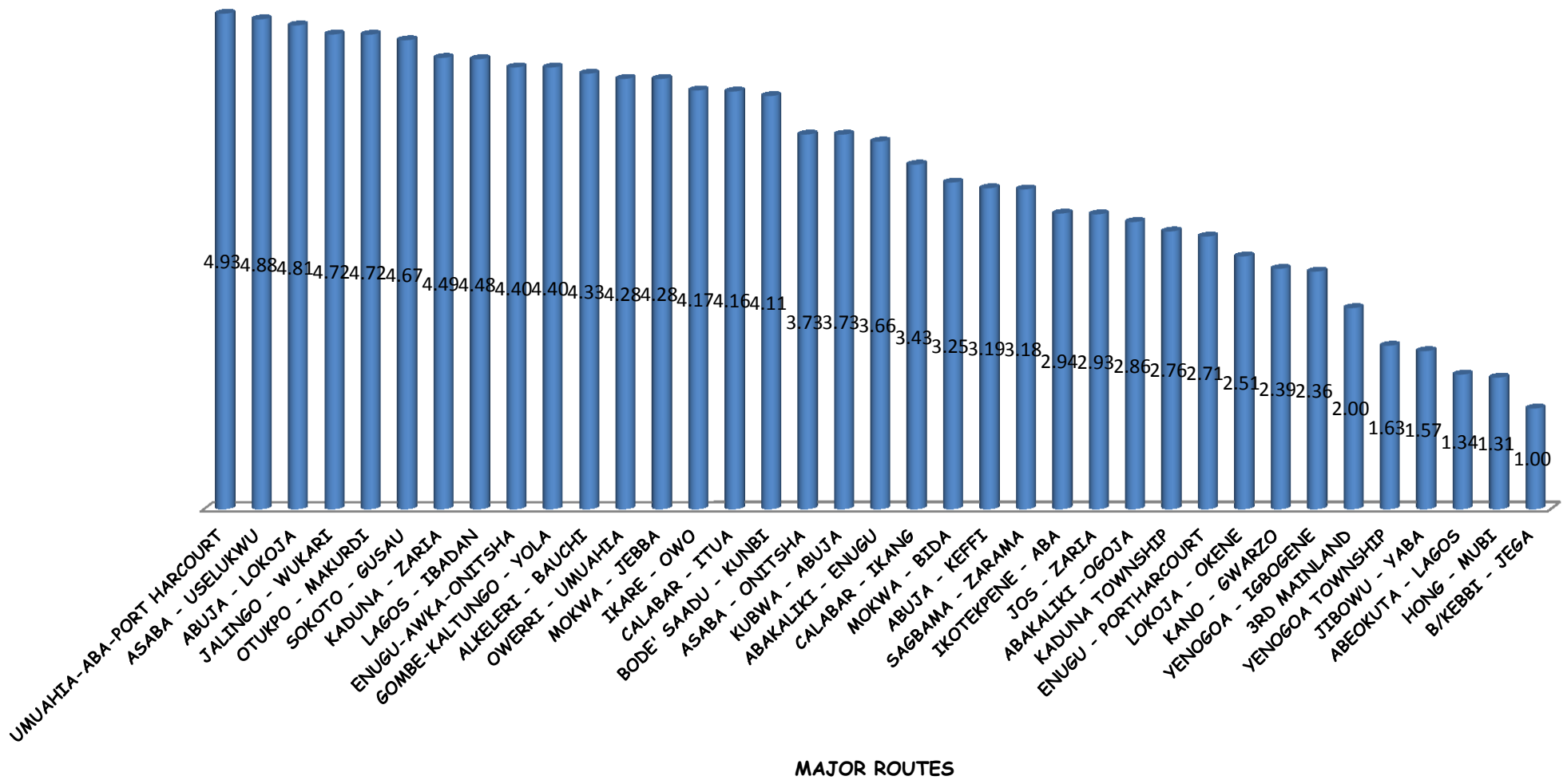
SOURCE: FRSC

FIGURE 7f: **BUS RTC: RTC INVOLVING BUSES ON CASUALTY PER CRASH BASIS (MAJOR ROUTES), 2007 - 2010.**



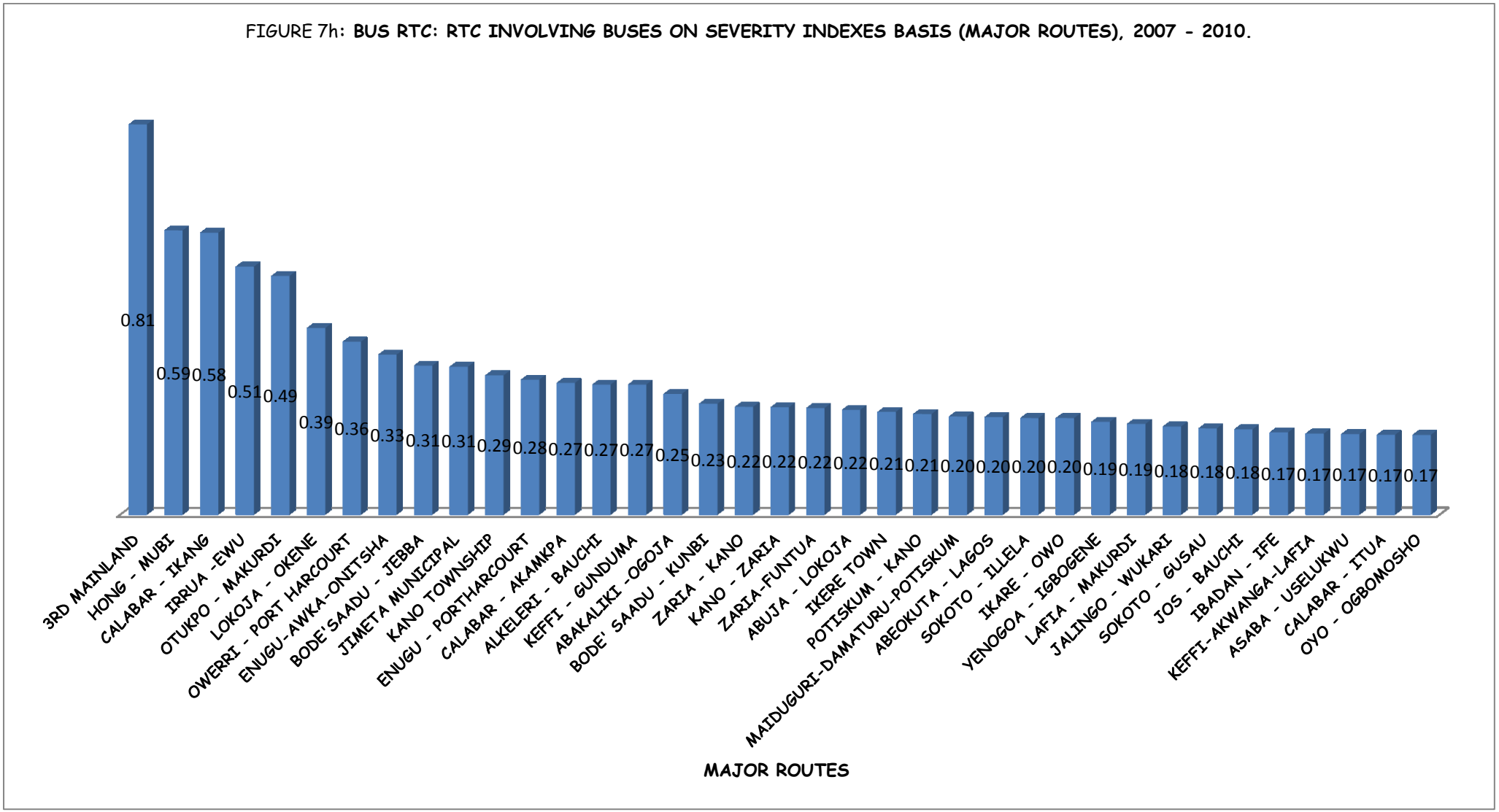
SOURCE: FRSC

FIGURE 7g: **BUS RTC: RTC INVOLVING BUSES ON CASUALTY PER CRASH BASIS (MAJOR ROUTES), 2007 - 2010.**



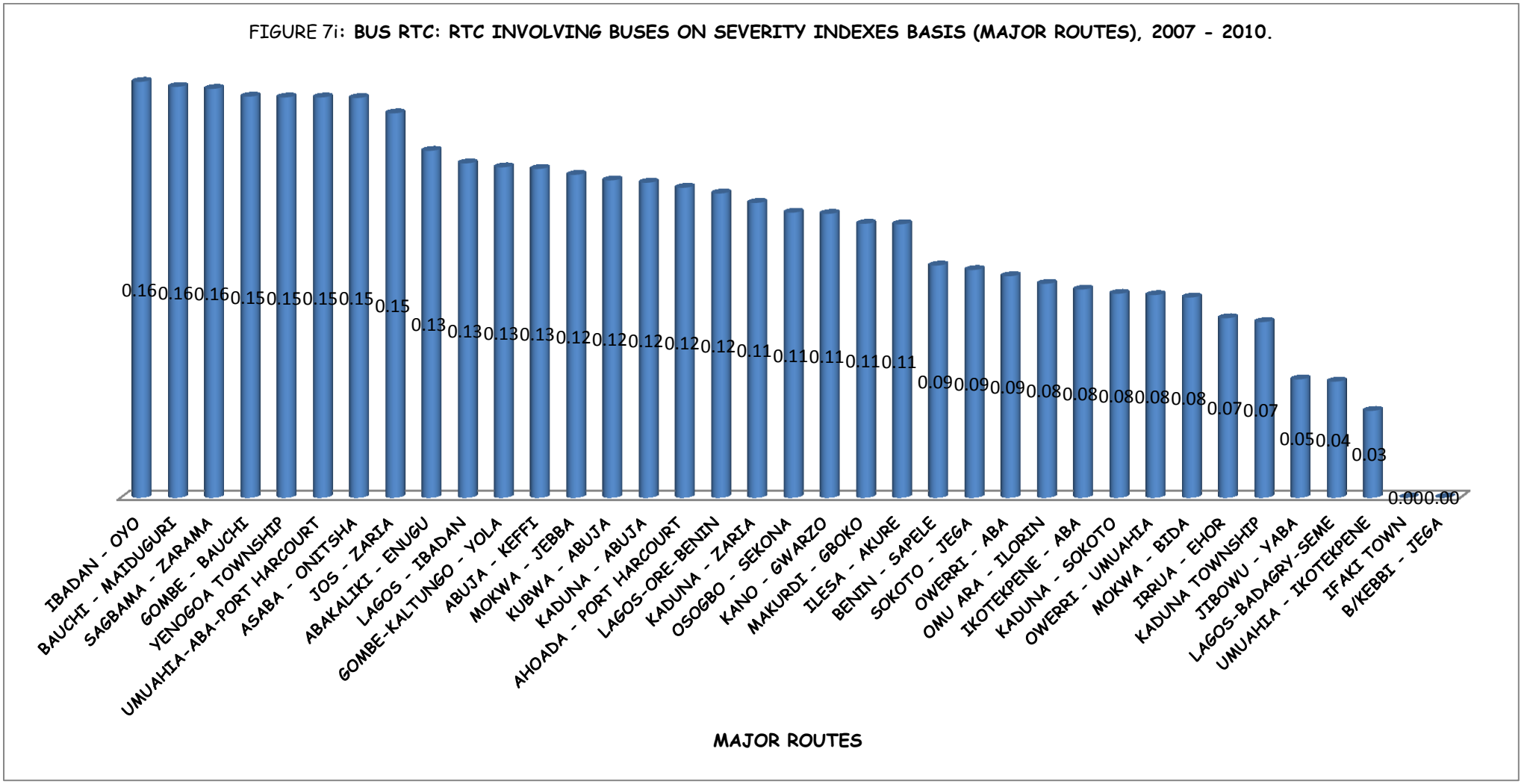
SOURCE: FRSC

FIGURE 7h: **BUS RTC: RTC INVOLVING BUSES ON SEVERITY INDEXES BASIS (MAJOR ROUTES), 2007 - 2010.**



SOURCE: FRSC

FIGURE 7i: **BUS RTC: RTC INVOLVING BUSES ON SEVERITY INDEXES BASIS (MAJOR ROUTES), 2007 - 2010.**



SOURCE: FRSC

RTC INVOLVING BUSES (2007-2010) ON THE SPOT (LOCATIONAL) BASIS

Between 2007 – 2010, a total of 43 major black spots were identified.

In 2007, the highest RTC cases involving buses were recorded at Gbaji along Badagry-Seme road with 9 cases. Kwali, along Abuja-Lokoja road recorded 8 cases, Aradagu along Badagry-tollgate road recorded 7 cases, Gwagwalada along Abuja- Lokoja recorded 7 cases while Mowo along Badagry–tollgate, Ajanla along Lagos-Ibadan Expressway, bye pass, along Benin-Sapele road, Kugbo along Abuja-keffi road, Maraba along Abuja-keffi road and Dutse, along Zuba-Abuja road all recorded 6 RTC cases each. (See Table 8 & Figure 8).

In 2008, Kwali along Abuja-Lokoja recorded highest RTC with 10 cases. Maraba along Abuja-keffi road recorded 8 cases; Ogere along Lagos-Ibadan Expressway recorded 7 cases while Nasarawa Eggon along Lafia-Akwanga road, Gwagwalada along Abuja-Lokoja road recorded 6 cases each. Rigachukwu along Kaduna-Zaria road, Ehor along Irrua-Ehor road, Kugbo along Abuja- keffi road, Dutse along Zuba-Abuja road, Giri along Abuja-Lokoja road, Crusher along Lokoja-Okene road recorded 5 cases each. (See Table 8 & Figure 8).

In 2009, Gwagwalada and Banda village along Abuja-Lokoja road recorded the highest with 7 cases each of RTC. Adesuwa junction along Benin-Sapele road, Giri and Kwali along Abuja-Lokoja road recorded 6 cases each of RTC. (See Table 8 & Figure 8).

In 2010, Kwali along Abuja-Lokoja road recorded the highest RTC with 7 cases, Kugbo along Abuja-keffi road recorded 6 cases Gora village along keffi-Masaka road, Okpanam in Asaba road, Mararaba along Abuja-keffi road, Gwagwalada and Banda village along Abuja-

Lokoja road recorded 5 cases each of RTC involving buses. (See Table 8 & Figure 8).

Between 2007 and 2010, the major identified black spots on Nigerian roads when dealing with bus crashes were Zaranda village on Bauchi–Jos road where about 71.4% of the bus crashes on the roads occurred. Dantata and Karfi on Kano–Zaria road where 43.75% and 37.50% of the RTC on the route occurred. Gidan Radio on Kano-Gwarzo road with 39.13% of the RTC on the route, Gbaji road on Badagry-Seme road with 48.65%, Mowo (26%) and Aradagu (24%) on Badagry-Toll Gate, Rinji (50%) and Tilden Fulani (36%) on Mangu-Jos road.

Mother Cat junction on Azare-Potiskum where 64.0% of bus crashes occurred, Opposite FRSC Office on Darzu-Dogon Kuka road, Onyema Hill on Enugu-9th mile with (34.15%) of crashes on the road, Felele and Cruisher on Lokoja-Okene road with 37.14% and 40% respectively as well as Adekanbi with 44.0% and Bode Sa'adu 31% on Bode Sa'adu-Jebba road are major black spots, while Lafiagi with 41% of crashes on Mokwa-Jebba is also very dangerous. On Abuja-Lokoja road, Gwagwalada, Giri, Kwali and Barde village are black spots. Along Ahoada-Port-Harcourt, 47% of the crashes occurred at market. Odukpani is the dangerous spot on Calabar-Itu road accounted for 56% of the total crashes on the road.

On Lafia-Akwanga, Azuba and Nasarawa Eggon are the dangerous spots with the two places to jointly contributing about 70% of the total crashes on the road. Ture Mai and Ture Pandi accounted for over 80% of the crashes on Kaltungo-Yola road. Dumbai, Damagari and Abuja junction on Kaduna-Abuja road are the black spots with about 50% of the crashes on the road happening in those three spots. On Lagos-Ibadan, dangerous spots include Olawotedo, Ogere

Toll gate, Conoil, Asese and Ajanla. Ojuelegba under Bridge and Jibowu under Bridge are also two of the dangerous points in Lagos State. See Table 8 & Figure 8, for the identified major black spots on bus crashes on Nigerian roads.

TABLE 8: **RTC INVOLVING BUSES ON ROUTE BASIS, 2007 - 2010.**

	ROUTE	SPOTS/LOCATION	NO OF CASES				TOTAL	TOTAL CRASHES ON THE ROUTE	% OF RTC
			2007	2008	2009	2010			
1	KADUNA – ABUJA	DUMBI	3	4	2	4	**13**	**63**	**20.63**
		DANMAGAJI	2	1	3	2	**8**	**63**	**12.70**
		ABUJA JUNCTION	4	3	2	2	**11**	**63**	**17.46**
2	KADUNA – ZARIA	RIGACHIKUN	5	5	4	2	**16**	**226**	**7.08**
		BAYERO	4	2	2	3	**11**	**226**	**4.87**
		JAJI	5	3	4	2	**14**	**226**	**6.19**
3	KADUNA – SOKOTO	POLICE MTD JUNCTION	2	2	1	3	**8**	**44**	**18.18**
		RAILWAY QUARTERS	5	4	1	3	**13**	**44**	**29.55**
4	KADUNA – KANO	LIKORO	4	4	3	2	**13**	**51**	**25.49**
		TOLLGATE	3	4	2	3	**12**	**51**	**23.53**
		POLYGATE	3	2	4	3	**12**	**51**	**23.53**
5	KANO – ZARIA	DANTATA	3	1	2	1	**7**	**16**	**43.75**
		KARFI	1	2	2	1	**6**	**16**	**37.50**
		SEVEN UP	1	0	0	2	**3**	**16**	**18.75**
6	KANO – GWARZO	GETSO	2	0	3	1	**6**	**23**	**26.09**
		GIDAN RADIO	3	3	2	1	**9**	**23**	**39.13**
7	LAGOS THIRD MAINLAND	THIRD MAINLAND	4	2	1	3	**10**	**16**	**62.50**
8	LAGOS – IBADAN	OLAWOTEDO	2	0	3	0	**5**	**354**	**1.41**
		OGERE	5	7	3	4	**19**	**354**	**5.37**
		TOLLGATE	5	3	4	4	**16**	**354**	**4.52**
		CONOIL	3	4	3	2	**12**	**354**	**3.39**
		ASESE	1	0	2	1	**4**	**354**	**1.13**
		AJANLA	6	4	3	4	**17**	**354**	**4.80**
9	BADAGRY – SEME	GBAJI	9	2	3	4	**18**	**37**	**48.65**

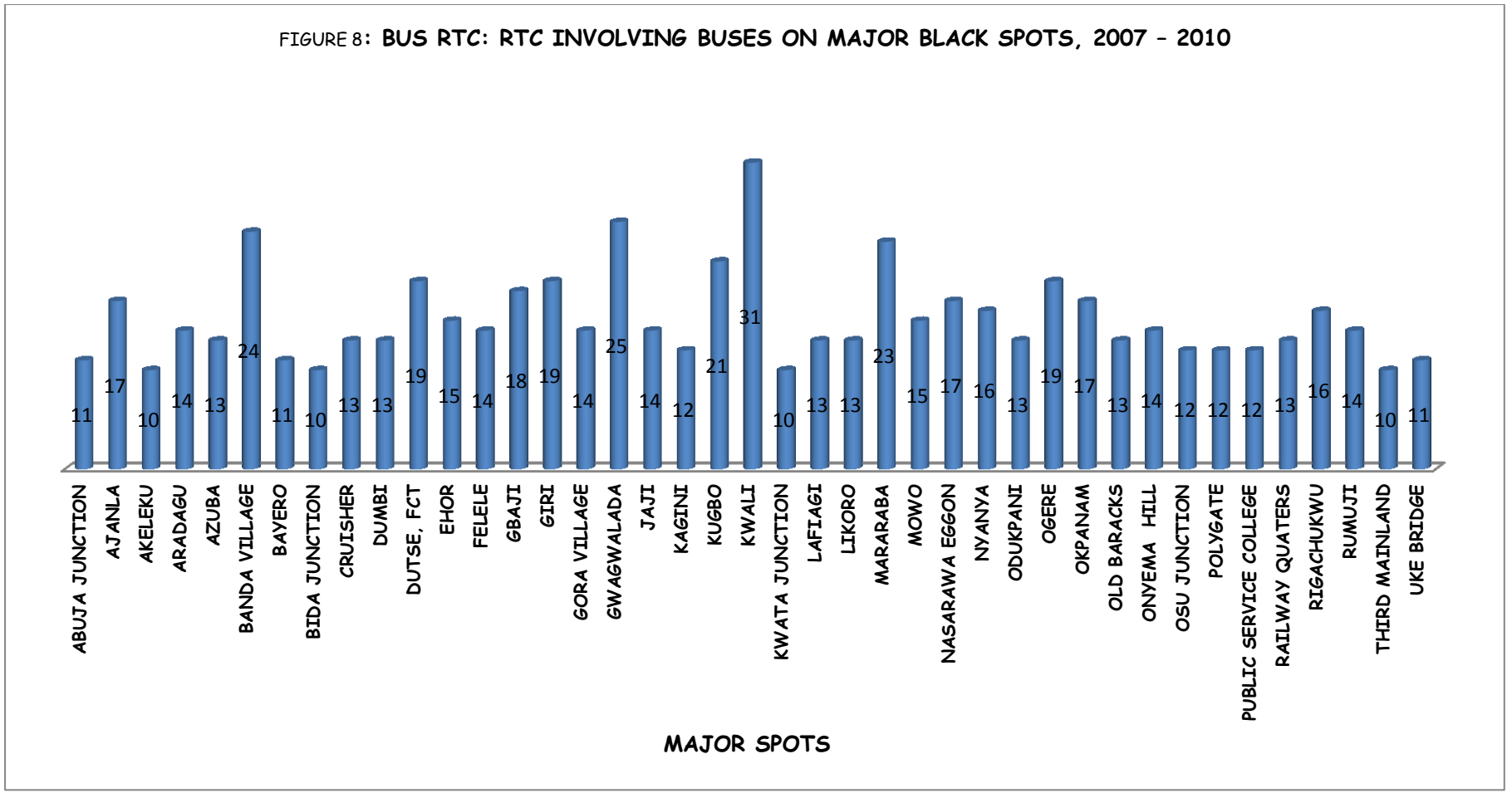
10	BADAGRY - TOLLGATE	ARADAGU	7	2	1	4	**14**	**58**	**24.14**
		MOWO	6	4	1	4	**15**	**58**	**25.86**
11	JIBOWU – YABA	OJULEGBA UNDER BRIDGE	2	2	-	4	**8**	**28**	**28.57**
		JIBOWU UNDER BRIDGE	2	2	-	3	**7**	**28**	**25.00**
12	ABEOKUTA - IBADAN	ODEDA	2	0	3	4	**9**	**63**	**14.29**
		ODOBULU	2	2	1	1	**6**	**63**	**9.52**
13	KALTUNGO - GOMBE	KUFAI	2	0	0	2	**4**	**21**	**19.05**
14	KALTUNGO – YOLA	TURE MAI	3	1	2	2	**8**	**21**	**38.10**
		TURE PANDI	4	3	2	0	**9**	**21**	**42.86**
15	MAKURDI – LAFIA	AKANGA	2	2	3	1	**8**	**57**	**14.04**
		AKELEKU	3	2	2	3	**10**	**57**	**17.54**
		COURT 5	3	0	1	2	**6**	**57**	**10.53**
16	LAFIA – AKWANGA	AZUBA	4	2	3	4	**13**	**43**	**30.23**
		NASARAWA EGGON	4	6	3	4	**17**	**43**	**39.53**
17	KEFFI – MASAKA	UKE BRIDGE	4	3	1	3	**11**	**39**	**28.21**
		GORA VILLAGE	3	2	4	5	**14**	**39**	**35.90**
18	KEFFI – GARAKU	SABONGIDA	2	2	0	2	**6**	**52**	**11.54**
		OLD BARACKS	4	3	4	2	**13**	**52**	**25.00**
		HIGH COURT	2	2	1	0	**5**	**52**	**9.62**
19	KEFFI – GUNDUMA	GUDUMA	2	2	3	0	**7**	**17**	**41.18**
20	BENIN – SAPELE	BYE PASS	6	4	4	3	**17**	**45**	**37.78**
		ADESUWA JUNCTION	3	4	6	4	**17**	**45**	**37.78**
21	IRRUA – EHOR	EHOR	4	5	3	3	**15**	**25**	**60.00**
		IGBIYAYA	1	0	0	2	**3**	**25**	**12.00**
22	ASABA	OKPANAM	5	4	3	5	**17**	**103**	**16.50**
		FRSC JUNCTION	4	3	4	3	**14**	**103**	**13.59**
23	AWKA – ENUGU	KWATA JUNCTION	2	2	4	2	**10**	**20**	**50.00**
		NTEJE SLAUGHTER MARKET	3	3	1	2	**9**	**20**	**45.00**

24	AHOADA - PORTHARCOURT	RUMUJI	3	4	3	4	**14**	**30**	**46.67**
		NDELE	3	1	0	0	**4**	**30**	**13.33**
25	CALABAR – ITUA	ODUKPANI	4	4	3	2	13	32	**40.63**
26	CALABAR - AKAMKPA	AWI VILLAGE	3	1	3	2	9	27	**33.33**
		OKRIKANG JUNCTION	3	2	0	1	**6**	**27**	**22.22**
27	YENOGOA - IGBOGENE	EKEKI	2	0	1	1	**4**	**11**	**36.36**
		SPORTS COMPLEX	3	0	0	1	**4**	**11**	**36.36**
28	ABUJA – KEFFI	KUGBO	6	5	4	6	**21**	**75**	**28.00**
		MARARABA	6	8	4	5	23	75	**30.67**
		NYANYA	5	4	4	3	**16**	**75**	**21.33**
29	ZUBA – ABUJA	KAGINI	4	3	3	2	**12**	**66**	**18.18**
		PUBLIC SERVICE COLLEGE	3	2	4	3	**12**	**66**	**18.18**
		DUTSE	6	5	4	4	**19**	**66**	**28.79**
30	ABUJA – LOKOJA	GWAGWALADA	7	6	7	5	25	113	**22.12**
		GIRI	4	5	6	4	**19**	**113**	**16.81**
		KWALI	8	10	6	7	**31**	**113**	**27.43**
		BANDA VILLAGE	6	6	7	5	**24**	**113**	**21.24**
31	MOKWA – JEBBA	LAFIAGI	4	4	3	2	**13**	**32**	**40.63**
		T/NIMA	2	2	0	3	7	32	**21.88**
32	MOKWA – BIDA	BIDA JUNCTION	3	2	1	4	**10**	**16**	**62.50**
		FOREST	3	1	0	2	**6**	**16**	**37.50**
33	BODE SAA'DU - JEBBA	BODE SAADU	2	2	1	2	**7**	**13**	**53.85**
		ADEKANBI	2	1	0	1	**4**	**13**	**30.77**
34	BODE SAA'DU - KUNBI	IYANA MAMA	2	2	1	3	8	18	**44.44**
		LANKANLA BRIDGE	3	0	1	0	**4**	**18**	**22.22**
35	LOKOJA – OKENE	CRUISHER	3	5	2	3	**13**	**35**	**37.14**
		FELELE	4	3	4	3	**14**	**35**	**40.00**
		GADAN SHAGARI	2	1	2	2	**7**	**35**	**20.00**

36	ENUGU - 9TH MILE	ONYEMA HILL	5	3	2	4	14	41	**34.15**
37	ABAKILIKI - ENUGU	PRESCO JUNCTION	2	2	0	3	**7**	**38**	**18.42**
38	UMUAHIA - PORTHARCOURT	UBAKALA JUNCTION	0	0	2	1	**3**	**18**	**16.67**
39	SOKOTO – JEGA	L/MAZURU	0	1	2	1	**4**	**14**	**28.57**
40	IFE – ILESA	OSU JUNCTION	3	3	4	2	12	54	**22.22**
		GBOGAN JUNCTION	3	2	0	3	**8**	**54**	**14.81**
41	ILESA – AKURE	IWARAJA JUNCTION	2	2	0	1	**5**	**32**	**15.63**
		IBULE	0	0	1	3	**4**	**32**	**12.50**
42	IPETU – ILESA	POWERLINE	2	0	2	3	7	33	**21.21**
43	AKURE - OGBOMOSO	AIRPORT JUNCTION	2	3	0	2	**7**	**24**	**29.17**
		FGGC	0	2	2	3	**7**	**24**	**29.17**
44	IKARE – OWO	AYEGUNLE VILLAGE	0	1	2	3	6	18	**33.33**
45	OWO – OGBOMOSO	USO TOWN	2	2	1	2	**7**	**15**	**46.67**
		EGBEDA	3	2	1	3	**9**	**56**	**16.07**
46	IBADAN – IFE	KUKUMADA	1	0	2	1	**4**	**56**	**7.14**
		ASEJIRE	2	2	1	0	5	56	**8.93**
47	IBADAN – OYO	FAGOL	2	0	3	1	**6**	**35**	**17.14**
		NEW ROAD	1	2	0	1	4	35	**11.43**
48	BAUCHI – JOS	ZARANDA VILLAGE	3	2	4	3	12	17	**70.59**
49	MANGU – JOS	RINJI	2	2	0	3	7	14	**50.00**
		TILDEN FULANI	2	0	2	1	5	14	**35.71**
50	DARAZU – DOGON KUKA	OPPOSITE FRSC OFFICE	2	1	0	2	**5**	**9**	**55.56**
51	AZARE – POTISKUM	MOTHER CAT JUNCTION	2	2	0	3	7	11	**63.64**

SOURCE: FRSC

FIGURE 8: **BUS RTC: RTC INVOLVING BUSES ON MAJOR BLACK SPOTS, 2007 – 2010**



SOURCE: FRSC

MONTHLY ANALYSIS ON RTC INVOLVING BUSES BETWEEN 2007 – 2010

A careful analysis of Road Traffic Crashes involving Buses between 2007 – 2010 also revealed that the highest crashes occurred in the month of December with 564 crashes representing (10%) of the total crashes within the period. This is in line with the traffic density pattern as there is a high traffic volume of buses in December when a lot of people move from their places of work to their town, villages and other major cities to celebrate Christmas and New Year. This has attendant increase in Crash rates. December was closely followed by the month of April with 548 cases (9%). This may also be attributed to the high movements in April for Easter celebrations as most Nigerians prefer to celebrate in their cities, towns and villages rather than their work places.

August with 514 cases (9%) and July with 519 cases (9%) are months with high incidents of bus crashes. It is important to note that all these month with high crashes fall within the rainy season and festive periods. It is evident therefore that the highest crashes among Buses occurred during the raining season. Rains may affect feasibility of the drivers. The surface may also be slippery as the bad road conditions are also worsened when it rains.

The months of February, June and January recorded the least crashes with a total of 402 (7%), 425 (8%) and 441 (8%) respectively. These months also recorded low or no rains. So there is actually a correlation between high incidences of RTC involving buses with the raining periods of the year. (See Table 9a).

Also, as earlier revealed, a monthly average of 121.42 (121) crashes involving Buses were recorded between 2007 – 2010. The break down showed 83.03 (83) in 2007, 113.92 (114) in 2008, 141.08 (140)

in 2009 and 147.58 (148) in 2010. On fatalities, an average monthly 116.31 (116) deaths were recorded with 81.92 (82) in 2007, 129.08 (129) in 2008, 130.58 (131) in 2009 and 123.67 (124) in 2010.

As per injuries, an average of 578.98 (579) persons got injured monthly. The figure rose from 387.83 (388) in 2007 to 608.58 (609) in 2008, 650.75 (651) in 2009 and 668.58 (669) in 2010.

An average of 695.29 (695) persons were either injured or killed monthly as a result of Road Traffic Crashes (RTCs) involving Buses during the considered period. On yearly terms, averages of 469.75 (470) were person injured or killed in 2007, 737.83 (738) casualties in 2008. 2009 and 2010 had 781.33 (781) and 792.25 (792) casualties respectively. For the number of persons involved a monthly average of 1,356.92 (1,357) were involved with 882 in 2007, 1334.33 (1,334) in 2008, 1572.50 (1,573) in 2009 and as high as 1,638 .83 (1,639) persons in 2010.

Many vehicles were crashed on the average 197.67 (198) vehicles crashed monthly with the highest figure of 245.50 (246) in 2009, 240.33 (240) in 2010 and 178.67 (179) in 2008. The least figure of 126.17 (126) was recorded as the monthly average of crashed vehicles in 2007.

Table 9b showed that the months of February and March were the most deadly with both having 1.19 (1) death per crash, followed by April with 1.07 death per crash. August has the least death per crash with a figure of 0.73 and July with 0.77.

The highest injury per crash happened in the month of March with 5.61 (6) and April with 5.23 (5). And the least occurred in the months of October and July with 4.22 (4) and 4.27 (4) respectively.

In addition, the month of March recorded the highest casualty per crash with 6.81 (7), followed by November with 6.27 (6). The severity indexes analysis showed February with the highest figure of 0.19 and closely followed by the months of March and September with both standing at 0.18 (0). Conversely, the month of August with 0.14 recorded the least severity index, followed by July with 0.15. (See Table 9b).

TABLE 9a: **MONTHLY ANALYSIS OF BUSES RTC FROM 2007 TO 2010.**

S/N	*SECTOR*	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	RS 1.1, KADUNA	40	24	45	59	41	35	52	57	62	42	48	38
2	RS 1.2, KANO	11	12	13	12	10	13	9	15	8	4	15	28
3	RS 1.3, KATSINA	28	19	24	9	26	24	28	25	27	22	31	22
4	RS 1.4, JIGAWA	5	9	11	6	9	6	8	4	5	1	4	3
5	RS 2.1, LAGOS	26	20	29	26	25	21	17	30	16	31	20	45
6	RS 2.2, OGUN	39	36	32	47	47	38	60	71	31	43	49	54
7	RS 3.1, ADAMAWA	9	9	9	8	11	11	9	7	5	10	3	17
8	RS 3.2, GOMBE	3	6	5	7	4	4	6	8	8	10	7	6
9	RS 3.3, TARABA	2	1	1	1	5	3	4	2	3	6	1	4
10	RS 4.1, PLATEAU	2	4	2	7	1	2	3	2	3	2	4	9
11	RS 4.2, BENUE	8	5	1	5	3	3	9	5	6	7	3	6
12	RS 4.3, NASARAWA	14	13	13	25	25	19	41	33	24	19	17	28
13	RS 5.1, EDO	6	8	12	13	13	8	9	13	13	19	23	49
14	RS 5.2, DELTA	9	12	14	7	9	12	13	14	11	6	8	9
15	RS 5.3, ANAMBRA	8	8	8	8	3	8	10	10	13	9	9	12
16	RS 6.1, RIVERS	9	11	16	14	13	15	18	13	6	13	12	8
17	RS 6.2, C/RIVERS	2	3	5	4	6	8	8	7	4	3	2	3
18	RS 6.3, A/IBOM	6	1	5	2	3	10	4	5	5	5	11	3
19	RS 6.4, BAYELSA	6	0	6	4	2	9	6	5	3	3	7	7
20	RS 7.1, FCT	31	29	18	31	28	21	31	25	24	19	12	16

21	RS 7.2, NIGER	17	17	8	17	16	14	14	18	16	21	22	31
22	RS 8.1, KWARA	5	13	12	8	15	15	12	13	21	12	13	14
23	RS 8.2, EKITI	1	2	2	3	4	3	3	1	1	1	2	2
24	RS 8.3, KOGI	12	9	8	14	9	9	12	8	17	12	14	17
25	RS 9.1, ENUGU	17	11	20	19	16	18	19	20	11	24	15	18
26	RS9.2, EBONYI	8	8	11	0	9	0	5	2	8	0	5	4
27	RS 9.3, ABIA	5	2	6	20	7	11	6	2	9	3	4	6
28	RS 9.4, IMO	2	5	8	4	9	4	8	11	3	5	7	8
29	RS 10.1, SOKOTO	5	2	3	2	2	1	0	1	2	3	3	1
30	RS 10.2, KEBBI	3	4	3	4	3	2	3	1	2	2	2	1
31	RS10.3, ZAMFARA	1	1	3	0	1	1	3	2	3	0	1	1
32	RS 11.1, OSUN	29	26	36	34	25	19	17	19	19	13	35	16
33	RS 11.2, ONDO	23	19	34	36	23	21	28	19	27	31	30	39
34	RS 11.3, OYO	35	28	35	61	18	21	18	24	25	24	15	21
35	RS 12.1, BAUCHI	9	11	15	13	13	12	9	15	12	7	7	9
36	RS 12.2, BORNO	5	2	3	4	3	3	1	7	7	8	9	1
35	RS 12.3, YOBE	8	17	10	14	9	14	11	5	10	16	15	8
TOTAL		449	407	486	548	466	438	514	519	470	456	485	564

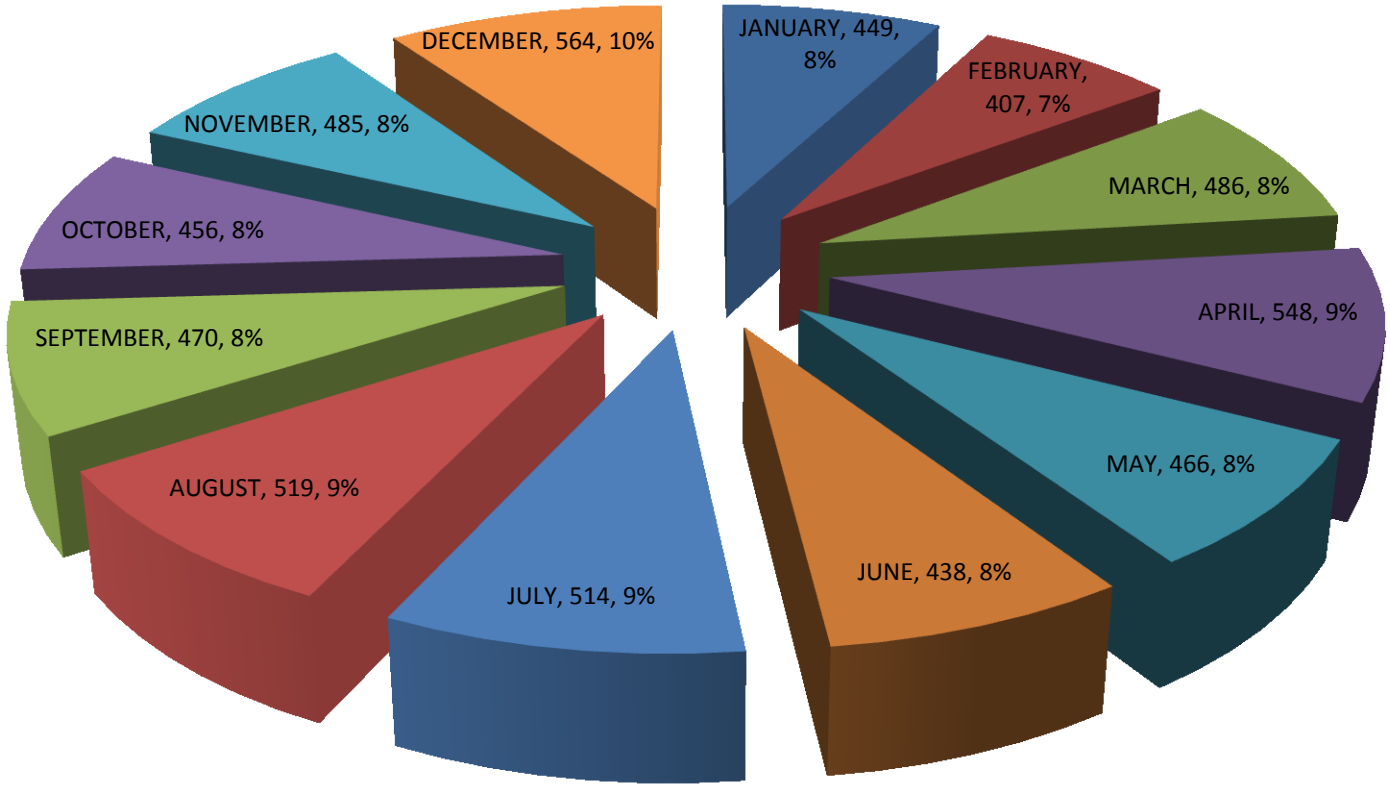
SOURCE: FRSC

TABLE 9b: **BUS RTC: ANALYSIS OF RTC INVOLVING BUSES FROM 2007 TO 2010.**

S/N	MONTH	TOTAL CASES	NUMBER KILLED	NUMBER INJURED	TOTAL CASUALTY	DEATH PER CRASH	INJURY PER CRASH	CASUALTY PER CRASH	SEVERITY INDEX
1	JANUARY	449	387	2054	2441	0.86	4.57	5.44	0.16
2	FEBRUARY	407	481	2004	2488	1.18	4.92	6.11	0.19
3	MARCH	486	570	2557	3117	1.17	5.26	6.41	0.18
4	APRIL	548	581	2867	3448	1.06	5.23	6.29	0.17
5	MAY	466	452	2226	2685	0.97	4.78	5.76	0.17
6	JUNE	438	403	1955	2358	0.92	4.46	5.38	0.17
7	JULY	514	399	2202	2601	0.78	4.28	5.06	0.15
8	AUGUST	519	380	2317	2697	0.73	4.46	5.20	0.14
9	SEPTEMBER	470	492	2259	2751	1.05	4.81	5.85	0.18
10	OCTOBER	456	400	1924	2324	0.88	4.22	5.10	0.17
11	NOVEMBER	485	458	2583	3041	0.94	5.33	6.27	0.15
12	DECEMBER	564	541	2605	3146	0.96	4.62	5.58	0.17
13	NOT DATED	26	39	238	277	1.50	9.15	10.65	0.14
TOTAL		5828	5583	27791	33374	0.9579616	4.76853123	5.7264928	0.1672859

SOURCE: FRSC

FIGURE 9: GRAPHIC PRESENTATION OF MONTHLY ANALYSIS OF BUSES RTC (2007 – 2010)



SOURCE: FRSC

DAY OF THE WEEK/DAILY ANALYSIS 2007 – 2010

During the period under review (2007 – 2010) the highest crashes were recorded on Sunday with a total of 922 cases representing (16%). It was closely followed by Saturday 861 (15%). Friday 849 (15%), Thursday 836 (14%), Tuesday 797 (14%) and Monday 789 (13%), Wednesday with 748 cases (13%) recorded the lowest crash and therefore relatively safer on the road while considering Bus crashes. (See Table 10a). The analysis of the Road Traffic Crash (RTC) records involving Buses during the period also revealed as earlier indicated in the table 1b and 1c that an average of 3.99 (4) crashes occurred per day. In 2007, an average of 2.73 (3) Bus crashes were recorded daily. This rose to 3.75 (4) in 2008, 4.64 (5) in 2009 and 4.85 (5) in 2010. On the average 3.82 (4) persons were killed daily. In 2007 an average of 2.69 (3) persons were killed, then 4.24 (4) in 2008, 4.29 (4) in 2009 and 4.07 (4) in 2010.

On the number of persons injured, 19.03 (19) persons on the average got injured with 12.75 (13) persons in 2007, 20.10 (20) persons in 2009 and 21.98 (22) injuries per day in 2010. The records also revealed that an average of 22.86 (23) persons were the average daily casualties with 15.44 (15) in 2007, 24.26 (24) in 2008, 25.69 (26) in 2009 and 26.05 (26) in 2010.

An analysis of number of persons involved on daily basis revealed that 22.86(23) persons either injured or killed (total casualties) in Bus crashes within the period under review with, 44.61 (45) persons on the average involved daily. On the average 29 persons were involved daily average in 2007, 43.87 (44) persons in 2008, 51.70 (52) persons in 2009 and 53.88 (54) persons in 2010.

Further analysis revealed that on the average on daily basis 6.5 (7) vehicles crashed in RTC involving Buses, with 4.15 (4) daily crashes in

2007, 5.87 (6) in 2008, 8.07 (8) in 2009 and 7.90 (8) in 2010. (See Tables 1b and 1c).

Analysis also showed that Sunday is the most dangerous day to travel by Buses in Nigeria, Table 10b revealed that Sunday has the highest death per crash with a figure of 1.12 (1) and closely followed by Wednesday and Friday with a figure of 0.99 (1) and 0.98 (1) respectively.

Again Sunday topped the list in terms of injury per crash with a figure of 5.01 (5), followed by Saturday and Friday with 5.00 (5) and 4.90 (5) respectively. The lowest were however recorded by Tuesday and Monday with 4.09 (4) and 4.58 (5) respectively.

In terms of total casualties (persons killed or injured) per crash, Sunday again recorded the highest with a figure of 6.12 (6) persons and closely followed by Saturday with 5.89 (6) and the lowest occurred on Tuesday with 4.99 (5).

Also Sunday and Tuesday recorded the highest severity indexes with 0.18 each, followed by Friday and Wednesday with 0.17 each. While Saturday and Monday had the lowest rates with 0.15 and 0.16 respectively. (See Table 10b).

The high incidences rates recorded on Sunday is in line with movement patterns on Nigerian roads as many people travel back to their work places on Sunday to resume work on Mondays. that also explains high incidences of bus crashes on Friday and Saturday when people leave their workplaces to spend their weekends which mostly government/civil service (except those in essential duties) work free days in Nigeria.

TABLE 10a: **BUS RTC: DAY OF THE WEEK ANALYSIS (2007- 2010)**

SECTOR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	N/A	TOTAL
RS 1.1, KADUNA	64	89	81	53	92	78	86	0	543
RS 1.2, KANO	23	14	18	21	17	17	21	1	132
RS 1.3, KATSINA	34	27	42	50	41	47	39	0	280
RS 1.4, JIGAWA	9	7	10	20	13	9	7	0	75
RS 2.1, LAGOS	54	46	33	49	43	36	50	2	313
RS 2.2, OGUN	77	79	71	66	57	76	109	0	535
RS 3.1, ADAMAWA	16	14	19	13	17	17	18	0	114
RS 3.2, GOMBE	10	11	14	15	21	15	18	0	104
RS 3.3, TARABA	3	7	4	5	3	6	6	0	34
RS 4.1, PLATEAU	5	7	5	4	5	6	8	0	40
RS 4.2, BENUE	7	9	10	6	10	8	11	22	83
RS 4.3, NASARAWA	38	12	32	48	31	36	39	0	236
RS 5.1, EDO	29	31	22	27	26	26	28	0	189
RS 5.2, DELTA	16	18	20	17	16	17	14	0	118
RS 5.3, ANAMBRA	19	16	12	15	9	12	15	0	98
RS 6.1, RIVERS	17	14	12	30	34	24	21	0	152
RS 6.2, C/RIVERS	8	7	5	12	8	9	5	0	54
RS 6.3, A/IBOM	13	10	8	13	5	8	6	0	63
RS 6.4, BAYELSA	6	7	3	12	15	17	10	1	71
RS 7.1, FCT	41	39	36	34	52	36	50	0	288
RS 7.2, NIGER	23	31	33	31	33	19	27	0	197
RS 8.1, KWARA	21	10	15	27	22	39	21	0	155
RS 8.2, EKITI	4	3	2	7	3	7	-	0	26
RS 8.3, KOGI	15	25	17	20	14	13	23	0	127
RS 9.1, ENUGU	17	29	19	35	44	37	21	0	202
RS9.2, EBONYI	10	13	14	7	5	11	6	0	66
RS 9.3, ABIA	6	16	14	6	10	10	11	0	73
RS 9.4, IMO	14	8	10	9	12	16	13	0	82
RS 10.1, SOKOTO	5	4	3	5	4	3	7	0	31
RS 10.2, KEBBI	6	4	5	5	3	4	1	0	28
RS10.3, ZAMFARA	5	2	1	4	-	2	3	0	17
RS 11.1, OSUN	41	43	39	45	56	52	55	0	331
RS 11.2, ONDO	48	39	41	39	49	62	67	0	345
RS 11.3, OYO	41	56	34	41	48	51	45	0	316
RS 12.1, BAUCHI	21	22	19	22	11	13	25	0	133
RS 12.2, BORNO	5	8	10	5	3	7	11	0	48
RS 12.3, YOBE	18	21	15	18	17	15	25	0	129
TOTAL	789	797	748	836	849	861	922	26	5828

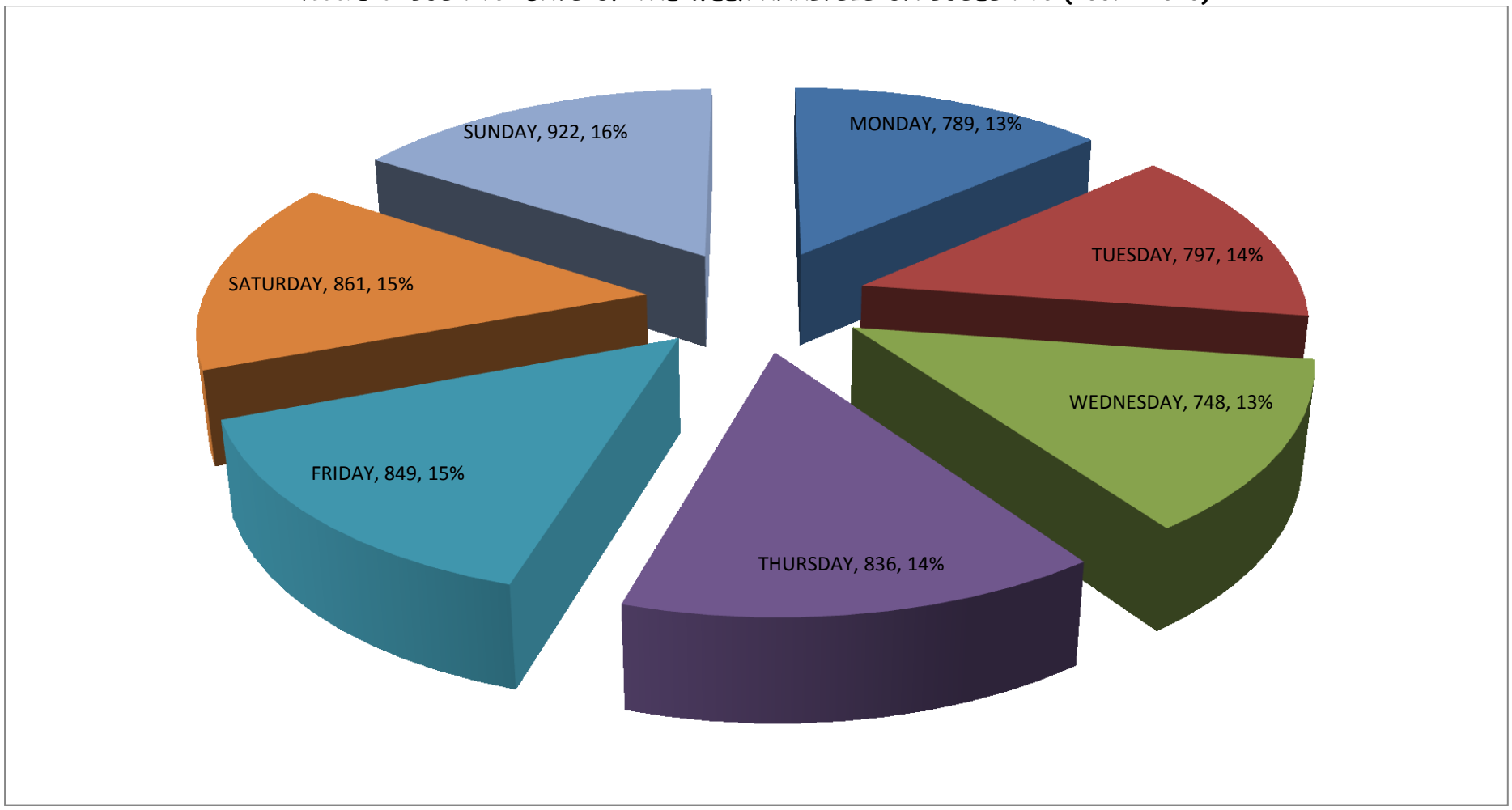
SOURCE: FRSC

TABLE 10b: **BUS RTC: STATISTICAL ANALYSIS BASED ON DAY OF THE WEEK (2007-2010).**

DAY OF THE WEEK	TOTAL CASES	TOTAL NO. KILLED	TOTAL NO. INJURED	TOTAL CASUALTY	DEATH PER CRASH	INJURY PER CRASH	CASUALTY PER CRASH	SEVERITY INDEX
MONDAY	789	694	3613	4307	0.88	4.58	5.46	0.16
TUESDAY	797	715	3259	3974	0.90	4.09	4.99	0.18
WEDNESDAY	748	741	3526	4267	0.99	4.71	5.70	0.17
THURSDAY	836	771	4069	4840	0.92	4.87	5.79	0.16
FRIDAY	849	828	4163	4991	0.98	4.90	5.88	0.17
SATURDAY	861	763	4308	5071	0.89	5.00	5.89	0.15
SUNDAY	922	1032	4615	5647	1.12	5.01	6.12	0.18
NOT AVAILABLE	26	39	238	277	1.50	9.15	10.65	0.14
TOTAL	5828	5583	27791	33374	0.95796156	4.76853123	5.7264928	0.1672859

SOURCE: FRSC

FIGURE 10: **BUS RTC: DAYS OF THE WEEK ANALYSIS ON BUSES RTC (2007- 2010)**



SOURCE: FRSC

TIME OF THE DAY ANALYSIS (2007 – 2010)

Cumulative records of crashes between 2007 and 2010 indicated that the period between 2pm – 4pm had the highest crashes with 950 which is (19%) of the total crashes. Other periods with high incidences of bus crashes include 12noon-2pm with 791 cases (16%), followed by 4pm – 6pm with 760 cases (15%), 8am – 10am with 706 cases (14%), also 10pm – 12noon with 680 cases (13%) and 6pm – 8pm with 374 cases (7%). (See Table 11 and Figure 11).

In 2007, the highest number of crashes involving Buses occurred between 12noon–2pm and 2pm-4pm with 140 and 139 crashes respectively, with both representing (18%) followed by 10am – 12noon with 115 cases (15%) and 4pm – 6pm with 112 cases (14%).

In 2008, the highest number of Buses crashed between 2pm and 4pm with 215 cases (17%) then followed by 12noon – 2pm with 197 cases (16%) and 4pm – 6pm with 185 cases (15%) and followed by 8am – 10am with 184 (14%).

In 2009, most RTC involving Buses occurred between 2pm and 4pm with 284 cases (19%) followed by 4pm – 6pm with 249 cases (17%) and 12noon – 2pm with 240 cases (17%).

In 2010, 312 RTC cases involving Buses which is (20%) occurred between 2pm and 4pm followed by 8am – 10am with 225 cases (14%) and 10am to 12noon with 223 cases (14%) and 12noon – 2pm (14%).

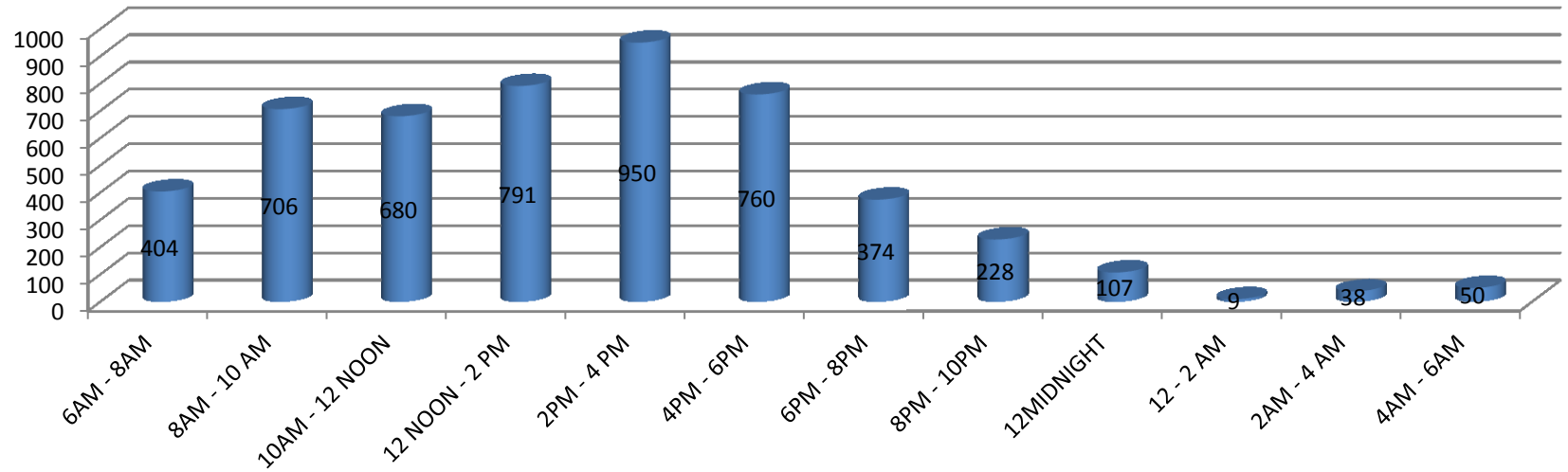
From the above, it is evident that more of the crashes occurred during the day between 6am – 6pm with 4,291 cases (84%) of the total crashes during the period 2007 to 2010.

From the analysis fatigue could have been the major causes of the crashes as having the highest crash between 2pm – 4pm revealed that many of the crashes occurred about Six to Seven hours of continuous driving after takeoff since the operators in most cases set out as early as 5am in the morning.

TABLE 11: **BUS RTC: TIME OF THE DAY CRASH ANALYSIS (2007 – 2010.)**

TIME	6AM - 8AM	8AM - 10 AM	10AM - 12 NOON	12 NOON - 2 PM	2PM - 4 PM	4PM - 6PM	6PM - 8PM	8PM - 10PM	12MIDNIGHT	12 - 2 AM	2AM - 4 AM	4AM - 6AM	TOTAL
2007	49	90	115	140	139	112	64	28	24	2	10	8	726
2008	109	184	161	197	215	185	99	57	37	2	5	10	1221
2009	101	207	181	240	284	249	108	62	30	1	1	3	1418
2010	145	225	223	214	312	214	103	81	16	4	22	29	1532
TOTAL	404	706	680	791	950	760	374	228	107	9	38	50	5097

FIGURE 11: **BUS RTC: TIME OF THE DAY CRASH ANALYSIS INVOLVING BUSES (2007- 2010)**



SOURCE: FRSC

CAUSES OF CRASHES ANALYSIS (2007-2010)

Between 2007 to 2010, the record of crashes involving buses indicated that speed violation (SPV) constituted the highest causes of RTC involving Buses with 1,367 figures representing (24.92%), while Dangerous Driving (DGD) accounted for 970 (17.68%).

Lost of Control (LOC) has 449 cases (8.19%), Tyre Burst (TBT) 382 (6.96%), Brake Failure (BFL) 273 (4.98%). Dangerous Overtaking (DOV) had 305 cases (5.56%), Overloading Violation (OLV) 189 (3.45%), Mechanically Deficient Vehicle (MDV) 185 (3.37%) while the least Cause of buses RTC was the Use of Phone While Driving (UPWD) which had cases 14 (0.26%) (See table 12 and figure 12 for further details).

TABLE 12: **BUS RTC: SUMMARY OF CAUSES OF BUSES RTC (2007-2010)**

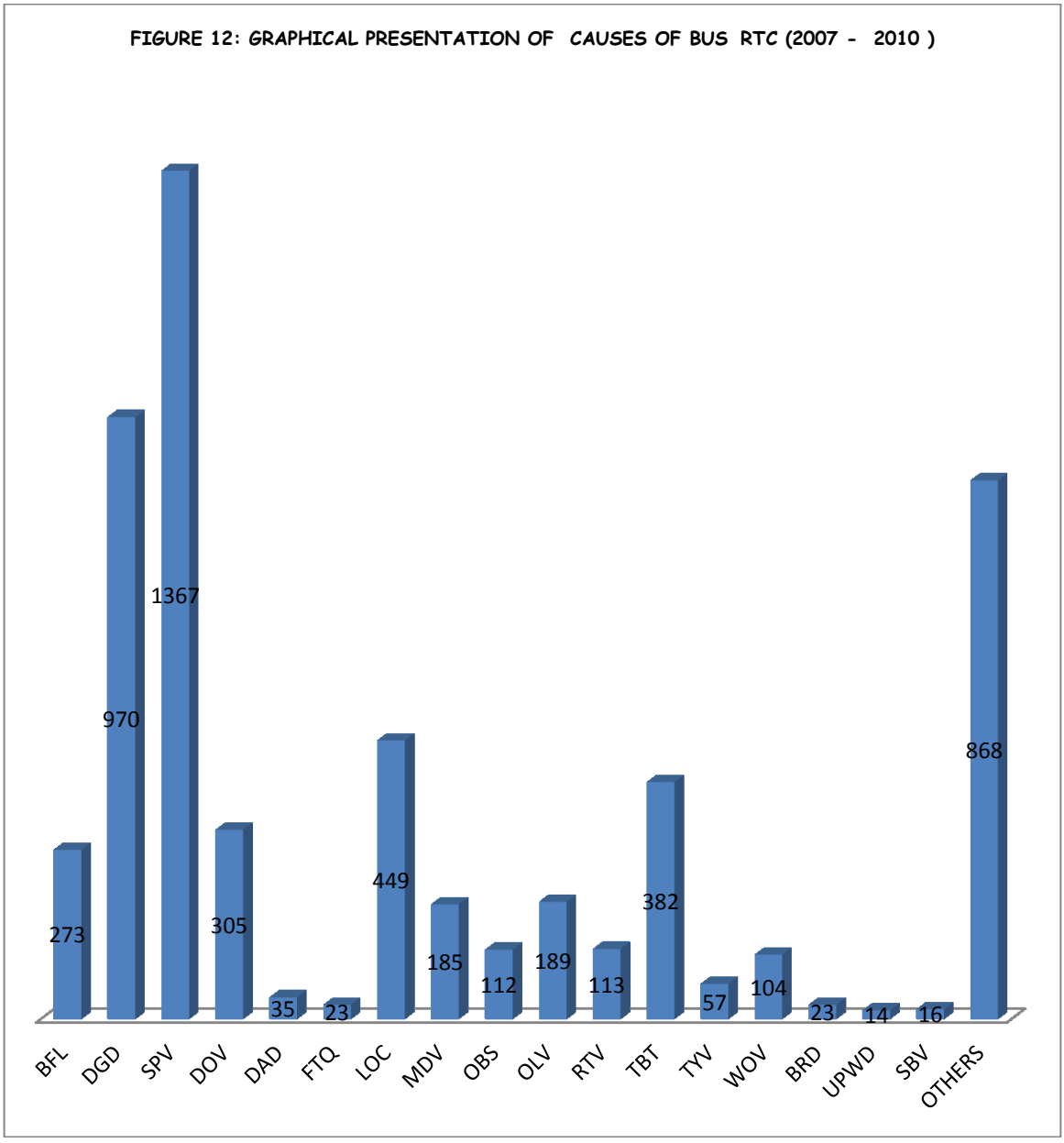
S/N	CAUSES	TOTAL	PERCENTAGE (%)
1	BFL	273	4.98
2	DGD	970	17.68
3	SPV	1367	24.92
4	DOV	305	5.56
5	DAD	35	0.64
6	FTQ	23	0.42
7	LOC	449	8.19
8	MDV	185	3.37
9	OBS	112	2.04
10	OLV	189	3.45
11	RTV	113	2.06
12	TBT	382	6.96
13	TYV	57	1.04
14	WOV	104	1.90
15	BRD	23	0.42
16	UPWD	14	0.26
17	SBV	16	0.29
18	OTHERS	868	15.82
TOTAL		5485	100

SOURCE: FRSC

LEGEND:

OBS- OBSTRUCTION; **SPV**- SPEED VIOLATION; **DGD**- DANGEROUS DRIVING; **TYV**- TYRE VIOLATION; **BFL**- BRAKE FAILURE; **MDV**- MECHANICALLY DEFICIENT VEHICLE; **OLV**- OVERLOADING VIOLATION; **DOV**- DANGEROUS OVERTAKING; **LOC**- LOSS OF CONTROL; **RTV**- ROUTE VIOLATION; **DAD**- DRIVING UNDER THE INFLUENCE OF ALCOHOL AND DRUG; **WOV**- WRONG OVERTAKING; **FTQ**-FATIQUE; **UPWD**- USE OF PHONE WHILE DRIVING; **TYB**- TYRE BURST; **SBV**- SEAT BELT VIOLATION

FIGURE 12: GRAPHICAL PRESENTATION OF CAUSES OF BUS RTC (2007 - 2010)



SOURCE: FRSC

SEVERITY AND FATALITY INDEXES

Cumulatively, between 2007 and 2010, it is evident that 0.97 (1) person got killed in every bus crash, while the severity index is 0.17 for the period.

The record of crashes involving buses in 2007 indicated that the number killed per RTC was 1.0 of, while the causality per RTC in 2007 was 5.65 (6). The severity index was 0.18 for 2007.

In 2008, the number killed per RTC was 1.1, while the causality per RTC was 6.48 and the Severity Index was 0.17.

The 2009 records revealed that the number killed per RTC was 0.9, while the causality per RTC was 5.54 and the severity index was 0.17.

Also, in 2010, the number killed per RTC was 0.8, while the causality per RTC was 5.37 and severity index in 2010 was 0.15:

SEVERITY/FATALITY INDEXES FOR 2007

$$\text{NUMBER KILLED PER RTC 2007} = \frac{\text{NUMBER KILLED}}{\text{TOTAL RTC 2007}}$$

$$= \frac{983}{997} = 1.0$$

$$\text{CASUALTY PER RTC 2007} = \frac{\text{NUMBER KILLED + NUMBER INJURED}}{\text{TOTAL RTC}}$$

$$= \frac{983 + 4654}{997} = 5.65$$

$$\text{RTC SEVERITY INDEX FOR 2007} = \frac{\text{NUMBER KILLED PER RTC 2007}}{\text{CASUALTY PER RTC 2007}}$$

$$= \frac{1}{5.65} = 0.18$$

SEVERITY/FATALITY INDEXES FOR 2008

$$\text{NUMBER KILLED PER RTC 2008} = \frac{\text{NUMBER KILLED}}{\text{TOTAL RTC 2007}}$$

$$= \frac{1549}{1367} = 1.1$$

$$\text{CASUALTY PER RTC 2008} = \frac{\text{NUMBER KILLED + NUMBER INJURED}}{\text{TOTAL RTC}}$$

$$= \frac{1549 + 7305}{1367} = 6.48$$

$$\text{RTC SEVERITY INDEX FOR 2008} = \frac{\text{NUMBER KILLED PER RTC 2008}}{\text{CASUALTY PER RTC 2008}}$$

$$= \frac{1.1}{6.48} = 0.17$$

SEVERITY/FATALITY INDEXES FOR 2009

$$\text{NUMBER KILLED PER RTC 2009} = \frac{\text{NUMBER KILLED}}{\text{TOTAL RTC 2009}}$$

$$= \frac{1567}{1693} = 0.9$$

$$\text{CASUALTY PER RTC 2009} = \frac{\text{NUMBER KILLED + NUMBER INJURED}}{\text{TOTAL RTC}}$$

$$= \frac{1567 + 7809}{1693} = 5.54$$

$$\text{RTC SEVERITY INDEX FOR 2009} = \frac{\text{NUMBER KILLED PER RTC 2009}}{\text{CASUALTY PER RTC 2009}}$$

$$= \frac{0.9}{5.54} = 0.17$$

SEVERITY/FATALITY INDEXES FOR 2010

$$\text{NUMBER KILLED PER RTC 2010} = \frac{\text{NUMBER KILLED}}{\text{TOTAL RTC 2010}}$$

$$= \frac{1484}{1771} = 0.8$$

$$\text{CASUALTY PER RTC 2010} = \frac{\text{NUMBER KILLED + NUMBER INJURED}}{\text{TOTAL RTC}}$$

$$= \frac{1484 + 8023}{1771} = 5.37$$

$$\text{RTC SEVERITY INDEX FOR 2010} = \frac{\text{NUMBER KILLED PER RTC 2010}}{\text{CASUALTY PER RTC 2010}}$$

$$= \frac{0.8}{5.37} = 0.15$$

SEVERITY/FATALITY INDEXES (2007 – 2010)

$$\text{NUMBER KILLED PER RTC (2007 – 2010)} = \frac{\text{NUMBER KILLED}}{\text{TOTAL RTC}}$$

$$= \frac{5583}{5828} = 0.96$$

$$\text{CASUALTY PER RTC (2007 – 2010)} = \frac{\text{NUMBER KILLED + NUMBER INJURED}}{\text{TOTAL RTC}}$$

$$= \frac{5583 + 27791}{5828} = 5.73$$

$$\text{RTC SEVERITY INDEX (2007 – 2010)} = \frac{\text{NUMBER KILLED PER RTC (2007-2010)}}{\text{CASUALTY PER RTC (2007-2010)}}$$

$$= \frac{0.96}{5.73} = \mathbf{0.17}$$

D. RECOMMENDATIONS

Based on the findings of the report, the following recommendations are made:

a. From the analysis, Speeding (SPV) accounted for 1,367 cases (24.92%) of the cause of RTC involving buses; hence drivers should always obey traffic rules and regulations. The maximum speed limit on Nigerian Roads for buses is 90km/hr on a dual carriageway, while 80km/hr on a single carriage, the limits must be strictly adhered to. Drivers should also be made to know that the legal speed limits are applicable only when the road and other conditions (weather) are good. Drivers should learn to adopt the "common sense" speed limits, that are lower than the legal speed limits when conditions on the road, or around the driver, for example traffic, weather, vehicles are unfavorable.

b. Mechanically Deficient Vehicles (MDV) accounted for 185 cases (3.37%) of the crashes involving buses during the period under review, Tyre Burst 382 (6.96%) and Brake Failure 273 (4.97%). These are due to poor maintenance of vehicles; hence there is need for bus operators to always make sure that their vehicles are properly maintained. The use of expired tyres, tokunbo tyres and the purchase of fake spare parts which are relatively cheaper than good vehicle parts should be avoided by the bus operators.

c. From the time of the day analysis, it was revealed that most crashes occurred between 2pm – 4pm representing about

19.0%, which means the bus drivers must have driven for 9 – 10hrs and in most cases, without adequate rest, since most of them usually take off in the early hours of the day. Long driving hours may have been responsible for these crashes, the "work hour" rules for drivers must be obeyed, for every 4 hrs of driving, the driver must rest for at-least 15 minutes, by parking the vehicle and stretching his legs by walking around before continuing the journey. Tachographs, detailing the driving period of drivers should be encouraged in buses, especially the commercial buses.

d. Obstruction (OBS) also contributed to 112 (2.04%) of the total crashes involving buses in the period under review. Abandoning broken down buses on the highways most times without any warning signs is a common sign on the roads. Owners of broken down vehicles must constantly remove them while FRSC and other law enforcement agencies should as a matter of routine remove, and impound such vehicles until the owners are able to pay cost of towing and stipulated fines. The idea of using leaves, woods and other unstable materials as "warning signs" should be discouraged and punished.

e. On the high severity and fatalities of the crashes, the use of safety/protective devices like seatbelts, or airbags etc helps to reduce injuries and deaths from crashes should be encouraged. The FRSC should step up its public enlightenment and enforcement activities on these.

f. From the analysis, dangerous overtaking accounts for 305 (5.56%) of these crashes, drivers must overtake only in safe and legal places. It is a known practice on Nigerian road that

many of the buses do not have rear-view and side mirrors, making overtaking more difficult.

g. Dangerous driving and some other traffic violations accounted for 970 (17.7%) and 868 (15.83%) respectively of the RTC. This could be traced to poor knowledge of drivers; hence training of drivers should be giving priority. Every bus driver should be properly trained before licensing, while Certificate of Professional Competence for Drivers (CPCD) which is being introduced by the FRSC, which mandates 9-hour training in 3 years should be strictly implemented. The training should be complimented with Driving Simulator Test, to properly assess the competence level of the drivers.

h. The road conditions are deplorable in most areas; hence there is need for government at all levels to look into the rehabilitation of these roads. The roads should be equipped with good road furniture (Road Signs) and other feature that will enhance safety on the roads.

i. General conditions of vehicles should be taken seriously, only road worthy vehicles should be allowed to ply Nigerian roads, emphasis must be placed on the Periodic Technical Inspection (PTI) which is more detailed and technologically driven. Vehicle Inspection Units and other traffic agencies should be properly equipped with modern vehicle inspection equipments. Faults and defects should be corrected before vehicles that follow the PTI tests are allowed back on the road.

j. Commercial Drivers License (CDL) requirements should be stepped up. Medical certifications and other relevant

requirements recently introduced by the FRSC should be properly implemented.

k. Returns on Investments; - The operating environment for bus/vehicle operators should be improved upon, so that issues like double taxation on the road for example, Local Government officials on Federal roads collecting various forms of levies and some states with all kinds of road taxes coupled with extortions on the road by some law enforcement agents should be looked into, to reduce operating costs which in turn lead to more returns on investments. Good return on investments will enhance road safety as there will be availability of more funds for safety matters.

l. It has also been observed that smaller buses in recent times are used for long distance journeys/travels on Nigerian roads as against big buses (Luxury Buses) that have higher passenger carrying capacity, as it is the case in most parts of the world. This reduces returns on investment. Efforts to break even do lead to cutting of corners which eventually may make safety to suffer, leading to high crash rates of buses.

m. From the route analysis, it could be seen that routes like Lagos-Ibadan 391 (11.8%), Kaduna-Zaria 226 (6.8%), Asaba-Onitsha 103 (3.1%), Enugu-Onitsha 112 (3.4%), Abuja-Lokoja 113 (3.4%), and Abuja-Keffi 114 (3.44%) are highly prone to bus crashes. These routes should be given priority attention, as regards patrol activities by FRSC and other law enforcement agencies. Other black spots which have also been identified in the analysis should be given attention, especially where immediate remedial measures

are needed. The Federal Road Maintenance Agency (FERMA), Ministry of Works at Federal and State levels, as well as the Local government works department should ensure that the routes are good and motorable.

n. Better fleet management as envisaged by the Road Transport Standardization Scheme especially as stipulated in Section 115 of the National Road Transport Regulations (NRTR) 2004 which mandate all fleet operators to set up Safety Units, headed by competent and experienced Safety Managers should be encouraged and enforced. Operators should adhere strictly to minimum safety requirements, which is also a pre-requisite for certification of such fleet operators.

o. The Bus Rapid Transport System (BRT) should be encouraged in major cities in Nigeria, for effective and efficient bus system. Dedicated bus routes in cities will further reduce crashes on the roads.

p. The rail system of transportation should be revitalized in Nigeria as this will further reduce the number of passenger vehicles plying the Nigerian roads, hence reduce pressure on the road. Other modes of transportation for example water should also be encouraged.

q. The Safety Engineering Department of the FRSC in conjunction with the Policy Research and Statistics and Corps Transport Standardization Office should properly investigate more bus crashes on the road as well as the identified blackspots. FRSC should also collaborate with the police and the vehicle inspection offices on accident investigation.

r. Traffic agencies should be well equipped and staffed to be able to effectively handle their functions which include public enlightenment, drivers training, licensing, rescue, arrest and prosecution, among others. Leaving abandoned vehicles on the road for long period, which in most cases resulting in collision and other forms of crashes should be completely avoided.

s. Effective communication is very essential in traffic management. The FRSC 0700-CALL-FRSC, which translate to 0700-2255-3772 (12 digits) should be well publicized to reduce the rescue time while national emergency line that should be only about 3 digits for easy resemblance by the public should be established.

t. Collection and collation of data is of essence in traffic management. Many of the bus crashes would not have been captured. Efforts should be on to document all traffic crashes for public formulation policy formulation that will enhance road safety.

E. CONCLUSION

The attempt to find lasting solution to the problem of RTC in the country especially those involving buses, serves the primary purpose for the establishment of FRSC, which is the lead agency in Traffic Management in Nigeria. It is believed that understanding the causes of the crashes and where they occurred would assist in developing efficient strategies to tackle the menace of high incidences of bus crashes on Nigerian roads. It is against this background that this study was conceived. The report identified Speed

violation, Dangerous driving, Tyre burst, Lost of control, Dangerous overtaking, Overloading violation as well as the use of as major causes of bus crashes on Nigerian roads. Major routes and spots prone to crashes were also identified.

The study has provided the basis for evolving strategies that will lead to safe operations of buses in Nigeria and also a good guide to all road users. We cannot afford to permit the current trends of RTC involving buses on Nigerian roads. All must play their parts to enhance road safety in the country.

Find attached as annexes detailed 2007 to 2010 data on all the recorded buses RTC nationwide.

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F. ANNEXES

i. STATE BY STATE RECORDS OF RTC INVOLVING BUSES 2007 ON STATE BASIS

ii. RECORDS OF ROAD TRAFFIC CRASHES (RTC) INVOLVING BUSES ON NIGERIA ROADS 2008

iii. RECORDS OF ROAD TRAFFIC CRASHES (RTC) INVOLVING BUSES ON NIGERIA ROADS 2009

iv. RECORDS OF ROAD TRAFFIC CRASHES (RTC) INVOLVING BUSES ON NIGERIA ROADS 2010