

Traffic Offence Survey (TOS)

December 2016



Prepared for:
Road Traffic Management Corporation

Prepared by:
Research and Development Unit
Road Traffic Management Corporation



Road Traffic
Management Corporation





EXECUTIVE SUMMARY

An A-Typical Traffic Offence Survey (TOS) was conducted in 2014/15 based on traffic infringement data collected over a period of 22 months from April 2013 to January 2015 for the nine (9) provinces in South Africa.

This TOS 2016 study is a continuation of the TOS 2015 in that traffic infringement data collected over a period of 20 months from February 2015 to September 2016 for the nine (9) provinces were collected and analysed.

The principles of the A-Typical TOS and a conventional annual TOS are similar in that traffic offence data is collected and analysed however, the outcomes differ in that the A-Typical TOS is percentage orientated whereas the outcomes of a conventional TOS are based on indices where activities are weighted before evaluations are made and compared on an annual basis (based on number of vehicles stopped vs each infringement recorded).

A micro-level analysis could not be executed on the project data due to the unreliability of micro-level data received, however good correlation was found on a macro level. In addition, a comparison level between offences recorded over the 20 month period versus percentage fuel sales per province (to emulate vehicles per province) versus the number of traffic law enforcement officials in provinces showed good correlation with very low percentage variance.

Even though there has been huge focus over the past few years by the RTMC, government agencies and roads authorities on efforts directed towards pedestrian education, pedestrian enforcement and engineering to protect pedestrians, the problem with pedestrian fatalities in South Africa persists.

Whilst jaywalking pedestrians are the largest contributor to recorded road deaths at an unprecedented 41.6%, the number of pedestrians arrested for jaywalking over the 20 month study period, only 25,097 pedestrian arrests were made and even though this is significantly higher than the reported 1,255 jaywalking arrests reported over the 22 month TOS 2015 study period, the statistics show that pedestrian deaths are not being dealt with adequately. Arresting and prosecuting jaywalking pedestrians poses unique challenges and as long as there is spatial segregation with communities established along major roads, it is not anticipated that pedestrian fatalities would decrease drastically with jaywalking arrests.



Planning, engineering and education efforts at defined pedestrian hazardous locations will most probably be the only real actions to ensure a decrease in pedestrian road fatalities.

Notwithstanding all other parameters contributing to road related deaths, it is believed that by focussing on the main contributors to road related deaths i.e. pedestrian fatalities, speeding and driving under influence (DUI) the highest impact can be made to ensure that the number of road related fatalities are decreased not only to be in line with the Decade of Action initiatives but to contribute towards the goals of the National Development Plan and wellness in South Africa.

Analysing law enforcement activities on a continuous basis from a national perspective need to be a priority to compliment independent annual TOS's. Reliable monthly reporting on law enforcement activities by all spheres of government is crucial for the RTMC to be in a position to effectively lead the way towards safer roads in South Africa from a national perspective.

The following Way Forward is proposed:

- That a continuous law enforcement activity reporting model for all traffic law enforcement authorities is implemented by the RTMC.
- That the output from the internal national traffic offence database form the basis of annual outsourced traffic offence surveys.
- That the output from both traffic offence survey models are used as an additional planning tool towards safer roads in South Africa.

ACRONYMS

ANPR	Automatic Number-Plate Recognition
DoT	Department of Transport
DUI	Driving Under Influence
EC	Eastern Cape Province
eNATIS	Electronic National Administration Traffic Information System
FS	Free State Province
GP	Gauteng Province
H.M.V.	Heavy Motor Vehicle
KZN	Kwazulu Natal Province
L.D.V.	Light Delivery Vehicle Province
LIM	Limpopo Province
M.P.V.	Multi-Purpose vehicle
MP	Mpumalanga Province
NC	Northern Cape Province
NTP	National Traffic Police
NW	North West Province
RTMC	Road Traffic Management Corporation
S.U.V.	Sport Utility Vehicle
TOS	Traffic Offence Survey
WC	Western Cape Province



CONTENTS

EXECUTIVE SUMMARY	1
ACRONYMS	3
1. INTRODUCTION.....	5
1.1 OBJECTIVES AND OUTCOMES OF THE PROJECT.....	6
1.2 METHODOLOGY FOLLOWED	7
2. DATA ANALYSIS	7
2.1 DATA	7
2.2 DATA RELIABILITY.....	8
3. DATABASE	10
3.1 DATABASE SYSTEM ESTABLISHED.....	11
3.2 CHALLENGES	13
4. ANALYSIS OF DATA	14
4.1 ITEM GROUP ANALYSIS.....	14
4.1.1 <i>Driving Document Offences</i>	20
4.1.2 <i>Moving Offences</i>	21
4.1.3 <i>Vehicle Defects</i>	22
4.1.4 <i>Road Worthiness Offences</i>	23
4.1.5 <i>Arrests</i>	23
4.2 MOST SIGNIFICANT FACTORS CONTRIBUTING TO FATALITIES ON ROADS.....	24
5. PROPOSED WAY FORWARD.....	27
ANNEXURES.....	28

1. INTRODUCTION

The international best practice to establish traffic offence rates of a country or in general, to establish the compliance of the public to traffic rules and regulations is to conduct a Road Traffic Offence Survey (TOS) on an annual basis. To this effect, TOS's have been conducted in South Africa by independent service providers since 1975 through the National Department of Transport (DoT) and the Road Traffic Management Corporation (RTMC).

The latest independent annual TOS was conducted in 2010. The survey methodology changed over the years in terms of the purpose of the survey, sampling methods and the determination of survey locations, as well as the offence types monitored. The need for the development of a new methodology for conducting road traffic offence surveys was identified and to this effect the RTMC appointed the Engineering Division of the Stellenbosch University to develop a methodology for conducting annual road traffic offence surveys, taking into account existing local and international solutions. The emergence of new and affordable technologies such as ANPR (automatic number-plate recognition) and speed over distance cameras etc. were also explored in terms of the potential value that each could bring to the process.

An A-Typical Traffic Offence Survey (TOS) was conducted in 2014/15 based on traffic infringement data collected over a period of 22 months from April 2013 to January 2015 for the nine (9) provinces; the findings of the study were published in the Traffic Offence Survey 2015 (TOS 2015) report March 2015.

This TOS 2016 study is a continuation of the TOS 2015 in that traffic infringement data collected over a period of 20 months from February 2015 to September 2016 for the nine (9) provinces were collected and analysed.

The principles of the A-Typical TOS and a conventional annual TOS is similar in that traffic offence data is collected and analysed however, the outcomes differ in that the outcomes of the A-Typical TOS are percentage orientated whereas the outcomes of a conventional TOS are based on indices where activities are weighted before evaluations are made and compared on an annual basis (based on number of vehicles stopped vs each infringement recorded).

The RTMC Research and Development Unit utilized an Excel System to analyse data recorded over the study period; extracts of the System are shown in the Annexures to this report.

A micro-level analysis could not be executed on the project data due to the unreliability of micro-level data received, however good correlation was found on a macro level. In addition, a comparison level between offences recorded over the 20 month period versus percentage fuel sales per province (to emulate vehicles per province) versus the number of traffic law enforcement officials in provinces showed good correlation with very low percentage variance.

The TOS study absorbed data collected on law enforcement activities under six (6) Item Groups and fifty (50) Action and Offence Activities reported by all provincial and the National Traffic Police (NTP) over a 20 month period from February 2015 to September 2016.

1.1 Objectives and Outcomes of the Project

The aim of the study is to

- establish trends of road user compliance to road traffic rules and regulations,
- establish a baseline to compare data of future offence surveys,
- provide input towards establishing a national database of traffic law enforcement offences on all authority levels,
- Compare trends between TOS 2015 and TOS 2016.

Other than a conventional traffic offence survey, the project will provide outputs in comparing different offence types with one another, analyse the reliability of reporting by traffic law enforcement authorities and propose the way forward for continuous reporting, collection and evaluation of law enforcement activity data in South Africa from national perspective. In addition, the way forward will propose a tool to compare the effectiveness of traffic law enforcement over all spheres of government.

1.2 Methodology Followed

The methodology followed was to collect and analyse traffic law enforcement data collected over a 20 month period from February 2015 to September 2016 from the nine (9) provinces and the NTP. An Excel database system was compiled and data analysed in accordance with statistical methods which ultimately projected outputs to analyse traffic offences on an item group and activity level.

The outcome of the project is not to compare provincial outcomes with one another but, will focus on macro level percentage outcomes in analysing and comparing offence activities and activity item groups.

2. DATA ANALYSIS

2.1 Data

The data analysed is based on summarised infringement reports submitted to the RTMC by the nine (9) provinces and NTP for a 20 month period from February 2015 to September 2016 which was reported on a standard form capturing fifty (50) key traffic law enforcement performance activities. An example of a monthly report form is attached at **Annexure A**.

A total number of 27 535 306 items were reported over the 20 months project study period.

The data were analysed in a matrix under the following six (6) Item Groups and fifty (50) Action/Offence Activities (defined in section 2.2 below):

• Actions Completed	21 202 129
• Driving Document	514 820
• Moving Offences	4 775 320
• Vehicle Defects	849 647
• Road Worthy	119 367
• <u>*Arrests</u>	<u>74 023</u>
• Total	27 535 306

**Arrests for separate offence types not included in other offence types*

2.2 Data Reliability

Different levels of reliability was found for each of the matrix levels. The reporting format (**Annexure A**) included, in addition to Item/Groups and Offence Activities, a breakdown per month of each activity for different types of vehicles with totals per month provided for each of the 50 activities which could be analysed with relative reliability.

Over the 20 month study period an average of 17.2 months of data were available for analysis with some months not reported on by provinces. This effects an 85.8% reliability of available data which is acceptable for macro level analysis. The reliability of the availability of TOS 2016 and TOS 2015 data is almost the same in that the reliability of the availability for the TOS 2015 was 85.6%. The reliability of the actual data reported on is however dependant on the accuracy of the reporting by provinces and the NTP.

One of the objectives of this project is to propose the way forward for continuous reporting, collecting and evaluation of law enforcement activities in South Africa from a national perspective. The shortcomings and challenges identified during this project will pave the way forward to establish a reliable national databank on traffic law enforcement activities over all spheres of government. In addition, this will deliver a tool to compare the effectiveness of traffic law enforcement over all spheres of government. A summary of data recorded and analysed per Item Group per Activity is tabulated below:

Item Groups	No./Group	Total No.	Activities	Total	Average Per Month	Data Available (Ave Months)	% of Months Available
1 Actions Completed	1	1	No. of K78 Roadblocks held	56,815	2,841	18	90,0%
	2	2	No. of Vehicles stopped	16,233,847	829,887	18	90,0%
	3	3	No. of Drivers tested for alcohol	211,432	10,572	18	90,0%
	4	4	No of Vehicles Weighed	2,950,735	147,537	18	90,0%
	5	5	No of Government vehicles stopped	901,819	45,091	18	90,0%
	Subtotal:				20,354,648	1,035,927	18
2 Driving Document	1	6	Driving licence (none)	2,431	122	17	85,0%
	2	7	Driving licence (Fail to carry)	161,933	8,097	17	85,0%
	3	8	PRDP (None)	211,226	10,561	17	85,0%
	4	9	PRDP (fail to carry)	47,524	2,376	17	85,0%

Item Groups	No./Group	Total No.	Activities	Total	Average Per Month	Data Available (Ave Months)	% of Months Available
	5	10	Dangerous Goods Vehicles	68,053	3,403	17	85,0%
	6	11	Public Passenger Transport Permit Condition	23,653	1,183	17	85,0%
	Subtotal:			514,820	25,741	17	85,0%
3 Moving Offences	1	12	Inconsiderate Driving	101,359	5,068	17	85,0%
	2	13	Overtaking in Face/Barrier line	3,423	171	17	85,0%
	3	14	Road Sign/Marking -Traffic Signal Violation	54,970	2,749	17	85,0%
	4	15	Stopping on freeway	8,755	438	17	85,0%
	5	16	Speed-Manual (Hand Held Camera)	199,801	9,990	17	85,0%
	6	17	Speed- Camera (Fixed Camera)	68,934	3,447	17	85,0%
	7	18	Seat belt (driver)	67,458	3,373	17	85,0%
	8	19	Seat belt (Passenger)	61,676	3,084	17	85,0%
	9	20	Seat belt (Rear)	303,283	15,164	17	85,0%
	10	21	Unlicensed Vehicles	329,667	16,483	17	85,0%
	11	22	Fail to display Licence Disc	160,355	8,018	17	85,0%
	12	23	Fail to display Operator Card	9,979	499	17	85,0%
	13	24	Overloading (goods)	2,038,724	101,936	17	85,0%
	14	25	Overloading (passengers)	1,115,462	55,773	17	85,0%
	15	26	Held Cell phone in Hand Whilst driving	13,371	669	17	85,0%
	16	27	Other Moving Offences	238,103	11,905	17	85,0%
Subtotal:			4,775,320	238,766	17	85,0%	
4 Vehicle Defects	1	28	Steering	53,814	2,691	17	85,0%
	2	29	Windscreen Wipers	9,271	464	17	85,0%
	3	30	Brakes (Service)	44,306	2,215	17	85,0%
	4	31	Brakes (Parking)	53,325	2,666	17	85,0%
	5	32	Tyres	98,000	4,900	17	85,0%
	6	33	Front Lamps/Head lamps	272,462	13,623	17	85,0%
	7	34	Rear lamps/Stop lamps	86,855	4,343	17	85,0%
	8	35	Direction indicators	12,153	608	17	85,0%
	9	36	Number plate	2,266	113	17	85,0%
	10	37	Side and Rear Retro Reflective Markings	187,839	9,392	17	85,0%
	11	38	Other Defects	29,356	1,468	17	85,0%
Subtotal:			849,647	42,482	17	85,0%	
5 Road Worthy	1	39	Vehicles discontinued	92,717	4,636	17	85,0%
	2	40	Vehicles impounded	26,650	1,333	17	85,0%
	Subtotal:			119,367	5,968	17	85,0%

Item Groups	No./Group	Total No.	Activities	Total	Average Per Month	Data Available (Ave Months)	% of Months Available
6 Arrests	1	41	Drunken Driving	27,143	1,357	17	85,0%
	2	42	No driving licence	756	38	17	85,0%
	3	43	Speed	1,667	83	17	85,0%
	4	44	Overload Goods	2,688	134	17	85,0%
	5	45	Inco, Rec & Neg.	3,142	157	17	85,0%
	6	46	Permits /Operating Permits	1,940	97	17	85,0%
	7	47	Warrants Executed	3,959	198	17	85,0%
	8	48	False Documentation	2,551	128	17	85,0%
	9	49	Other Arrests	5,080	254	17	85,0%
	10	50	Pedestrians Arrested	25,097	1,255	17	85,0%
Subtotal:				74,023	3,701	17	85,0%
Grand Total:				26,687,825	1,352,586	17,2	85,8%

3. DATABASE

Amongst others, the project aim is to establish a user friendly system to enable the analysis of law enforcement activities reported on a monthly bases.

The monthly data reports were, and can henceforth be imported with relative ease into an established Excel "TOS Data" sheet which is hyperlinked to six (6) outcome based sheets where a user can choose different activities to be analysed which are presented in matrices and interactive graphs. This is however dependant on the quality of reporting by provinces.

To ensure the integrity of the system, inputs can only be made in the "TOS Data" sheet as per reports received by different authorities. All other sheets only have selection options to select what data need to be analysed with user friendly interfaces.

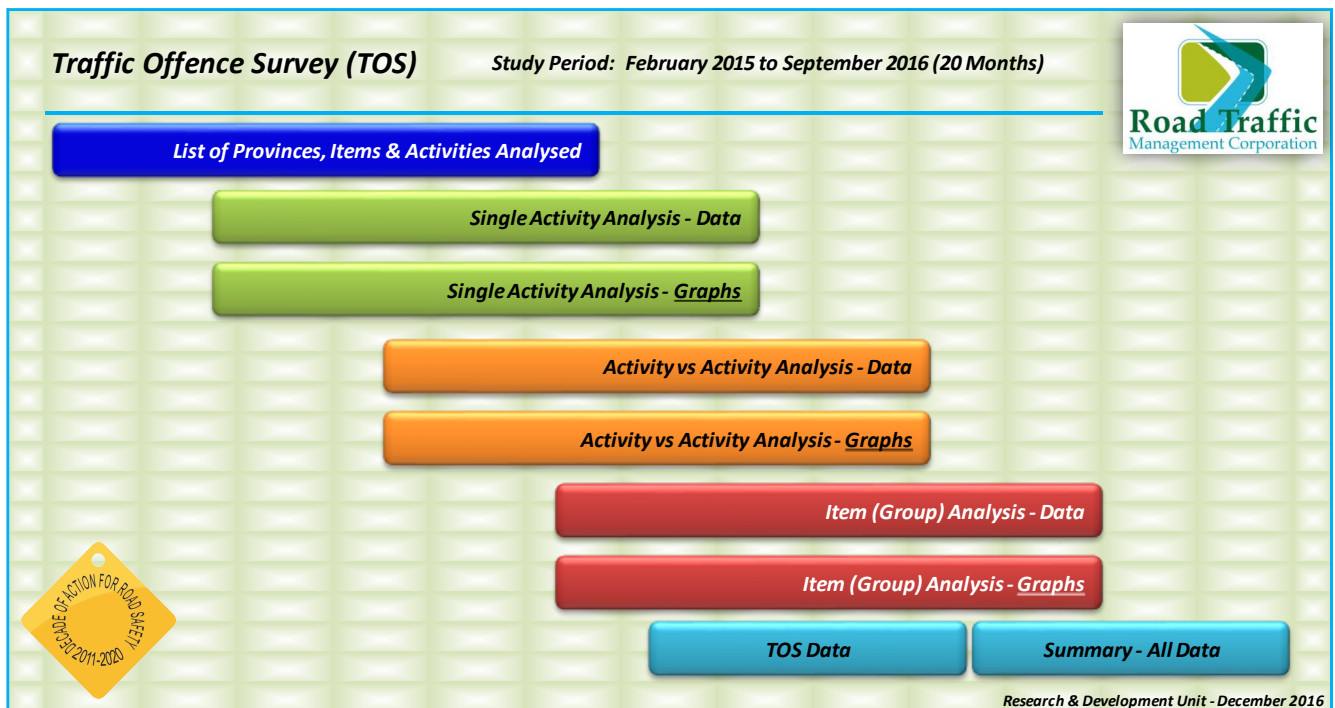
A system is in the process of being developed by the RTMCs eNATIS which will enable authorities to report on infringements and actions on an online system to ensure that in future TOS analysis can be done on a micro level which will include amongst others, a breakdown per vehicle classification, time of day and day of the week.

3.1 Database System Established

The Microsoft Excel database system used to analyse the data has a “Main” Input sheet which directs the users via hyperlinks to eight (8) different outcome based analysis sheets viz.:

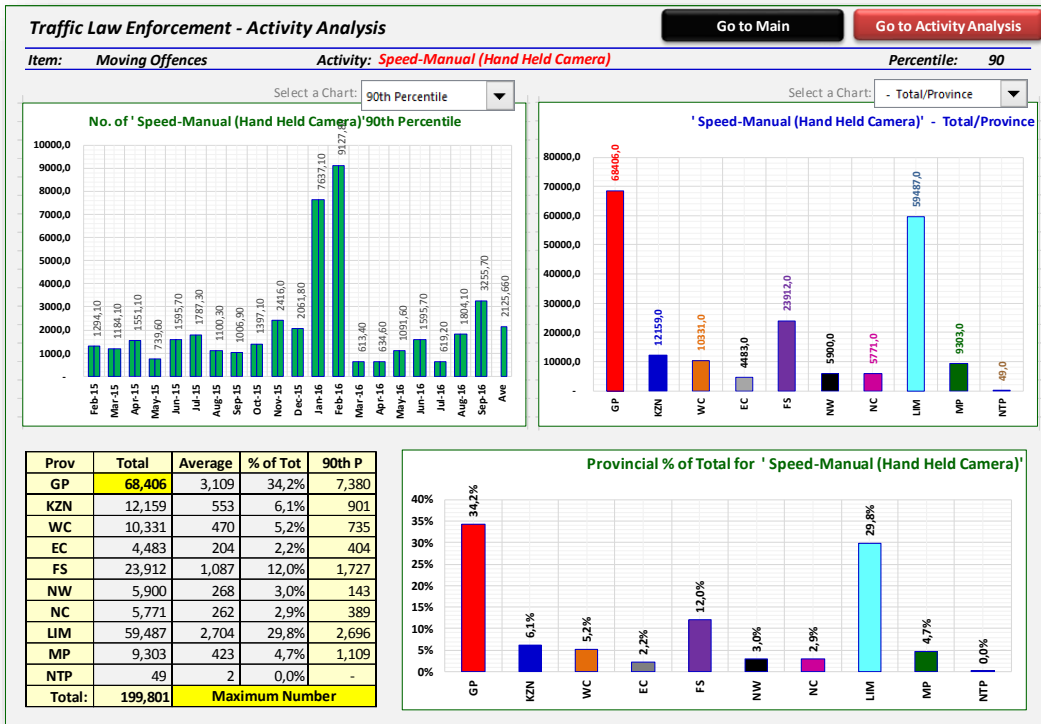
- List of Provinces, Items & Activities Analysed
- Single Activity Analysis – Data
- Single Activity Analysis – Graphs
- Activity vs Activity Analysis – Data
- Activity vs Activity Analysis – Graphs
- Item (Offence Group) Analysis – Data
- Item (Offence Group) Analysis – Graphs
- TOS Data
- Summary of All Data

The following screenshot illustrates the “Main” sheet from where analyses can be conducted:

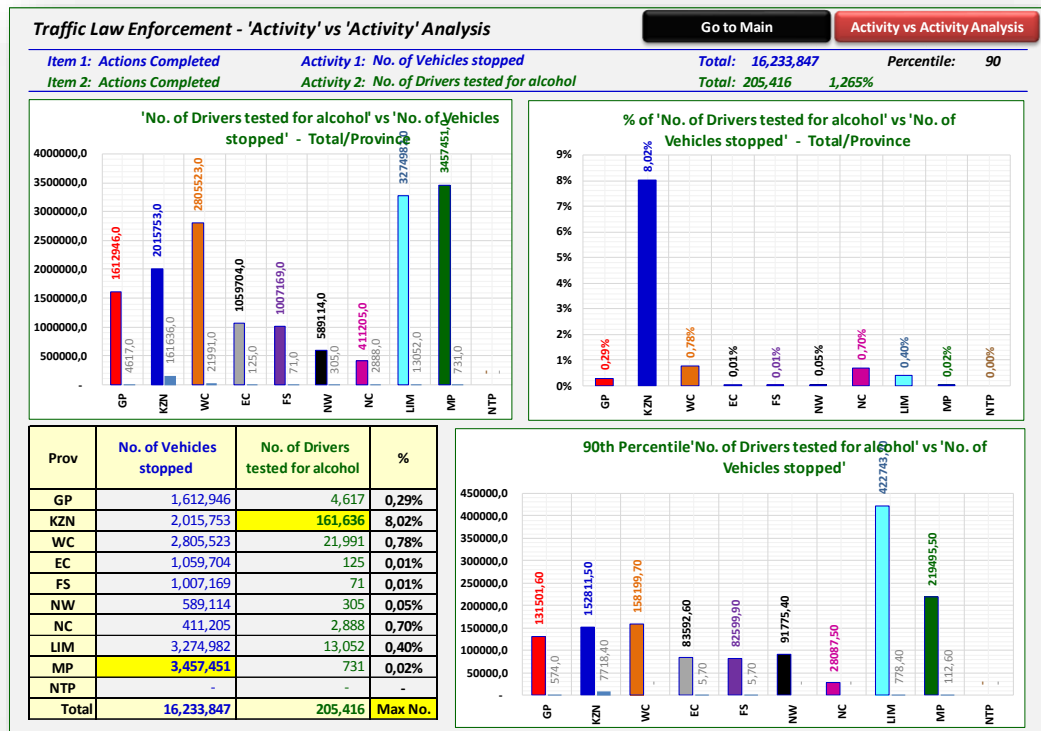


“Main” sheet

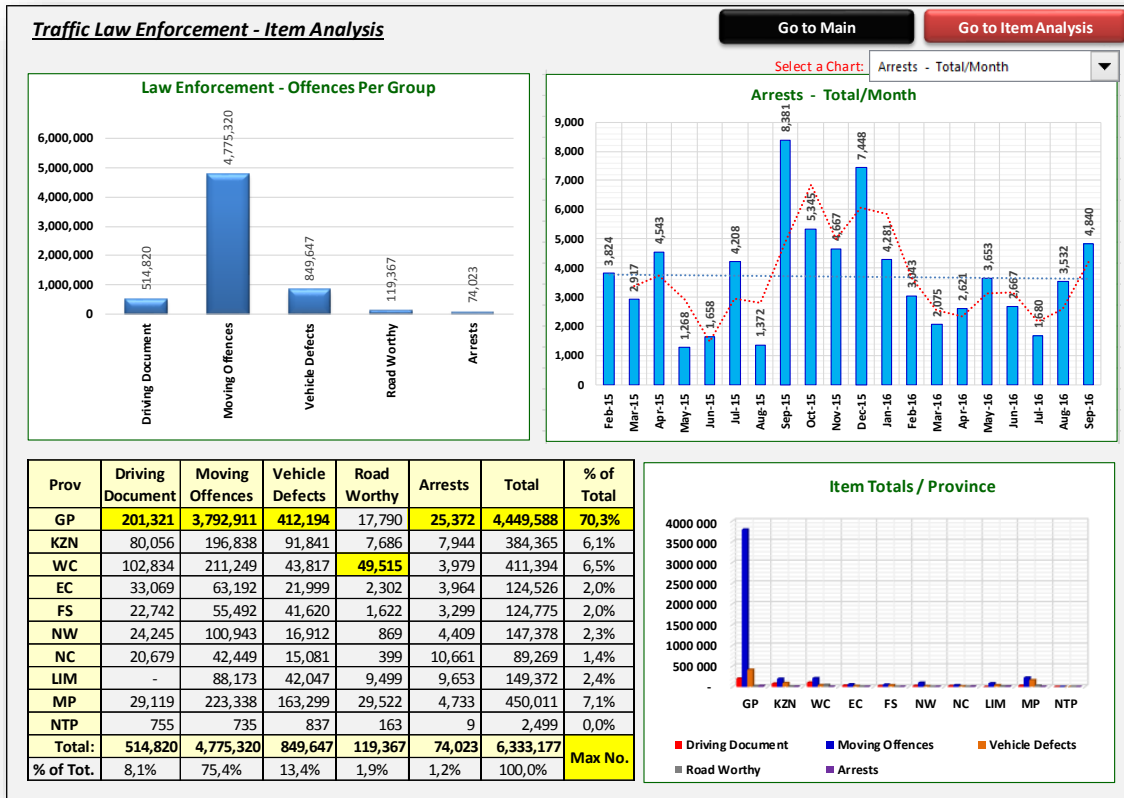
Screenshots of the three (3) major output sheets are illustrated below (A4 size example screenshots of all sheets of the System are attached at Annexures B to J:



Single Activity Analyses – Graphs



Activity vs Activity Analyses – Graphs



Item Analyses - Graphs

3.2 Challenges

The data input was captured from monthly input forms developed by the RTMC in 2013.

The major challenge encountered during the establishment of a database to analyse the data were that some provinces altered the format of the monthly reporting forms and some monthly reports were not submitted to the RTMC's.

The data was captured from the forms through a tedious hand capturing process. An example of a monthly report form is attached at **Annexure A**.

4. ANALYSIS OF DATA

Note: All data quantified in this section are as recorded and reported by the nine (9) Provinces over the study period of 20 months (February 2015 – September 2016); unless otherwise stipulated.

4.1 Item Group Analysis

A total of 20,354,648 law enforcement actions were recorded for the 20 month study period at an average of 1,035,927 actions per month as tabulated below:

Item Groups	Activities	Total TOS 2016	Average Per Month TOS 2016	Average Per Month TOS 2015	Diff in Average Per Month
1 Actions Completed	No. of K78 Roadblocks held	56,815	2,841	1,023	-1,818
	No. of Vehicles stopped	16,233,847	829,887	1,034,199	204,312
	No. of Drivers tested for alcohol	211,432	10,572	212,588	202,017
	No of Vehicles Weighed	2,950,735	147,537	164,380	16,843
	No of Government vehicles stopped	901,819	45,091	12,550	-32,541
	Subtotal:	20,354,648	1,035,927	1,424,740	388,813

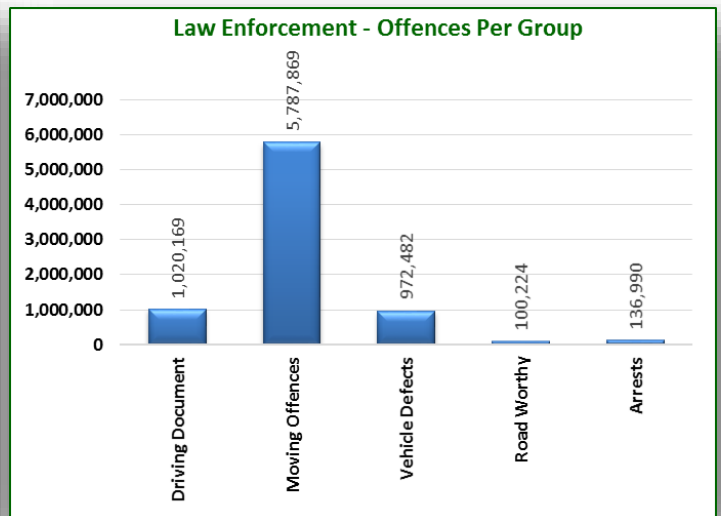
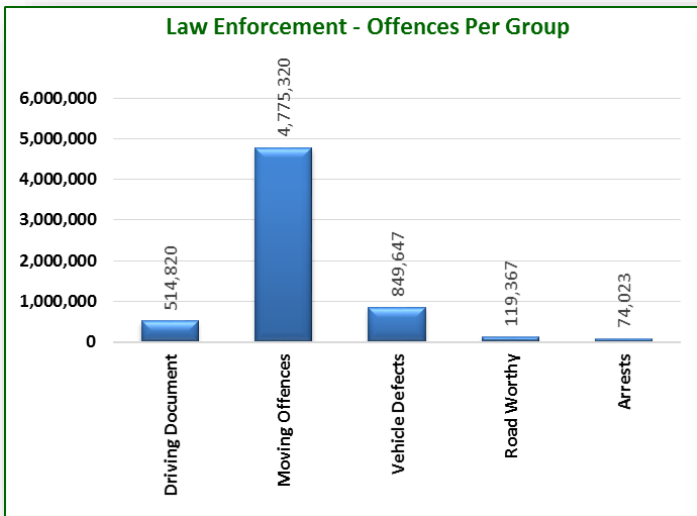
The 20,354,648 law enforcement actions recorded during the TOS 2016 twenty month study period at an average of 1,035,927 is much less than the 27,036,436 law enforcement actions recorded during the TOS 2015 (22 Months) at an average of 1,424,740 actions per month. It is cumbersome that the average actions completed is 388,813 less per month, it is not clear if this decrease is due to actual less actions completed or due to underreporting by some provinces.

This Item Group analysis will form the baseline from which pertinent offence activities will be analysed later in the document.

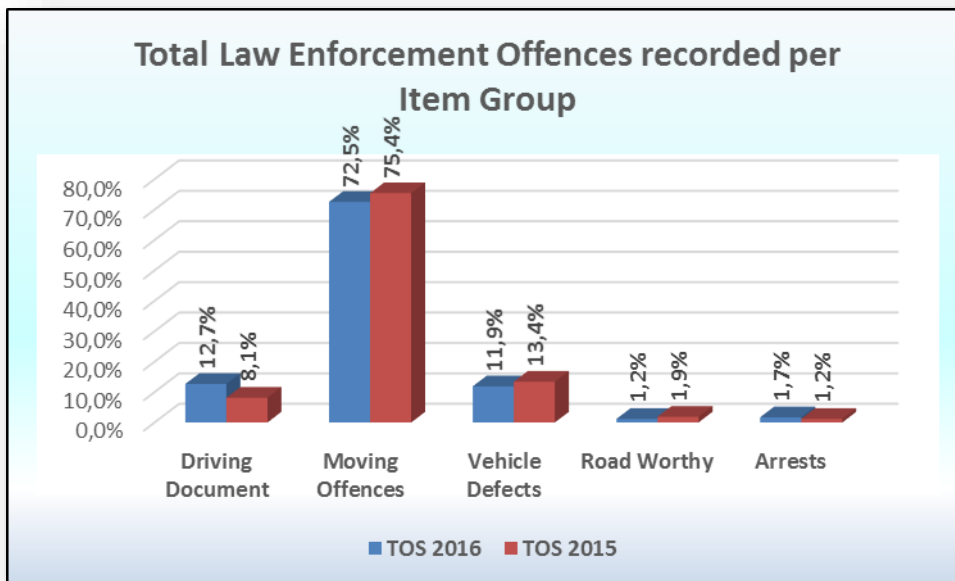
The total data recorded per Item Group for offences are illustrated on the graph below:

Total Law Enforcement Offences –TOS 2016

Total Law Enforcement Offences –TOS 2015



**Total Law Enforcement Offences recorded per Item Group
TOS 2016 vs TOS 2015 Comparison**



The graphs above illustrate that the Moving Offences recorded far exceeds other offence groups with overloading offences being the major contributor. The comparison between the TOS 2015 and TOS 2016 offences per group is however consistent with only small variances between the two studies as illustrated in the comparison graph above indicating that similar traffic law enforcement activities are being conducted on an annual basis.

It would however be acceptable to calculate a representing factor for each Item Group to calculate the relative percentage (taking into account the number of activities per group) that each group represents from the total offences recorded. The following table summarises relative percentages that each group represents of the total offences recorded for the TOS 2016 and TOS 2015:

Item/Offence Group	Total Number of Offences Recorded	% of Total	No. of Activities per Group	Factor Calculated	Relative % of Total TOS 2016	Relative % of Total TOS 2015
Driving Document	514,820	8,1%	6	1,355	16,2%	24,9%
Moving Offences	4,775,320	75,4%	16	4,713	56,5%	52,9%
Vehicle Defects	849,647	13,4%	11	1,220	14,6%	12,9%
Road Worthy	119,367	1,9%	2	0,942	11,3%	7,3%
Arrests	74,023	1,2%	10	0,117	1,4%	2,0%
Total	6,333,177	100,0%	45	8,346	100,0%	100%

Relative good correlation exists between the study periods with Moving Offences again the highest at 56.5% with Arrests again the lowest with a slight decrease in the relative arrests from 2.0% to 1.4%.

The total data recorded per Item Group for offences are tabulated below for each of the TOS 2016 and TOS 2015:

TOS 2016

Province	Driving Document	Moving Offences	Vehicle Defects	Road Worthy	Arrests	Total	% of Total
GP	201,321	3,792,911	412,194	17,790	25,372	4,449,588	55,5%
KZN	80,056	196,838	91,841	7,686	7,944	384,365	4,8%
WC	102,834	211,249	43,817	49,515	3,979	411,394	5,1%
EC	33,069	63,192	21,999	2,302	3,964	124,526	1,6%
FS	22,742	55,492	41,620	1,622	3,299	124,775	1,6%
NW	24,245	100,943	16,912	869	4,409	147,378	1,8%
NC	20,679	42,449	15,081	399	10,661	89,269	1,1%
LIM	-	88,173	42,047	9,499	9,653	149,372	1,9%
MP	29,119	223,338	163,299	29,522	4,733	450,011	5,6%
NTP	755	735	837	163	9	2,499	0,0%
Total	514,820	4,775,320	849,647	119,367	74,023	6,333,177	Max
% of Total	8,1%	75,4%	13,4%	1,9%	1,2%	100,0%	

From the above tables, the data show that the province which recorded the most offences during the study period was Gauteng with a total of 4,449,588 offences or 55.5% of all offences with the Northern Cape recording the least amount of offences i.e. 89,269 or 1.1% of the total offences recorded. NTP data for only February 2015 were received and even though included in the calculations does not represent activities for the total study period.

TOS 2015

Province	Driving Document	Moving Offences	Vehicle Defects	Road Worthy	Arrests	Total	% of Total
GP	202,718	3,165,328	285,661	24,609	26,401	3,704,717	46,2%
KZN	114,747	324,852	124,200	15,337	13,859	592,995	7,4%
WC	158,270	1,236,518	133,815	4,178	11,368	1,544,149	19,3%
EC	48,071	193,669	39,904	4,449	9,378	295,471	3,7%
FS	17,147	66,372	80,000	264	563	164,346	2,0%
NW	66,548	406,764	83,382	2,831	17,920	577,445	7,2%
NC	10,858	23,353	6,343	324	5,854	46,732	0,6%
LIM	-	60,154	-	6,812	44,579	111,545	1,4%
MP	390,694	288,947	191,634	35,203	6,318	912,796	11,4%
NTP	11,116	21,912	27,543	6,217	750	67,538	0,8%
Total	1,020,169	5,787,869	972,482	100,224	136,990	8,017,734	Max
% of Total	12,7%	72,2%	12,1%	1,3%	1,7%	100,0%	

From the above table for the TOS 2015, the data show that the province which recorded the most offences during the study period was Gauteng with a total of 3,704,717 offences or

46.2% of all offences with the Northern Cape recording the least amount of offences i.e. 46,732 or 0.6% of total offences recorded.

The trends are very similar over the TOS 2015 and TOS 2016 study periods with the Gauteng province again recording/reporting the most offences during the TOS 2016 study period i.e. 55.5% of the total (an increase of 9.3%) with the Western Cape and Mpumalanga showing increases from 5.1% to 19.3% and 5.6% to 11.4% respectively on total number of infringements recorded/reported.

It need to be highlighted that the product of the breakdown on law enforcement offences recorded per item group per province should be interpreted with caution as various factors could have influenced the numbers which should be taken into account such as:

- Poor recording and/or reporting by authorities
- Traffic Law enforcement workforce in each authority.
- Effort by provincial law enforcement.
- Traffic volumes in each judiciary.

Even though the analysis outcome indicates no real correlation between offences per item group per province, if compared to the percentage law enforcement officers per province and the “estimated vehicles” per province a definite correlation is evident.

It is challenging to estimate the actual vehicles per province in that many vehicles are registered in one province but are used in other provinces (large corporations) or travel mostly in other provinces. This anomaly was defined by using the actual fuel sales per province which should with relative reliability indicate the vehicle population on the roads in each province.

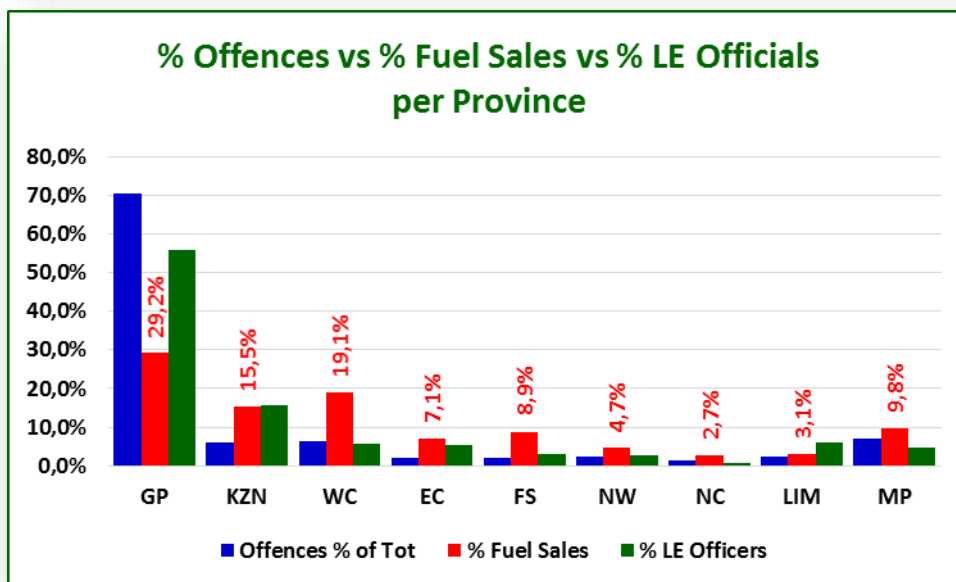
The comparison between offences recorded over the 20 month period versus percentage fuel sales per province versus traffic law enforcement officials in provinces show a relatively good correlation. For the purposes of this analysis the NTP data was omitted due to a lack of spatial data on where offences were actually recorded however, as the NTP data is only a small percentage of the data population, the omission thereof is acceptable on a macro level analysis.

The correlation between the above comparisons is verified by the practically insignificant calculated percentage variance between each of the three parameters for each province; tabulated below for both the TOS 2016 and TOS 2015:

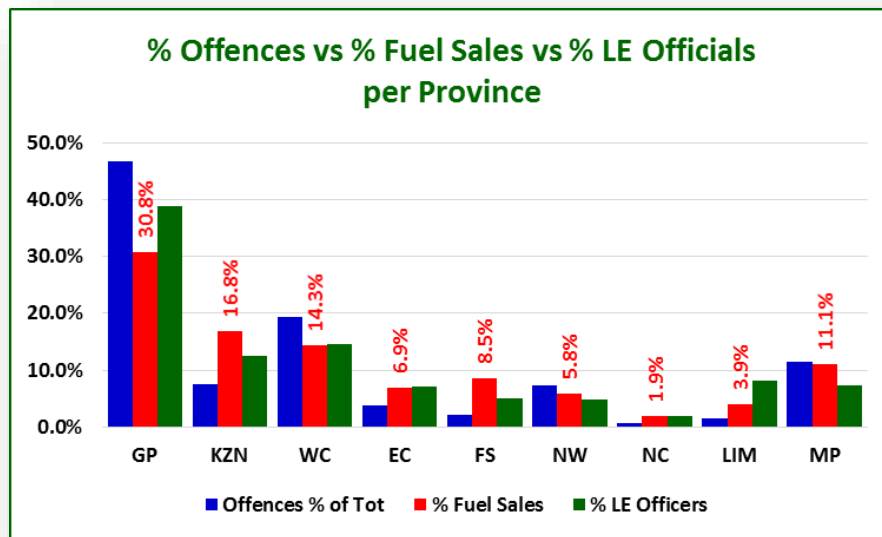
TOS 2016	Offences % of Total TOS 2016	% Fuel Sales 2015	% LE Officers 2016	% Variance
GP	70,3%	29,2%	55,9%	4,4%
KZN	6,1%	15,5%	15,7%	0,3%
WC	6,5%	19,1%	5,7%	0,6%
EC	2,0%	7,1%	5,3%	0,1%
FS	2,0%	8,9%	3,1%	0,1%
NW	2,3%	4,7%	2,7%	0,0%
NC	1,4%	2,7%	0,9%	0,0%
LIM	2,4%	3,1%	6,1%	0,0%
MP	7,1%	9,8%	4,7%	0,1%

TOS 2015	Offences % of Total TOS 2015	% Fuel Sales 2014	% LE Officers 2014	% Variance
GP	46.6%	30.8%	38.8%	0.6%
KZN	7.5%	16.8%	12.6%	0.2%
WC	19.4%	14.3%	14.5%	0.1%
EC	3.7%	6.9%	7.1%	0.0%
FS	2.1%	8.5%	5.0%	0.1%
NW	7.3%	5.8%	4.7%	0.0%
NC	0.6%	1.9%	2.0%	0.0%
LIM	1.4%	3.9%	8.1%	0.1%
MP	11.5%	11.1%	7.3%	0.1%

The following graph illustrates the comparison for the TOS 2016 and TOS 2015:



Comparison TOS 2016



Comparison TOS 2015

Even though the percentage variance for the Gauteng Province between ‘% Offences’, ‘% Fuel Sales’ and ‘% LE Officials’ increased from 0.6% to 4.4% from the TOS 2015 to the TOS 2016 the variation is still within an acceptable level.

4.1.1 Driving Document Offences

The driving documents offences grouping consists of six (6) offence activities tabulated below with the percentage of the Total Offences recorded indicated for the TOS 2015:

Offences Item Groups	Number	Activities	Group Offences TOS 2016	% of Total Offences TOS 2016	% of Total Offences TOS 2015
2 Driving Document	1	Driving licence (none)	2,431	0,0%	3,1%
	2	Driving licence (Fail to carry)	161,933	2,6%	3,6%
	3	PRDP (None)	211,226	3,3%	3,7%
	4	PRDP (fail to carry)	47,524	0,8%	0,6%
	5	Dangerous Goods Vehicles	68,053	1,1%	0,1%
	6	Public Passenger Transport Permit Condition	23,653	0,4%	1,5%
Sub-Total			514,820	8,1%	12,7%

Driving document offences reported contributed only 8.1% of the total offences in the TOS 2016; a decrease from 12.7% in the TOS 2015.

Very alarming is that 3.6% of the total offences recorded in the TOS 2016 or 211,226 drivers had no PRDP licenses; this number is unacceptably high and is a need for serious concern towards road safety.

4.1.2 Moving Offences

The moving offences grouping consists of sixteen (16) offence activities tabulated below with the percentage of the Total Offences recorded indicated for the TOS 2015:

Offences Item Groups	Number	Activities	Group Offences TOS 2016	% of Total Offences TOS 2016	% of Total Offences TOS 2015
3 Moving Offences	1	Inconsiderate Driving	101,359	1,6%	0,2%
	2	Overtaking in Face/Barrier line	3,423	0,1%	0,8%
	3	Road Sign/Marking -Traffic Signal Violation	54,970	0,9%	5,7%
	4	Stopping on freeway	8,755	0,1%	0,3%
	5	Speed-Manual (Hand Held Camera)	199,801	3,2%	10,8%
	6	Speed- Camera (Fixed Camera)	68,934	1,1%	24,0%
	7	Seat belt (driver)	67,458	1,1%	4,1%
	8	Seat belt (Passenger)	61,676	1,0%	14,4%
	9	Seat belt (Rear)	303,283	4,8%	0,3%
	10	Unlicensed Vehicles	329,667	5,2%	3,4%
	11	Fail to display Licence Disc	160,355	2,5%	1,9%
	12	Fail to display Operator Card	9,979	0,2%	0,5%
	13	Overloading (goods)	2,038,724	32,2%	1,1%
	14	Overloading (passengers)	1,115,462	17,6%	1,1%
	15	Held Cell phone in Hand Whilst driving	13,371	0,2%	1,0%
	16	Other Moving Offences	238,103	3,8%	2,8%
Sub-Total			4,775,320	75,4%	72,2%

Moving offences contributed to 75.4% of the total offences in the TOS 2016; a slight increase from 72.2% in the TOS 2015. From the entire dataset, the top 5 offences are highlighted in yellow; In the TOS 2015, all of the top 5 offences were recorded under the moving offences group whereas the top 4 number of offences were recorded under moving offences in the TOS 2016.

Overloading (goods) offences increased drastically to 32.2% from the TOS 2015 which was 1.1% of total offences. This could be due to drastic traffic law enforcement measurements

taken towards overloading. Alarming is that the second highest infringement activity reported increased from 1.1% in the TOS 2015 to 17.6% in the TOS 2016.

Other unacceptable high offence rates which are alarming are rear seatbelt infringements (4.8%) and unlicensed vehicles (5.2%).

4.1.3 Vehicle Defects

The Vehicle Defects grouping consists of eleven (11) offence activities tabulated below with the percentage of the Total Offences recorded indicated for the TOS 2015:

Offences Item Groups	Number	Activities	Group Offences TOS 2016	% of Total Offences TOS 2016	% of Total Offences TOS 2015
4 Vehicle Defects	1	Steering	53,814	0,8%	0,1%
	2	Windscreen Wipers	9,271	0,1%	0,2%
	3	Brakes (Service)	44,306	0,7%	0,3%
	4	Brakes (Parking)	53,325	0,8%	0,8%
	5	Tyres	98,000	1,5%	2,3%
	6	Front Lamps/Head lamps	272,462	4,3%	1,1%
	7	Rear lamps/Stop lamps	86,855	1,4%	1,3%
	8	Direction indicators	12,153	0,2%	0,4%
	9	Number plate	2,266	0,0%	1,1%
	10	Side and Rear Retro Reflective Markings	187,839	3,0%	0,7%
	11	Other Defects	29,356	0,5%	3,8%
Sub-Total			849,647	13,4%	12,1%

Vehicle defects contributed to 13.4% of the total offences in the TOS 2016; a slight increase from 12.1% in the TOS 2015. The 5th highest offence of the total offences reported for the TOS 2016 i.e. Front Lamps / Head Lamps is **4.3%**, an increase from 1.1% in the TOS 2015.

Even though other offence types recorded in this grouping contributes only small percentages towards all offences recorded, the seriousness of these parameters as a contributor towards road crashes cannot be ignored.

4.1.4 Road Worthiness Offences

The Road Worthiness Offences grouping consists of two (2) offence activities tabulated below with the percentage of the Total Offences recorded indicated for the TOS 2015:

Offences Item Groups	Number	Activities	Group Offences	% of Total Offences	% of Total Offences
5 Road Worthy	1	Vehicles discontinued	92,717	1,5%	0,9%
	2	Vehicles impounded	26,650	0,4%	0,3%
	Sub-Total		119,367	1,9%	1,3%

Even though the offence types recorded in the Road Worthiness grouping contributes only small percentages towards all offences recorded, the seriousness of these parameters as a contributor towards road crashes cannot be ignored.

4.1.5 Arrests

The Arrests grouping consists of ten (10) offence parameters tabulated below with the percentage of the Total Offences recorded indicated for the TOS 2015:

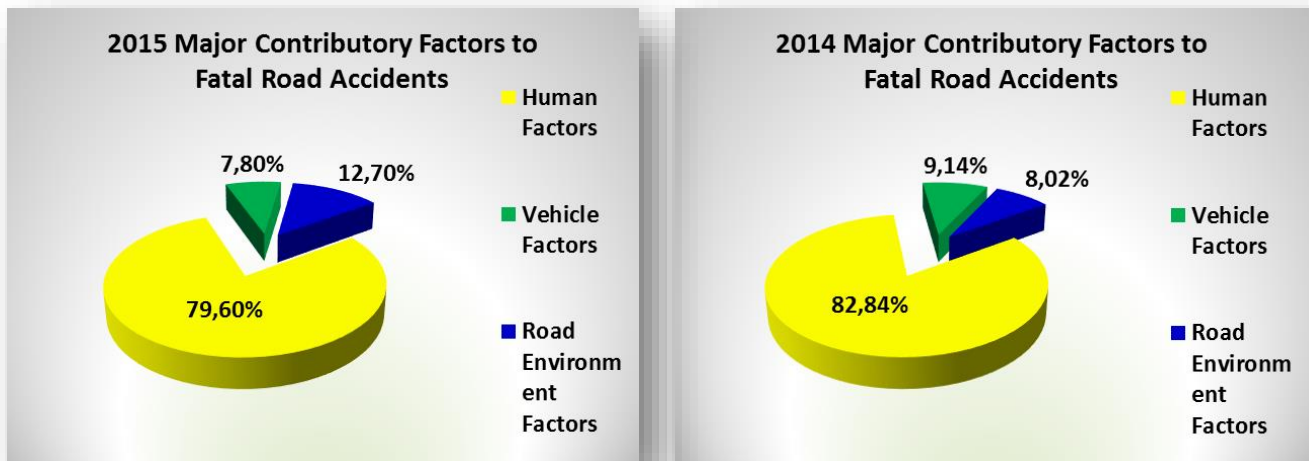
Offences Item Groups	Number	Activities	Group Offences TOS 2016	% of Total Offences TOS 2016	% of Total Offences TOS 2015
6 Arrests	1	Drunken Driving	27,143	0,4%	0,6%
	2	No driving licence	756	0,0%	0,0%
	3	Speed	1,667	0,0%	0,2%
	4	Overload Goods	2,688	0,0%	0,1%
	5	Inco, Rec & Neg	3,142	0,0%	0,0%
	6	Permits /Operating Permits	1,940	0,0%	0,1%
	7	Warrants Executed	3,959	0,1%	0,6%
	8	False Documentation	2,551	0,0%	0,0%
	9	Other Arrests	5,080	0,1%	0,1%
	10	Pedestrians Arrested	25,097	0,4%	0,1%
Sub-Total		74,023	1,2%	1,7%	

The significance of the 10 offence items reported under the Arrests are most critical towards ensuring safer roads in South Africa. The data records show that arrests made are only a small percentage of the total data set with a slight decrease from the TOS 2015.

It need to be highlighted that the analysis breakdown on arrests recorded should be interpreted with caution as poor recording and/or reporting by of arrests made could be the reason for the low percentages.

4.2 Most Significant Factors contributing to Fatalities on Roads

RTMC statistics showed that 95% of road traffic crashes occur as a direct result of one or more traffic offences. The main contributory factors to fatal road accidents for 2015 and 2014, reported by SAPS to the RTMC on fatal accident report forms and categorised as human, vehicle and road environment are illustrated in the following graph:



According to the statistics, Human Factor is the most significant fatal crash contributory parameter to fatal road crashes at 79.6% with a slight decrease from 2015; Vehicle and Road environment factors contributed 7.8% and 12.7% respectively in 2015.

The following table is an analysis of the type of Major Contributory factors reported on in 2015 by the SAPS; the 5 highest contributory factors as reported by the SAPS for 2015 are highlighted in Yellow:

2015 Major Contributory Factors to Fatal Road Accidents	% of Sub-Tot	% of All Fatal Accidents reported
Human Factors		79,6%
Jay-walking pedestrian	52,0%	41,6%
Speed too high for circumstances	11,5%	9,2%
Hit and run	11,1%	8,8%
Intoxicated driver with liquor/drug usage	5,3%	4,3%

2015 Major Contributory Factors to Fatal Road Accidents	% of Sub-Tot	% of All Fatal Accidents reported
Overtook in face of oncoming traffic	4,6%	3,7%
Fatigue: driver falling asleep	2,9%	2,3%
Intoxicated pedestrian with liquor/drug usage	2,7%	2,2%
Turned in front of oncoming traffic	2,3%	1,8%
Disregard for stop sign	1,8%	1,4%
Overtook across barrier line	1,7%	1,3%
Disregard fro red traffic lights	1,3%	1,0%
U-turn	1,1%	0,9%
Followed vehicle too closely	0,9%	0,7%
Intoxicated cyclist with liquor/drug usage	0,4%	0,3%
Cell phone holding/usage	0,3%	0,2%
Disregard for yield sign	0,2%	0,2%
Accident With Fixed Object	0,1%	0,1%
Vehicle Factors	7,8%	
Tyres: burst prior to accident	62,8%	4,7%
Brakes faulty	14,0%	1,0%
Tyres: smooth	6,2%	0,5%
Bicycle no rear reflectors	4,7%	0,3%
Overload: passengers	4,7%	0,3%
Headlights blinding	3,1%	0,2%
Bicycle no head lamp	1,6%	0,1%
Tyre burst Prior to Accident	1,6%	0,1%
Headlights faulty	0,8%	0,1%
Steering: faulty	0,8%	0,1%
Road Factors	12,7%	
Sharp bend	20,1%	2,5%
Visibility poor	15,5%	2,0%
Road surface wet/slippery	12,3%	1,6%
Animal: stray/wild	10,5%	1,3%
Road surface poor	9,6%	1,2%
Lighting: poor	8,2%	1,0%
Road works	7,3%	0,9%
Visibility smoke/fog/rain/etc.	4,6%	0,6%
Blind corner	2,7%	0,3%
Road markings poor/inadequate/none	2,7%	0,3%
Road signs poor/inadequate/none	1,8%	0,2%
Traffic lights defective	1,8%	0,2%
Blind rise	0,9%	0,1%
Road traffic lane narrow	0,9%	0,1%
Lighting, road surface: poor	0,5%	0,1%
Pothole	0,5%	0,1%

Jay-walking totalling 41.6% of all contributory factors was the highest recorded road related fatality contributor which together with Speeding (9.2%), Hit and run (11.1%), Tyre burst prior to accident (4.7%) and Driving under Influence (DIY: 4.3%) are the top five road related fatality contributory factors recorded for 2015.

Even though there has been huge focus over the past few years by the RTMC, government agencies and roads authorities which were directed towards pedestrian education, pedestrian enforcement and engineering to protect pedestrians, the problem with pedestrian fatalities in South Africa persists.

The reported number of pedestrians arrested for jaywalking over the 20 month study period were 25,097 and even though this is significantly higher than the reported 1,255 jaywalking arrests reported over the 22 month TOS 2015 study period, the statistics show that pedestrian deaths are not being dealt with adequately.

Arresting and prosecuting jaywalking pedestrians poses unique challenges and as long as there is spatial segregation with communities established along major roads, it is not anticipated that pedestrian fatalities would decrease drastically with jaywalking arrests. Planning, engineering and education efforts at defined pedestrian hazardous locations will most probably be the only real actions to ensure a decrease in pedestrian road fatalities.

Albeit all other tabulated parameters contributing to road related deaths are significant it is believed that by focussing on the main contributors to road related deaths i.e. pedestrian fatalities, speeding and driving under influence (DIY) the highest impact can be made to ensure that the number of road related fatalities are decreased not only to be in line with the Decade of Action initiatives but to contribute towards safe roads in South Africa.



5. PROPOSED WAY FORWARD

Analysing law enforcement activities on a continuous basis from a national perspective should be a priority of the RTMC to compliment independent annual TOS's. Reliable monthly reporting on law enforcement activities by all spheres of government is crucial for the RTMC to be in a position to effectively lead the way towards safer roads in South Africa from a national perspective.

The following Way Forward is proposed:

- That a continuous law enforcement activity reporting model for all traffic law enforcement authorities is implemented by the RTMC.
- That the output from the internal national traffic offence database form the basis of annual outsourced traffic offence surveys.
- That the output from both traffic offence survey models are used by all RTMC units as an alternative to other methods as a planning tool towards safer roads in South Africa.



ANNEXURES

Input – Example of Monthly Reporting Form


ROAD TRAFFIC MANAGEMENT CORPORATION									
Traffic Offence Report		DATE		2013/01/01 TO 2013/01/31					
		H.M.V.'s	BUSSES	MINIBUS TAXIS	MINIBUSES M.P.V.'s S.U.V.'s	L.D.V.'s	MOTOR CYCLES	SEDANS	TOTAL
No of k78 Roadblocks Held								6	6
No. of Vehicles Stopped		9,745	9,562	25,069	23,170	20,777	136	80,080	168,539
No. of Drivers Tested for Alcohol		40	36	500	10	200		1,000	1,786
No. of Vehicles Weighed		16,307	284	278	233	175			17,277
DRIVING DOCUMENT CHARGES (WRITTEN NOTICE CHARGES ONLY)									
Driving Licence	NONE	509	434	489	481	531	22	719	3,185
Driving Licence	FAIL to CARRY	20	81	126	186	127	2	205	747
PrDP	NONE	221	202	285	256	7		18	989
PrDP	FAIL to CARRY	12	11	109	128	19		27	306
Dangerous Goods Vehicles		2							2
Public Passanger Transport Permit condition		9		195	50				254
MOVING OFFENCE CHARGES (WRITTEN NOTICE CHARGES ONLY)									
Inconsiderate Driving		2	42	55	41	89	2	43	274
Overtaking in Face / Barrier line		6	1	36	61	82		119	305
Road Sign / Marking - Traffic Signal Violations		2,222	2,219	2,299	2,300	2,302		2,540	13,882
Stopping on Freeway		71	42	81	85	188		346	813
Speed - Manual (Hand held camera)		371	2	98		239	29	2,103	2,842
Speed - Camera (Fixed Camera)								22,450	22,450
Seat Belt	Drivers	796	737	945	835	878		1,397	5,588
Seat Belt	Front Seat Passengers			2		1		11	14
Seat Belt	Rear Seat Passengers			3		2			5
Unlicensed Vehicles		855	707	685	653	744	17	1,010	4,671
Fail to Display Licence Disc		55	54	162	132	95	5	200	703
Overloading	GOODS	57		50	63	57		491	718
Overloading	PASSENGERS	114		185	134			128	561
Held Cell phone in Hand Whilst Driving		46	47	65	52	53		117	380
Other Moving Offences		252	236	250	367	257	5	505	1,872
VEHICLE DEFECT CHARGES (WRITTEN NOTICE CHARGES)									
Steering		1		19	14	18		11	63
Windscreen Wipers		13	8	87	59	50		103	320
Brakes	SERVICE	4	2	47	42	34		41	170
Brakes	PARKING	7	19	97	71	47		50	291
Tyres		284	185	312	255	369	4	548	1,957
Front Lamps / Headlamps		264	258	346	307	272	1	387	1,835
Rear Lamps / Stop Lamps		48	12	68	49	69	3	144	393
Direction Indicators		17	10	40	32	51		101	251
Number Plate		160	149	189	184	195	16	307	1,200
Side and Rear Retro Reflective Markings		7	2	7				28	44
Other Defects		374	274	374	343	359	2	739	2,465
TOTAL WRITTEN NOTICE CHARGE		32,891	15,616	33,553	30,593	28,287	244	8,547	257,152
Vehicles Discontinued		3	3	311	105	15		152	589
Vehicles Impounded				209					209
Arrests	Drunken Driving			27	2			115	144
	No Driving Licence							13	13
	Speed							52	52
	Overload Goods	10	4					4	18
	Inco,Rec. & Neg.				2			114	116
	Permits / Operating Permits			13					13
	Warrants Executed							213	
	False Documentation							1	1
Other Arrests				1	1			105	105
Total Arrests		13	7	561	110	15		769	1,475
Pedestrians Arrested								51	51
Grand Total (Charges+Suspensions+Arrests)		32,917	15,630	34,675	30,813	28,317	244	10,136	259,938

“Main” sheet of Excel Analysis System

Traffic Offence Survey (TOS) Study Period: February 2015 to September 2016 (20 Months)

List of Provinces, Items & Activities Analysed

- Single Activity Analysis - Data
- Single Activity Analysis - Graphs
- Activity vs Activity Analysis - Data
- Activity vs Activity Analysis - Graphs
- Item (Group) Analysis - Data
- Item (Group) Analysis - Graphs
- TOS Data
- Summary - All Data



Research & Development Unit - December 2016

List of Provinces, Items & Activities Analysed

Traffic Offence Study (TOS) - Provinces / Items & Activities

Go to Main

Province:	1	Gauteng
	2	Kwazulu Natal
	3	Western Cape
	4	Eastern Cape
	5	Free State
	6	North West
	7	Northern Cape
	8	Limpopo
	9	Mpumalanga
National:	10	NTP's

Items:	1	Actions Completed
	2	Driving Document
	3	Moving Offences
	4	Vehicle Defects
	5	Road Worthy
	6	Arrests

Activities:	1	No. of K78 Roadblocks held
	2	No. of Vehicles stopped
	3	No. of Drivers tested for alcohol
	4	No of Vehicles Weighed
	5	No of Government vehicles stopped
	6	Driving licence (none)
	7	Driving licence (Fail to carry)
	8	PRDP (None)
	9	PRDP (fail to carry)
	10	Dangerous Goods Vehicles
	11	Public Passenger Transport Permit Condition
	12	Inconsiderate Driving
	13	Overtaking in Face/Barrier line
	14	Road Sign/Marking -Traffic Signal Violation
	15	Stopping on freeway
	16	Speed-Manual (Hand Held Camera)
	17	Speed- Camera (Fixed Camera)
	18	Seat belt (driver)
	19	Seat belt (Passenger)
	20	Seat belt (Rear)
	21	Unlicensed Vehicles
	22	Fail to display Licence Disc
	23	Fail to display Operator Card
	24	Overloading (goods)
	25	Overloading (passengers)
	26	Held Cell phone in Hand Whilst driving
	27	Other Moving Offences
	28	Steering
	29	Windscreen Wipers
	30	Brakes (Service)
	31	Brakes (Parking)
	32	Tyres
	33	Front Lamps/Head lamps
	34	Rear lamps/Stop lamps
	35	Direction indicators
	36	Number plate
	37	Side and Rear Retro Reflective Markings
	38	Other Defects
	39	Vehicles discontinued
	40	Vehicles impounded
	41	Drunken Driving
	42	No driving licence
	43	Speed
	44	Overload Goods
	45	Inco, Rec & Neg
	46	Permits /Operating Permits
	47	Warrants Executed
	48	False Documentation
	49	Other Arrests
	50	Pedestrians Arrested

Single Activity Analysis – Data Example

Traffic Law Enforcement - Item Analysis

Activity:	No. of Vehicles stopped			Ave / Mnth: 891,683																							
	90th P	Average	% of Tot	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sept 14	Oct 14	Nov 14	Dec 14	Jan 15		
GP	196,791	330,250	14.6%	2,865,698	197,814	131,134	105,619	129,950	-	138,947	335,795	93,641	48,504	61,521	133,812	152,707	121,727	151,020	172,475	160,791	187,585	136,130	-	-	133,959	64,451	
KZN	152,298	150,577	12.9%	3,312,688	145,381	127,722	124,519	116,142	97,739	113,207	109,550	148,474	152,723	128,657	99,669	1,363,896	-	108,173	-	-	104,947	91,594	-	-	-	161,756	118,426
WC	162,973	114,490	12.8%	2,518,777	163,387	159,247	131,224	156,698	147,194	163,451	134,479	127,874	100,312	121,130	152,707	152,707	-	-	-	-	119,101	117,467	129,795	131,424	144,892	-	144,892
EC	109,985	79,180	8.9%	1,741,970	100,690	77,651	84,790	139,806	139,806	96,066	92,896	110,398	75,427	67,337	65,456	78,332	76,360	60,577	74,865	83,673	62,335	79,188	-	-	-	99,104	-
FS	68,343	46,030	5.2%	1,012,665	53,976	45,602	51,996	56,394	49,769	44,313	65,473	84,172	68,509	13,534	57,757	13,410	66,848	14,022	73,520	61,688	-	35,045	35,045	27,351	55,507	1,669	
NW	124,581	80,012	9.0%	1,760,264	100,813	92,165	125,500	116,309	105,457	105,673	92,871	129,845	107,616	74,279	78,451	111,165	-	90,653	-	-	91,427	83,155	-	-	-	98,164	30,372
LIM	34,544	26,183	2.9%	576,023	34,577	36,683	33,352	34,245	27,195	35,096	28,490	26,648	28,336	32,875	27,648	33,791	-	29,372	-	-	26,711	29,019	29,019	-	-	31,570	28,152
MIP	152,406	85,567	9.6%	1,882,469	123,377	128,543	137,570	146,241	97,428	164,143	136,352	164,108	152,894	125,913	148,014	147,014	-	-	-	-	122,701	88,171	-	-	-	-	97,849
NTP	27,516	21,012	2.4%	462,261	21,797	22,624	21,797	22,624	21,006	20,921	14,909	13,067	18,422	14,857	13,000	82,024	225,952	206,324	115,866	86,384	100,252	117,911	29,019	29,019	144,817	27,900	-
Total:	19,617,021	1,961,702	10.0%	108,643	111,323	95,977	100,619	102,341	80,067	94,573	127,333	111,352	99,367	82,632	95,777	2,135,046	493,810	817,721	436,726	419,247	867,396	790,867	186,165	884,201	485,811	485,811	
Average:	3,923,404	392,340	10.0%	108,643	111,323	95,977	100,619	102,341	80,067	94,573	127,333	111,352	99,367	82,632	95,777	2,135,046	493,810	817,721	436,726	419,247	867,396	790,867	186,165	884,201	485,811	485,811	
Percentile:	3,329,860	332,980	10.0%	154,527	160,956	135,349	153,038	141,159	155,175	155,324	202,583	158,636	152,834	127,697	143,043	152,707	105,849	155,284	104,516	85,435	121,441	117,756	28,435	141,017	111,224	111,224	
Minimum Value:	462,261	21,797	22,624	21,797	22,624	21,006	20,921	11,207	14,909	13,067	18,422	13,534	13,000	13,000	13,000	172,475	206,324	172,475	160,791	187,585	136,130	129,795	161,756	144,892	144,892	144,892	
Maximum Value:	3,484,406	207,916	197,814	151,634	160,851	160,851	160,851	219,446	196,242	195,841	355,795	208,692	213,369	207,035	212,830	1,363,896	225,952	206,324	172,475	160,791	187,585	136,130	129,795	161,756	144,892	144,892	
Standard Deviation:	1,029,025	48,123	51,089	53,480	55,651	66,407	72,180	69,420	69,806	69,806	70,612	70,612	69,420	69,806	70,612	77,226	77,226	77,226	49,091	49,091	40,822	38,148	13,761	50,732	50,732	35,879	

Go to Main

Go to Activity Charts

Single Activity Analysis – Graphs Example

Traffic Law Enforcement - Activity Analysis

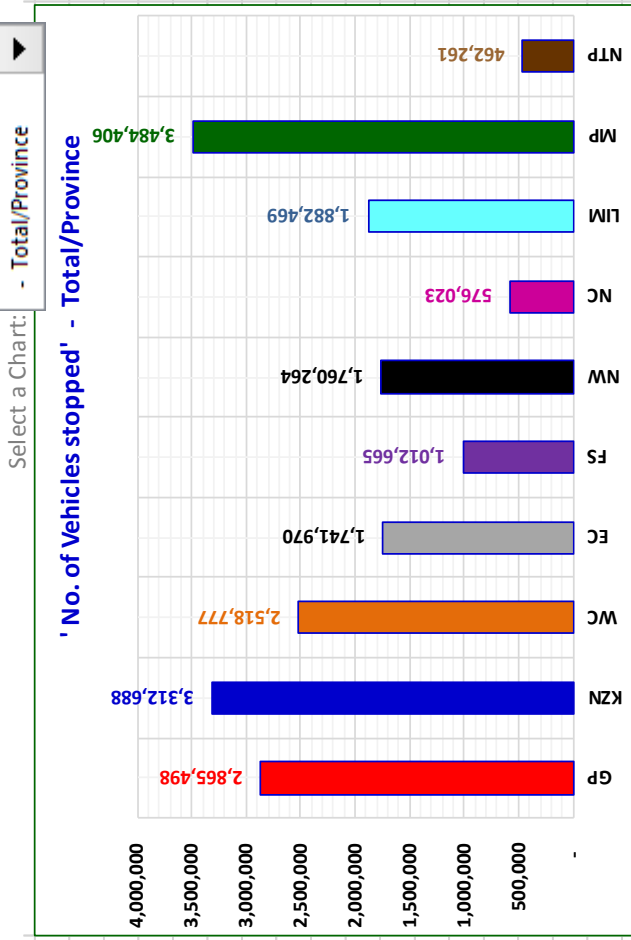
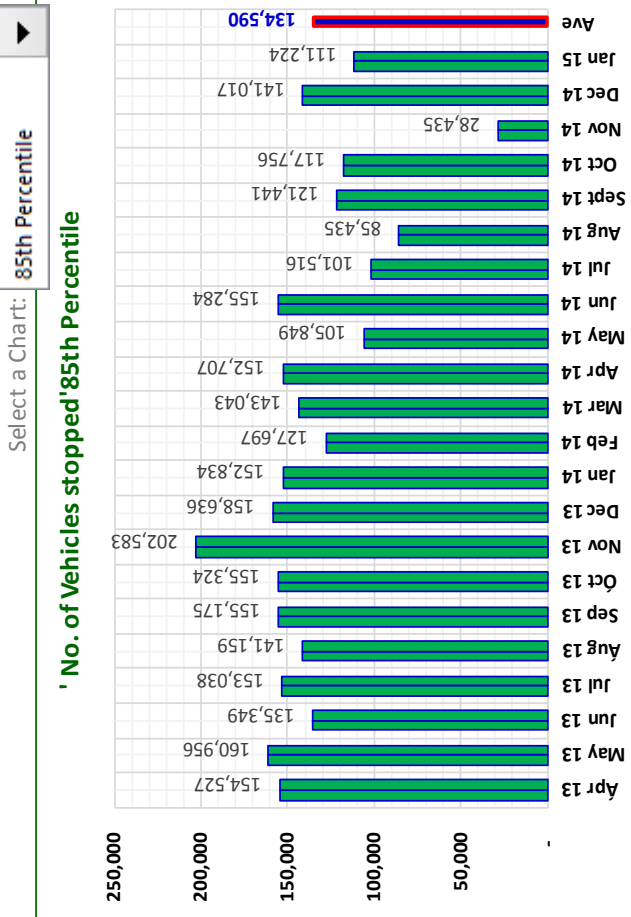
Go to Activity Analysis

Go to Main

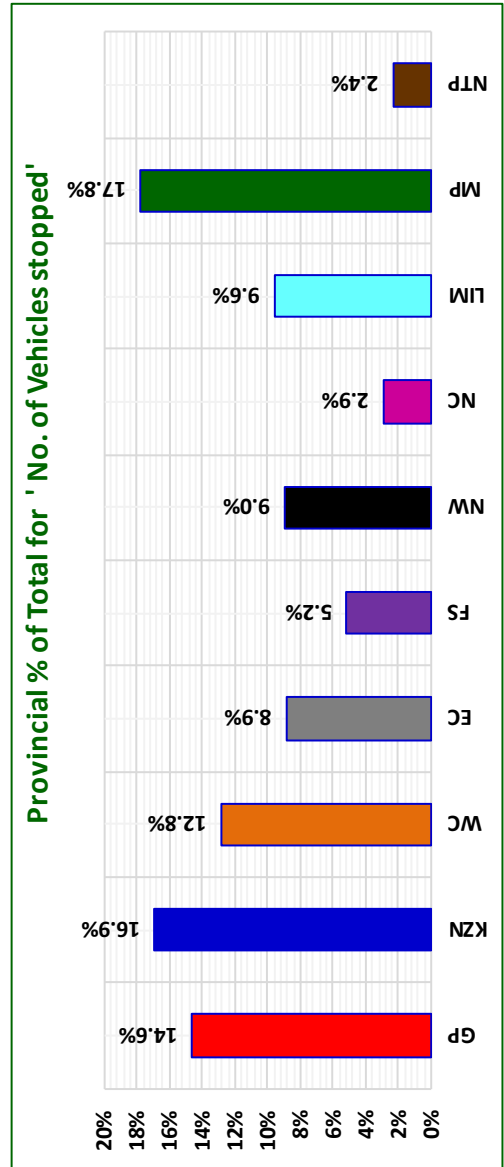
Item: Actions Completed

Activity: No. of Vehicles stopped

Percentile: 85



Prov	Total	Average	% of Tot	85th P
GP	2,865,498	130,250	14.6%	196,791
KZN	3,312,688	150,577	16.9%	152,298
WC	2,518,777	114,490	12.8%	162,973
EC	1,741,970	79,180	8.9%	109,985
FS	1,012,665	46,030	5.2%	68,343
NW	1,760,264	80,012	9.0%	124,581
NC	576,023	26,183	2.9%	34,544
LIM	1,882,469	85,567	9.6%	152,406
MP	3,484,406	158,382	17.8%	213,315
NTP	462,261	21,012	2.4%	27,516
Total:	19,617,021	Maximum Number		



Activity vs Activity Analysis – Data Example

Traffic Law Enforcement - 'Activity' vs 'Activity' Analysis

[Go to Main](#) [Go to Charts](#)

Activity 1 No. of Vehicles stopped

Activity 2: Drunken Driving

Analysis of 'Drunken Driving' vs 'No. of Vehicles stopped'

Prov	Item	Average	Total	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15		
GP	1	130,250	2,865,498	207,916	197,814	131,134	105,619	129,950	-	138,947	335,795	93,641	48,504	61,521	133,812	152,707	121,727	151,020	172,475	160,791	187,585	136,130	-	-	133,959	64,451	
	2	483	9,755	147	557	519	279	361	-	426	423	167	63	138	434	486	699	260	811	2,450	200	597	-	-	575	163	
KZN	1	150,577	3,312,688	102,413	145,381	127,722	124,219	116,142	97,739	11,207	109,550	148,474	152,723	128,657	99,669	1,363,896	-	108,173	-	-	104,947	91,594	-	-	-	161,756	118,426
	2	73	1,603	42	36	48	45	19	55	46	62	114	59	31	26	583	-	35	-	-	30	49	-	-	-	226	97
WC	1	114,490	2,518,777	163,387	159,247	131,224	156,698	147,194	163,451	133,520	184,875	134,479	127,874	100,312	121,130	152,707	-	-	-	-	-	119,101	117,467	129,795	131,424	144,892	
	2	285	6,268	458	733	321	341	623	955	94	538	473	109	112	127	486	-	60,577	74,865	83,673	62,335	79,188	-	-	-	99,104	
EC	1	79,180	1,741,970	110,748	106,271	100,690	77,651	84,790	139,806	96,066	92,896	110,398	75,427	67,337	65,456	78,332	76,360	140	80	80	156	105	-	-	-	19	
	2	81	1,774	138	96	139	69	83	116	154	159	146	31	10	11	119	22	110	140	140	8	-	-	-	-		
FS	1	46,030	1,012,665	57,795	53,976	45,602	51,996	56,394	49,769	44,313	65,473	84,172	68,509	13,534	57,757	13,410	66,848	14,022	73,520	61,688	14,315	35,045	27,351	55,507	1,669		
	2	5	106	6	4	4	1	1	1	8	7	10	-	8	7	3	6	-	17	-	-	11	-	3	10		
NW	1	80,012	1,760,264	126,349	100,813	92,165	125,900	116,309	105,457	105,673	92,871	129,845	107,616	74,279	78,451	111,165	-	90,653	-	-	-	91,427	83,155	-	98,164	30,372	
	2	41	910	37	23	15	58	73	84	35	56	143	55	32	31	74	-	17	-	-	52	37	-	-	45	43	
NC	1	26,183	576,023	34,577	36,683	23,244	33,352	34,245	27,195	35,096	28,490	26,648	28,336	32,875	27,648	33,791	-	29,372	-	26,711	29,019	29,019	-	-	31,570	28,152	
	2	9	193	-	2	3	-	-	9	2	45	21	2	1	2	10	-	8	-	8	8	8	-	-	74	-	
LIM	1	85,567	1,882,469	123,377	128,543	137,570	146,241	97,428	-	164,143	136,352	164,108	152,894	125,913	148,014	147,014	-	-	-	-	122,701	88,171	-	-	-		
	2	1,037	22,815	18	71	22,233	9	8	-	22	11	127	43	43	58	40	-	-	-	-	132	-	-	-	-		
MIP	1	158,382	3,484,406	138,074	161,876	151,634	160,851	219,446	196,242	195,841	212,118	208,692	213,369	207,035	212,830	82,024	225,952	206,324	115,866	86,384	100,252	117,911	29,019	144,817	97,849		
	2	3	71	-	-	-	-	-	-	-	-	-	-	-	-	-	10	9	4	-	1	1	17	8	8		
NTP	1	21,012	462,261	21,797	22,624	18,783	24,058	21,513	21,006	20,921	14,909	13,067	18,422	14,857	13,000	-	2,923	157,580	-	-	35,714	13,187	-	27,900	-		
	2	25	555	15	8	12	1	24	33	7	55	43	3	47	164	-	-	57	-	-	5	17	-	-	64		
Total	1	19,617,021	1,086,433	1,113,228	959,768	1,006,185	1,023,411	800,665	945,727	1,273,329	1,113,524	993,674	826,320	957,767	2,135,046	493,810	493,810	817,721	436,726	419,247	867,396	790,867	186,165	884,201	485,811		
	2	44,050	861	1,530	23,294	802	1,192	1,192	1,253	794	1,356	1,246	363	423	860	1,811	736	488	912	2,615	678	983	147	1,704	502		
Average	1	108,643	111,323	95,977	100,619	102,341	80,067	94,573	127,333	111,352	99,367	82,632	95,777	213,505	49,381	81,772	43,673	41,925	86,740	79,087	18,617	88,420	48,581	-	-		
	2	86	153	2,329	80	119	125	79	136	125	136	125	36	42	86	181	74	49	91	262	68	98	15	120	50		

Activity vs Activity Analysis – Graphs Example

Traffic Law Enforcement - 'Activity' vs 'Activity' Analysis

Go to Main

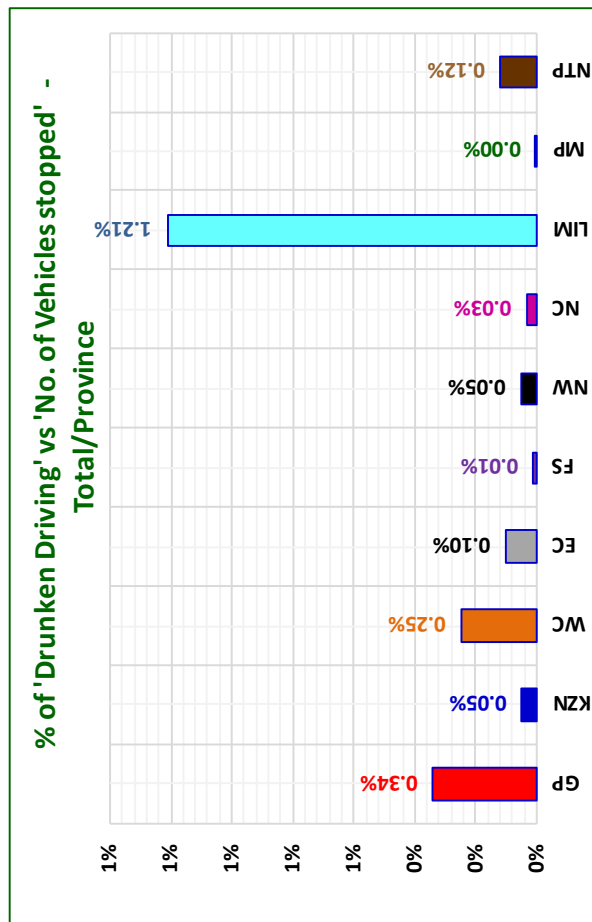
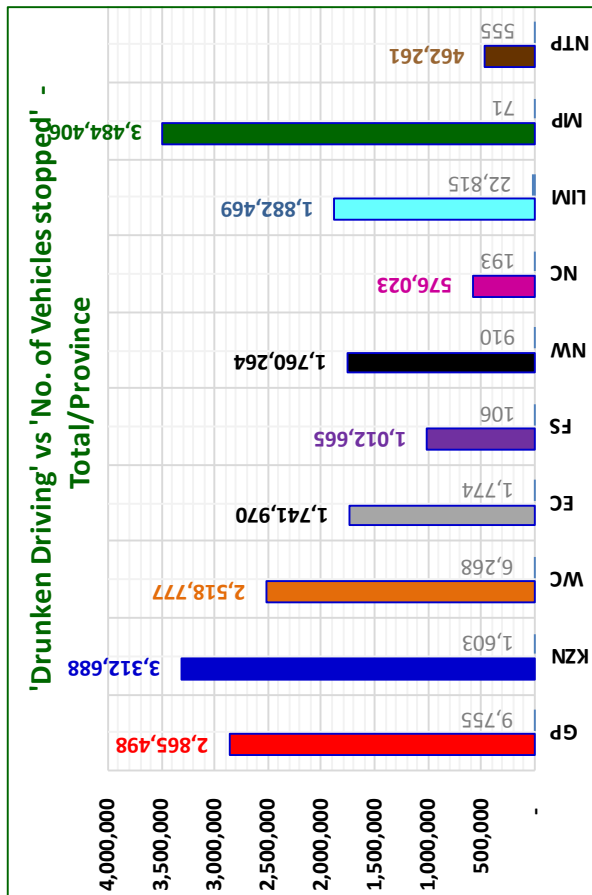
Activity vs Activity Analysis

Item 1: Actions Completed
Item 2: Arrests

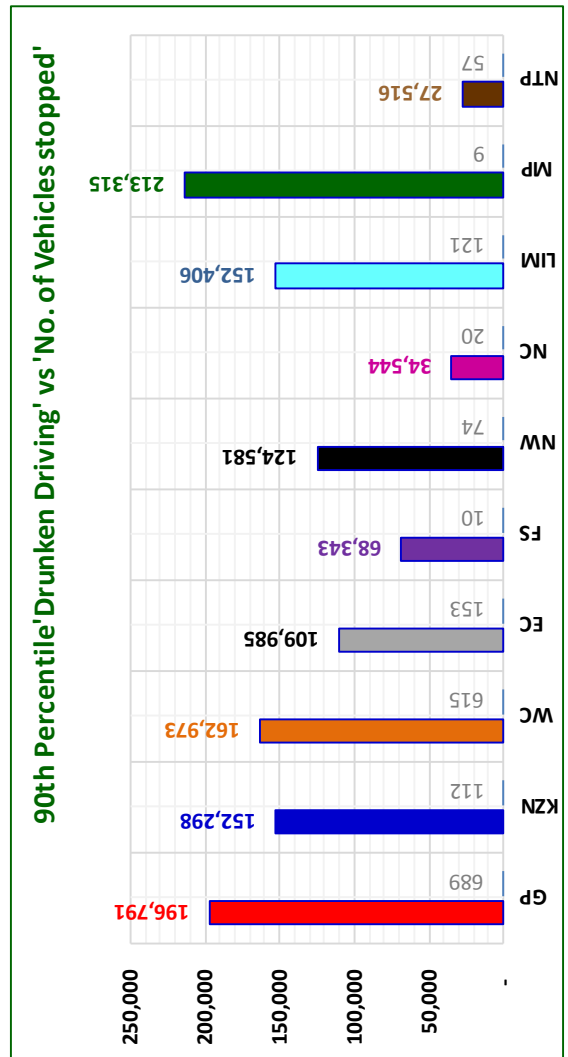
Activity 1: No. of Vehicles stopped
Activity 2: Drunken Driving

Total: 19,617,021
Total: 44,050

Percentile: 90
0.225%



Prov	No. of Vehicles stopped	Drunken Driving	%	Max No.
GP	2,865,498	9,755	0.34%	44,050
KZN	3,312,688	1,603	0.05%	
WC	2,518,777	6,268	0.25%	
EC	1,741,970	1,774	0.10%	
FS	1,012,665	106	0.01%	
NW	1,760,264	910	0.05%	
NC	576,023	193	0.03%	
LIM	1,882,469	22,815	1.21%	
MP	3,484,406	71	0.00%	
NTP	462,261	555	0.12%	
Total	19,617,021	44,050		



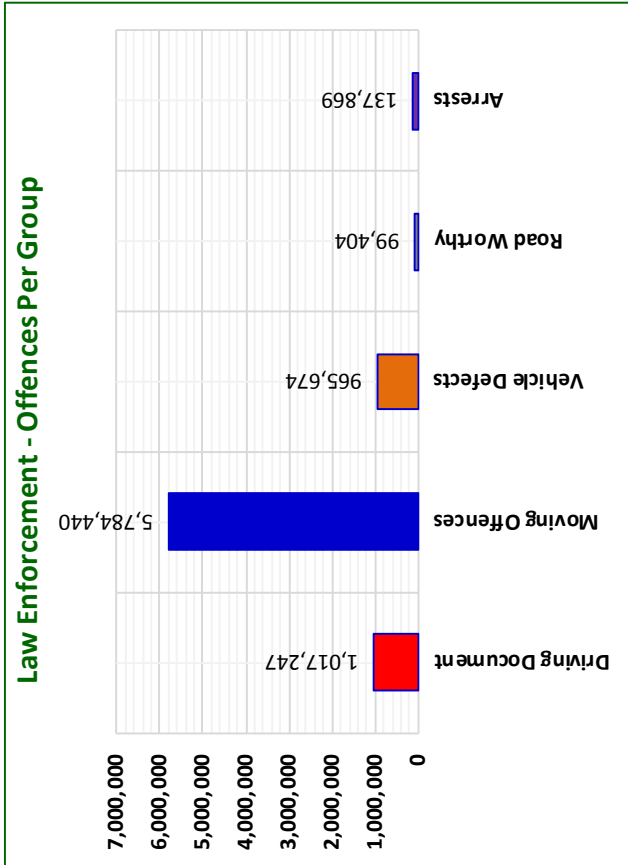
Item (Offence Group) Analysis – Data Example

Item Charts		Go to Main																						
Items (Number of)	Average	Total	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15
Tot Actions Completed	1,228,101	27,018,216	1,329,680	1,452,980	1,268,775	1,390,691	1,349,801	1,104,754	1,503,777	1,622,909	1,435,435	1,338,963	1,111,797	1,235,730	3,432,616	602,102	1,083,428	562,461	529,765	1,296,508	1,110,555	267,948	1,238,573	748,968
GP Driving Document	46,239	1,017,247	40,967	41,277	36,443	28,694	37,225	33,509	389,196	26,580	31,051	20,996	17,913	20,912	73,519	27,294	19,459	19,011	33,803	34,964	7,788	39,503	23,444	
GP Moving Offences	262,929	5,784,440	185,358	501,198	577,355	240,751	483,798	240,178	165,008	192,770	225,486	84,203	68,887	390,280	786,639	114,429	259,137	114,018	104,147	331,124	276,249	16,424	324,073	102,964
Tot Vehicle Defects	43,894	965,674	55,984	57,472	45,926	42,107	50,815	53,506	45,365	44,252	52,287	32,996	28,568	38,010	94,762	31,305	49,736	40,976	25,077	41,156	49,260	4,936	54,914	26,264
GP Road Worthy	4,518	99,404	5,217	4,755	4,048	4,486	4,400	2,542	5,190	3,935	4,751	3,868	4,497	4,089	10,985	4,014	4,835	4,292	3,623	4,055	4,594	179	6,960	4,089
Tot Arrests	6,267	137,869	3,580	5,849	27,997	5,380	6,088	5,819	3,174	9,243	4,658	3,139	3,823	3,228	23,610	2,113	4,753	2,648	5,044	6,165	3,592	694	5,108	2,154
Total	1,591,948	35,022,850	1,620,786	2,063,531	1,960,544	1,712,109	1,932,127	1,440,308	2,111,710	1,899,689	1,753,678	1,484,165	1,235,485	1,692,249	4,422,131	767,702	1,429,183	743,854	686,667	1,712,811	1,479,214	297,929	1,669,095	907,883
Average	5,837,142	270,131	343,922	326,757	285,352	322,021	240,051	351,952	316,615	292,280	247,361	205,914	282,042	737,022	127,950	238,197	123,976	114,445	285,469	246,536	49,655	278,183	151,314	

Prov	Items (Number of)	Average	Total	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15
GP	Actions Completed	144,864	3,187,013	216,733	205,458	134,964	110,667	133,233	-	167,152	358,223	107,208	50,598	63,244	135,214	155,212	133,419	164,767	192,937	173,716	300,041	152,036	-	152,408	79,783
GP	Driving Document	9,214	202,718	19,671	9,106	11,978	3,933	8,455	-	7,567	8,419	5,415	1,335	2,394	6,676	9,308	9,203	15,635	14,796	15,080	16,532	16,571	-	13,047	7,697
GP	Moving Offences	143,879	3,165,328	67,569	295,008	442,009	52,497	302,684	-	48,816	39,351	32,635	3,952	7,501	333,580	291,400	85,382	202,737	85,026	89,377	257,610	217,453	-	248,121	62,620
GP	Vehicle Defects	12,985	285,661	18,524	14,385	16,837	8,444	13,926	-	14,416	10,894	7,091	2,107	5,030	11,538	13,464	15,917	25,059	24,981	17,817	15,832	21,981	-	19,417	8,001
GP	Road Worthy	1,119	24,609	1,634	1,559	561	365	1,010	-	1,532	977	820	700	920	1,371	1,132	1,052	1,629	1,945	1,883	797	1,477	-	1,897	1,348
GP	Arrests	1,200	26,401	548	814	1,296	673	925	-	1,531	5,775	488	340	324	1,215	970	1,215	952	1,641	864	1,429	-	-	1,481	798
KZN	Actions Completed	277,131	6,096,874	102,413	261,409	233,005	225,015	209,733	180,009	111,871	198,699	271,499	288,644	244,540	189,883	2,494,666	-	198,431	-	-	200,173	178,768	-	295,457	212,659
KZN	Driving Document	5,216	114,747	-	5,218	4,490	3,998	3,752	3,035	3,683	3,563	5,627	4,890	4,254	3,235	4,574	-	3,702	-	-	4,005	3,448	-	7,527	4,606
KZN	Moving Offences	14,766	324,852	1,456	14,809	14,341	12,758	11,877	13,721	9,765	9,818	13,424	12,579	10,135	8,898	133,581	-	10,220	-	-	9,950	8,618	-	17,590	11,312
KZN	Vehicle Defects	5,645	124,200	-	5,165	3,888	3,966	3,850	4,779	3,640	4,479	3,640	4,866	4,211	3,213	3,055	51,956	-	4,608	-	5,069	4,536	-	7,982	5,992
KZN	Road Worthy	697	15,337	386	570	517	490	461	466	558	493	716	710	499	399	6,265	-	438	-	-	434	528	-	856	551
KZN	Arrests	630	13,859	420	378	576	754	601	313	378	780	310	243	536	216	5,505	-	317	-	-	617	497	-	852	566
WC	Actions Completed	161,020	3,542,436	220,786	213,931	174,100	214,537	202,683	221,009	210,217	253,009	181,031	186,838	150,481	184,650	155,212	-	-	-	-	175,144	178,097	204,668	192,439	223,604
WC	Driving Document	7,194	158,270	10,094	16,930	10,972	12,249	16,137	20,265	4,914	5,122	8,562	6,033	4,555	4,344	9,308	-	-	-	-	5,188	5,427	-	4,974	6,207
WC	Moving Offences	56,205	1,236,518	47,930	132,992	60,163	106,645	115,993	152,566	41,310	69,692	119,415	14,968	13,908	12,952	291,400	-	-	-	-	19,612	9,830	10,303	9,419	14,420
WC	Vehicle Defects	6,083	133,815	13,647	12,310	7,932	9,533	12,027	22,829	2,876	7,399	13,243	3,977	2,713	2,804	13,626	-	-	-	-	3,238	2,676	-	1,036	931
WC	Road Worthy	190	4,178	111	197	125	203	233	354	174	138	143	170	139	129	1,132	-	-	-	-	125	197	-	131	252
WC	Arrests	517	11,368	519	956	504	1,113	1,721	2,823	131	590	510	146	149	157	970	-	-	-	-	149	284	166	225	255
EC	Actions Completed	80,810	1,777,822	117,624	108,991	103,585	80,746	88,236	143,580	99,196	95,435	113,155	75,427	67,337	66,253	79,552	76,491	60,904	74,979	83,987	62,547	80,443	-	99,354	-
EC	Driving Document	2,185	48,071	3,487	3,189	2,851	2,080	2,291	4,066	3,275	3,252	3,986	1,897	1,426	1,355	2,335	-	1,728	1,664	1,830	1,642	1,749	-	1,851	-
EC	Moving Offences	8,803	193,669	12,673	12,358	11,498	9,612	10,460	14,141	13,591	23,184	7,297	4,725	2,726	4,075	9,458	10,010	7,608	11,991	8,257	9,212	3,616	-	6,467	-
EC	Vehicle Defects	1,814	39,904	2,335	1,976	2,141	1,454	1,793	3,464	2,796	2,188	1,966	1,798	1,213	1,533	1,791	1,765	1,740	1,734	1,734	1,526	2,039	-	3,278	-
EC	Road Worthy	202	4,449	258	278	348	302	182	325	427	167	202	163	139	147	141	138	288	137	190	259	129	-	241	-
EC	Arrests	426	9,378	305	686	980	722	504	659	262	317	262	114	301	67	690	366	619	756	1,020	526	120	-	52	-
FS	Actions Completed	52,552	1,156,143	62,191	58,487	53,977	67,344	64,707	56,328	53,852	78,848	91,388	75,843	14,777	63,184	13,623	75,369	16,376	85,817	70,919	17,523	43,956	31,178	58,787	1,669
FS	Driving Document	779	17,147	819	1,174	659	709	735	562	493	621	1,065	741	181	837	180	1,036	151	1,115	1,139	206	1,915	1,484	2,267	58
FS	Moving Offences	3,017	66,372	3,816	3,840	4,449	2,263	3,124	3,132	3,123	4,599	7,752	5,847	761	3,270	673	3,481	711	3,029	2,557	652	3,094	2,758	5,362	79
FS	Vehicle Defects	3,636	80,000	4,965	5,534	3,767	3,762	4,245	4,078	3,571	4,824	7,107	4,960	1,184	5,111	1,158	5,095	1,159	4,042	4,087	939	3,183	2,856	4,311	62
FS	Road Worthy	12	264	66	25	26	6	16	16	-	-	-	-	-	-	7	2	6	4	7	2	7	14	16	-
FS	Arrests	26	563	23	26	36	3	28	9	9	19	125	42	14	14	3	11	4	19	8	15	9	30	114	2
NW	Actions Completed	133,874	2,945,220	223,713	176,578	155,838	241,004	191,660	177,353	165,058	163,240	184,987	172,128	104,991	120,064	197,016	-	167,245	-	-	163,877	137,312	-	165,129	38,027
NW	Driving Document	3,025	66,548	4,530	3,795	3,812	4,450	4,370	3,993	3,457	3,598	5,688	4,321	3,361	2,863	4,341	-	-	-	-	3,199	3,060	-	3,225	1,373
NW	Moving Offences	18,489	406,764	40,017	30,082	34,867	24,593	26,875	42,538	21,198	24,639	19,536	18,857	16,451	12,273	20,828	-	-	-	-	20,088	15,195	-	17,947	1,805
NW	Vehicle Defects	3,790	83,382	6,053	5,777	2,874	5,629	6,487	5,588	3,747	4,170	5,766	4,650	4,121	4,180	6,222	-	-	-	-	6,786	4,747			

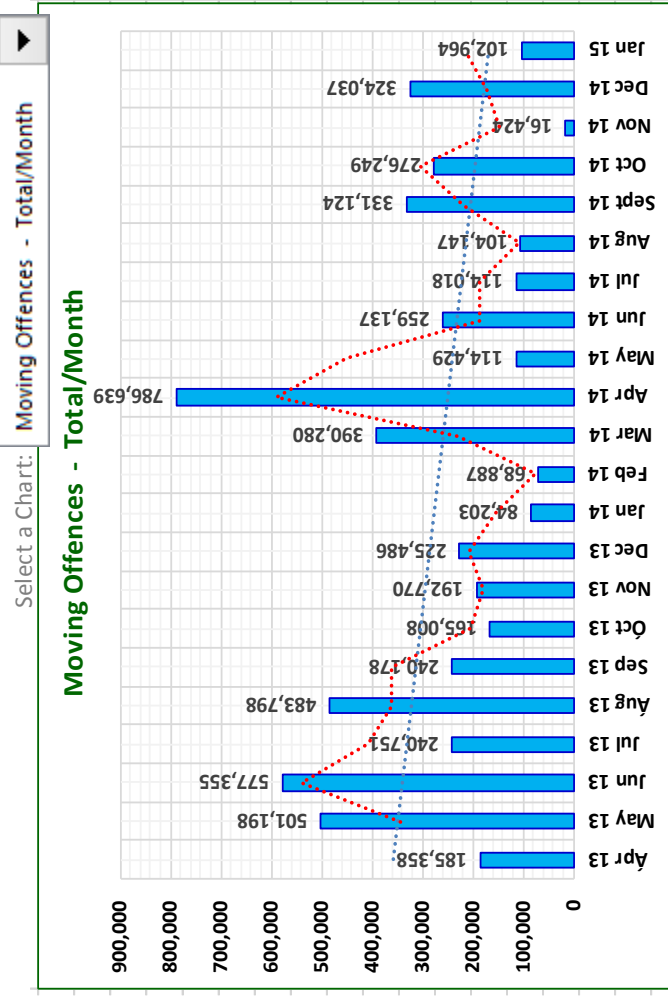
Item (Offence Group) Analysis – Graphs Example

Traffic Law Enforcement - Item Analysis



Go to Main

Go to Item Analysis



Prov	Driving Document	Moving Offences	Vehicle Defects	Road Worthy	Arrests
GP	202,718	3,165,328	285,661	24,609	26,401
KZN	114,747	324,852	124,200	15,337	13,859
WC	158,270	1,236,518	133,815	4,178	11,368
EC	48,071	193,669	39,904	4,449	9,378
FS	17,147	66,372	80,000	264	563
NW	66,548	406,764	83,382	2,831	17,920
NC	10,858	23,353	6,343	324	5,854
LIM	-	60,154	-	6,812	44,579
MP	390,694	288,947	191,634	35,203	6,318
NTP	8,194	18,483	20,735	5,397	1,629
Total:	1,017,247	5,784,440	965,674	99,404	137,869

