

# THE STATE OF TRANSPORT OPINION POLL SOUTH AFRICA: A FOUR-YEAR REVIEW (2012-2015)

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## ABSTRACT

South Africans are very concerned about the state of transport in the country, ranking it as their 3rd highest priority after education and health. This paper reports the results from four years of the Institute of Transport and Logistics Studies' (Africa) State of Transport Opinion Poll, an annual survey of 1,000 adults across South Africa, which investigates the public's opinions on transport matters and determines whether confidence in public transport is changing. Important indicators in the survey include transport as a national priority, the perceived highest priorities in transport, conditions of transport facilities and services, perceptions on the current and future state of transport and the state of law enforcement. The top transport issues identified by respondents were the quality, accessibility and frequencies of public transport; safety; taxi related concerns; the condition of road infrastructure and the affordability of transport. The results seem to indicate that public transport needs of South Africans concerning mobility, accessibility, affordability and safety are not adequately dealt with by government. This research could be of interest to policy makers, establishing a database on public opinion. It also provides an original contribution in that it represents the only annual public opinion survey on transport matters in South Africa.

Keywords: public transport, transport policy, public opinion, South Africa, TOPSA

## 1 BACKGROUND

In South Africa, transport policy is described by a number of different documents. The 1996 White Paper on National Transport Policy (Department of Transport, 1996) describes the current transport policy for the country and is supplemented by other transport-focused documentation such as the National Land Transport Act of 2009, the Public Transport Strategy and the National Freight Logistics Strategy (South African Government, n.d.). In more recent years, wider development policies have also impacted the provision of transport infrastructure and services in the country, such as the National Development Plan (National Planning Commission, 2011). The National Transport Masterplan 2050, which considers a

long term plan for transport has also impacted the way in which transport is thought about in the country. Since the onset of the new democratic dispensation in 1994, transport was recognised in the earliest developmental legislation, the Reconstruction and Development programme (RDP) (Republic of South Africa, 1994), as one of the key means of ensuring that basic needs were met in the country. The recognition of this level of importance led to the formulation of the White Paper's vision for South African transport which is a system which will:

*"Provide safe, reliable, effective, efficient, and fully integrated transport operations and infrastructure which will best meet the needs of freight and passenger customers at improving levels of service and cost in a fashion which supports government strategies for economic and social development whilst being environmentally and economically sustainable"* (Department of Transport, 1996).

Similarly, the National Development Plan highlights investments in transport infrastructure and improving public transport as key development areas that are critical to the achievement of the 2030 objectives, which are primarily aimed at eradicating poverty and reducing inequality in South Africa (Luke & Heyns, 2014). More recently, the Presidential Infrastructure Coordinating Commission's National Infrastructure Plan (2012) highlighted some crucial transport aspects through the Strategic Infrastructure Project related to integrated urban space and public transport. This suggests that investment should be aimed at creating sustainable urban settlements connected by densified transport corridors. This would be achieved by coordinating planning and implementation of public transport, human settlement, economic and social infrastructure and location decisions. The plan also suggests that significant work is already underway on urban transport integration.

Finally, the National Transport Masterplan (NATMAP 2050) was an initiative where government identified the need to develop a transport masterplan for South Africa that is comprehensive, multi-modal, integrated, dynamic, and provides a sustainable framework for implementing transport infrastructure and service provision. Most importantly, such a plan must seek to continuously develop and improve the efficiency and effectiveness of a multi-modal transport system. Amongst other objectives, this plan seeks to:

- develop a public transportation system that is sustainable and appropriately funded, with better and safer access, more frequent and better quality services and facilities to an agreed standard
- provide greater mobility options particularly for those who do not have a car
- provide better infrastructure; and is consistent with the real needs of people living in different parts of South Africa and with differing abilities to afford travel (Department of Transport, 2015).

The documents, described above, reflect a consistency in the issues that are to be addressed by transport policy. In analysing policy documentation, it is evident that, since the first recognition of transport as a means of assisting in meeting basic needs in the RDP in 1994, policy objectives have not changed substantially and are reflected in a similar way as the latest policy documents, i.e. the National Development Plan and the NATMAP 2050 documentation. This consistency would appear to reflect a lack of progress in meeting the goals stated more than 22 years ago.

## **2 AIM OF PAPER**

The Institute of Transport and Logistics Studies (Africa) at the University of Johannesburg is a self-funded research unit which aims at studying current South African transport, logistics and supply chain issues. The State of Transport Opinion Poll South Africa (TOPSA) is an annual survey intended to gauge public opinion in South Africa on a broad range of transport related issues, in particular public passenger transport. TOPSA seeks to obtain an indication of community confidence regarding transport in South Africa. TOPSA is a telephone survey of 1,000 South Africans citizens, aged 18 years and over, with stratification to ensure that all South African provinces are appropriately represented. The TOPSA survey has been conducted for four consecutive years (Luke & Heyns, 2013; Heyns & Luke, 2014; Luke & Heyns, 2014; Luke & Heyns, 2016) and the purpose of this paper is to compare the results of the four surveys to ascertain existing public opinion on transport matters, as well as to determine any shifts in public perception.

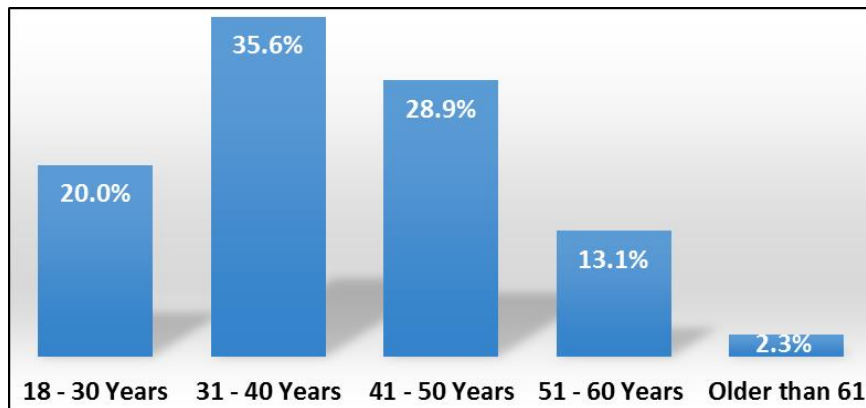
## **3 RESEARCH METHODOLOGY**

A two-phase approach was followed during the TOPSA surveys. In Phase 1, a preliminary list of potential respondents were randomly selected from a database of valid subscriber mobile phone numbers which is representative of the geographical and socio-demographic (provincial, ethnic and employment status) characteristics of the population in South Africa. In Phase 2, respondents were randomly selected from the identified list and asked to participate in a computer aided telephonic interview (CATI). The simple random and quota sampling resulted in an annual total of at least 1,000 willing South Africans that participated in the surveys. The telephonic surveys was conducted by market research companies, using trained interviewers. Although the survey size might be seen as a limitation when a larger sample would reduce the sampling error, the sampling size indicates a trade-off with the costs of conducting the survey. Furthermore, given a sample size of 1000 and a 95% confidence level, the margin of error is calculated to be plus or minus 3.1% (Scheuren, 1997; Zikmund, et al., 2013). This implies that if the survey were repeated, 95% of the time the survey results will be within a score of plus or minus 3.1% from the survey estimates.

The research instrument requested demographic information such as location, age, gender and employment status from the respondents to ensure representative geographical and social-demographic sampling. To assess the significance of observed changes over the four-year review period, hypothesis tests are conducted to determine if the differences

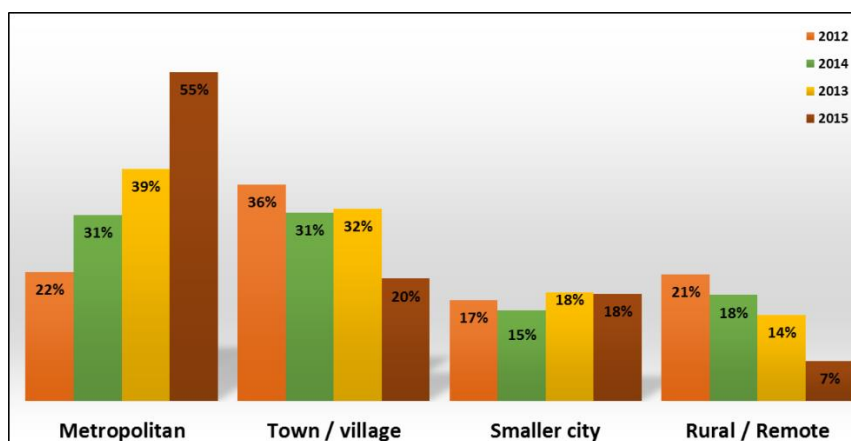
between proportions are significant. The two-proportion z-test procedure (StatTrek.com, 2017) is used to determine if, at a significance level  $\alpha = 0.05$ , the two proportions (i.e.  $P_1 = 2012$  and  $P_2 = 2015$ ) differ significantly.

The average gender distribution of the sample population over the four-year period is, 58.9% male and 41.1% female. For the first three surveys the majority of the respondents (53.8%) were between the age of 25 and 45 years. During the 2015 survey the age group intervals were changed to five categories, as depicted in Figure 1, which show that the majority of the 2015 respondents (64.5%) were between the ages of 31 and 50.



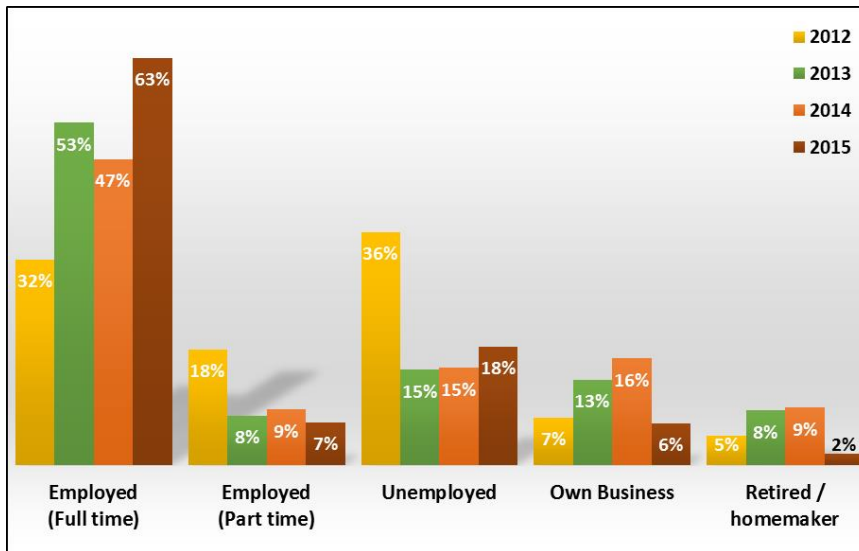
**Figure 1: Respondents' age profile (2015)**

Over the four surveys, on average, the majority of the respondents resided in metropolitan areas (36,2%), followed closely by respondents in towns/villages (29,2%). The other respondents resided in small cities (16,6%) and rural areas (14.5%). The size of the towns where the respondents' reside is depicted in Figure 2.



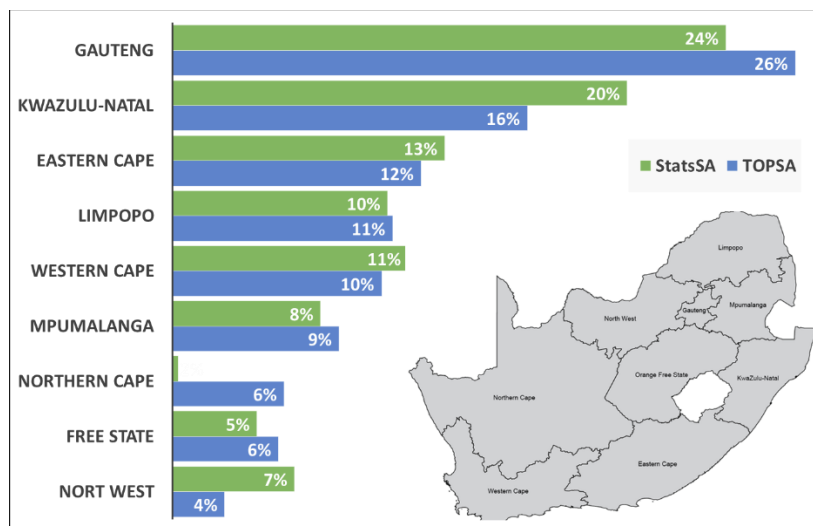
**Figure 2: Size of town**

The majority of the respondents over the four-year period (69,7%), were employed in some capacity, compared to the 20,7% who were unemployed as reflected in Figure 3.



**Figure 3: Respondents' employment profile**

As depicted in Figure 4, the demographic profile from the annual TOPSA surveys approximated a fairly accurate reflection of the South African demographic profile according to Census 2011 (Statistics South Africa, 2012).



**Figure 4: Respondents' geographical location (Source: StatsSA, 2012; survey data)**

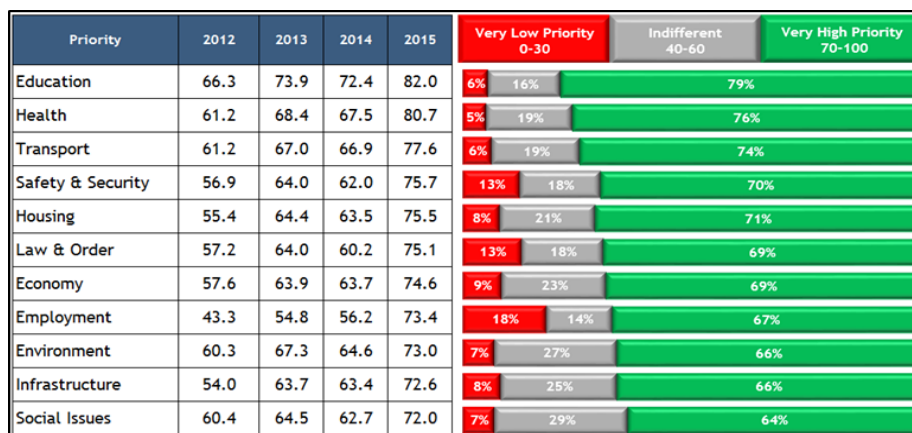
#### 4 RESEARCH RESULTS

The key public transport areas that were investigated include whether, in the opinion of South Africans, transport should be a national priority, which are the highest priority issues in transport, whether there are perceived changes in transport conditions locally as well as nationally and patterns in public transport usage. Other issues that were tested in 2012 pertained to funding and public sector involvement, whereas the 2013, 2014 and 2015 surveys also included perceptions on e-tolls, road safety and law enforcement.

## 4.1 Transport as a national priority

South Africans were asked what they thought were the most critical issues facing currently facing the country (respondents rated issues on a scale where 0 = very low priority and 100 = very high priority). Most South Africans believe that education is the highest priority in the country, followed closely by health and transport, indicating that transport is one of the most critical issues facing South Africans today. This is illustrated in Figure 5 below.

In 2015, for the fourth year in a row, education was identified as the highest priority issue in South Africa, nominated by 79% of respondents. This has increased considerably, from 56% in 2012 and 64% in 2014. This appears to indicate a growing concern amongst South Africans about the importance of education to the country's well-being and possibly the failure to address concerns regarding the state of education. Health, transport and safety and security are identified as the other main areas of importance. This has changed from preceding years where the environment was identified as one of the top priorities. Figure 5 depicts the rating of the national priority issues. The figures on the left indicate the annual mean rating of the issues, whilst those on the right illustrate the percentage of people who rated the issues as low, medium or high in 2015. It is noted that in the 2015 survey, all issues were ranked significantly higher than in previous years, which appears to indicate that issues are not being adequately addressed and that the need to attend to the issues is increasing in urgency.



**Figure 5: Rating of the national issues**

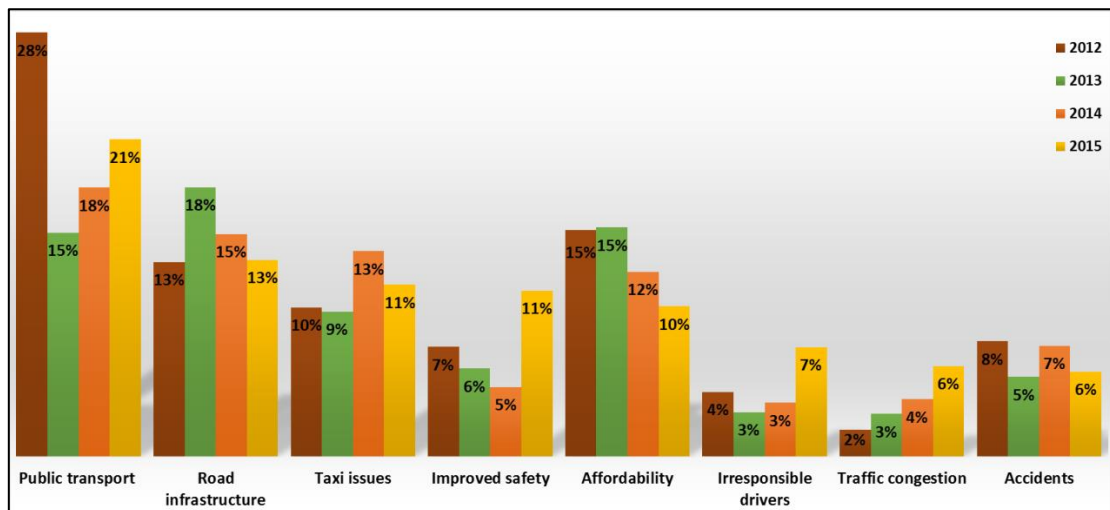
Transport, which was previously nominated by only 47% of respondents in 2012 and 57% in 2014, was nominated by almost 74% of South Africans as a high priority in 2015, clearly indicating growing concerns. The continued presence of transport in the top 3 priority list also suggests that, despite some improvements in public transport in certain areas, these are insufficient to address the broader mobility issues experienced by South Africans.

When comparing the different national priorities' proportions (percentage) between two years (i.e. P1 = 2012 and P2 = 2015), the results of the two-proportion z-test show that, at a significance level of  $\alpha = 0.05$ , the null hypothesis ( $H_0: P1 = P2$ ;  $H_a: P1 \neq P2$ ) is rejected and that there are significant differences between the proportions of the two years for all priority issues.

## 4.2 Transport issues

In an open ended question, allowing for greater detail and clarity, respondents were asked to indicate what they believed were the highest transport priorities in the country. Answers were analysed by grouping these into broad themes and determining the extent to which these were cited by respondents. These are depicted in Figure 6. The figure clearly indicates that, for the period under review, the state of public transport is consistently cited as the most pressing issue. Specific issues that were highlighted by respondents regarding public transport indicate that there are insufficient levels of public transport, implying that frequencies and operating hours are inadequate; that the quality of public transport services is poor and that the availability is unsatisfactory, indicating low levels of coverage.

Respondents also highlighted safety, taxi-related issues, the quality of roads and transport costs as high priorities. Noticeably, there are many issues which could be grouped into two or more clusters, for example, some respondents mentioned that taxi drivers were irresponsible drivers. In other instances, safety was highlighted as a root cause for the high accident rate. It could not however be assumed that all mentions of irresponsible driving were taxi-related, nor could the assumption be made that safety was always related to the accident rate. In the latter case, although some respondents referred to safety in a vehicle as it pertained to driver behaviour, in other instances they referred to being mugged whilst using public transport, or being hijacked whilst driving a personal vehicle. Caution was taken to group responses to the cluster which appeared closest in meaning.



**Figure 6: Highest transport issues**

Given this, Figure 6 suggests that the transport issues facing South Africans did not noticeably change over the period under review. When comparing the different transport issues' proportions (percentage) between two years (i.e.  $P1 = 2012$  and  $P2 = 2015$ ), the results of the two-proportion z-test show that, at a significance level of  $\alpha = 0.05$ , the null hypothesis ( $H_0: P1 = P2$ ;  $H_a: P1 \neq P2$ ) is rejected in the case of safety, traffic congestion and irresponsible drivers, showing that there are significant differences between the proportions of the two years. Aside from public transport service inadequacies, safety is always an issue

and is now a much higher concern to respondents than it has been in the past. Various safety related issues, which not only pertains to concerns regarding standards of driving and law enforcement, but also safety issues such as the possibility of hijackings, personal safety whilst on public transport, etc. were highlighted by respondents. There are numerous issues relating to taxi services which were highlighted by respondents. These primarily relate to the general condition of the taxis (e.g. unroadworthy), irresponsible drivers, taxi violence and the affordability of taxi services.

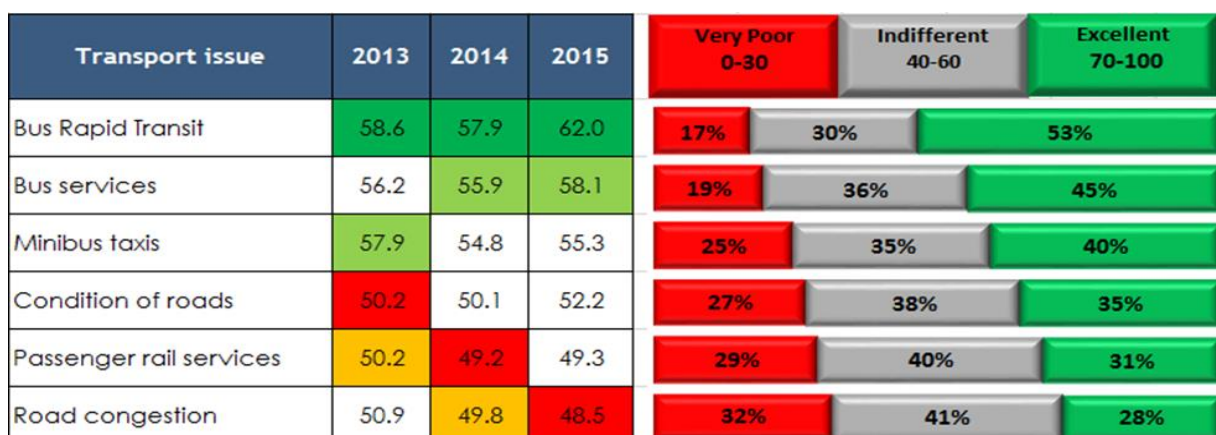
The quality of transport infrastructure related to the quality of roads, but occasionally included the quality of rail infrastructure, traffic lights that do not work, etc. The results reflect that road infrastructure is a greater concern for respondents from rural areas than urban areas ( $z=-3.9908$ ,  $p<0.0001$ ), which is mostly attributable to road maintenance and building programmes being focussed on high volume traffic areas in cities and metropolitan areas.

Other aspects highlighted in the data show that concerns regarding the E-tolling system appear to have peaked in 2013 and now seem to be diminishing in importance, however statistically it is just as important as before. Resolutions regarding e-toll pricing and less media coverage have therefor not had the effect of changing public opinion on E-tolls.

The affordability of transport, whether public or private, remains a key concern amongst respondents. Respondents generally experience transport costs as being high.

In general, these results reflect that the same transport issues have been highlighted by South Africans as the most important for the past few years, possibly indicating that these issues have not been addressed by policy intervention over the past four years.

A number of specific transport issues were also tested to determine whether respondents believed the services were generally good or poor. Detailed issues such as quality of vehicles, service frequencies and availability/condition of facilities were not explicitly tested; the purpose of this question was to determine respondents' general impressions of specific issues. These are illustrated in Figure 7. The figures on the left represent the average rating in the given year, whilst the figures on the right illustrate the portion of respondents that rated the element as poor or good in 2015.



**Figure 7: Rating of specific transport issues**



Respondents indicated BRT services have generally been positively received, with 69% of Western Cape residents indicating the service as very good. This is illustrated in Figure 8 below. Similarly, 68% of Gauteng residents rated BRT as very good. Despite frequent negative publicity, taxi services were rated as very good, with respondents from Eastern Cape, Limpopo and North West province (in particular) giving minibus taxis their highest ratings. In many instances, this may be explained by the lack of or performance of the alternative modes. Although respondents were generally relatively positive about taxi services, this has declined since 2012 when 38% of respondents indicated that these were in a very good condition.

Gauteng, KwaZulu Natal and Western Cape respondents were generally positive about of the quality of their roads, however respondents from the all the other provinces indicated this as very poor and gave it their lowest or second lowest rating. Figure 8 below provides an overview of the 2015 results and indicates the perceptions of the state of the various transport features per province. Green and red shading is used to indicate the most positive or negative impression of the transport features within each province.

Transport Issue	Eastern Cape	Free State	Gauteng	Kwa-Zulu Natal	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape
Condition of roads	45.8	37.2	58.3	58.3	44.5	53.7	47.0	38.5	56.7
Road congestion	51.9	41.7	44.2	54.6	56.1	56.4	43.5	47.2	37.2
Passenger rail services	56.4	55.2	49.6	54.3	45.0	58.1	47.8	50.4	34.2
Bus services	53.1	57.0	57.1	58.9	58.4	65.8	67.0	50.7	60.4
Bus Rapid Transit	55.6	56.1	67.9	56.9	56.1	66.5	55.0	55.1	69.0
Minibus taxis	59.9	45.4	53.9	58.2	59.3	64.8	70.0	47.5	42.7

**Figure 8: State of various transport features by province**

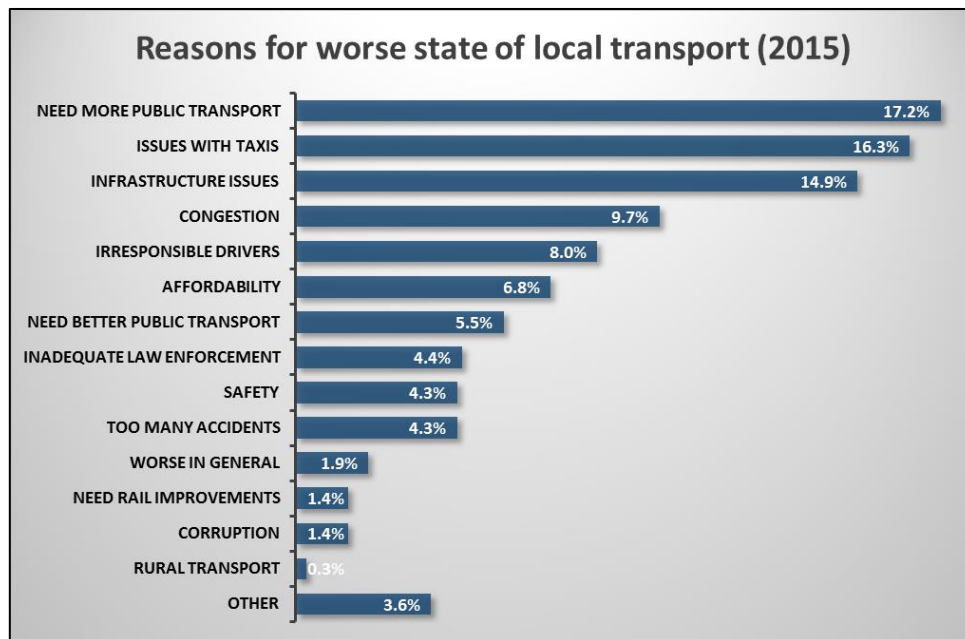
### 4.3 Current and future state of transport

When questioned on the current state of local transport, only 35% of South Africans felt that transport in their local area is better now than a year ago, down from 42% in 2012/13, indicating a decline ( $t=3.288$ ,  $p=0.001$ ) in community confidence regarding local transport services and conditions. These results are depicted in Figure 9 below. Figures on the left indicate mean rating, whilst figures on the right illustrate the extent to which respondents believed the condition of local transport to be worse or better than before in 2015. Most South Africans believed that the state of transport in their local areas was worse or that they could not see any change. The number of respondents that either felt that there was very little change or that it was much worse than a year ago grew from 58% in 2012 to 65% in 2015.

Condition of transport in local area (Better or Worse)		Much Worse	Indifferent 40-60	Much Better 70-100
2012	56.4	25%	33%	42%
2013	55.9	21%	40%	39%
2014	53.4	25%	37%	37%
2015	53.3	25%	40%	35%

**Figure 9: Condition of local transport compared to a year ago**

Respondents from 2015 who indicated that transport in their local area was worse or slightly worse than a year ago, attributed this to a broad range of reasons, as depicted in Figure 10 below.



**Figure 10: Reasons given for the worsening state of transport**

Of those respondents that indicated that they believed transport in their local area to be worse than it was a year ago, the most cited reasons pertained to a lack of sufficient levels of public transport, issues with taxis (either as road users or as service providers), infrastructure issues (notably potholes), congestion, irresponsible drivers and costs. When tested on the outlook for transport in South Africa in the next five years, the majority (53.1%) of the 2015 respondents indicated that they believed it would be worse or they were indifferent. This is considerably different from the 2012 results which indicated that the majority (67.1%) of respondents believed that transport would be much better in five years' time ( $t=6.521$ ,  $p<0.0001$ ). Generally, the respondents' perspectives on the state of local transport has remained largely unchanged over the past four years, however South Africans appeared to be far less enthusiastic on the state of national transport.

Figure 11 below shows a “mood calculator”, based on a weighted average rating, which reflects the most positive and negative provinces with regards to the outlook on transport on both a local and national level. The annual figures show the overall confidence in the state of local and national transport, whilst the provincial figures reflect detailed results for 2015.

Current and future state of local and national transport	2012	2013	2014	2015	Eastern Cape	Free State	Gauteng	Kwazulu Natal	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape
Current state of transport in your local area compared to a year ago	56.4	55.9	53.4	53.3	55.6	50.6	51.9	52.9	58.6	54.3	61.1	49.3	51.3
Future state of transport in local area (5 years time)	No data	60.1	59.6	60.0	59.6	59.2	58.9	61.3	64.9	60.3	70.9	53.4	58.8
Future state of transport in the country (5 years time)	72.5	64.1	63.5	58.9	58.8	54.7	57.8	60.9	62.4	60.0	67.8	53.0	53.9

**Figure 11: State of local and national transport (annual and provincial)**

#### 4.4 Other issues

TOPSA has also been used to test attitudes towards government responsibility and involvement in transport, toll roads, law enforcement and traffic behaviour culture over various years. In 2012, respondents were asked to indicate which level of government they believe were most responsible for transport matters. Respondents mainly indicated local and national government, with provincial governments only playing a small role. Government policy is to devolve the responsibilities for public transport to the lowest appropriate level of government (Department of Transport, 1996). It is evident that although many respondents indicated that local area governments are responsible for transport provision, the majority still feel that national government plays the leading role. The majority of the respondents also indicated that the private sector should be far more involved in the provision of public transport.

Regarding toll roads, in 2012 the majority of respondents (53.6%) indicated that they believed that toll roads are a good way of financing new roads or improving existing roads. In 2013, respondents were asked if they were willing to pay toll fees on their daily travels if it would improve their travel time. More respondents indicated that they weren't willing to pay (48.5%) than those who were willing to pay (41.5%). In Gauteng and the Western Cape, where issues regarding e-tolls were contentious at the time, the percentage of respondents who are not willing to pay for tolls rises to 53.2% and 55.9% respectively. The declining level of negativity regarding e-tolls was indicated as one of the highest priority transport issues in the country in 2013 (by 7.6% of respondents). This has now significantly declined to 2.3% in 2015 ( $t=5.692$ ,  $p<0.0001$ ).

Respondents were asked whether they thought there was a culture of non-adherence to traffic laws on our roads. The results of this test are shown in Figure 12 below. Percentages on the left side of the figure indicate the average rating for the particular year, whereas figures on the right show the extent to which respondents rated these aspects as poor or good in 2015. The figure indicates that respondents were divided on this issue and this has been consistent over the years in which this issue has been reviewed. The results reflect that respondents from metropolitan areas appear to recognise a higher level of non-adherence to traffic laws than do their counterparts in other settlement types. Perceptions regarding law

enforcement also differ across age groups. Older respondents indicated that they believed that there is a general culture of no adherence, whereas younger respondents tended to indicate that there is a culture of adherence to traffic laws.

Law abidance and enforcement	2013	2014	2015	Very Poor 0-30	Indifferent 40-60	Excellent 70-100
Adherence to traffic laws, traffic signs and road markings	51.5	51.8	50.6	25%	45%	29%
State of law enforcement / Traffic officers doing good job	55.1	53.4	54.6	23%	40%	37%

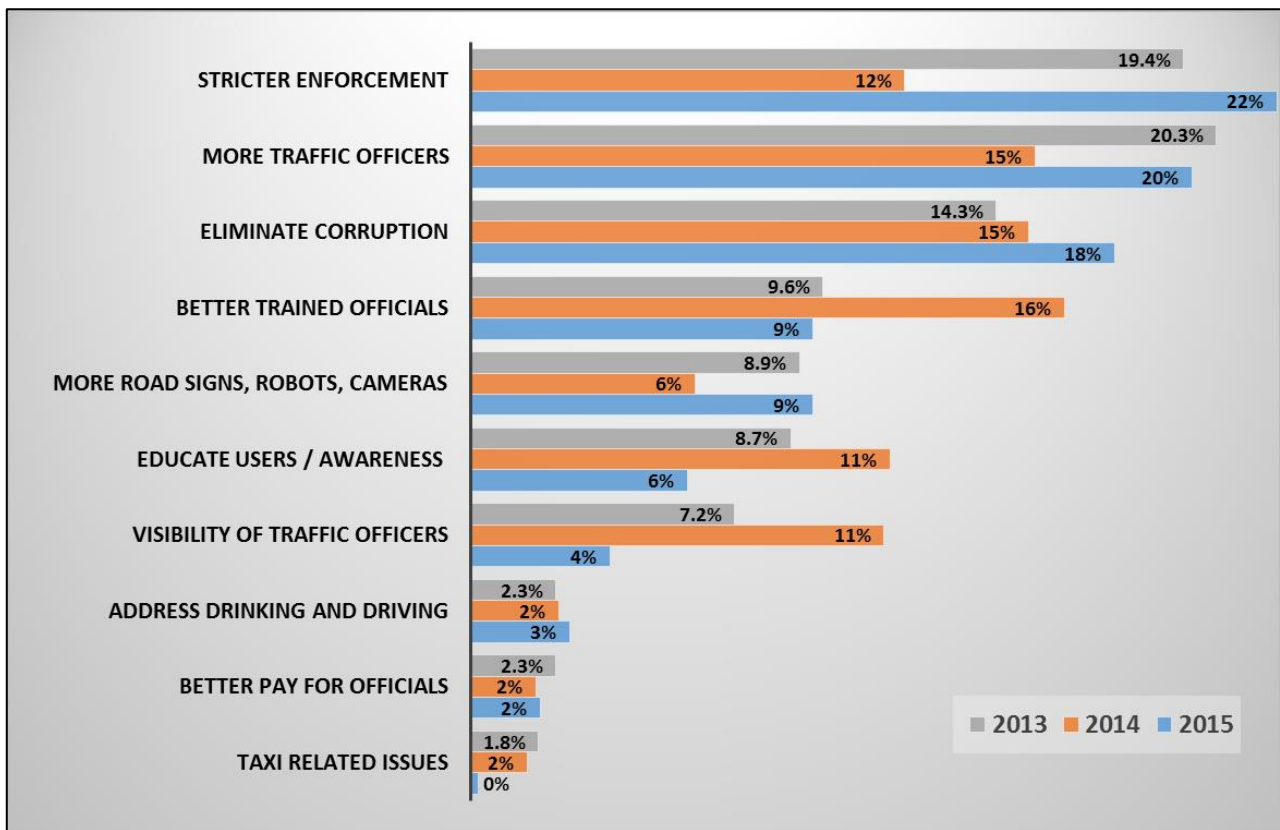
**Figure 12: State of law enforcement**

When asked what they believed should be done to improve law enforcement and road safety, South Africans however had numerous and varied suggestions. Their responses are depicted in Figure 13 below.

These results indicate that respondents believe that law enforcement is not strict enough, there is an insufficient presence of traffic officers and that the law enforcement process is prone to corruption. Generally this indicates low perceived levels of enforcement of traffic laws.

## 5 CONCLUSION

The purpose of the ITLS (Africa) State of Transport Opinion Poll South Africa (TOPSA) is to measure public opinion on a range of transport related issues in South Africa. The opinion poll was conducted in 2012 for the first time and is starting to create the foundation for a long term determination of trends in community confidence in transport related matters. The results from the 2012, 2013, 2014 and 2015 surveys have provided the basis for this assessment of public confidence, opinions and trends.



**Figure 13: Improvement of law enforcement and road safety**

The surveys reflect that respondents have consistently indicated transport as one of the three most important issues facing the country. The high ranking of transport as a national priority highlights the extent to which people believe that transport is hampering their or the country's ability to progress. The consistent high ranking of these issues suggests that, although there have been some transport improvements in the past few years, these pockets of improvement have been insufficient to address the mobility, accessibility and other concerns of the average South African. This is supported by the indications given of the highest transport priorities within South Africa, i.e. the state of public transport, followed by safety, taxi-related issues, the quality of roads and transport costs. In general, South Africans concerns relate to inadequate levels of public transport, safety whilst participating and the costs of participating in the transport environment.

Whilst respondents generally seem to be satisfied with the condition of the BRT systems in the country, users appear to be losing confidence in most of the other indicators that were measured, i.e. availability and quality of bus, train and taxi services, the quality of roads, and road congestion. Respondents also showed that they generally believed the state of transport to be deteriorating and that this would not improve on a local or national level in the near future.

Although respondents were clear that safety on the roads was a major issue, the results were not conclusive in terms of whether there is a culture of non-adherence to traffic laws, as well as the state of law enforcement. Despite this, most respondents indicated that there was a need for more and better traffic officers, stricter law enforcement and that corruption within the system needed to be eliminated.

The current government's vision for commuter transport has always focused on the provision of a transport system that is safe, reliable, effective and affordable and meets the needs of the commuting public in a way that is environmentally and economically sustainable. The results of these surveys indicate that, according to the respondents, public transport is not yet safe, reliable, effective or affordable. Respondents furthermore revealed that the most environmentally and economically sustainable transport modes are not being used as their favoured modes of travel. In previous research, it was concluded that although transport needs and transport policies are strongly aligned, policy imperatives are not being implemented as envisaged and public confidence is declining (Luke & Heyns, 2013; Heyns & Luke 2014, Luke & Heyns, 2014). These latest results reflect that, although there have been large investments in isolated transport projects over the past few years, for the average South African, mobility and accessibility is still difficult, onerous, expensive and unsafe. The results reinforce the idea that, whilst policies may be appropriate, the extent of implementation is insufficient to alter the transport landscape in the country or impact the 2030 objectives of eradicating poverty and reducing inequality in South Africa in any meaningful way.

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