

# 6. Transport

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Movement in the Gauteng City-Region is an important indicator of peoples' access to economic opportunity and their quality of life, and it reflects the region's urban structure, social and economic inequality and prospects for sustainability. Over the past decade, Gauteng has seen significant investment into transport infrastructure aimed at integrating the fragmented urban form, improving the quality of transport and reducing commuting times.

The GCRO's 2015 Quality of Life survey suggests that some of this investment is having a positive impact, but it is not all good news. Most notably while new public transport investments are slowly changing commuting habits, car use has increased.

## Purpose of most frequent trip

The purpose of respondents' most frequent trip reflects numerous social and economic dynamics across the province. Overall for Gauteng, there is a near even split between trips to work (36%) and to shop (33%) (Figure 1). While the percentage of shopping trips remain higher for women (40%) than men (27%), women's trips to work have increased since 2013 (from 26% to 30%) and men's trips for shopping have increased since 2013 (from 24% to 27%). The trips to look for work have increased from 7% in 2013 to 9% in 2015, and trips to places of study have stayed relatively constant (5% in 2015 versus 6% in 2013).

## Mode of transport to work

Building on previous GCRO research, the QoL 2015 results show that the mode used for trips to work is split between private vehicles (47%) and taxis (33%). The proportion of private vehicle use has increased from 44% in 2013, whereas taxi use has dropped from 37% (Figure 2). 94% of white respondents used private vehicles to get to work, while this is the case for only 30% of African respondents. Non-motorised travel (walking or cycling) has increased as the main mode to work from 10% (2013) to 13% (2015). Walking to work is more prevalent among African respondents (16%) than white respondents (3%). Work commutes by train remain low (4%) and commuting by other buses dropped from 4% (2013) to 2% (2015).

Interestingly, new forms of publicly-provided public transport (Gautrain and Bus Rapid Transit (BRT)) are starting to feature in respondents' reported work

commutes. Respondents using either Gautrain or BRT as their main mode to work have doubled since 2013, from 0.4% to 0.8% (Figure 2).

Overall, regardless of trip purpose, there has been a sizeable increase in daily BRT trips, from 0.4% in 2013 to 2.1% in 2015. This translates to some 184 000 people when weighted to the total Gauteng population. In Johannesburg, where a BRT system has been in place the longest, 2,7% (some 84 000 commuters) use BRT daily, 2,9% (92 000) use BRT weekly, and a further 5,8% (185 000) use the system monthly. This translates into some 361 000 regular users of the new infrastructure – 11% of the city's adult population. 79% of Johannesburg respondents are satisfied with the BRT system, rising to 83% of daily users.

## Travel times to work

The results indicate that more time is spent traveling to *look for work* than all other commutes, with less than half (47%) of job seekers arriving within 30 minutes compared to 55% of work commutes and 70% of all other trips.

Commuting times remain racialised (Figure 3) with a greater percentage of white respondents getting to work within 30 minutes (63%) than all other population groups. At 52% Africans are the least likely to get to work within half an hour. African respondents are also more likely to spend more than an hour getting to work (8%), with Indian/Asian respondents the least likely (2%). People's dwelling type also has an impact on travel time, with 74% of respondents living in flats arriving at work within 30 minutes compared to only 46% of respondents living in informal dwellings (backyard and informal settlement).

## Satisfaction with transport

In general, respondents display high levels of satisfaction with their main mode of transport (Figure 4), with 94% satisfaction for Gautrain users, followed by private vehicle (91%) and BRT (90%). Levels of dissatisfaction are highest among train users with 40% either dissatisfied or very dissatisfied, followed by cyclists (26%). Dissatisfaction is lowest among those who use Gautrain (1%), private vehicles (4%) and BRT (5%). A solid 74% of taxi users reported being satisfied or very satisfied, while 16% were dissatisfied.

A third of all respondents (33%) agree that public transport has improved for them and their household over the past year. Respondents in lower income groups report highest levels of public transport improvement (Figure 5). Figure 6 shows the spatial distribution of respondents agreeing that public transport has improved. The map suggests progress in many township areas such as Soweto, Thokoza/Katlehong/Vosloorus, Tsakane and Mabopane.

#### Access to services and walkability

Walkability to transport and services is a measure of both socioeconomic access and urban sustainability. When asked if transport was available within easy walking distance, 65% of respondents answered affirmatively.

In terms of access to a range of services (e.g. supermarkets, banks, internet cafes, etc.), 7% responded that *none* were within walking distance. This differed across dwelling type, where very few residents of flats or apartments reported no services within walking distance (4%). 7% of those in formal standalone houses said they had no access to services in easy walking distance. Residents of informal dwellings *not* in backyards reported the least walkability to any services (12%), followed by residents of cluster complexes (at 11%).

While the latter can access services through private transport, this points to a double planning challenge: increasing access to services for poor households in informal settlements as well as making more affluent areas less reliant on cars.

#### Effects and perceptions of e-tolls

The implementation of e-tolls has been highly contested and the QoL 2015 survey provides some insight into the opinions of Gauteng residents towards the new system. Interestingly, fewer respondents changed their routes because of e-tolls (14%) than had anticipated they would before the gantries were turned on (19% in 2013). However, the actual impact of e-tolls on changing modes (11%) is only slightly lower than anticipated (12% in 2013).

Of the respondents who use Gauteng's freeways, those that are satisfied with the quality of the roads are more likely to pay. 34% of those who are satisfied with roads agree with the statement "I will never pay e-tolls", and 42% disagree, indicating a willingness to pay. By contrast, those who are dissatisfied with roads show an equal tendency (38%) to agree or disagree with the statement "I will never pay e-tolls". The racial breakdown highlights that over a third of African respondents (34%) say that they do not use freeways compared to only 15% of white respondents (Figure 7).

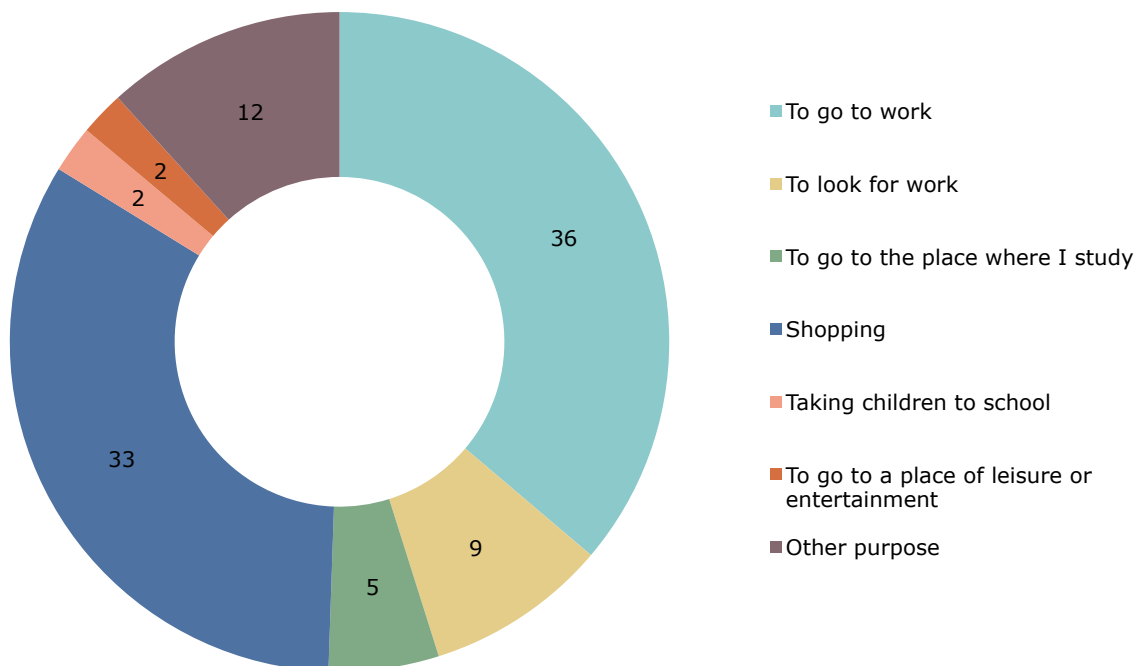
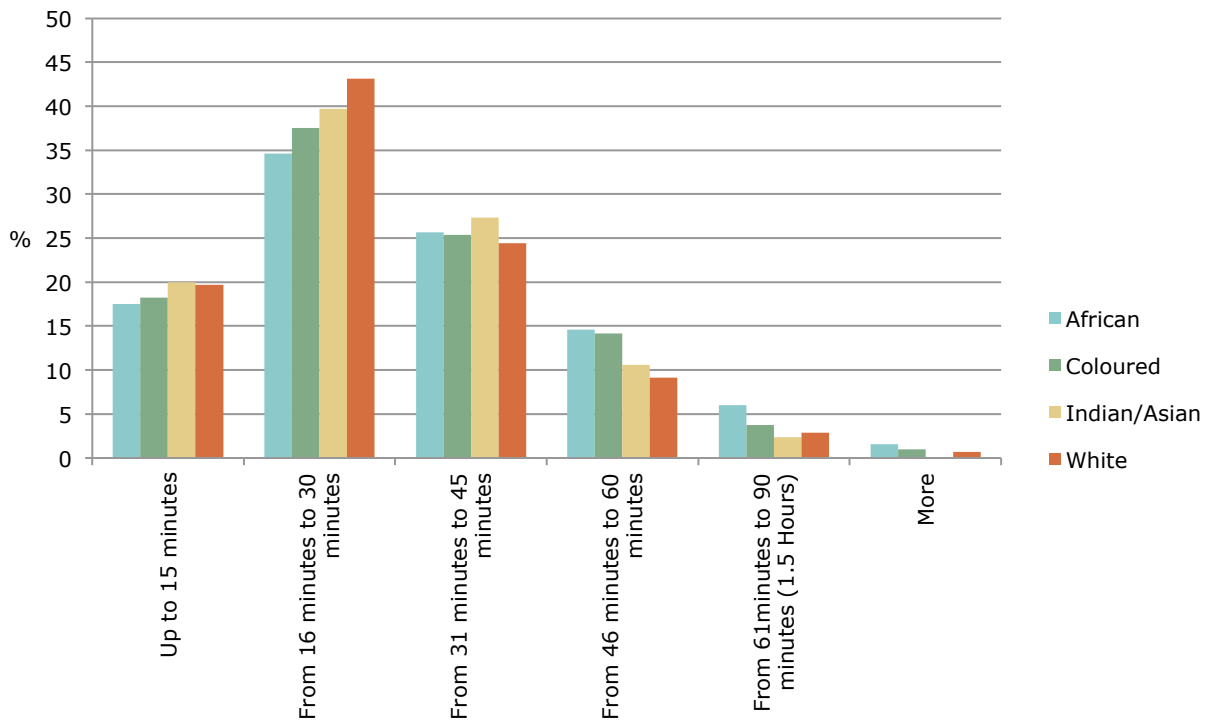


Figure 1: Purpose of most frequent trip.

	Mode of transport for longest part of trip to work (%)	
	2013	2015
Walk	9	13
Car (as driver, passenger or lift club, motorbike)	44	47
Taxi	37	33
Train	4	4
New public transport (Gautrain and BRT)	0.4	0.8
Other buses	4	2

**Figure 2: Given large investment in new forms of public and non-motorized transport in Gauteng, how have transport modes for trips to work changed (2013 & 2015)?**



**Figure 3: Time to work (by race).**

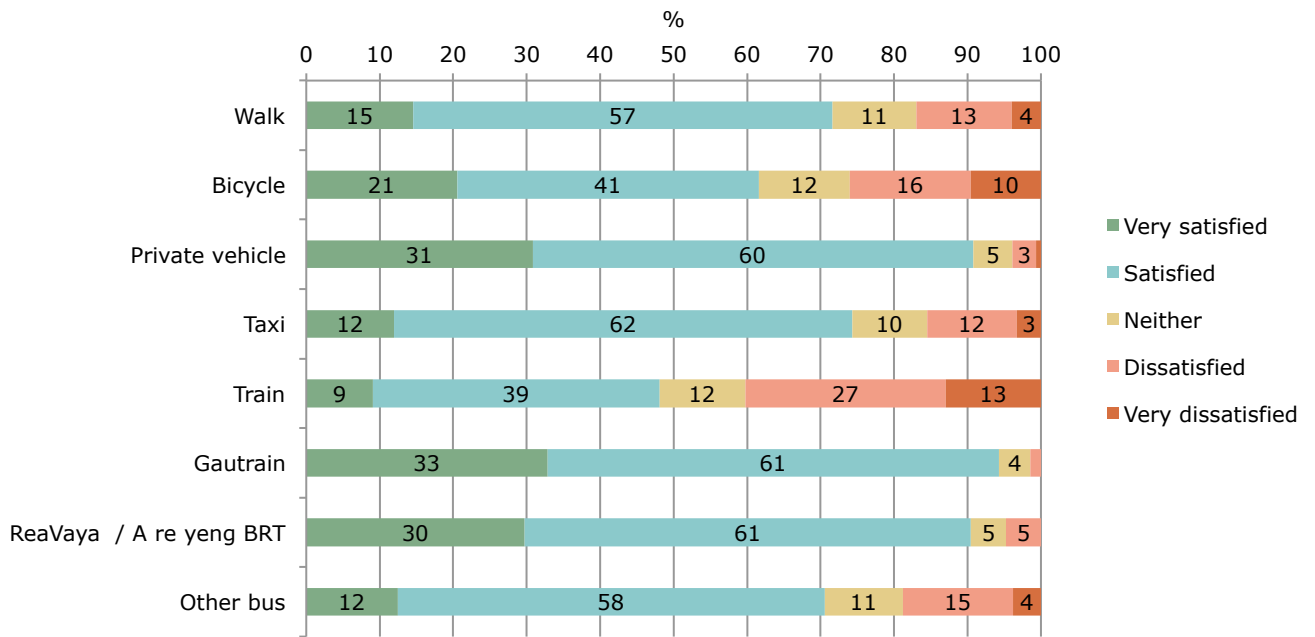


Figure 4: Satisfaction with longest mode of transport.

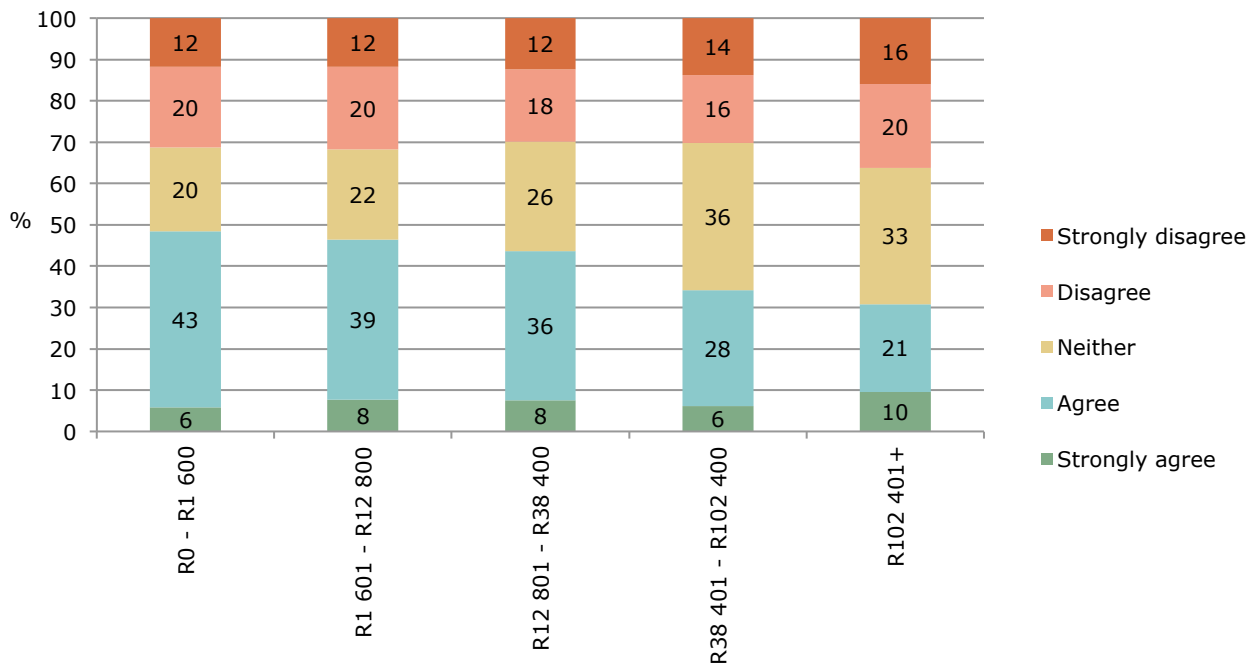
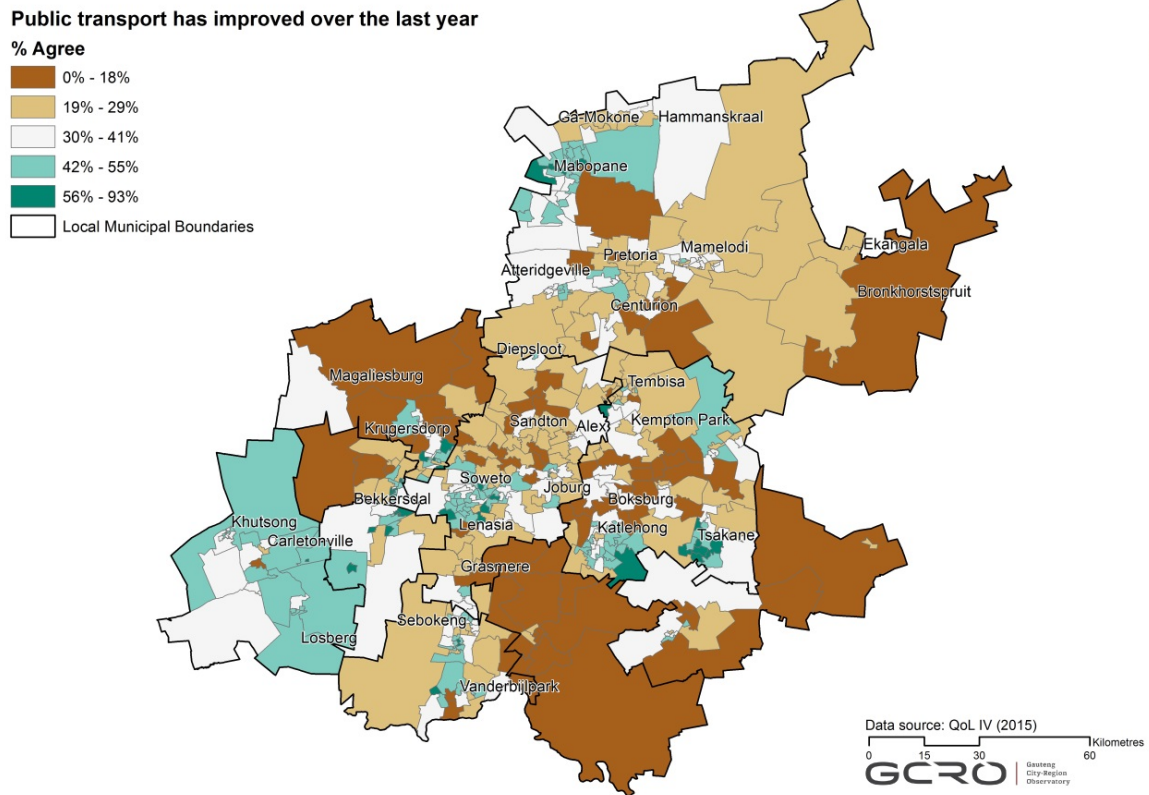
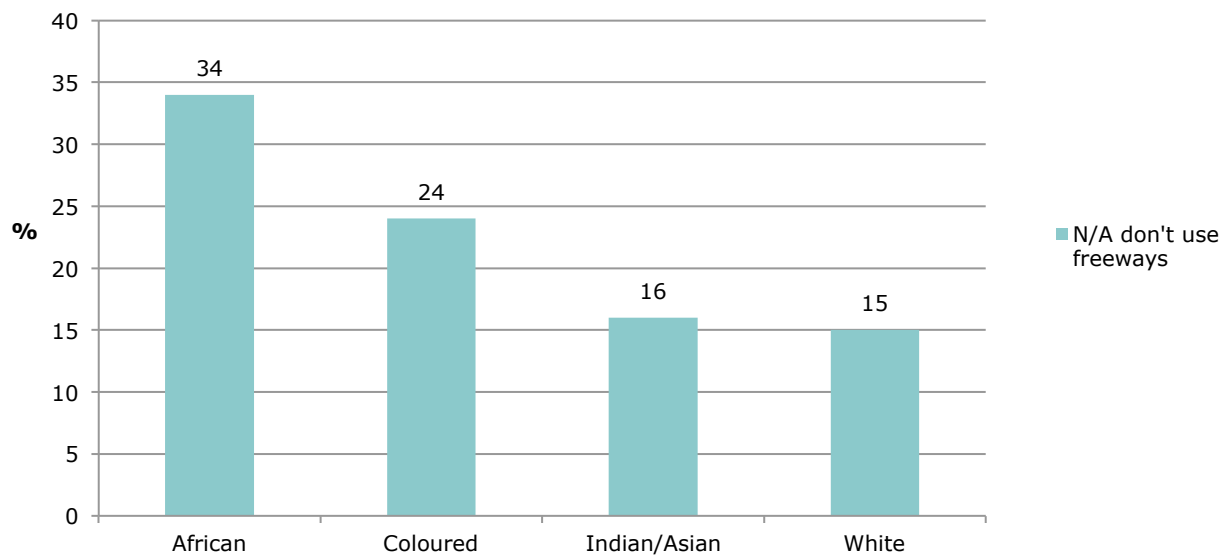


Figure 5: Public transport has improved for me and my household in the last year (by income group, excluding not applicable).



**Figure 6: Spatial spread of respondents that agree that public transport has improved for them or their household in the past year.**



**Figure 7: When asked to respond to 'I will never pay my e-tolls', those respondents who found the statement not applicable, or indicated that they don't use freeways (by race).**

**OTHER RECENT RESEARCH IN THIS THEME:**

- Transforming transport in the Gauteng City-Region (October 2015) by Christina Culwick et al., GCRO Interactive Website, Map of the Month and Vignette
- Look for work trips (December 2014) by Chris Wray et al., GCRO Map of the Month
- Getting to work in the GCR (2014) by Christina Culwick et al., GCRO Interactive Vignette, Map of the Month and Vignette
- Mobility in the Gauteng City-Region (2014) by Chris Wray et al., GCRO Research Report

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