



## Results from data collected from joint minibus driver training initiative

Road traffic injuries are among the leading causes of death and life-long disability globally. Road traffic fatalities disproportionately affect low-and middle-income countries. In Africa, the numbers of road traffic injuries and deaths have been increasing over the last three decades. Ethiopia has lost 5,118 lives in 2018 due to road traffic accident, while over ten thousand had heavy and light injuries. Despite efforts made by various stakeholders to reduce the losses on Ethiopian roads, road traffic accidents are a raising concern in the country.

Accidents cause loss of life and loss in productivity, assets and time. Several important factors related to road safety are connected to the driver (speed, safety belt, protective equipment, alcohol, distractions). Other important factors are vehicle safety and infrastructure.

Data collected in Ethiopia shows, that among victims, pedestrians are the most vulnerable road users who bear more than 87% of the total fatalities (76% of the total serious injuries and light injuries in Addis Ababa). Of the fatal accidents, 20% involve children of less than 14 years of age. Notable, is that drivers with driving license category 1 (minibusses) are 30% more likely to be involved in a road accident.

Professional drivers are interested in continued training. Of the interviewed drivers 23.7% said they would benefit from further training opportunities and 24.4% of drivers said they either attended or considered attending training courses related to commercial vehicle driving in another country.

A group of partners actively involved in road safety issues in Ethiopia recently joined in an initiative that gave refreshing, one day, training on road safety rules to 57 minibus drivers active in Addis Ababa. The training took place in the facilities of the MISALE Driver Training Academy, a project implemented by the United Nations Industrial Development Organization (UNIDO) in partnership with the Embassy of Sweden, Volvo Group and Selam Vocational Training College. Training provided by the World Food Programme (WFP) to truck drivers was adapted for professional minibus drivers in the capital.

This is a joint effort of the Ethiopian authorities: Addis Abba City Administration Roads and Transport Bureau, Federal Transport Authority, Ministry of Transport and National Road Safety Council, and International and EU partners. EU partners are EU delegation to Ethiopia, Swedish Embassy as a country who first adopted Vision 0 on road safety in Europe, UNIDO and WFP. Cooperation and exchanges between us enabled this training which is a step further in vision zero to road accidents in Ethiopia.

### Summary of the results

The results of the questioner of the mini-bus drivers show that in comparison to other commercial drivers in Ethiopia (data gathered from a study done by UNIDO<sup>1</sup>) the Mini-bus drivers had more

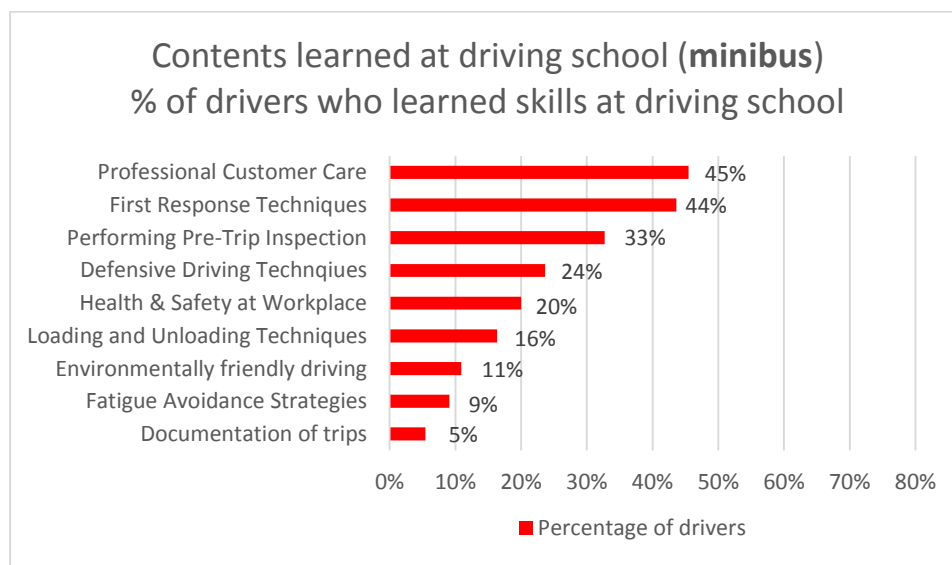
<sup>1</sup> [https://open.unido.org/api/documents/14158583/download/Creating Opportunities Through Vocational Training\\_Misale Baseline Report.pdf](https://open.unido.org/api/documents/14158583/download/Creating%20Opportunities%20Through%20Vocational%20Training_Misale%20Baseline%20Report.pdf)

training in road safety, however are more likely to experience fatigue, are more prone to have accidents and mostly work without an employment contract. The study indicated that the fierce competition between the mini bus drivers leads to aberrant driving. In the pilot study the drivers indicated that in their opinion road safety would improve if dedicated passenger stops would be in place as well as better infrastructure.

## 1. Comparing minibus drivers to other commercial vehicle drivers

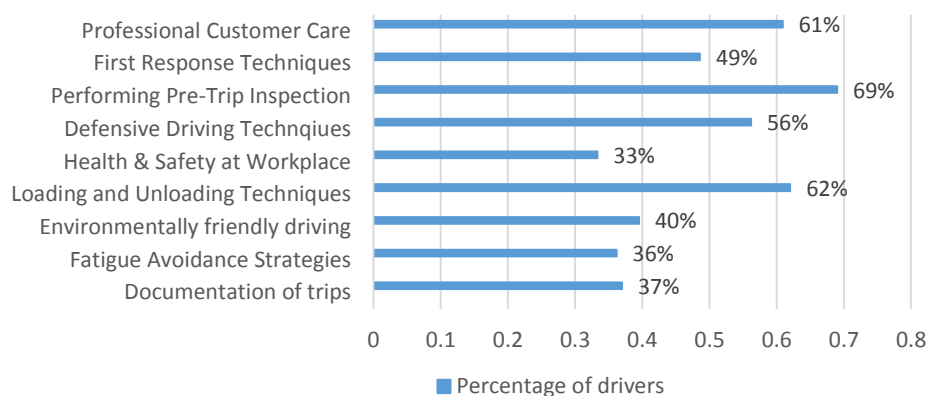
After the training, we collected data from the participants. It was an opportunity to get a better understanding of their specific situation. This data can be compared with the MISALE baseline survey which is a representative sample of commercial vehicle driver<sup>2</sup>.

The first thing we looked at was what type of skills the minibus drivers have obtained during their driving education both within and outside the driving schools. There are some expected differences, for example that fewer of the minibus drivers have obtained training on pre-trip inspections, documentation of trips and loading and unloading techniques. These are skills that are required for truck drivers and are often provided by transport companies to their own drivers. It is of interest to look at differences in other types of training though. For example, it is noteworthy that considerably fewer of the minibus drivers had received training on defensive driving (24%) than drivers in general (56%). There are also interesting differences in terms of training on environmentally friendly driving (minibus drivers 11%, baseline 40%) and fatigue avoidance strategies (minibus drivers 9% and baseline 36%).



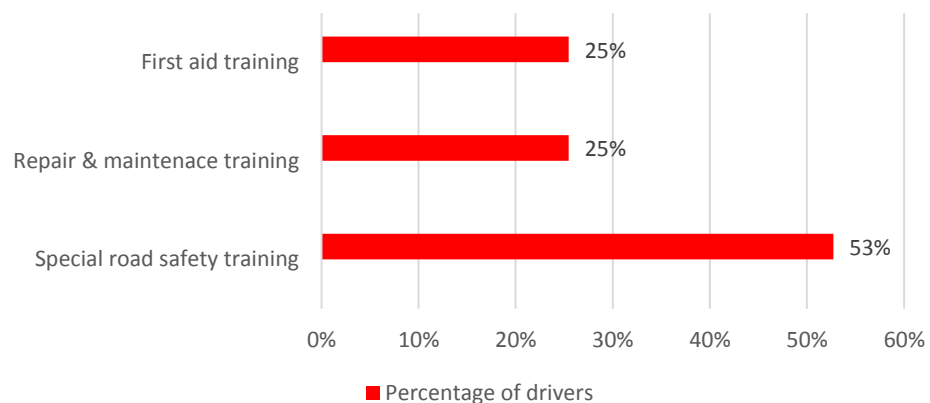
<sup>2</sup> These are drivers who obtained a heavy vehicle driving license from a driving school in Addis Ababa between 6 months and 10 years ago

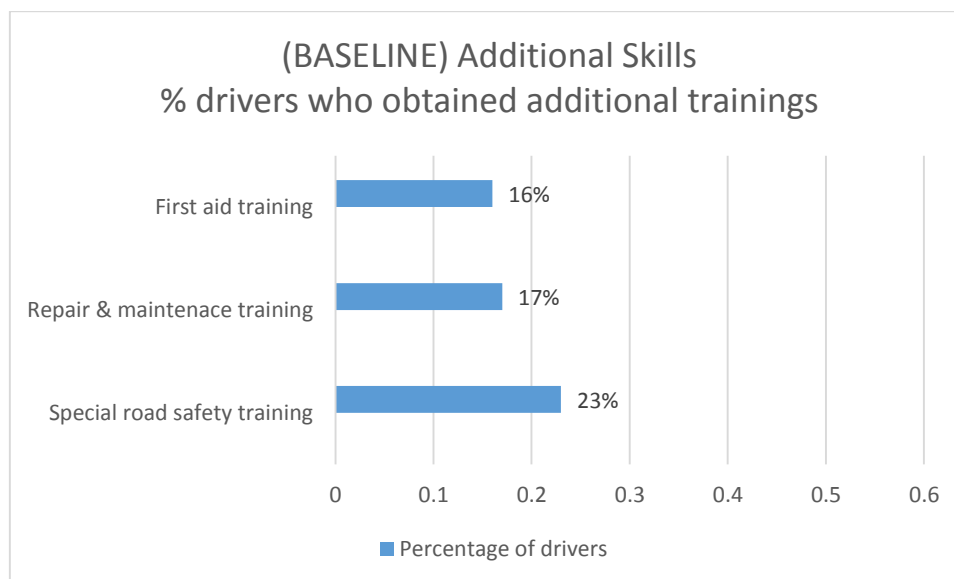
### Contents learned at driving school (**baseline**) % of drivers who learned skills at driving schools



### (MINIBUS) Additional Skills

#### % drivers who obtained additional trainings

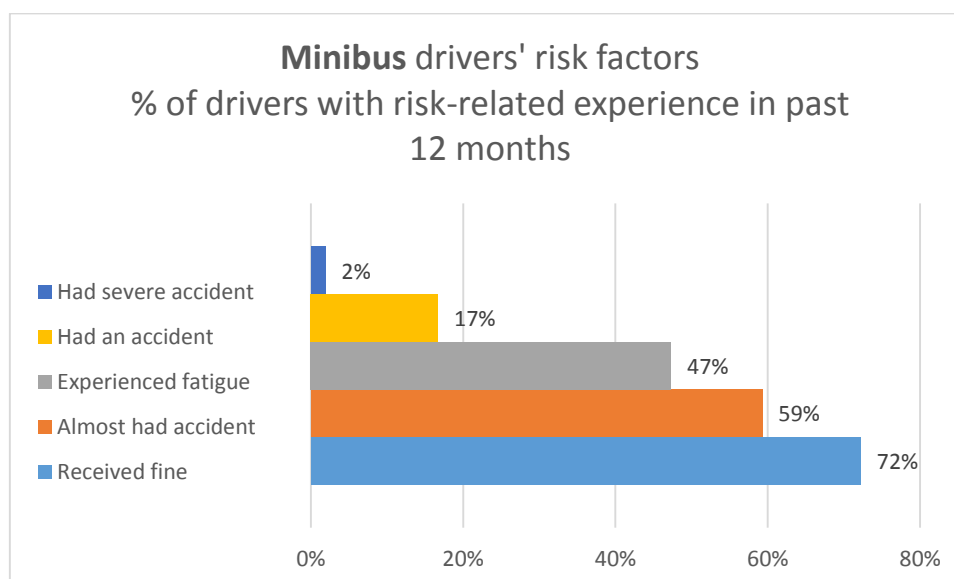


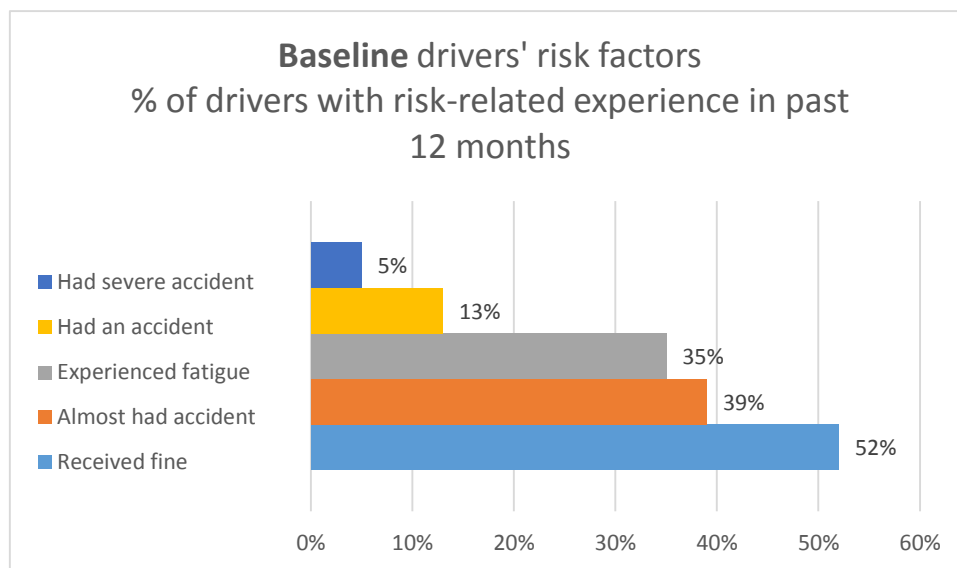


Beyond the training obtained during their driving education, drivers often take advantage of advanced courses of special commercial vehicle driving-related trainings. More of the minibus drivers have obtained such training than drivers in general. This is true particularly for special road safety training.

## 2. Risk factors

We also looked at how many percent of drivers have experienced at least once specific risk situations in the past 12 months. The minibus drivers have experienced somewhat more risks. Although numbers are similar for having experienced severe accidents or having had an accident, considerably more of the minibus drivers reported having “almost had an accident” (59%) than the general sample of drivers (39%). Since fatigue strongly affects a person's ability to drive safely, it is alarming that the figures for having experience extreme symptoms of fatigue are so high – 59% for minibus drivers and 39% for drivers in general. Considering that receiving fines can be seen as a proxy for traffic violations, this is an indication that minibus drivers violate traffic rules more often than commercial vehicle drivers do in general. This can be seen in the graphs below.





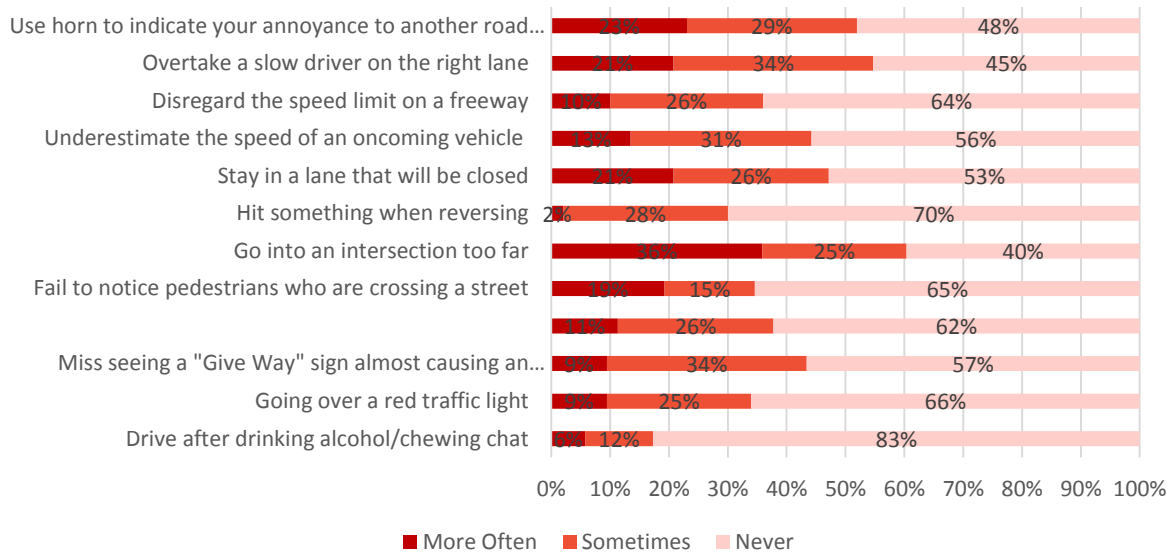
### 3. Aberrant driving

Aberrant driving is one of the major causes of risk situations and accidents in traffic. The figures below show the distribution of different aberrant driving behaviors for the minibus drivers and commercial vehicle drivers in general. The reported results rely on a standard Driver Behavior Questionnaire<sup>3</sup>, which distinguishes between different forms of aberrant driving behaviors, namely lapses, errors, and violations. While lapses refer to problems with attention or memory (e.g. having no clear relocation of the road traveled on), errors refer to driving mistakes, including failures of observations and misjudgments (e.g. fail to notice pedestrians or hitting something when reversing). Violations, on the other hand, are deliberate deviations from good driving practices that put others at risk (e.g. speeding or driving after drinking). Here, the analytical focus is mainly on errors and violations, which have been shown to be highly predictive of crash involvement.

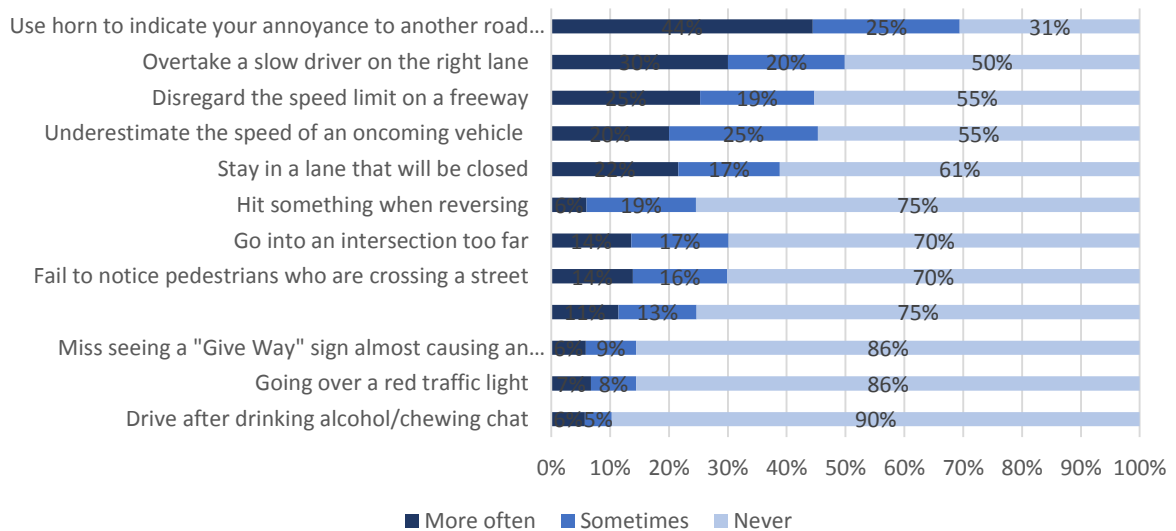
Figures for the minibus drivers do not differ much from those of other drivers, but some differences are visible. These include higher figures for example for “going into intersection too far”, “fail to check your rear-view mirror almost causing an accident”, “going over a red traffic light” and “driving after drinking alcohol/chewing chat”. However it is noted that horn is used more often in the baseline sample.

<sup>3</sup> Lajunen T, Parker D, Summala H. The Manchester Driver Behaviour Questionnaire: A cross-cultural study. *Accid Anal Prev.* 2004;36(2):231–8.

### Aberrant driving behavior (minibus)

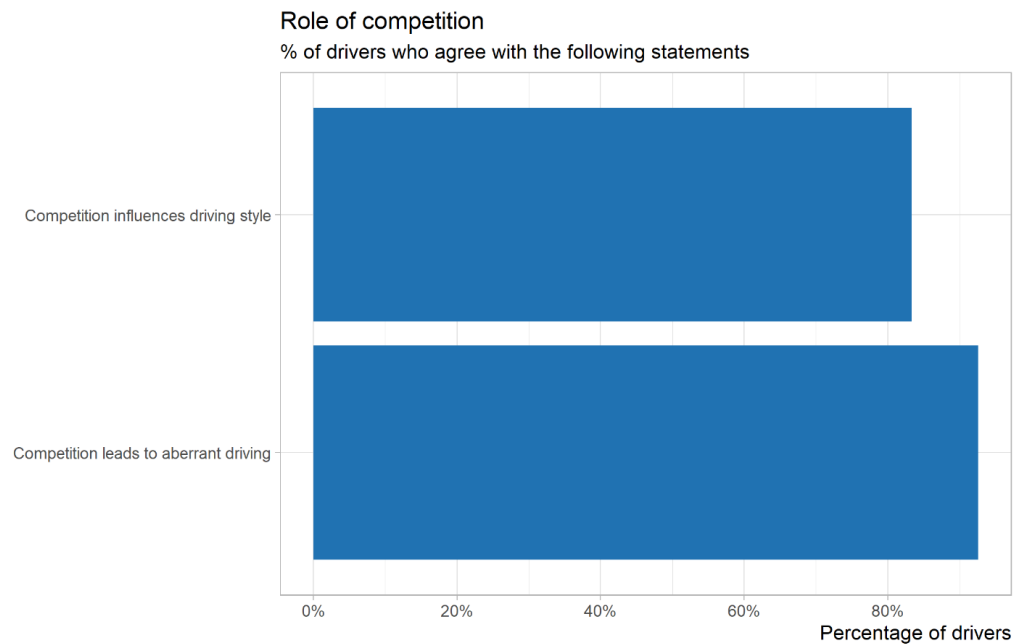


### Aberrant driving behavior(baseline)

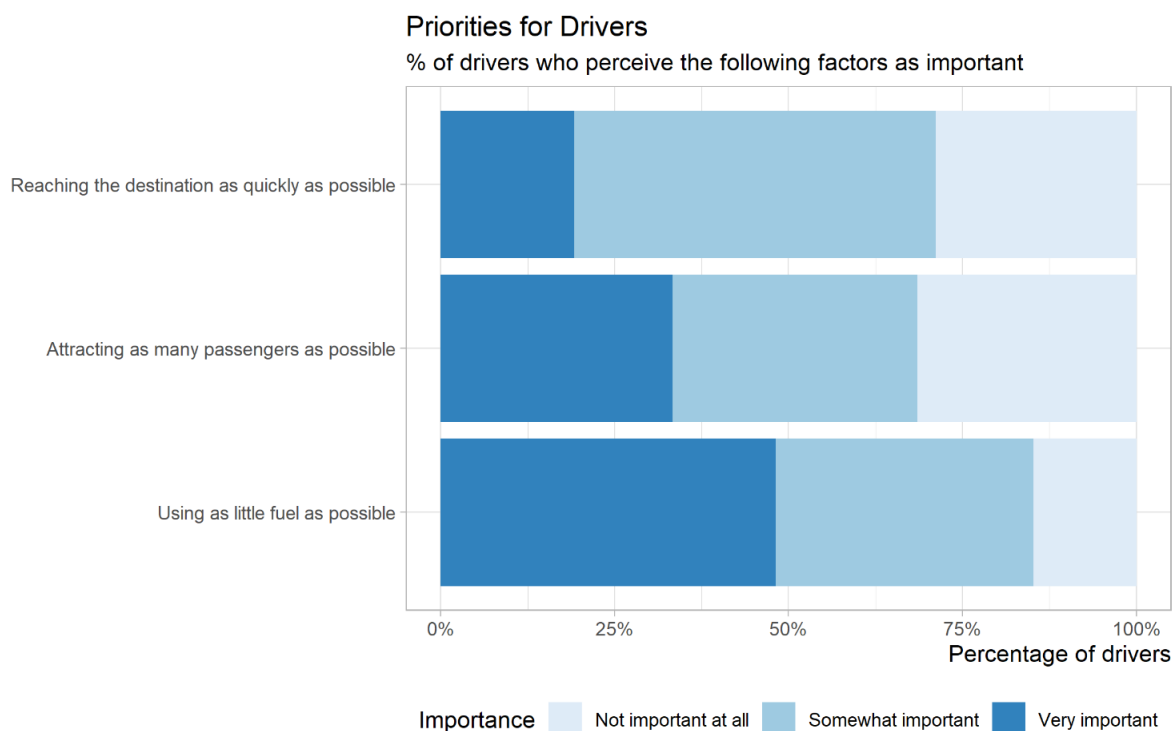


#### 4. Role of competition

Work as a minibus driver means facing strong competition from other providers of the same service on a daily basis. We asked the drivers who took part of our pilot initiative and find that close to 85% of them state that this competition with other minibus drivers influences how they drive and more than 90% of them stated that it leads to aberrant driving.

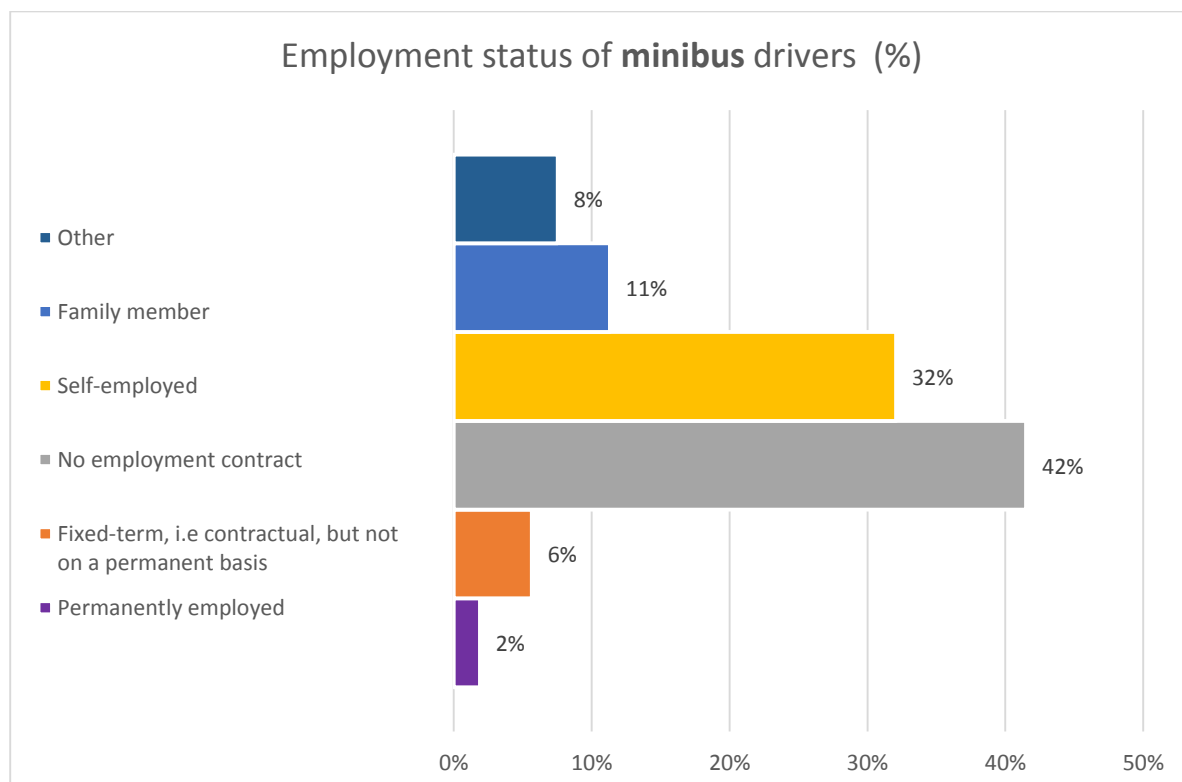


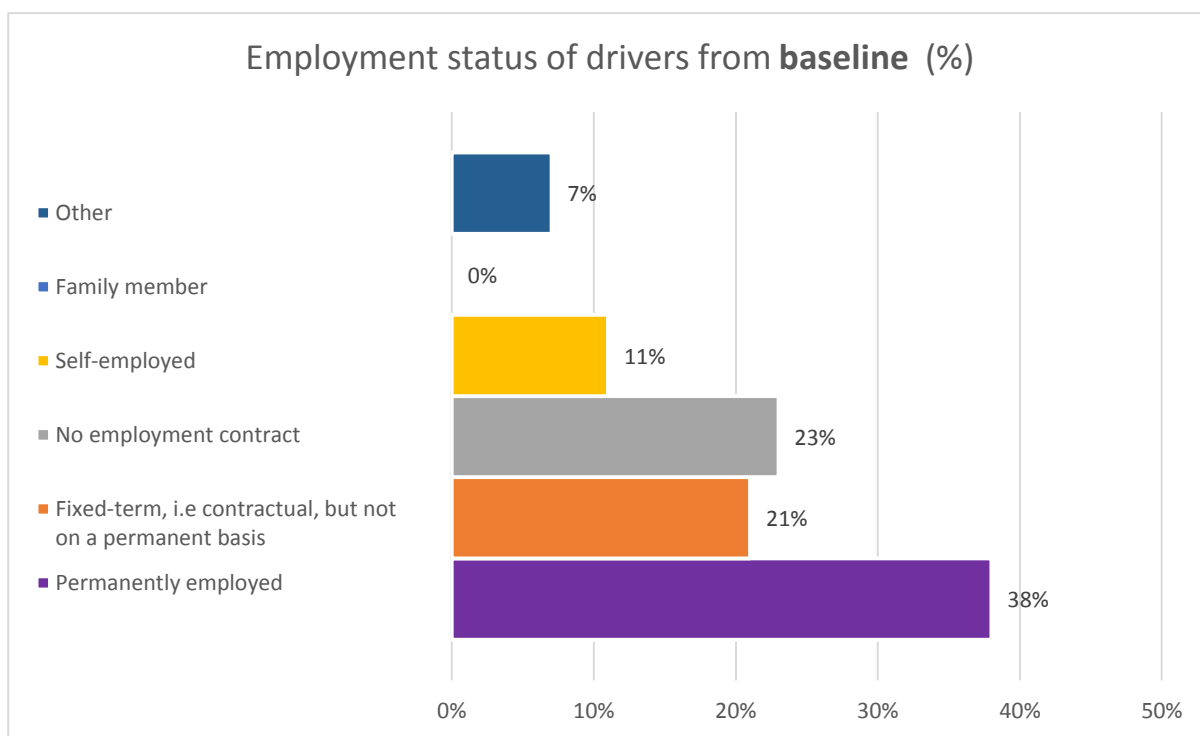
We also asked the minibus drivers some of their priorities in their daily driving. Interestingly, “using as little fuel as possible” was considered more important than “attracting as many passenger as possible” and “reaching the destination as quickly as possible”. This is also interesting because, as we saw above, fewer of the minibus drivers learned environmentally friendly driving skills at driving schools.



## 5. Drivers' employment status

Looking at what types of employment status drivers have, there are large differences when compared to other commercial vehicle drivers. It is clear that the minibus drivers appear to face considerably higher levels of informality. Only 2 per cent of them are permanently employed, 42 per cent have no employment contract and 32 per cent are self-employed. Figures in the graphs below show the difference to commercial vehicle drivers in general.





Further completing the picture of the employment status that minibus drivers face comparatively harder conditions, are the below figures on salaries and work hours. The MISALE baseline survey showed that commercial vehicle drivers earn a monthly net income of about 6000 Birr and that they work on average 43 hours per week. The minibus drivers state that they worked an average 60 hours the previous week and that their lowest monthly net income they would accept is Birr 4250. This heavy workload should be considered together with the fact that more of the minibus drivers reported having experienced extreme symptoms of fatigue.

	(Median)
What is the lowest monthly net (take-home) income that you would be willing to accept for a full-time job in your locality or area?	<b>4250</b>
How many hours per week would you have to work to earn this net income?	<b>55</b>
How many hours did you on average spend working in the last 7 days?	<b>60</b>

## 6. Road safety improvements

We asked the minibus drivers their opinions on how important they feel a number of selected road safety improvement measures are. Around 80% of them stated that dedicated passenger stops for minibuses would be very important for road safety for them as drivers. Of the road safety improvement measures, after dedicated passenger stops, the greatest importance was given to

better and smoother road surfaces and dedicated (separate) lanes for minibuses (around 60% considered these very important), followed by having fewer pedestrians on the road (around 40%)

