



SEAT BELT USE IN THE WESTERN BALKANS




**TRANSPORT
COMMUNITY**



MARCH 2024

BACKGROUND

In these pages, we present the key findings and outcomes of a joint effort aimed at enhancing road safety in the Western Balkans. Led by the Transport Community Permanent Secretariat, this exercise, the Westbelt project, brought together a consortium of experts from CDV Transport Research Centre and Tilkon Research & Consulting, working tirelessly to collect and analyse data on seat belt and child restraint system usage in the region.

The overarching goal of the project was clear – to contribute to the implementation of the Road Safety Action Plan, with a focus on reducing the number of serious injuries and fatalities on our roads. Through data collection and analysis, the aim was to provide valuable insights that would support the region in improving and harmonising road safety practices.

Within these pages, you will find tables and graphs presenting the key performance indicators (KPIs) for the Western Balkans, offering a comprehensive overview of the progress achieved. Additionally, we look into specific results for each regional partner, highlighting both achievements and areas for further improvement. The detailed explanations of the KPIs values are available in the Regional Thematic Report and in the Thematic Reports per each Regional Partner which are published online on the Transport Community website.

As we navigate through these findings, it is crucial to recognise the efforts of all involved, from the dedicated project team to our regional partners in Albania, Bosnia and Herzegovina, Kosovo*, Montenegro, North Macedonia, and Serbia. It is through collaboration and commitment that we can drive meaningful change and create safer roads for all.

We hope that this brochure serves as a valuable resource for policymakers, stakeholders, and road safety advocates alike, guiding future initiatives and fostering a culture of safety on our roads.

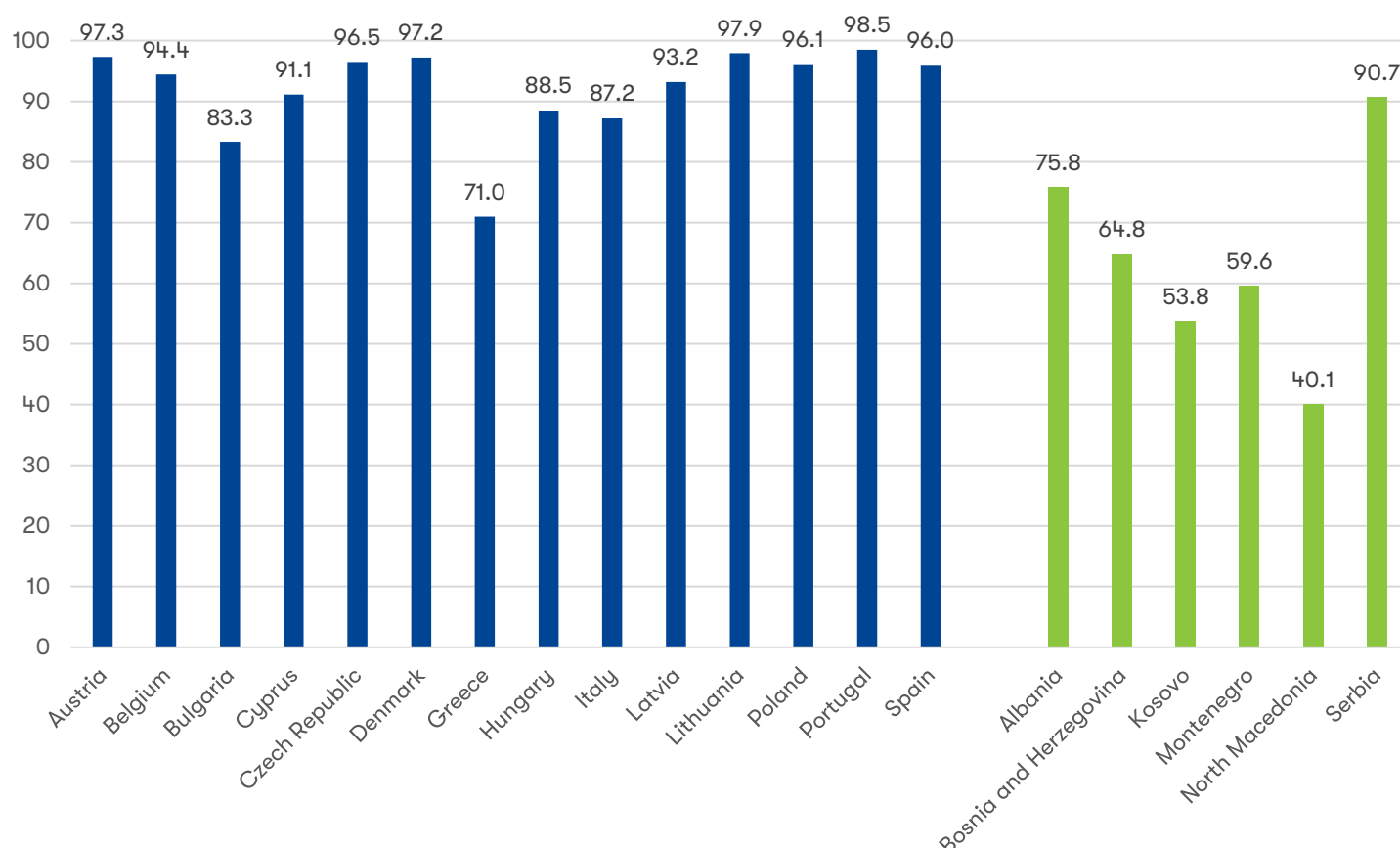


* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

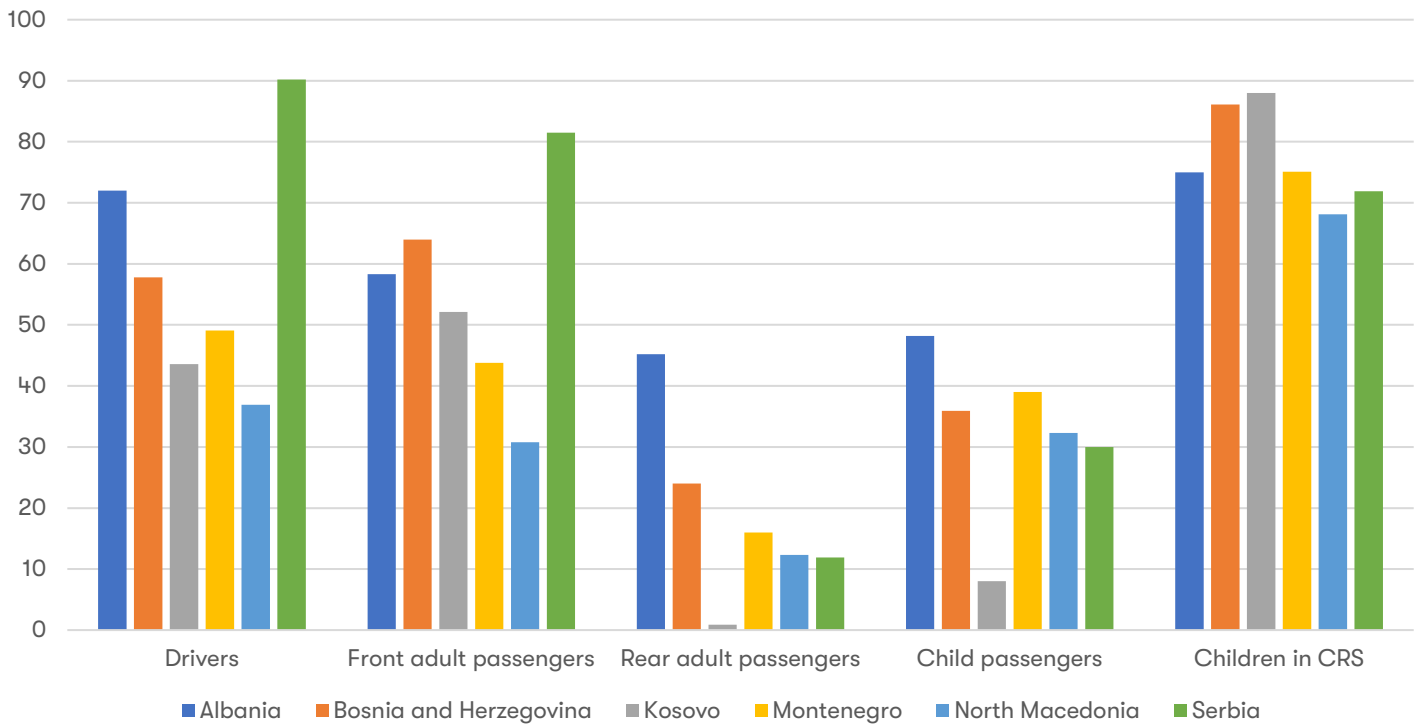
PERCENTAGE OF RESTRAINED VEHICLE OCCUPANTS IN THE WESTERN BALKANS

	Passenger cars			Goods vehicles	
	Drivers	Adult passengers	Children	Drivers	Adult passengers
Albania	75.8	58.5	55.8	80.0	71.9
Bosnia and Herzegovina	64.8	62.4	53.9	56.2	48.8
Kosovo	53.8	46.1	28.7	18.4	18.3
Montenegro	59.6	48.2	57.1	44.7	27.7
North Macedonia	40.1	30.0	43.1	35.7	26.0
Serbia	90.7	68.6	46.7	69.1	57.3
Median value	62.2	53.4	50.3	50.5	38.3

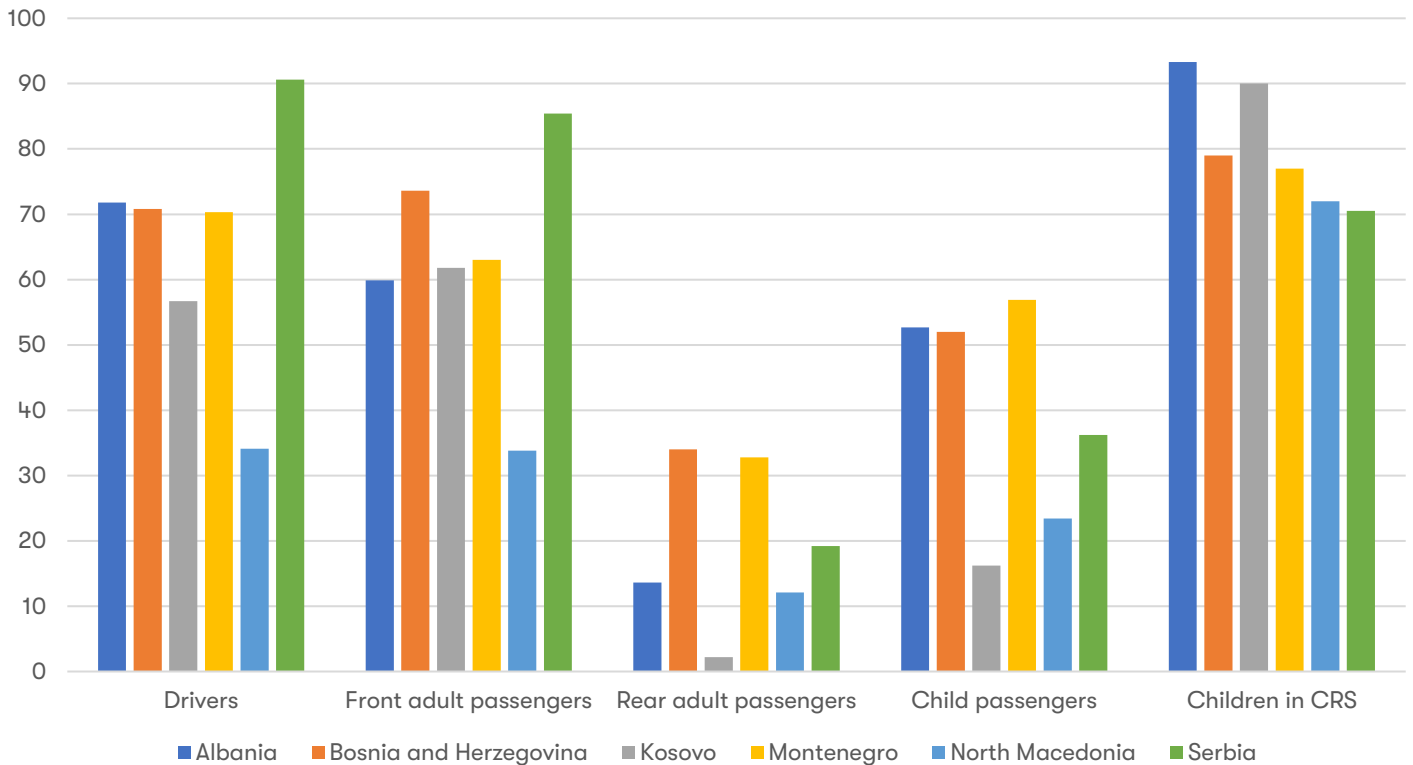
Percentage of restrained drivers of passenger cars
Comparison between the European Union (2022) and
the Western Balkans (2023)



Percentage of restrained occupants of passenger cars on urban roads in the Western Balkans

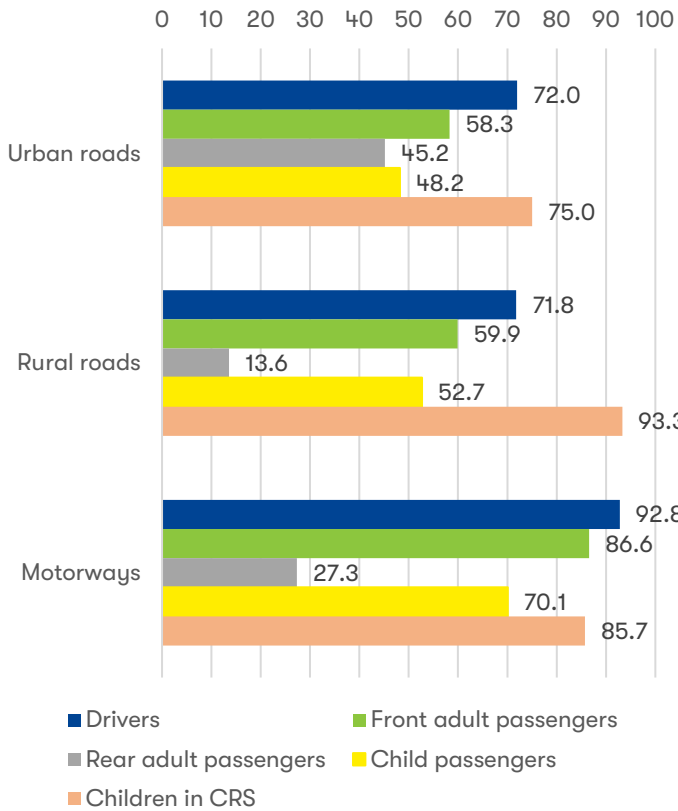


Percentage of restrained occupants of passenger cars on rural roads in the Western Balkans

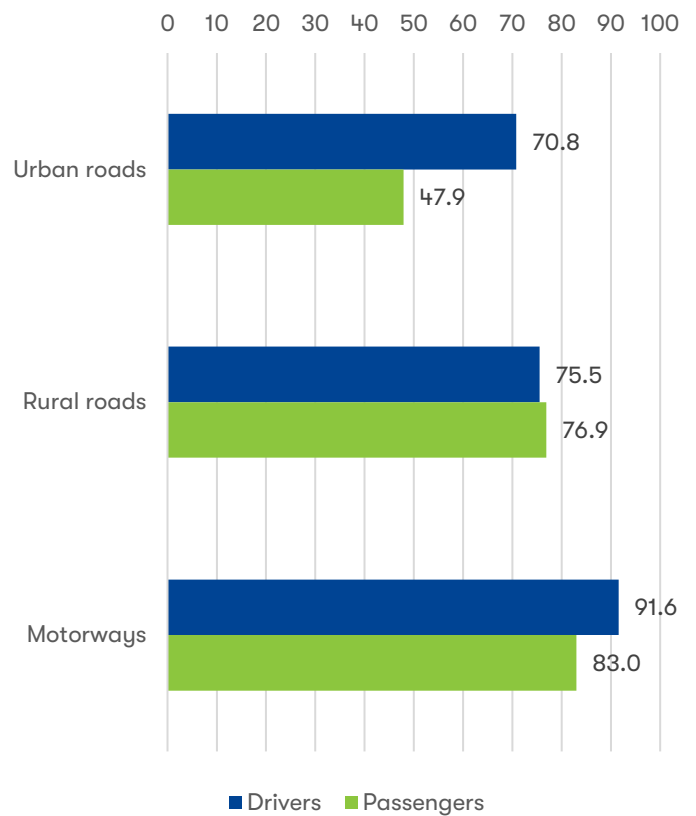


ALBANIA

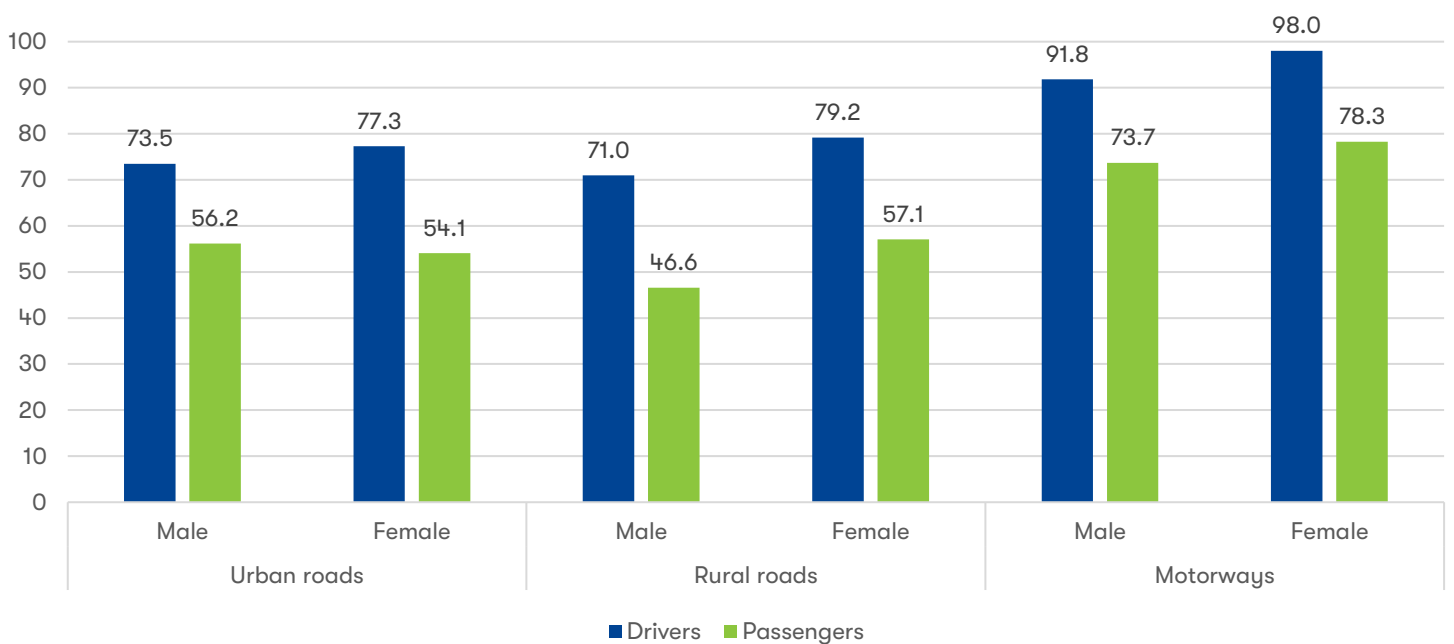
Percentage of restrained occupants of passenger cars



Percentage of restrained occupants of goods vehicles

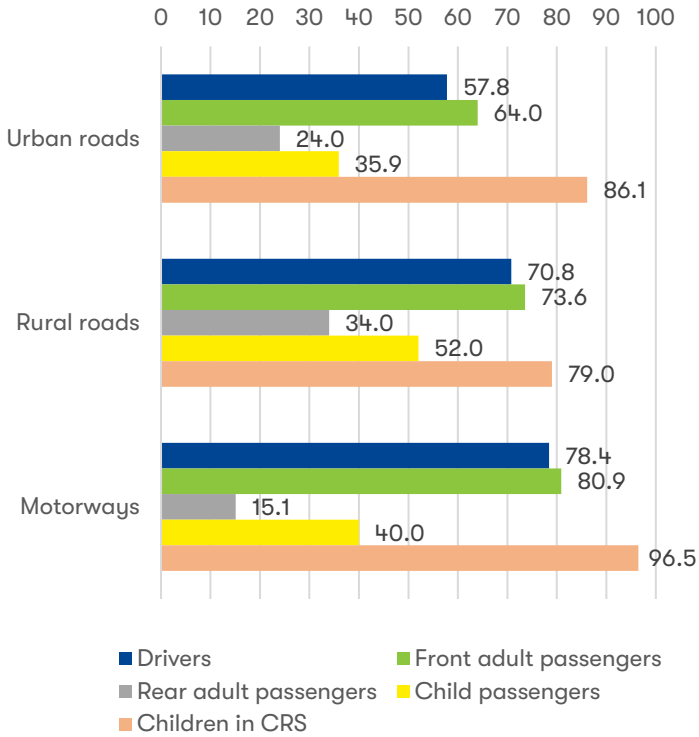


Percentage of restrained occupants of passenger cars by road type and gender

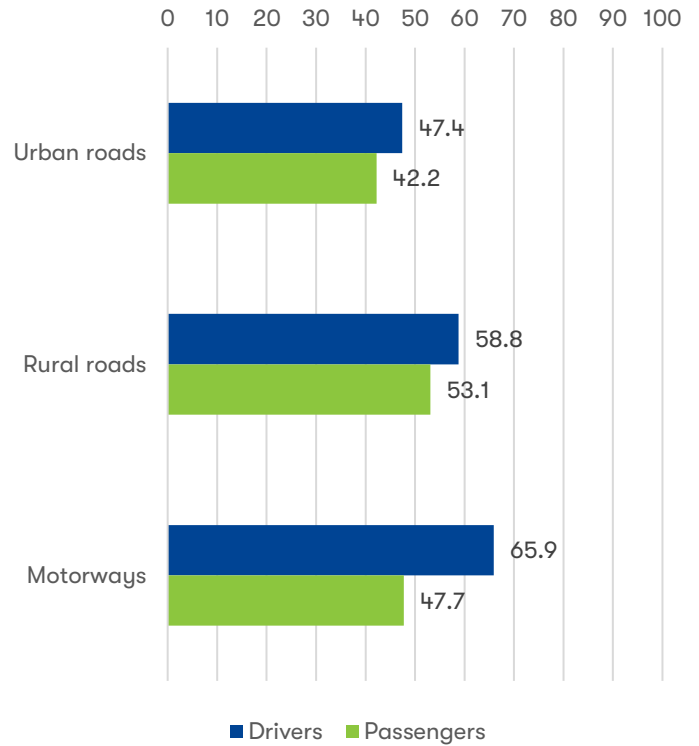


BOSNIA AND HERZEGOVINA

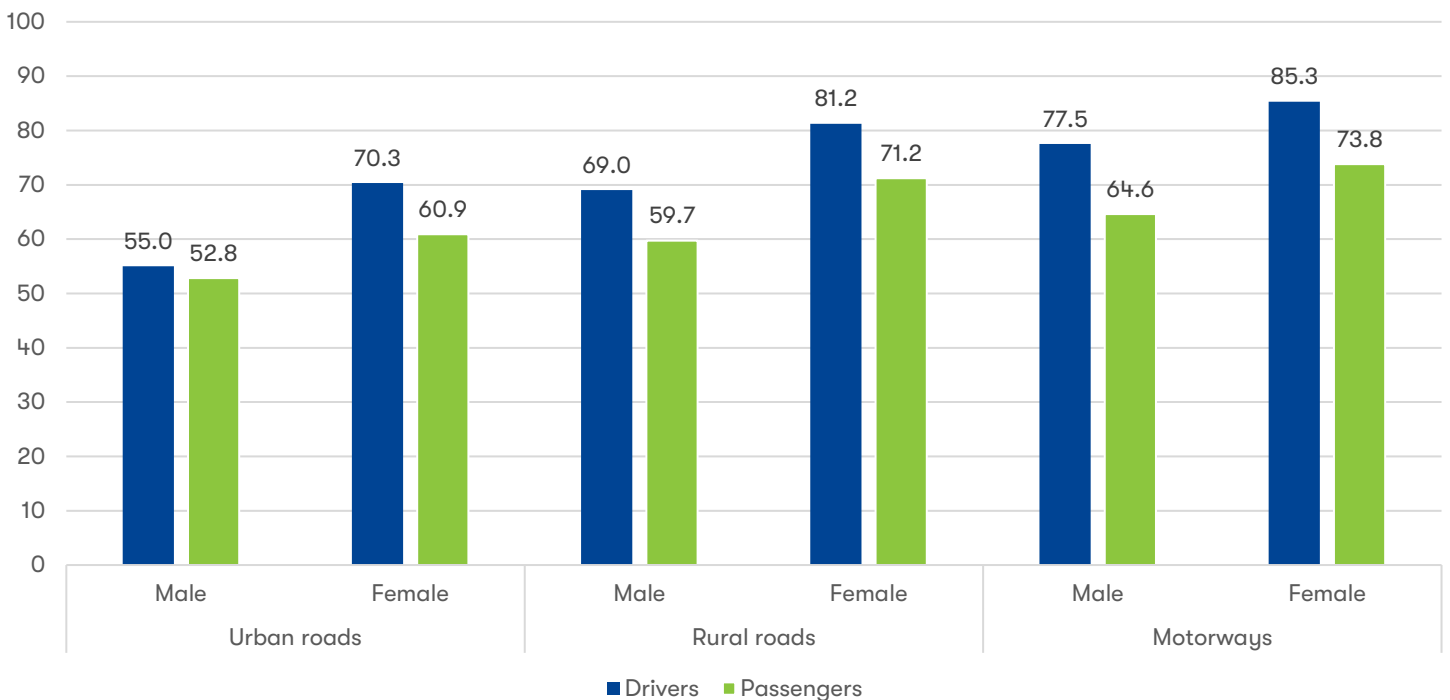
Percentage of restrained occupants of passenger cars



Percentage of restrained occupants of goods vehicles

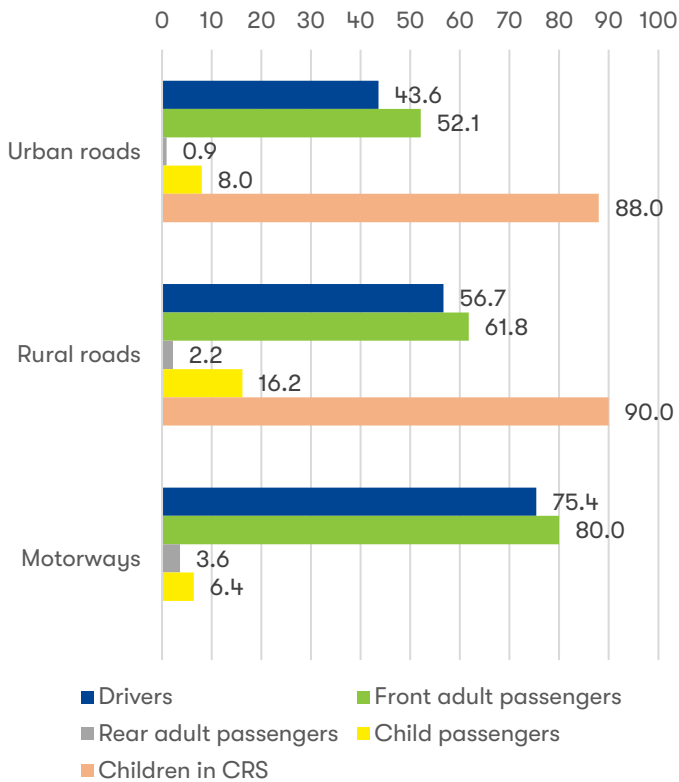


Percentage of restrained occupants of passenger cars by road type and gender

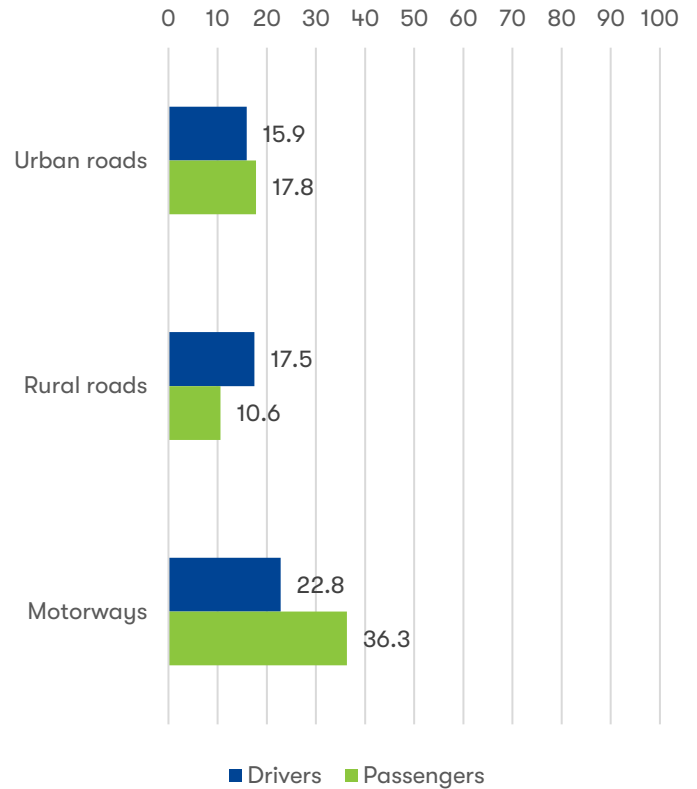


KOSOVO

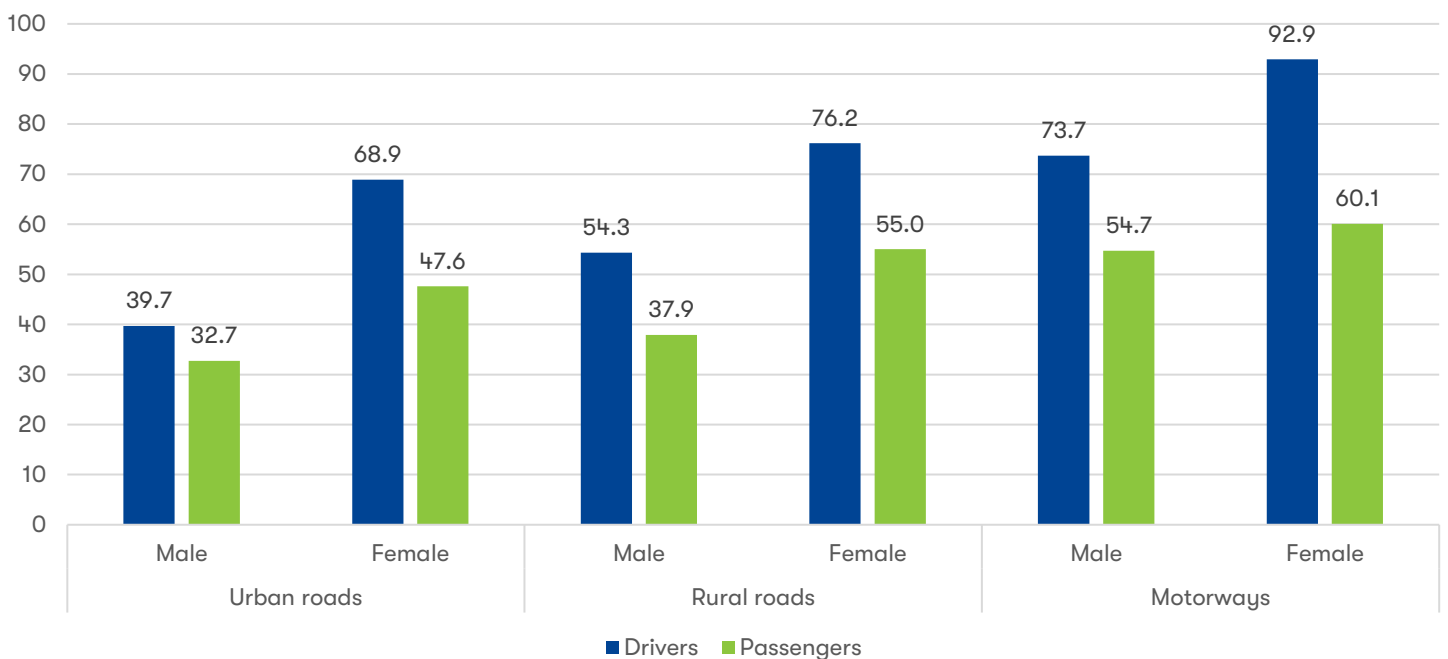
Percentage of restrained occupants of passenger cars



Percentage of restrained occupants of goods vehicles

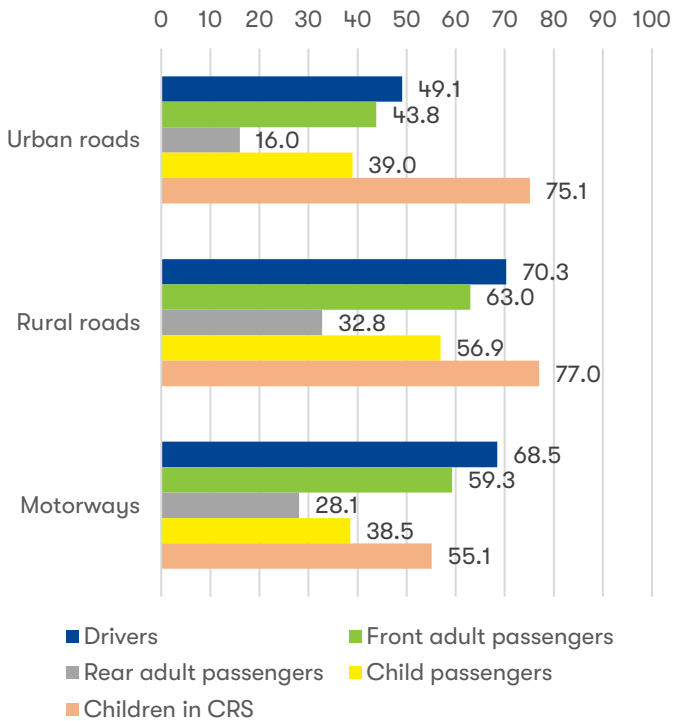


Percentage of restrained occupants of passenger cars by road type and gender

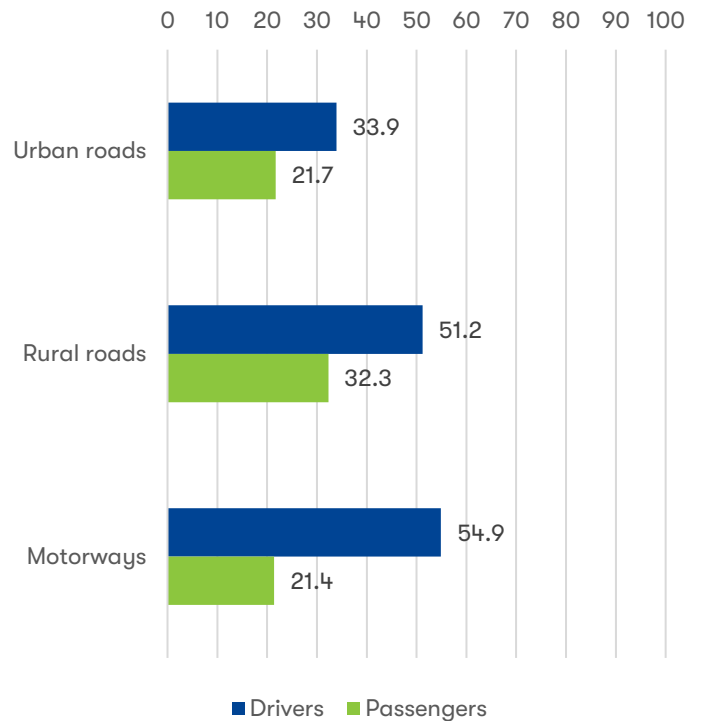


MONTENEGRO

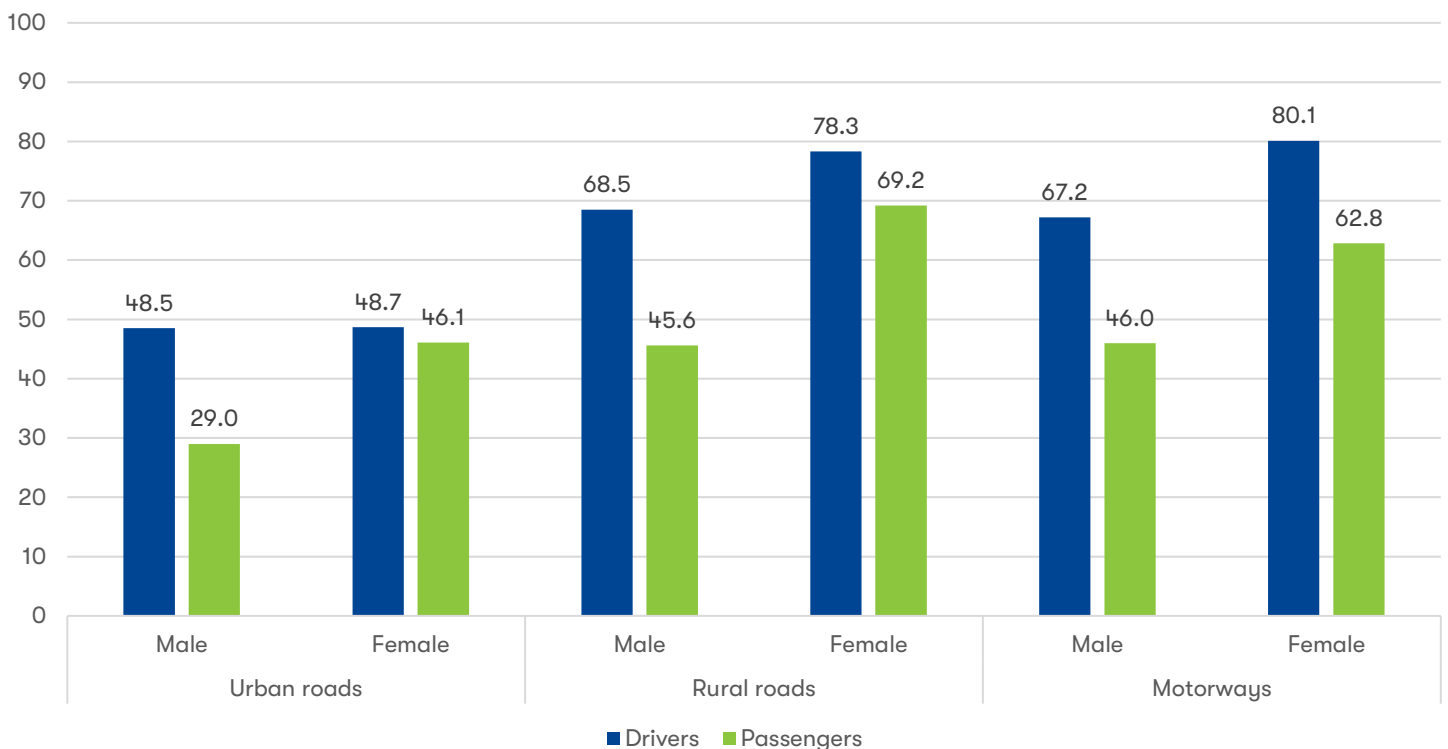
Percentage of restrained occupants of passenger cars



Percentage of restrained occupants of goods vehicles

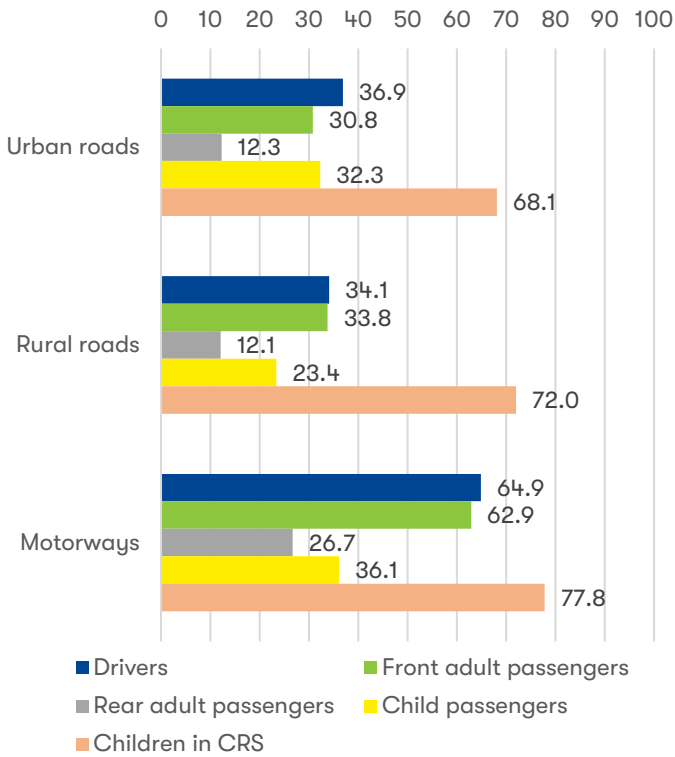


Percentage of restrained occupants of passenger cars by road type and gender

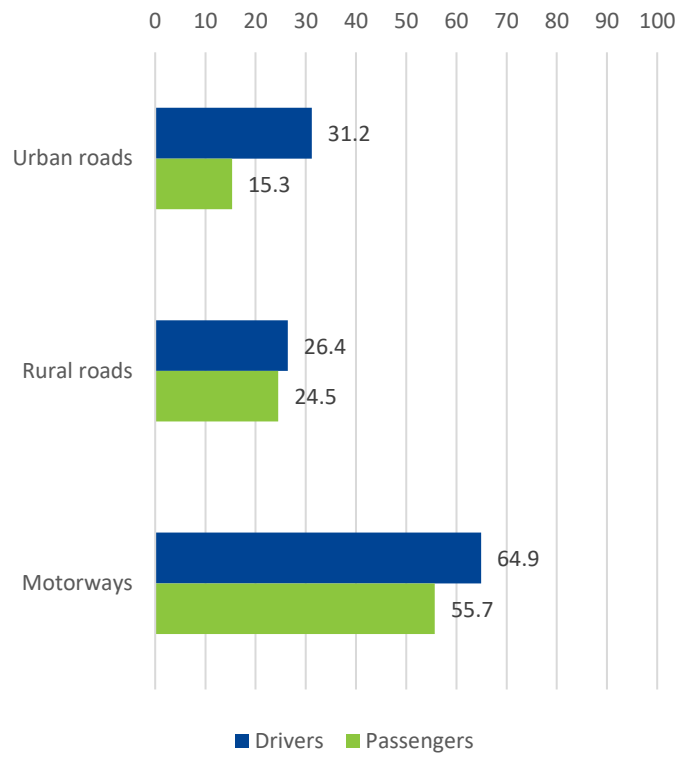


NORTH MACEDONIA

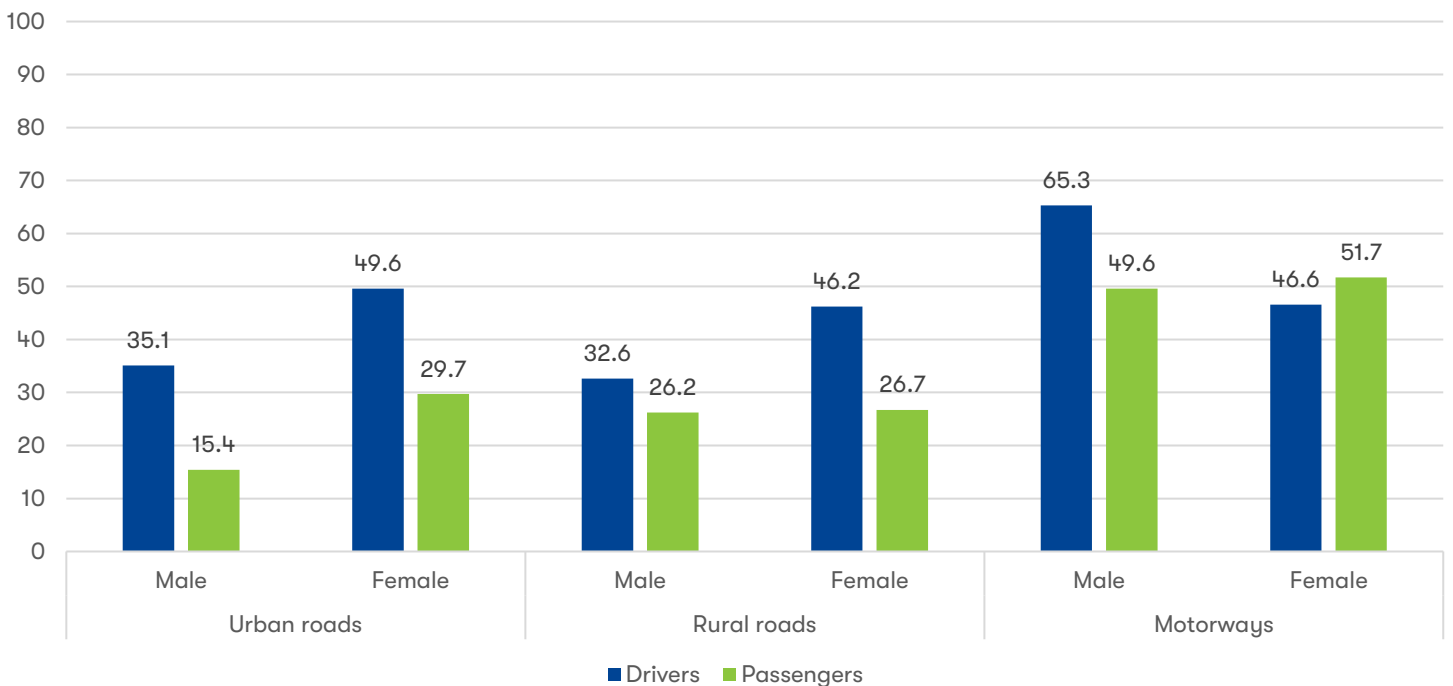
Percentage of restrained occupants of passenger cars



Percentage of restrained occupants of goods vehicles

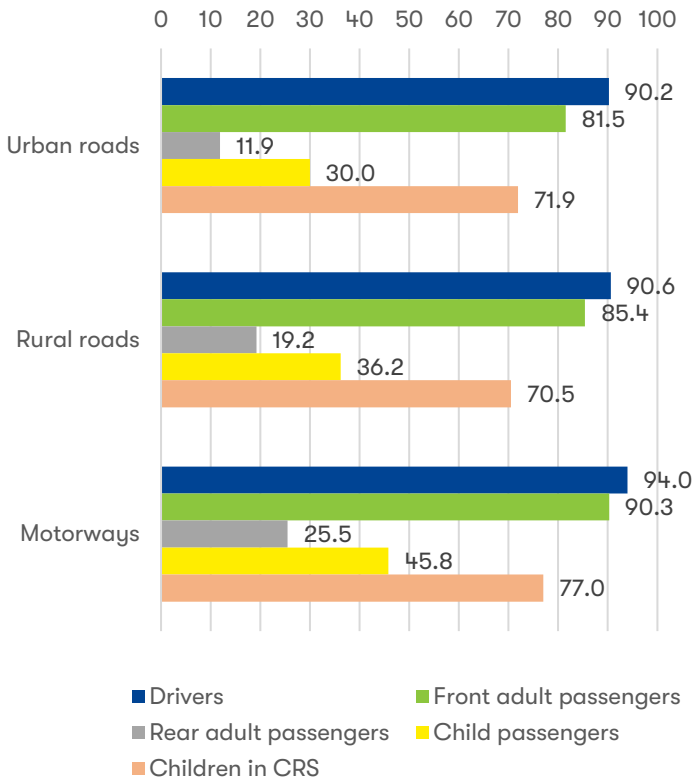


Percentage of restrained occupants of passenger cars by road type and gender

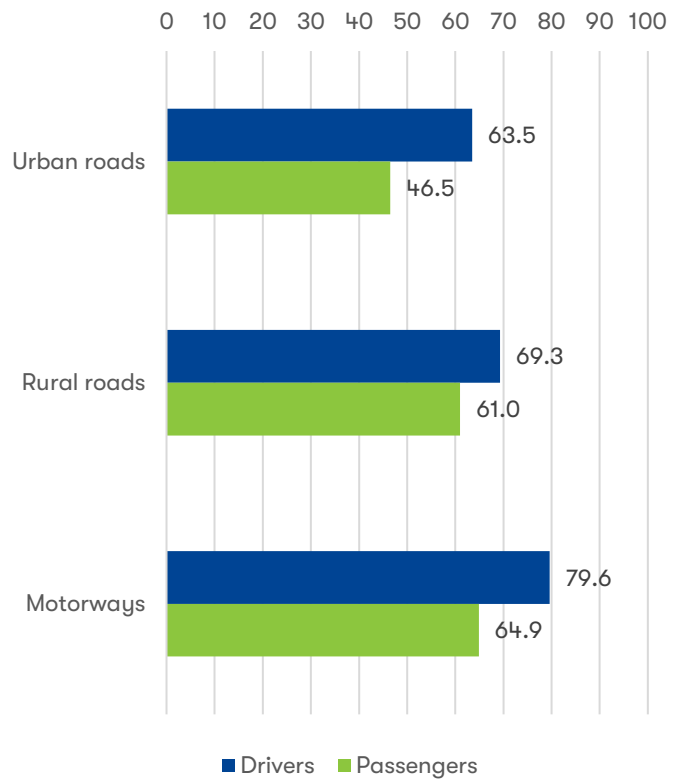


SERBIA

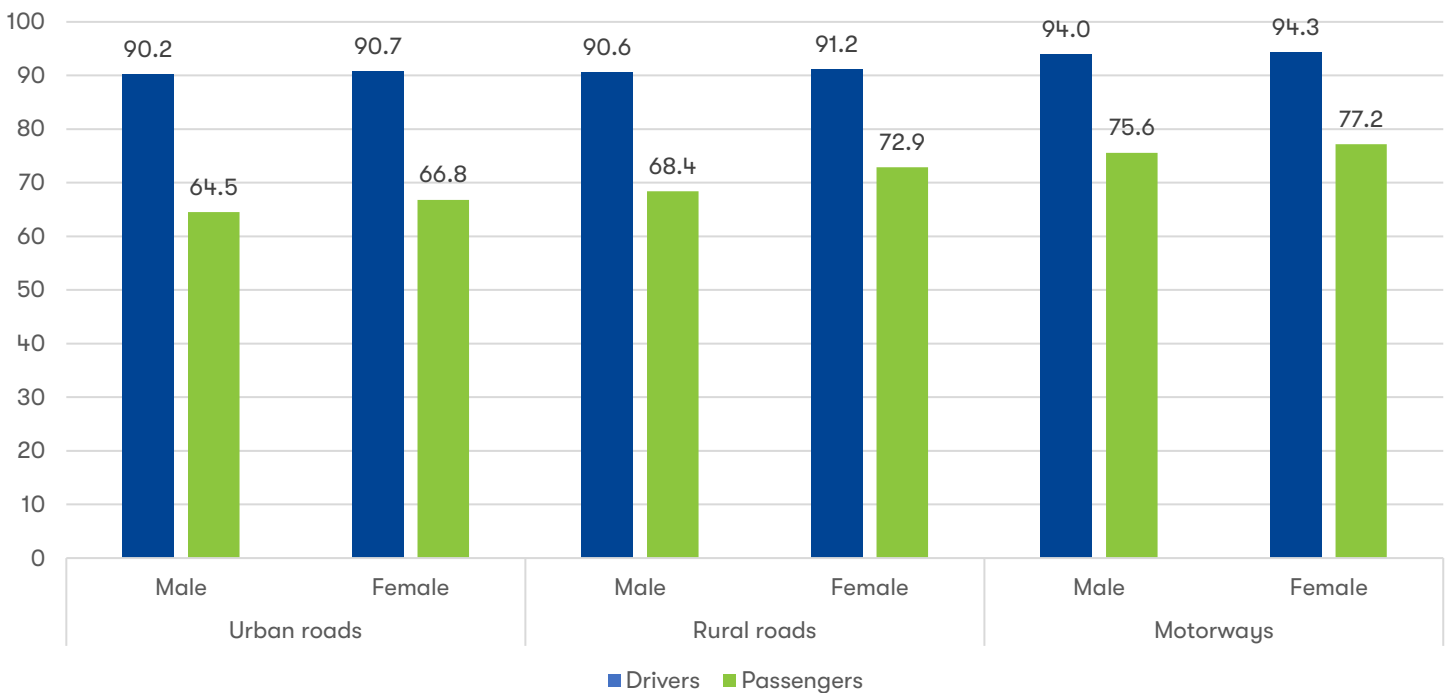
Percentage of restrained occupants of passenger cars



Percentage of restrained occupants of goods vehicles



Percentage of restrained occupants of passenger cars by road type and gender



METHODOLOGY NOTE

The methodology chosen for this project was based on the methodologies developed within the European Baseline and Trendline projects². The core of the data collection process consists of roadside observations by trained observers at carefully selected observation locations.

Observation locations

Several criteria were taken into account when identifying and selecting observation locations that are relevant, useful and safe. These criteria were:

- (1) Good spread across the administrative units of the regional partner (regions, police administration unit, etc.).
- (2) Variation in terms of geographical features (plains, coasts, hills, or mountains).
- (3) Sufficient population density in the neighbourhood of the location and different levels of traffic volume (low, medium, and high intensity), but avoiding locations with a very low volume of traffic.
- (4) Several types of road use (connection between city centres, daily commute, heavy commercial traffic, recreational traffic, etc.).
- (5) Safety of the observation locations.
- (6) Adequate visibility and space for making observations.

All observation locations in the Western Balkan region were chosen in accordance with the aforementioned criteria and at locations where the speed of vehicles is not too high, according to the road category (urban, rural, and motorways). For motorways, for reasons of visibility and safety, locations were selected where driving speed is reduced, such as the last intersection before on-ramps, and near toll stations. Observations of seatbelt use on urban and rural roads were planned on intersections with traffic lights, cross-walking, public parking, in front of shopping malls, etc.

Recruitment and selection of field researchers

Some regional partners had already some experience in measuring KPIs. For these regional partners field researchers were selected with experience in measuring and collecting KPI data. For the other regional partners, the minimum requirements to be met by a field researcher were: (1) participation in at least one transport project with field survey; and/or (2) experience in the road safety or transport sector through projects, research work or other activities. The selection of these field researchers was undertaken in cooperation with the scientific community within each regional partner.

All local field researchers were thoroughly trained about the data collection methodology to be used through a series of information and training sessions that took place in September and October 2023. In addition, the field researchers tested the data collection in real traffic situations. At all stages, they were supervised by experienced members of the project team of

² See the websites of Baseline (www.baseline.vias.be) and Trendline (www.trendlineproject.eu) and more in particular the methodological guidelines for KPI Safety belts and child restraint systems (Kšicová, E., Forsman, Å., Areal, A., Laiou, A., & Valentová, V. (2023). KPI safety belts and child restraint systems. Methodological Guidelines. Report produced as part the Trendline project, supported by the European Union.).

CDV and Tilkon. Representatives of the regional partners have also attended some of the information and training sessions, in view of capacity building for the future. Following the feedback received during the training sessions, the Methodology report was updated, and a “Q&A” document was made for the field researchers.

Road-side observations

Each observation location was used for one observation session. Before starting an observation session, the field researchers measured the traffic volume; this so-called “calibration” lasted 10 minutes. After that, the actual measurement of the restraining of people in the vehicle was carried out and recorded with the SPIn software. The duration of a session was typically one hour; in a few cases, the session lasted longer because there was insufficient traffic. After one hour or after reaching a sufficient sample, calibration was carried out again for 10 minutes.

Vehicles observed were randomly selected from all the possible vehicles at the location where the observation was done. After coding one observation, the next passing target vehicle was observed. Separate values for drivers, front occupants and rear occupants were coded, both for passenger cars and goods vehicles. Goods vehicles included light goods vehicles and heavy goods vehicles. Buses, taxis and emergency vehicles were neither counted nor observed. The table below includes the periods when roadside observations took place.

Regional partner	Start data collection	End data collection
Albania	19 October 2023	3 November 2023
Bosnia and Herzegovina	16 October 2023	31 October 2023
Kosovo	28 October 2023	5 November 2023
Montenegro	21 October 2023	4 November 2023
North Macedonia	25 October 2023	3 November 2023
Serbia	16 October 2023	22 October 2023

With a few exceptions, the weather was very good in the period considered. Observations took place during the morning, at noon and in the afternoon (the exact hours differed by location). The field researchers used the SPIn tool for coding their observations. SPIn is a mobile phone application designed to streamline the process of collecting several types of Safety Performance Indicators (SPIs) or KPIs. It was developed by CDV in the EU project Baseline and was adapted for the Westbelt project.

Sample size

Over 80 000 vehicle occupants were observed and coded. The distribution is given in the table below.

	Vehicle occupants in passenger cars	Vehicle occupants in goods vehicles
Albania	5 246	1 259
Bosnia and Herzegovina	14 375	1 734
Kosovo	9 777	1 114
Montenegro	10 294	965
North Macedonia	5 929	1 460
Serbia	26 841	2 466
Total	72 462	8 998

Data processing

All KPIs have been defined as the percentage of particular vehicle occupants using restraints. Most KPIs refer to a combination of a vehicle type (passenger car or goods vehicle), one or more occupant types (drivers, passengers) and a road type (urban road, rural road, motorway).

In each of the regional partners, the sample design included six strata (a combination of road type and vehicle type). For obtaining the KPI for a particular stratum, the data of all observation sessions in that stratum was weighted, to account for the variation in the number of vehicles passing by, the number of observed vehicles and the duration of the sessions. In order to calculate an overall KPI at the level of a regional partner (combining the six strata), a second weighting process was applied, based on an estimate of the relative volume of traffic (number of vehicle km travelled) in each of the six strata of the regional partners.

Reporting

More details about the methodology can be found in the Methodology Report, the Regional Thematic Report, each of the regional partners' methodological report and the Final Report.

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