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E-Survey of Road users' Attitudes

Speeding

ESRA3 Thematic report Nr. 7

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List of abbreviations

Country codes (in accordance with ISO 3166-1 alpha-2 (International Organization for Standardization [ISO], 2024))

AM	Armenia	KG	Kyrgyzstan
AU	Australia	LV	Latvia
AT	Austria	LU	Luxembourg
BE	Belgium	MX	Mexico
BA	Bosnia and Herzegovina	NL	Netherlands
BR	Brazil	PA	Panama
CA	Canada	PE	Peru
CL	Chile	PL	Poland
CO	Colombia	PT	Portugal
CZ	Czech Republic	RS	Republic of Serbia
DK	Denmark	SI	Slovenia
FI	Finland	ES	Spain
FR	France	SE	Sweden
DE	Germany	CH	Switzerland
EL	Greece	TH	Thailand
IE	Ireland	TR	Türkiye
IL	Israel	UK	United Kingdom
IT	Italy	US	United States
JP	Japan	UZ	Uzbekistan
KZ	Kazakhstan		

Other abbreviations

ESRA	E-Survey of Road users' Attitudes
EU	European Union
GLM	Generalized Linear Model
GLMM	Generalized Linear Mixed Model
OR	Odds Ratio
ICW	Individual country weight used in ESRA3
HIC	High income countries based on World Bank classification 2023 (The World Bank Group, 2023)
UMIC	Upper-middle income countries based on World Bank classification 2023 (The World Bank Group, 2023)
LMIC	Lower-middle income countries based on World Bank classification 2023 (The World Bank Group, 2023)

Executive summary

Objective and methodology

ESRA (E-Survey of Road users' Attitudes) is a joint initiative of road safety institutes, research centres, public services, and private sponsors from all over the world. The aim is to collect and analyse comparable data on road safety performance and road safety culture. The ESRA data are used as a basis for a large set of road safety indicators. These provide scientific evidence for policy making at national and international levels.

Vias institute in Brussels (Belgium) initiated and coordinates ESRA, in cooperation with ten steering group partners (BASt (Germany), DTU (Denmark), IATSS (Japan), ITS (Poland), KFV (Austria), NTUA (Greece), PRP (Portugal), SWOV (the Netherlands), TIRF (Canada), University Gustave Eiffel (France)). At the heart of ESRA is a jointly developed questionnaire survey, which is translated into national language versions. The themes covered include self-declared behaviour, attitudes and opinions on unsafe traffic behaviour, enforcement experiences and support for policy measures. The survey addresses different road safety topics (e.g., driving under the influence of alcohol, drugs and medicines, speeding, distraction) and targets car occupants, moped riders and motorcyclists, cyclists, pedestrians, and riders of e-scooters. In ESRA3 the questions related to vulnerable road uses (moped riders and motorcyclists, cyclists, pedestrians, and riders of e-scooters) have been expanded and questions on e-scooters and infrastructure have been added.

The present report is based on the third edition of this global survey, which was conducted simultaneously in 39 countries in 2023. In total this survey collected data from more than 37000 road users in 39 countries across five continents. An overview of the ESRA initiative and the project results is available on: www.esranet.eu.

This thematic ESRA3 report on speeding describes the attitudes and opinions on speeding of road users in 39 countries. It includes comparisons amongst the participating countries as well as results in relation to age and gender. The speeding aspects analysed in this thematic report cover: the self-declared speeding behaviour in traffic, the acceptability of speeding behaviour, attitudes towards speeding behaviour, subjective safety and risk perception regarding speeding, support for road safety policy measures regarding speeding, and the perceived likelihood of getting caught for speeding offences.

Key results

Self-declared speeding behaviours (reported behaviour)

- Across all regions, car drivers least frequently reported driving too fast for the road/traffic conditions at the time (27.8% to 31.0%), followed by driving faster than the speed limit inside built-up areas (37.1% to 47.3%), compared to other road types over the past 30 days.

- More males than females reported exceeding the speed limit in the last 30 days across all road types and regions.

- In Europe22 countries, younger age groups reported more frequent speeding than older age groups across all road types/conditions. In America8 countries, this trend was only observed for driving too fast for the road traffic conditions at the time.

Acceptability of speeding

- In all regions, less than 15% of the respondents report that they do accept driving faster than the speed limit on all type of roads.

- The personal acceptability for driving faster than the speed limit outside built-up areas ranges from 3.4% to 17.9%, the perceived acceptability by others for driving faster than the speed limit outside built-up areas ranges from 4.9% to 25.5%.

- Respondents consider speeding outside built-up areas more acceptable by 'others' than by themselves in all countries.

Intentions

- A quite high proportion in all regions (66.3% to 73.4%) indicates that they will do their best to respect speed limits in the next 30 days.

Perceived Behaviour Control (Self-efficacy)

- Respondents from AsiaOceania6 trust themselves less when driving faster than the speed limit compared to the other regions.

Subjective safety and risk perception

- The perceived frequency of speeding being the cause of a road crash differs widely between countries, with 92.4% in Kyrgyzstan in contrast to 22.8% in Japan.

- In the European countries, significantly more females than males classify speeding as being risky.

- A significant portion of the respondents is aware of the dangers associated with speeding.

Support for policy measures related to speeding

- The support for limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares) and to a maximum of 80 km/h on all rural roads without a median strip ranged from 42.1% to 64.6%.

Enforcement: Perceived likelihood of getting checked by the police for speeding

- The perceived likelihood of getting checked by the police for speeding ranged from 36.4% in Europe22 to 50.8% in AsiaOceania6.

Key Results of Advanced Analyses

What factors are related to self-declared speeding behaviours by car drivers?

- Women are consistently less likely to report speeding compared to men across various driving situations (inside built-up areas, outside built-up areas, on motorways, and driving too fast for conditions).

- Older drivers (aged 35-54 and 55-74) tend to report less speeding compared to younger drivers (aged 18-34) across different driving contexts.

- Drivers who perceive it as socially acceptable or personally acceptable to exceed speed limits are more likely to report speeding in all driving scenarios.

- Drivers who feel they need to drive fast to avoid losing time are consistently more likely to report speeding.

- Drivers who trust themselves when driving significantly faster than the speed limit are more inclined to report speeding across different driving conditions.

- Drivers who support lower speed limits generally report less speeding behaviour.

- Drivers who express a strong intention to respect speed limits in the future are consistently less likely to report speeding.

What factors are related to car drivers' intention to respect the speed limits in the next 30 days?

- Women are more likely than men to intend to respect speed limits in the next 30 days.

- Older drivers (aged 35-54 and 55-74) are more likely than younger drivers (aged 18-34) to intend to respect speed limits.

- Drivers in environments where it is more socially acceptable to exceed speed limits outside built-up areas are less likely to intend to respect speed limits.

- Drivers who view respecting speed limits as dull are less likely to intend to respect them.

- Drivers who trust themselves when driving significantly faster than the speed limit are less likely to intend to respect speed limits.

- Drivers who believe that speeding is a frequent cause of road crashes are more likely to intend to respect speed limits.

Key recommendations

- **Incorporate Road Safety Expectations in Communication Strategies:** Develop and implement communication strategies that address road safety expectations to effectively reduce crashes attributed to speeding.

- **Enhance Speed Management Policies:** Adjust speed management approaches to shift expectations and attitudes, such as by implementing more severe penalties and increasing police checks and monitoring.

- **Tailor Interventions:** Make infrastructural changes or behavioural interventions at the regional level, tailored to the specific needs and conditions of each country, to improve road safety.

- **Increase Acceptability of Stricter Traffic Rules:** Promote the acceptability of stricter traffic rules among road users to facilitate the effective implementation of road safety measures, including stricter speed limits.

The ESRA initiative has demonstrated the feasibility and the added value of joint data collection on road safety performance by partner organizations all over the world. The intention is to repeat this survey every three to four years, retaining a core set of questions in every edition. In this way, ESRA produces consistent and comparable road safety performance indicators that can serve as an input for national road safety policies and for international monitoring systems on road safety performance.

1. Introduction

According to the World Health Organization, road crashes are the 12th leading cause of death globally (WHO, 2023a). Speeding, as a major cause of death and serious injuries in accidents, presents a promising target for reducing these incidents. This report aims to further investigate road safety by gathering and analysing information about self-declared behaviour, attitudes, risk perception, support for policy measures and enforcement beliefs of road users regarding speeding.

The dramatic consequences of speeding are well-known: a 1% increase in speed is estimated to result in a 4% increase in fatal crash risk, and a pedestrian hit by a car traveling at 65 km/h instead of 50 km/h faces 4.5 times the risk of fatal injury (WHO, 2023b). According to the European Commission (2024) speeding is a contributory factor in about 30% of fatal crashes, and a reduction of 10 km/h of the initial speed may result in about 50% reduction in fatal crashes. A study by Li et al. (2024) demonstrates the effectiveness of measures to reduce speeding behaviour: The implementation of International Road Assessment Programmes, such as road safety infrastructure and safer speeds, has prevented approximately 700,000 fatal and serious injuries since 2016.

With respect to this illustration, it is undisputed that speeding is one of the most important topics in road safety research. As a key risk factor in road traffic, speeding is associated with both, the number of crashes as well as the severity of crashes (OECD/ITF, 2018; SWOV, 2012). The European Commission (2018) even states that speed is the core of the road safety problem, as it is involved in all accidents: "no speed, no accidents." In the "Global Plan – Decade of Action for Road Safety", issued jointly by the World Health Organization and the United Nations Regional Commissions in cooperation with other partners, reducing speeding is identified as a key factor in decreasing traffic-related deaths and injuries (WHO & UNRC, 2021). This goal is to be achieved through a combination of legislation, enforcement, and education. Additionally, improvements in vehicle safety features and road infrastructure design are intended to make safe road user behaviour particularly intuitive and easy to understand, ensuring that the safest action is also the most obvious and easiest to take.

Additionally, speeding encompasses not only exceeding the speed limit but also failing to adjust speed to local conditions such as weather or traffic volumes (SWOV, 2021). Even when driving within the prescribed maximum speed, the speed can still be excessive relative to the given conditions, thereby significantly impacting both personal and public safety. Therefore, effective risk communication is crucial to disseminate information and foster acceptance of road safety measures. However, exceeding the speed limit is a common behaviour. Based on behavioural measurements, the European Commission (2018) reports that 40% to 50% of drivers exceed the speed limit, with 10% to 20% driving more than 10 km/h over the limit. What motivates these road users to drive too fast? Certain characteristics of drivers who speed have already been identified. For instance, in 2023, the National Center for Statistics and Analysis of the National Highway Traffic Safety Administration identified some driver characteristics using data from the Fatality Analysis Reporting System (FARS) 2021. Their analysis showed that younger age and male gender were associated with speeding behaviour (NHTSA, 2023).

Speed limits, traffic rules, and penalties vary from country to country. Given the correlation between higher speeds and increased crash risk, comparing different countries could reveal valuable insights into the implementations and laws that effectively reduce speeds on various road types. In the ESRA3 study, data from road users in 39 countries were collected to provide an overview of attitudes and opinions on various road safety topics, including enforcement and policy measures. This report takes a closer look at the role of region, gender and age in speeding and explores additional factors such as self-declared speeding behaviours, acceptability of speeding, attitudes, risk perception, support for policy measures and enforcement related to speeding. These variables are examined in the descriptive analyses and further analysed in the advanced analyses. Mixed effects logistic regression models (random effects for countries will be included) will identify factors associated with self-declared speeding behaviours and the intention to respect the speed limit in the next 30 days. In sum, this thematic ESRA3 report aims at describing the speeding behaviour and different attitudes and expectations towards speeding of road users in 39 different countries.

2. Methodology

ESRA (E-Survey of Road users' Attitudes) is a joint initiative of road safety institutes, research centres, public services, and private sponsors from all over the world. The aim is to collect and analyse comparable data on road safety performance, in particular road safety culture and behaviour of road users. An overview of the latest survey (ESRA2) from 2018-2021 is provided by Meesmann et al. (2022). The ESRA data are used as a basis for a large set of road safety indicators. These provide scientific evidence for policy making at national and international levels.

ESRA data are collected through online panel surveys, using a representative sample of the national adult populations in each participating country (aiming at n=1000 per country). A few exceptions exist. In four countries (Armenia, Kyrgyzstan, Luxembourg, and Uzbekistan) the targeted sample size was reduced to 500 respondents, as sample sizes of 1000 respondents were not feasible due to limitations of the national panel or too high costs.

At the heart of this survey is a jointly developed questionnaire, which was translated into 49 national language versions in ESRA3. The themes covered include self-declared behaviour, attitudes and opinions on unsafe traffic behaviour, enforcement experiences and support for policy measures. The survey addresses different road safety topics (e.g., driving under the influence of alcohol, drugs and medicines, speeding, distraction) and targets car occupants, moped riders and motorcyclists, cyclists, pedestrians, and riders of e-scooters. In ESRA3 the questions related to vulnerable road users (moped riders and motorcyclists, cyclists, pedestrians, and riders of e-scooters) have been expanded and questions on e-scooters and infrastructure have been added. The present report is based on the third edition of this global survey, which was conducted simultaneously in 39 countries in 2023. In total this survey collected data from more than 37000 road users in 39 countries, across five continents.

The participating countries in ESRA3 were:

- Europe: Austria, Belgium, Bosnia and Herzegovina, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Luxembourg, Netherlands, Poland, Portugal, Republic of Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom;

- America: Brazil, Canada, Chile, Colombia, Mexico, Panama, Peru, USA;

- Asia and Oceania: Armenia, Australia, Israel, Japan, Kazakhstan, Kyrgyzstan, Thailand, Türkiye, Uzbekistan.

Vias institute in Brussels (Belgium) initiated and coordinates ESRA, in cooperation with ten steering group partners (BASt (Germany), DTU (Denmark), IATSS (Japan), ITS (Poland), KFV (Austria), NTUA (Greece), PRP (Portugal), SWOV (the Netherlands), TIRF (Canada), and University Gustave Eiffel (France)). The common results of the ESRA3 survey are published in a Main Report, a Methodology Report and 13 Thematic Reports (Table 1). Furthermore, 39 country fact sheets, including different language versions, have been produced in which national key results are compared to a regional mean (benchmark). Scientific articles, national reports and many conference presentations are currently in progress. All common ESRA3 reports have been peer-reviewed within the consortium, following a pre-defined quality control procedure. An overview of the results and news on the ESRA initiative is available on: www.esranet.eu. On this website one can also subscribe to the ESRA newsletter.

Table 1: ESRA3 Thematic Reports

Driving under influence of alcohol, drugs and medication	Support for policy measures and enforcement	Pedestrians	Young and aging road users
Speeding	Subjective safety and risk perception	Cyclists	Male and female road users
Distraction (mobile phone use) and fatigue	Infrastructure	Riders of e-scooters	
Seat belt & child restraint systems		Moped riders and motorcyclists	

The present report summarizes the ESRA3 results with respect to speeding. A more detailed overview of the data collection method and the sample per country can be found in the ESRA3 methodology report (Meesmann & Wardenier, 2024).

The present report analyses self-declared behaviour, others' and personal acceptability, attitudes, subjective safety and risk perception, as well as support for policy measures and enforcement regarding speeding. Analysed speeding aspects in this thematic report are:

<u>a. Self-declared speeding behaviours</u>
Answers from 1 (never) to 5 ((almost) always)

Question: Over the last 30 days, how often did you as a CAR DRIVER…?
- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)
- drive faster than the speed limit on motorways/freeways

Question: Over the last 30 days, how often did you as a MOPED RIDER or MOTORCYCLIST …?
- ride faster than the speed limit outside built-up areas (except motorways/freeways)
- ride too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)

<u>b. Acceptability of speeding</u>
Answers from 1 (unacceptable) to 5 (acceptable)

Question: Where you live, how acceptable would most other people say it is for a CAR DRIVER to…?
- drive faster than the speed limit outside built-up areas (except motorways/freeways)

Question: How acceptable do you, personally, feel it is for a CAR DRIVER to…?
- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)
- drive faster than the speed limit on motorways/freeways

Question: How acceptable do you, personally, feel it is for a MOPED RIDER or MOTORCYCLIST to …?
- ride faster than the speed limit outside built-up areas (except motorways/freeways)

<u>c. Attitudes towards speeding</u>
Answers from 1 (disagree) to 5 (agree)

Behaviour Beliefs and Attitudes:
- I have to drive fast; otherwise I have the impression of losing time.
- Respecting speed limits is boring or dull.

Perceived Behaviour Control (Self-efficacy):
- I trust myself when I drive significantly faster than the speed limit.
- I have the ability to drive significantly faster than the speed limit.
- I am able to drive fast through a sharp curve.

Habits:
- I often drive faster than the speed limit.

Intentions:
- I intend to respect speed limits in the next 30 days.

<u>d. Subjective Safety & Risk Perception regarding speeding</u>
Answers from 0 (never) to 6 ((almost) always)

Question: How often do you think each of the following factors is the cause of a road crash involving a car?
- driving faster than the speed limit

<u>e. Support for policy measures related to speeding</u>
Answers from 1 (oppose) to 5 (support)

Question: Do you oppose or support a legal obligation…?
- limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)
- limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip

<u>f. Enforcement</u>
Answers on a scale from 1 (*very unlikely*) to 7 (*very likely*)

Question: On a typical journey, how likely is it that you (as a car driver) will be checked by the police (including camera's or radars) for …?
- respecting the speed limits

Chapter 3 focuses on the results of descriptive analyses (part one) and further analyses (part two). To assess the association between the analysed variables and region, gender, or age group Chi-square tests were applied, with Cramer's V indicating the strength of the association (strength classification after Cohen, 1988, can be found in Table 2). To find significant differences between the pairs of groups (region, gender, age groups) pairwise comparisons, using Bonferroni correction, were conducted. In the further analyses, mixed effects logistic regression models (including random effects for countries) were developed.

Table 2: Thresholds used to indicate the strength of coefficients

	Small strength	Medium strength	Large strength
Cramer's V (association with region: 2 deg. of freedom)	0.07	0.21	0.35
Cramer's V (association with gender: 1 deg. of freedom)	0.10	0.30	0.50
Cramer's V (association with age: 5 deg. of freedom)	0.05	0.13	0.22

Note that a weighting of the data was applied in the analyses. This weighting took into account small corrections with respect to national representativeness of the sample based on gender and six age groups: 18-24y, 25-34y, 35-44y, 45-54y, 55-64y, 65-74y (United Nations Statistics Division, 2023). For the regional means, the weighting also took into account the relative size of the population of each country within the total set of countries from this region. SPSS 26.0 (IBM Corp., 2019) and R 4.3.1 (R Core Team, 2023) was used for all analyses. For advanced analysis the R-package lme4 was used.

3. Results

3.1   Descriptive results

This chapter focuses on the results of descriptive statistics on survey questions related to speeding. For three regions, self-declared (reported) behaviour, acceptability of such behaviour, attitudes, subjective safety and risk perceptions, support for policy measures and enforcement in relation to speeding are analysed in detail with respect to regional, gender and age group differences. The three regions are named according to the number of participating countries (mentioned in chapter 2): Europe22, the Americas8 and AsiaOceania6.

3.1.1.   Self-declared speeding behaviours

To capture self-declared speeding behaviour, participants were asked how frequently they engaged in certain behaviours as car drivers over the past 30 days. They were required to assess the following behaviours on a 5-point Likert scale from 1 (*never*) to 5 (*(almost) always*):

- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)
- drive faster than the speed limit on motorways/freeways

Additionally, participants assessed their behaviour as moped riders or motorcyclists in the last 30 days in the same manner:

- ride faster than the speed limit outside built-up areas (except motorways/freeways)
- ride too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)

For the descriptive analyses the answers were split into never (1) and at least once (2-5).

CAR DRIVERS

Figure 1 shows the proportional distribution of self-declared speeding by region for different road types/conditions. For detailed country data see Figure A 1: Self-declared speeding behaviour (% at least once in the past 30 days) of car drivers separated by countries. Left: inside built-up areas; Right: outside built-up areas. and Figure A 2: Self-declared speeding behaviour (% at least once in the past 30 days) of car drivers separated by countries. Left: too fast for the road/traffic conditions; Right: on motorways/freeways in the Appendix 3. Reported speeding on all road types and conditions ranges from 27.8% in America8 for poor road/traffic conditions to 52.8% in Europe22 for speeding outside built-up areas (excluding motorways/freeways). The proportion of self-declared speed violations on motorways (chi-square= 62.13, df = 2, p-value < 0.001, Cramer's V = 0.075), inside built-up areas (chi-square = 82.95, df = 2, p-value < 0.001, Cramer's V = 0.086) and outside built-up areas (excluding motorways/freeways; chi-square = 117.22, df = 2, p-value < 0.001, Cramer's V = 0.103) varies significantly by region. On these road types, more speeding is reported in Europe22 than in America8 and AsiaOceania6. In addition, more speeding was reported on motorways/freeways in America8 compared to AsiaOceania6. In all regions, the lowest proportion of speeding is reported for "driving too fast for the road/traffic conditions at the time". Furthermore, only in America8 the proportion of reported speeding is higher on motorways/freeways than outside built-up areas.

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
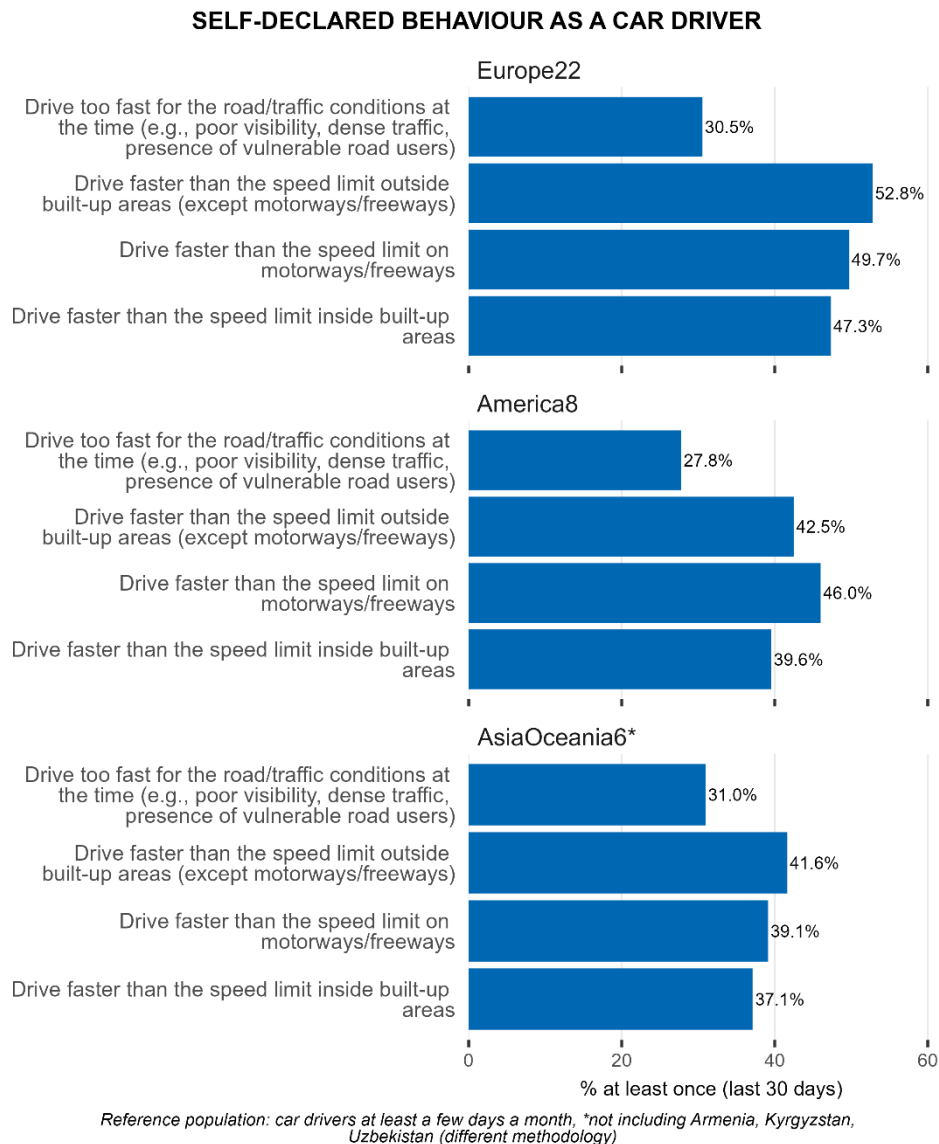
Figure 1: Self-declared speeding behaviour as a car driver (% at least once in the past 30 days) separated by region and road type/condition.

An analysis of the influence of gender shows that men are more likely to report speeding on all road types/conditions compared to women (see Table 3), regardless of region. While in Europe22 the difference was the strongest for driving too fast for the road/traffic conditions at the time (chi-square = 53.69, df = 1, p-value < 0.001, Cramer's V = 0.090), in America8 and AsiaOceania6 it was strongest for driving faster than the speed limit on motorways/freeways (America8: chi-square = 87.55, df = 1, p-value < 0.001, Cramer's V = 0.193, AsiaOceania6: chi-square= 61.48, df = 1, p-value < 0.001, Cramer's V = 0.163). Overall, the association between gender and self-declared speeding remained small, but was strongest for America8 (for detailed statistical comparisons, see Table A 1 in the Appendix 4). The results are consistent with previous findings and observations, which indicate that men tend to drive faster than women (e.g. NHTSA, 2023).

For AsiaOceania6 there were no significant age group differences in speeding on the different road types/conditions. However, for both Europe22 and America8 self-declared speeding behaviour differed significantly by age group. In Europe22, younger age groups were most likely to report speeding on all road types/conditions (see Table 3), with the strongest effect found for driving too fast for the road/traffic conditions at the time (chi-square = 160.95, df = 5, p-value < 0.001, Cramer's V = 0.155). For America8, younger age groups were most likely to report speeding only for "driving too fast for the

road traffic conditions at the time" (chi-square = 14.13, df = 5, p = 0.015, Cramer's V = 0.078). On other road types, the older age groups reported the highest proportion of speeding behaviour, with the strongest effect found for driving faster than the speed limit outside built-up areas (except motorways/freeways; chi-square = 88.05, df = 5, p-value < 0.001, Cramer's V = 0.194). For detailed statistical comparisons see Table A 2 in the Appendix 4.

The literature indicates that younger drivers are more likely to speed (e.g., NHTSA, 2023). However, in the case of America8, the additional finding, that the oldest age group also reports more speeding, may be due to several factors, such as older individuals having the financial means to purchase faster cars, unlike the younger age groups. Interpreting individual results is challenging and necessitates country-specific information beyond the scope of this survey.

Table 3: Self-declared speeding behaviour as a car driver for different road types/conditions in the three regions separated by gender and age group.

Road types/conditions	Region	Gender		Age group					
		Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	34.5%ₐ	26.2%_b	42.9%ₐ	35.2%_{a,b}	34.1%_b	31.0%_{b,c,d}	25.3%_d	17.2%_e
	America8	33.9%ₐ	21.1%_b	33.5%ₐ	27.7%_{a,b}	27.7%_{a,b}	28.7%_{a,b}	27.8%_{a,b}	19.2%_b
	AsiaOceania6*	35.2%ₐ	26.1%_b	31.5%ₐ	32.8%ₐ	33.2%ₐ	29.3%ₐ	30.4%ₐ	27.1%ₐ
Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	56.7%ₐ	48.6%_b	59.2%ₐ	49.6%_{b,c}	53.6%_{a,b}	56.8%ₐ	53.4%_{a,b}	45.1%_c
	America8	50.4%ₐ	34.0%_b	50.3%ₐ	32.3%_b	32.6%_b	46.5%ₐ	57.3%ₐ	49.1%ₐ
	AsiaOceania6*	47.8%ₐ	34.7%_b	41.0%ₐ	39.5%ₐ	43.1%ₐ	43.9%ₐ	41.3%ₐ	39.8%ₐ
Drive faster than the speed limit on motorways/freeways	Europe22	54.6%ₐ	44.4%_b	57.5%ₐ	48.3%_{b,c}	50.7%_{a,b}	52.1%_{a,b}	50.4%_{a,b}	40.9%_c
	America8	55.3%ₐ	36.0%_b	52.0%ₐ	35.8%_b	36.1%_b	50.6%ₐ	59.7%ₐ	55.5%ₐ
	AsiaOceania6*	46.7%ₐ	30.7%_b	40.5%ₐ	36.9%ₐ	39.6%ₐ	41.6%ₐ	37.6%ₐ	38.5%ₐ
Drive faster than the speed limit inside built-up areas	Europe22	50.3%ₐ	44.1%_b	55.6%ₐ	46.7%_{b,c}	47.6%_{a,b}	50.6%_{a,b}	45.5%_{b,c}	39.8%_c
	America8	46.4%ₐ	32.3%_b	47.7%ₐ	31.8%_b	33.8%_{b,c}	42.6%_{a,c}	48.5%ₐ	41.3%_{a,b}
	AsiaOceania6*	42.1%ₐ	31.5%_b	33.3%ₐ	33.3%ₐ	37.4%ₐ	39.1%ₐ	39.3%ₐ	40.2%ₐ

*Note: Reference population: car drivers at least a few days a month. % at least once in the past 30 days. *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level. See Appendix 4 for detailed statistical analyses.*

MOPED RIDERS or MOTORCYCLISTS

Figure 2 shows the proportional distribution of self-declared speeding behaviour outside built-up areas and for riding too fast for the road/traffic conditions at the time by region and country. Reported speeding ranges from 13.0% in Australia for riding too fast for the road traffic conditions at the time (Armenia with 0.0% was excluded due to the usage of a different methodology) to 67.2% in Latvia for riding faster than the speed limit outside built-up areas. For speeding outside built-up areas, the proportion was highest in Europe22 (35.1%), followed by AsiaOceania6 (31.8%) and America8 (30.1%). The significant effect of the region (chi-square= 7.17, df = 2, p-value = 0.028, Cramer's V = 0.047) could not be confirmed in post-hoc tests. AsiaOceania6 showed the highest proportion of riding too fast for the road/traffic conditions (30.4%), followed by Europe22 (30.3%) and America8 (26.6%). No significant regional effect was observed here (p-value = 0.093). The descriptive (but not significant) regional differences are largely consistent with those observed among car drivers, even though speeding seems to be reported less frequently overall. The lower self-declared speeding behaviour could be related to a compensation mechanism (risk homeostasis): moped riders and motorcyclists are less protected in traffic and are more likely to sustain severe injuries in the event of an accident. Less frequent speeding might help mitigate this risk.

An analysis of the influence of gender shows that men are more likely to report speeding outside built-up areas in America8 and AsiaOceania6 compared to women (America8: chi-square = 44.70, df = 1, p-value < 0.001, Cramer's V = 0.213; AsiaOceania6: chi-square = 9.90, df = 1, p = 0.002, Cramer's V = 0.096; see Table 4). A similar pattern is observed for speeding behaviour in bad road/traffic conditions (America8: chi-square= 44.33, df = 1, p < 0.001, Cramer's V = 0.212; AsiaOceania6: chi-square = 9.03, df = 1, p-value = 0.003, Cramer's V = 0.091). The initially found significant gender effects in Europe22 could not be confirmed by post-hoc tests.
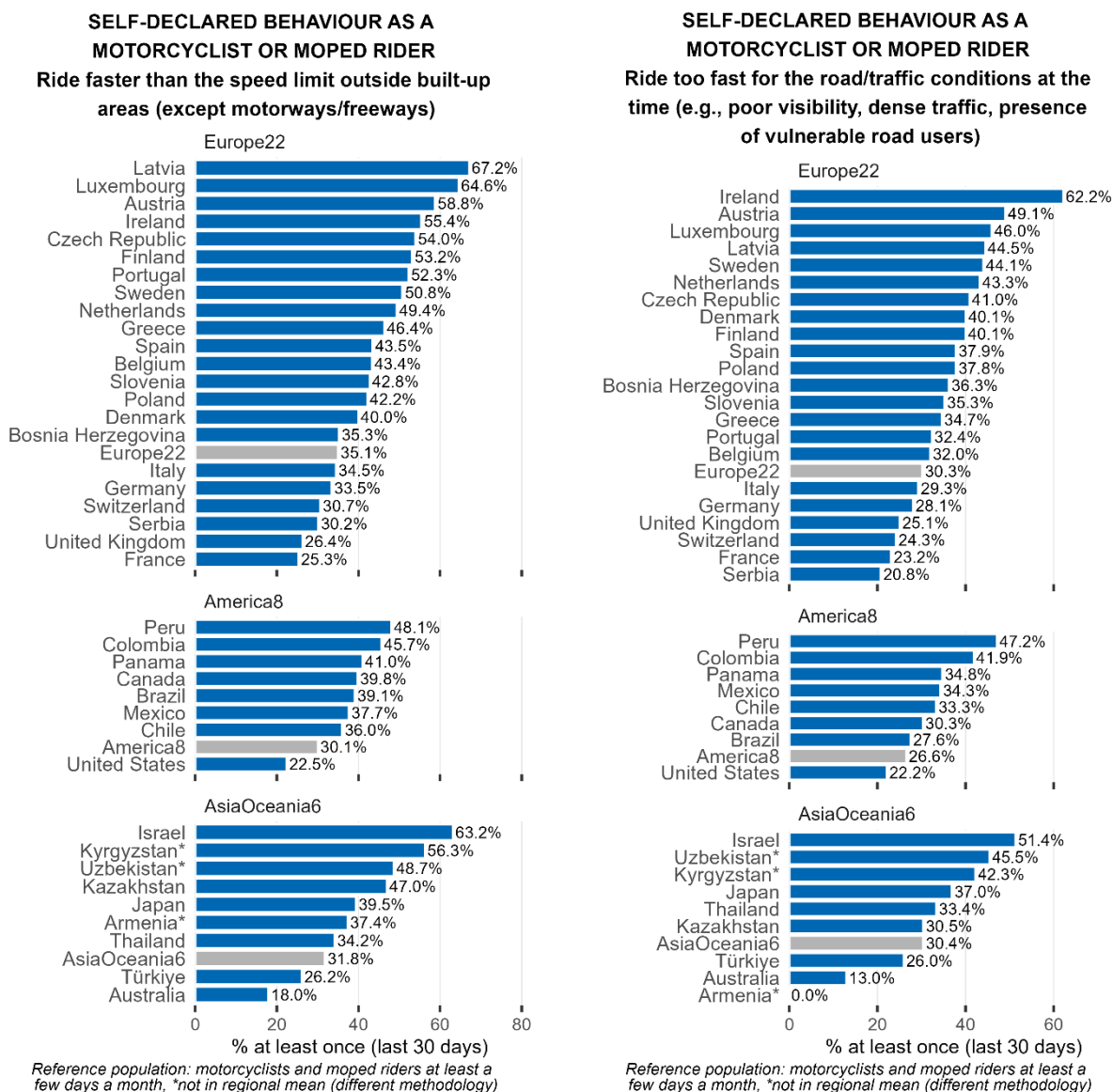
Figure 2: Self-declared speeding behaviour as a motorcyclist or moped rider (% at least once in the past 30 days) separated by countries. Left: outside built-up areas; Right: ride too fast for the road/traffic conditions.

Neither in Europe22 nor in AsiaOceania6 an influence of age on the frequency of self-declared speeding behaviour outside built-up areas was found, even though a significant effect was initially detected in Europe22, which was not confirmed by post-hoc tests. However, for America8, it was shown that the 25-34- and 35-44-year-old groups reported significantly less speed violations compared to the 55-64-year-old group, as can be seen in Table 4 (chi-square = 23.22, df = 5, p-value < 0.001, Cramer's V = 0.077). For riding too fast for the road/traffic conditions only in Europe22 a significant effect of age group was found. Here, the 18-24-year-old group reported significantly more speed violations compared to the 65-74-year-old group (chi-square = 20.55, df = 5, p-value < 0.001, Cramer's V = 0.125). The

descriptive differences between men and women and age groups are largely consistent with those observed among car drivers. For detailed statistical comparisons see Table A 3 and Table A 4 in the Appendix 4.

Various studies have shown that younger, male motorcyclists and moped riders are more likely to violate traffic rules compared to older, female riders (Chang & Yeh, 2007; Lin et al., 2003; Rutter & Quine, 1996). However, there is also evidence suggesting no gender difference in such behaviour (Anggraini et al., 2023). Similar to car drivers, the reverse age effect observed in America8 might be due to factors such as older individuals having the financial means to purchase faster motorcycles, unlike the younger age groups. Nonetheless, these associations require further investigation.

Table 4: Self-declared speeding behaviour as a moped rider/motorcyclist for different road types/conditions in the three regions separated by gender and age group.

Road types/conditions	Region	Gender		Age group					
		Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	32.1%ₐ	26.5%ₐ	41.5%ₐ	30.5%ₐ,ᵦ	30.1%ₐ,ᵦ	27.5%ₐ,ᵦ	24.0%ₐ,ᵦ	16.4%ᵦ
	America8	34.8%ₐ	15.9%ᵦ	32.9%ₐ	22.2%ₐ	27.8%ₐ	24.9%ₐ	36.0%ₐ	32.9%ₐ
	AsiaOceania6*	34.3%ₐ	25.8%ᵦ	32.0%ₐ	25.2%ₐ	30.4%ₐ	35.3%ₐ	30.0%ₐ	36.8%ₐ
Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	36.9%ₐ	31.4%ₐ	45.2%ₐ	31.1%ₐ	34.7%ₐ	36.7%ₐ	37.0%ₐ	26.3%ₐ
	America8	38.7%ₐ	19.0%ᵦ	37.5%ₐ,ᵦ	26.2%ₐ	25.7%ₐ	32.8%ₐ,ᵦ	48.3%ᵦ	55.9%ₐ,ᵦ
	AsiaOceania6*	36.0%ₐ	27.0%ᵦ	34.4%ₐ	27.2%ₐ	32.8%ₐ	36.9%ₐ	32.0%ₐ	27.4%ₐ

*Note: Reference population: motorcyclists and moped riders at least a few days a month. % at least once in the past 30 days. *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

3.1.2. Acceptability of speeding: injunctive and individual norm

To capture acceptability of speeding for a car driver, participants answered two questions on a 5-point Likert scale from 1 (*unacceptable*) to 5 (*acceptable*):

Other's acceptability (injunctive norm): Where you live, how acceptable would most other people say it is for a CAR DRIVER to ….? drive faster than the speed limit outside built-up areas (except motorways/freeways)

Personal acceptability (individual norm): How acceptable do you, personally, feel it is for a CAR DRIVER to …?

* drive faster than the speed limit inside built-up areas
* drive faster than the speed limit outside built-up areas (except motorways/freeways)
* drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)
* drive faster than the speed limit on motorways/freeways

Additionally, participants assessed the personal acceptability of speeding as moped riders or motorcyclists:

Personal acceptability (individual norm): How acceptable do you, personally, feel it is for a MOPED RIDER or MOTORCYCLIST to …? ride faster than the speed limit outside built-up areas (except motorways/freeways).

For the descriptive analyses the answers were split into unacceptable/neutral (1-3) and acceptable (4-5).

CAR DRIVERS

In order to make a descriptive comparison between personal (individual norm) and others' acceptability (injunctive norm), the acceptability of driving faster than the speed limit outside built-up areas (except motorways/freeways) is described first. In all countries, speeding outside built-up areas is accepted by less than one third of respondents, with high variation within the countries (the highest value being in Austria, with 25.5% for the acceptability of others, the lowest value being in Armenia, with 3.4 % for the personal acceptability). Additionally, respondents in all countries believe that "others" are more likely to accept speed violations than they are themselves (Figure 3: Other's (left) and personal (right) acceptability for speeding outside built-up areas, as perceived by/of all road users, separated by countries.).
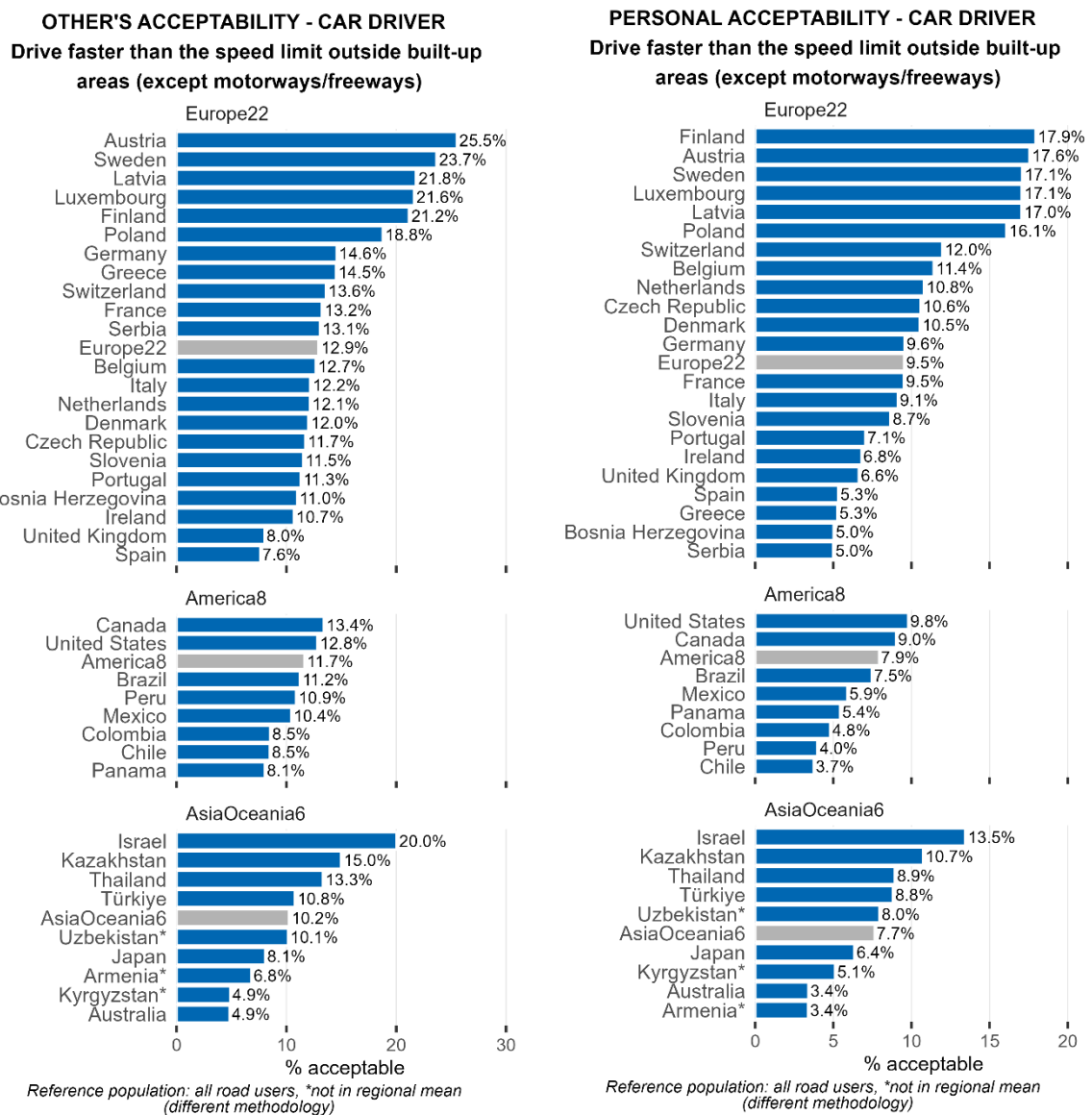
Figure 3: Other's (left) and personal (right) acceptability for speeding outside built-up areas, as perceived by/of all road users, separated by countries.

There is a significant regional effect on both others' acceptability (chi-square = 0.48, df = 2, p-value < 0.001, Cramer's V = 0.031) and personal acceptability (chi-square = 13.46, df = 2, p-value < 0.001, Cramer's V = 0.030). In Europe22, a higher others' acceptability is reported (12.9%) compared to AsiaOceania6 (10.2%). The same applies to personal acceptability (Europe22: 9.5%; AsiaOceania6: 7.7%).

The personal acceptability for speeding on the other road types/conditions varies between 2.9% in Europe22 for driving too fast for the road/traffic conditions at the time and 13.2% in Europe22 for driving faster than the speed limit on motorways/freeways (see Figure 4: Personal acceptability for speeding on different road types/conditions of all road users, separated by region.).

In addition to the previously reported effect for speeding outside built-up areas, significant regional differences were also found for driving too fast for the road/traffic conditions at the time (chi-square = 15.83, df = 2, p-value = 0.001, Cramer's V = 0.032) and for speeding on motorways/freeways (chi-square = 38.04, df = 2, p-value = 0.001, Cramer's V = 0.050). In America8, a higher personal acceptability for driving too fast for the road/traffic conditions at the time is reported (3.9%) compared to Europe22 (2.9%). Conversely, speeding on motorways/freeways was more accepted in Europe22 (13.2%) than in America8 (9.7%) and AsiaOceania6 (10.2%).
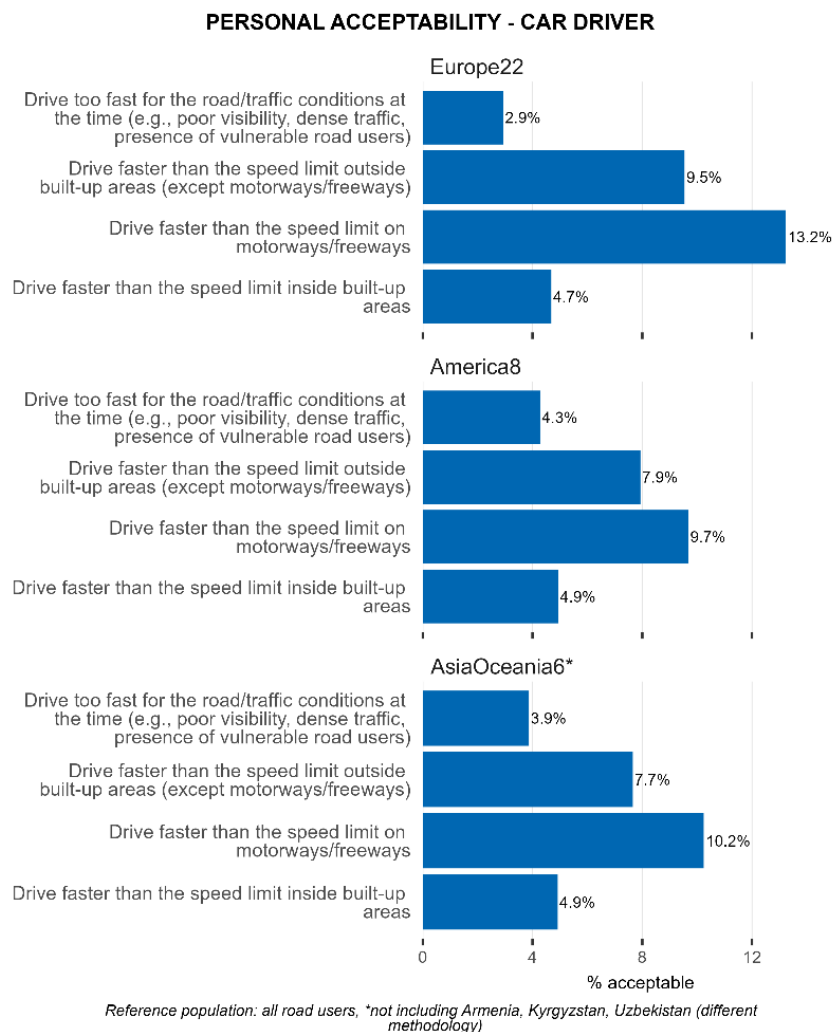
Figure 4: Personal acceptability for speeding on different road types/conditions of all road users, separated by region.

Gender differences in the personal acceptability of speeding were found on all road types/conditions as well as in the other's acceptability for both Europe22 and America8. Here, men showed a higher personal acceptability compared to women, and also assumed that other's acceptability would be higher (see Table 5). While in Europe22 the difference was the strongest for the personal acceptability of driving faster than the speed limit on motorways/freeways (chi-square = 63.66, df = 1, p-value < 0.001, Cramer's V = 0.086), in America8 it was strongest for the personal acceptability of driving faster than the speed limit outside built-up areas (except motorways/freeways; chi-square = 49.68, df = 1, p-value < 0.001, Cramer's V = 0.122). For AsiaOceania6 such a difference was only found for the personal acceptability of speeding outside built-up areas (chi-square = 11.60, df = 2, p-value < 0.001, Cramer's V = 0.059) and on motorways/freeways (chi-square = 34.13, df = 2, p-value < 0.001, Cramer's V = 0.101). For detailed statistical comparisons see Table A 5 in the Appendix 3.

An analysis of different age groups revealed that in Europe22, the 18-24 age-group believed that driving faster than the speed limit outside built-up areas (except motorways/freeways) is more accepted by others compared to all other age groups (chi-square = 183.53, df = 5, p-value < 0.001, Cramer's V = 0.145). Overall, for Europe22, the perception of others' acceptability decreased with increasing age (see Table 5). An age effect was also found for AsiaOceania6 (chi-square = 22.00, p-value < 0.001, Cramer's V = 0.081). Here, the 18-24-year-old group was more likely to believe that others have a higher acceptability compared to the 45-54-year-old group. For America8 such an age effect was not found.

The different age groups did not differ in personal acceptability in America8, nor in AsiaOceania6. Although some chi-square tests were significant, the differences could not be confirmed in post-hoc tests. However, for Europe22, similar to the perception of others' acceptability, personal acceptability for speeding decreased with increasing age-group. This age effect was the strongest for the personal acceptability of driving too fast on motorways/freeways (chi-square = 178.98, p-value < 0.001, Cramer's V = 0.143). For detailed statistical comparisons see Table A 6 in the Appendix 4.

Table 5: Others' and personal acceptability of speeding for different road types/conditions in the three regions separated by gender and age group.

Road types/conditions	Region	Gender		Age group					
		Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
OA: Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	14.8%$_a$	11.2%$_b$	22.5%$_a$	15.6%$_b$	16.3%$_b$	11.4%$_c$	8.8%$_{c,d}$	6.2%$_d$
	America8	14.2%$_a$	9.3%$_b$	11.3%$_a$	12.0%$_a$	11.1%$_a$	14.3%$_a$	11.2%$_a$	8.8%$_a$
	AsiaOceania6*	10.9%$_a$	9.7%$_a$	13.7%$_a$	12.1%$_{a,b}$	12.1%$_{a,b}$	7.4%$_b$	7.6%$_{a,b}$	8.3%$_{a,b}$
PA: Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	12.0%$_a$	7.1%$_b$	17.6%$_a$	12.0%$_b$	11.6%$_b$	9.1%$_b$	5.2%$_c$	4.5%$_c$
	America8	11.3%$_a$	4.7%$_b$	11.1%$_a$	6.9%$_a$	7.9%$_a$	8.3%$_a$	7.6%$_a$	5.3%$_a$
	AsiaOceania6*	9.3%$_a$	6.1%$_b$	8.7%$_a$	8.9%$_a$	8.8%$_a$	5.9%$_a$	6.3%$_a$	7.3%$_a$
PA: Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	3.8%$_a$	2.1%$_b$	5.9%$_a$	5.4%$_a$	3.9%$_a$	1.8%$_b$	1.1%$_b$	0.6%$_b$
	America8	6.3%$_a$	2.3%$_b$	4.4%$_a$	4.2%$_a$	6.5%$_a$	5.2%$_a$	2.3%$_a$	1.7%$_a$
	AsiaOceania6*	4.3%$_a$	3.5%$_a$	4.6%$_a$	5.7%$_a$	4.1%$_a$	2.4%$_a$	2.8%$_a$	3.4%$_a$
PA: Drive faster than the speed limit on motorways/freeways	Europe22	16.2%$_a$	10.4%$_b$	22.5%$_a$	17.5%$_{a,b}$	14.2%$_{b,c}$	13.1%$_c$	8.7%$_d$	6.4%$_d$
	America8	13.1%$_a$	6.4%$_b$	13.6%$_a$	8.8%$_a$	7.9%$_a$	9.9%$_a$	10.9%$_a$	7.1%$_a$
	AsiaOceania6*	13.3%$_a$	7.2%$_b$	12.5%$_a$	11.2%$_a$	11.0%$_a$	9.3%$_a$	8.6%$_a$	8.8%$_a$
PA: Drive faster than the speed limit inside built-up areas	Europe22	6.0%$_a$	3.4%$_b$	10.5%$_a$	6.6%$_{a,b}$	5.2%$_b$	4.3%$_{b,c}$	2.2%$_d$	1.4%$_d$
	America8	7.1%$_a$	2.9%$_b$	6.3%$_a$	5.4%$_a$	5.7%$_a$	6.1%$_a$	2.0%$_a$	2.9%$_a$
	AsiaOceania6*	5.4%$_a$	4.4%$_a$	6.7%$_a$	5.8%$_a$	6.2%$_a$	2.6%$_a$	3.9%$_a$	4.4%$_a$

*Note: OA: others' acceptability; PA: personal acceptability; reference population: car drivers at least a few days a month. % acceptable (4-5) *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

MOPED RIDERS or MOTORCYCLISTS

Personal acceptability to ride faster than the speed limit outside built-up areas of motorcyclists and moped riders ranged from 2.5% in Australia to 16.3% in Finland (see Figure 5: Personal acceptability for speeding outside built-up areas of motorcyclists/moped riders, separated by countries.). It differed significantly by region (chi-square = 13.03, df = 2, p-value < 0.001, Cramer's V = 0.029). It was higher in Europe22 (7.5%) than in America8 (5.7%). No significant difference was detected compared to AsiaOceania6 (6.5%). Again, the regional differences are largely consistent with those observed among car drivers, even though speeding seems to be less accepted overall.

A gender effect was revealed for Europe22 (chi-square = 66.39, p-value < 0.001, Cramer's V = 0.087) and America8 (chi-square = 61.88, p-value < 0.001, Cramer's V = 0.136), but not for AsiaOceania6 (no significant post-hoc tests). There was higher personal acceptability of speeding for men than for women (see Table 6). Regarding age effects, there were only significant differences for Europe22 (chi-square = 148.94, p-value < 0.001, Cramer's V = 0.033). The group of 18-24-year-olds held the highest acceptability compared to all other age groups. Regarding age group and gender effects, the results are largely consistent with those observed for acceptability of speeding among car drivers.

PERSONAL ACCEPTABILITY - MOTORCYCLIST OR MOPED RIDER
Ride faster than the speed limit outside built-up areas (except motorways/freeways)

Europe22

Country	%
Finland	16.3%
Austria	14.7%
Sweden	13.1%
Poland	11.6%
Luxembourg	11.5%
Latvia	11.0%
Switzerland	10.8%
Netherlands	9.4%
Czech Republic	9.4%
Denmark	8.2%
Belgium	8.0%
Germany	8.0%
France	7.8%
Europe22	7.5%
Italy	6.8%
Portugal	5.7%
Slovenia	5.6%
United Kingdom	5.3%
Spain	4.2%
Ireland	3.8%
Serbia	3.2%
Greece	2.6%
Bosnia Herzegovina	2.6%

America8

Country	%
Canada	7.4%
United States	7.3%
America8	5.7%
Brazil	4.4%
Panama	4.4%
Peru	4.4%
Mexico	4.3%
Chile	3.8%
Colombia	3.4%

AsiaOceania6

Country	%
Kazakhstan	10.2%
Israel	10.1%
Thailand	8.8%
Uzbekistan*	8.6%
Türkiye	7.6%
AsiaOceania6	6.5%
Japan	4.7%
Kyrgyzstan*	4.4%
Armenia*	3.5%
Australia	2.5%

% acceptable

*Reference population: all road users, *not in regional mean (different methodology)*

Figure 5: Personal acceptability for speeding outside built-up areas of motorcyclists/moped riders, separated by countries.

Table 6: Personal acceptability for a moped rider/motorcyclist to ride faster than the speed limit outside built-up areas (except motorways/freeways) separated by gender and age group.

Road types/conditions	Region	Gender		Age group					
		Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
Ride faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	9.9%$_a$	5.2%$_b$	15.4%$_a$	9.0%$_b$	8.8%$_b$	6.9%$_{b,c}$	4.5%$_{c,d}$	3.3%$_d$
	America8	9.0%$_a$	2.7%$_b$	6.9%$_a$	5.4%$_a$	6.0%$_a$	6.0%$_a$	5.8%$_a$	4.0%$_a$
	AsiaOceania6*	7.5%$_a$	5.5%$_a$	7.5%$_a$	7.5%$_a$	6.7%$_a$	5.5%$_a$	5.0%$_a$	7.1%$_a$

*Note: Reference population: motorcyclists and moped riders at least a few days a month. % acceptable (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

3.1.3. Attitudes towards speeding

To capture the attitudes towards speeding for car drivers, participants (car drivers at least a few days a year) rated statements about behavioural beliefs and attitudes, perceived behavioural control, habits, and intention in terms of their agreement/disagreement on a 5-point Likert scale, ranging from 1 (*disagree*) to 5 (*agree*):

Behaviour Beliefs and Attitudes:
- I have to drive fast; otherwise I have the impression of losing time.
- Respecting speed limits is boring or dull.

Perceived Behaviour Control (Self-efficacy):
- I trust myself when I drive significantly faster than the speed limit.
- I have the ability to drive significantly faster than the speed limit.
- I am able to drive fast through a sharp curve.

Habits:
- I often drive faster than the speed limit.

Intentions:
- I intend to respect speed limits in the next 30 days.

For the descriptive analyses the answers were split into disagree/neutral (1-3) and agree (4-5).

As shown in Figure 6: Attitudes towards speeding of all car drivers, separated by region. the proportion of individuals who agree with the positive statements (behavioural beliefs and attitudes, perceived behavioural control, habits) about speeding ranges from 4.3% for the statement "I have to drive fast; otherwise I have the impression of losing time" to 14.5% for the statement "I trust myself when I drive significantly faster than the speed limit" both in Europe22. For detailed comparisons between countries see Figure A 3: Behaviour believes and attitudes of regarding speeding behaviour of car drivers, separated by countries., Figure A 4: Perceived behaviour control regarding speeding behaviour of car drivers, separated by countries., and Figure A 5: Perceived behaviour control and habits regarding speeding behaviour of car drivers, separated by countries. in the Appendix 3.

ATTITUDES - SPEEDING
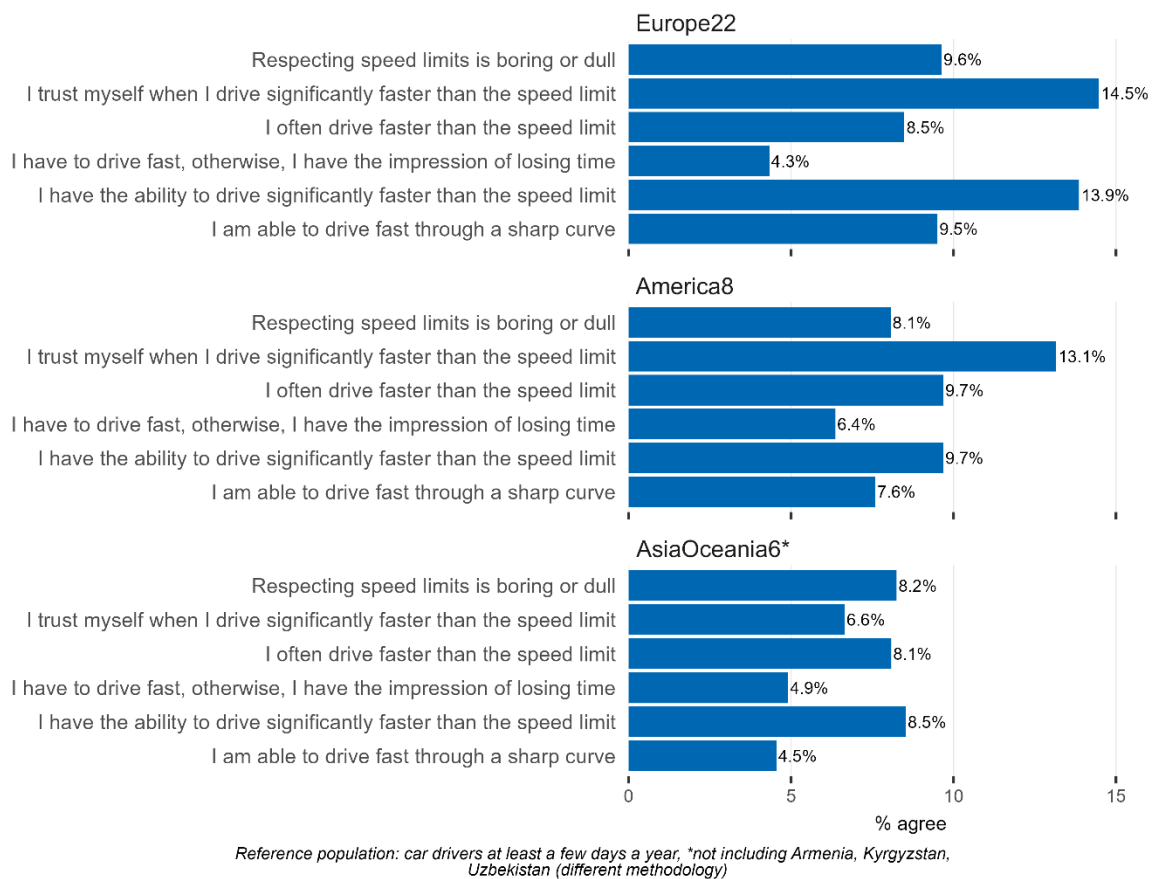
Figure 6: Attitudes towards speeding of all car drivers, separated by region.

Differences between the regions are particularly evident in perceived behavioural control. Individuals from AsiaOceania6 are less likely to report that they trust themselves when speeding (chi-square = 76.26, p-value < 0.001, Cramer's V = 0.080) and that they are able to drive through a sharp curve (chi-square = 47.85, p-value < 0.001, Cramer's V = 0.064). Additionally, individuals from Europe22 most

frequently believe they have the ability to drive significantly faster than the speed limit (chi-square = 56.85, p-value < 0.001, Cramer's V = 0.069). Regarding behaviour beliefs and attitudes, individuals from America8 were more likely to report feeling the need to drive fast due to the belief that otherwise, they would lose time (chi-square = 17.29, df = 2, p-value = 0.001, Cramer's V = 0.038). Such significant regional differences were not observed for speeding habits.

As can be seen in Figure 7: Intention of car drivers to respect speed limits in the next 30 days, separated by countries, the lowest proportion on regional level for the intention to do their best to respect speed limits in the next 30 days is 66.3%, reported in Asia-Oceania6, which is significantly lower than in Europe22 (71.8%) and America6 (73.4%; chi-square = 27.77, p-value < 0.001, Cramer's V = 0.049). The high rates of Europe22 and America8 are particularly interesting in the context of the self-declared speeding behaviour from Chapter 3.1.1. There, 52.8% from Europe22 and 46.0% from America8 (41.6% from Asia-Oceania6) reported speeding at least once in the last 30 days.

In nearly all attitude questions and regions, men were more likely than women to agree with statements regarding speeding attitudes (except in the context of intentions, where women were more likely to report intending to adhere to speed limits in the next 30 days; see Table 7). The strongest effect is observed in perceived behavioural control for both Europe22 and America8; in Europe22 for the statement "I am able to drive fast through a sharp curve" (chi-square = 116.53, df = 1, p-value < 0.001, Cramer's V = 0.129) and in America8 for the statement "I have the ability to drive significantly faster than the speed limit" (chi-square = 43.29, df = 1, p-value < 0.001, Cramer's V = 0.131). For AsiaOceania6, the largest gender difference is found in habits (chi-square = 17.28, df = 1, p-value < 0.001, Cramer's V = 0.084). For detailed statistical comparisons see Table A 7 in the Appendix 4.

Agreement with nearly all statements appeared to decrease with age, while the opposite trend could be observed for the intention to engage in speeding behaviour in the future. The strongest effect in Europe22 was observed for the intention to engage in speeding behaviour in the future (chi-square = 126.68, df = 5, p-value < 0.001, Cramer's V = 0.134). In America8, the strongest age effect was found for speeding habits (chi-square = 31.37, df = 5, p-value < 0.001, Cramer's V = 0.111), and in AsiaOceania6, for behaviour beliefs and attitudes, with the statement "I have to drive fast; otherwise, I have the impression of losing time" (chi-square = 14.70, df = 5, p-value < 0.001, Cramer's V = 0.077). Significant differences, however, were not detectable in all topics and regions; for AsiaOceania6 in particular, a significant effect was found in only three cases. For detailed statistical comparisons see Table A 8 in the Appendix 4.

INTENTIONS

I intend to respect speed limits in the next 30 days.

Europe22

Country	%
Serbia	77.7%
Greece	77.2%
Spain	75.7%
Italy	75.4%
Ireland	74.9%
Germany	74.0%
Portugal	73.6%
Slovenia	73.5%
Europe22	71.8%
Poland	71.7%
Czech Republic	71.5%
United Kingdom	69.7%
Switzerland	69.6%
Belgium	69.3%
France	68.8%
Denmark	68.3%
Finland	65.5%
Bosnia Herzegovina	65.5%
Netherlands	65.1%
Sweden	64.3%
Austria	63.8%
Luxembourg	63.4%
Latvia	53.1%

America8

Country	%
Colombia	86.1%
Panama	82.6%
Mexico	82.5%
Brazil	81.5%
Peru	79.9%
Chile	79.2%
America8	73.4%
United States	65.7%
Canada	65.2%

AsiaOceania6

Country	%
Türkiye	77.3%
Kazakhstan	75.0%
Armenia*	74.1%
Australia	73.7%
Kyrgyzstan*	73.6%
AsiaOceania6	66.3%
Israel	65.6%
Japan	62.3%
Thailand	55.0%
Uzbekistan*	34.2%

% agree

*Reference population: car drivers at least a few days a year, *not in regional mean (different methodology)*

Figure 7: Intention of car drivers to respect speed limits in the next 30 days, separated by countries

Table 7: Attitudes towards speeding in the three regions separated by gender and age group.

		Gender		Age group					
	Region	Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
Behaviour Beliefs and Attitudes									
I have to drive fast; otherwise I have the impression of losing time.	Europe22	5.4%$_a$	3.2%$_b$	8.7%$_a$	6.7%$_{a,b}$	4.7%$_{b,c}$	3.6%$_{c,d}$	2.2%$_{d,e}$	1.3%$_e$
	America8	8.1%$_a$	4.5%$_b$	8.1%$_a$	6.3%$_a$	6.2%$_a$	9.2%$_a$	4.4%$_a$	2.4%$_a$
	AsiaOceania6*	5.9%$_a$	3.8%$_a$	8.1%$_a$	5.7%$_a$	5.0%$_a$	4.7%$_a$	4.0%$_a$	1.5%$_a$
Respecting speed limits is boring or dull.	Europe22	11.4%$_a$	7.7%$_b$	12.3%$_a$	9.5%$_a$	9.6%$_a$	10.6%$_a$	8.1%$_a$	8.5%$_a$
	America8	10.0%$_a$	6.1%$_b$	8.2%$_a$	7.6%$_a$	9.3%$_a$	9.4%$_a$	6.5%$_a$	6.4%$_a$
	AsiaOceania6*	9.7%$_a$	6.5%$_b$	10.3%$_a$	7.9%$_a$	8.7%$_a$	8.7%$_a$	8.3%$_a$	5.2%$_a$
Perceived Behaviour Control									
I trust myself when I drive significantly faster than the speed limit.	Europe22	17.4%$_a$	11.3%$_b$	23.6%$_a$	14.7%$_{b,c}$	14.5%$_{b,c}$	14.8%$_b$	12.3%$_{b,c}$	10.0%$_c$
	America8	16.5%$_a$	9.6%$_b$	14.2%$_a$	11.6%$_a$	11.9%$_a$	17.6%$_a$	14.1%$_a$	9.0%$_a$
	AsiaOceania6*	7.7%$_a$	5.3%$_a$	10.2%$_a$	8.0%$_a$	6.1%$_a$	5.9%$_a$	6.1%$_a$	3.8%$_a$
I have the ability to drive significantly faster than the speed limit.	Europe22	17.4%$_a$	10.0%$_b$	17.5%$_a$	12.2%$_a$	15.6%$_a$	14.3%$_a$	13.1%$_a$	11.7%$_a$
	America8	13.4%$_a$	5.7%$_b$	11.1%$_a$	8.2%$_a$	8.5%$_a$	12.6%$_a$	9.3%$_a$	9.3%$_a$
	AsiaOceania6*	9.7%$_a$	7.1%$_a$	10.3%$_a$	11.8%$_a$	8.2%$_a$	7.5%$_a$	7.2%$_a$	5.2%$_a$
I am able to drive fast through a sharp curve.	Europe22	13.1%$_a$	5.5%$_b$	14.2%$_a$	9.8%$_{a,b}$	9.9%$_{a,b}$	9.5%$_{a,b}$	7.7%$_b$	7.5%$_{b,c}$
	America8	10.9%$_a$	4.0%$_b$	7.1%$_{a,b}$	7.3%$_{a,b}$	8.9%$_{a,b}$	11.3%$_a$	5.9%$_{a,b}$	2.5%$_b$
	AsiaOceania6*	4.7%$_a$	4.4%$_a$	6.9%$_a$	5.4%$_a$	3.7%$_a$	4.0%$_a$	3.9%$_a$	4.1%$_a$
Habits									
I often drive faster than the speed limit.	Europe22	9.8%$_a$	7.0%$_b$	14.7%$_a$	9.4%$_{b,c}$	9.5%$_b$	9.3%$_b$	5.8%$_{c,d}$	3.8%$_d$
	America8	11.8%$_a$	7.5%$_b$	9.7%$_{a,b}$	6.6%$_a$	6.6%$_a$	13.9%$_b$	14.7%$_{b,c}$	9.2%$_{a,b}$
	AsiaOceania6*	10.2%$_a$	5.6%$_b$	10.1%$_a$	6.1%$_a$	7.6%$_a$	8.6%$_a$	8.6%$_a$	8.8%$_a$
Intention									
I intend to respect speed limits in the next 30 days.	Europe22	67.8%$_a$	76.1%$_b$	62.8%$_a$	65.1%$_a$	68.4%$_{a,b}$	74.0%$_{b,c}$	78.9%$_c$	79.3%$_{c,d}$
	America8	69.2%$_a$	77.8%$_b$	73.6%$_a$	69.4%$_a$	72.2%$_a$	73.5%$_a$	77.2%$_a$	79.5%$_a$
	AsiaOceania6*	63.5%$_a$	69.6%$_b$	66.6%$_a$	67.1%$_a$	66.5%$_a$	65.0%$_a$	64.6%$_a$	68.7%$_a$

*Note: Reference population: car drivers at least a few days a year. % agree (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

3.1.4. Subjective Safety and Risk Perception

To capture subjective safety and risk perception regarding speeding for a car driver, participants answered a question on a 6-point Likert scale from 1 (never) to 6 ((almost) always):

- How often do you think "driving faster than the speed limit" is the cause of a road crash involving a car?

For the descriptive analyses the answers were split into not that often/not frequently (1-3) and often/frequently (4-6).

As can be seen in Figure 8: Perception of "driving faster than the speed limit is the cause of a road crash" of all road users, separated by countries., there was a high variation between countries of the perception of how often speeding is a cause of road crash and it varied significantly between regions. In AsiaOceania6, only 38.8% of respondents believed that speeding is often/frequently the cause of

road crashes, compared to 55.3% in Americas8 and 66.9% in Europe22 (chi-squared = 685.21, p-value < 0.001, Cramer's V = 0.212).

In addition, women in Europe22 were more likely to think that speeding is often/frequently the cause of road crashes (70.1%) than men (63.6%; chi-square = 41.91, p-value < 0.001, Cramer's V = 0.069). However, this gender difference did not exist in Americas8 or AsiaOceania6 (see Table 8). The finding that older respondents were more likely to believe that speeding is often/frequently the cause of road crashes was observed in Europe22 (chi-square = 244.51, p-value < 0.001, Cramer's V = 0.168) and America8 (chi-square = 176.97, p-value < 0.001, Cramer's V = 0.229), but not in AsiaOceania6.

CAUSES OF A ROAD CAR CRASH
Driving faster than the speed limit

Europe22

Country	%
Serbia	86.6%
Bosnia Herzegovina	80.2%
Ireland	78.2%
Greece	77.6%
Poland	77.4%
Portugal	76.4%
Slovenia	76.0%
Latvia	73.9%
Czech Republic	73.7%
Austria	73.5%
Finland	73.3%
Luxembourg	72.9%
Denmark	71.9%
Spain	70.7%
Sweden	69.2%
Italy	69.1%
Europe22	66.9%
Netherlands	65.5%
Germany	64.8%
United Kingdom	64.1%
Belgium	61.0%
Switzerland	58.8%
France	52.0%

America8

Country	%
Colombia	72.6%
Panama	71.8%
Peru	69.4%
Chile	69.2%
Mexico	65.3%
Canada	63.5%
Brazil	62.6%
America8	55.3%
United States	42.2%

AsiaOceania6

Country	%
Kyrgyzstan*	92.4%
Armenia*	84.9%
Kazakhstan	77.1%
Uzbekistan*	74.0%
Israel	72.0%
Australia	54.0%
Türkiye	53.0%
AsiaOceania6	38.8%
Thailand	34.2%
Japan	22.8%

% often/frequently

*Reference population: all road users, *not in regional mean (different methodology)*

Figure 8: Perception of "driving faster than the speed limit is the cause of a road crash" of all road users, separated by countries.

Table 8: Perception of "driving faster than the speed limit is the cause of a road crash" of all road users in different regions, separated by gender and age group.

Region	Gender		Age group					
	Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
Europe22	63.6%$_a$	70.1%$_b$	60.5%$_{a,b}$	54.2%$_a$	62.2%$_b$	72.1%$_c$	74.5%$_c$	75.0%$_c$
America8	54.9%$_a$	55.6%$_a$	49.2%$_a$	44.3%$_a$	45.2%$_a$	61.5%$_b$	69.1%$_{b,c}$	75.1%$_c$
AsiaOceania6*	39.9%$_a$	37.8%$_a$	37.1%$_a$	36.6%$_a$	39.4%$_a$	41.1%$_a$	38.8%$_a$	39.3%$_a$

*Note: Reference population: all road users. % often/frequently (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

3.1.5. Support for policy measures related to speeding

To capture support for policy measures related to speeding, participants were asked whether they oppose or support a legal obligation, indicated on a 5-point Likert scale, ranging from 1 (*oppose*) to 5 (*support*):

- limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)
- limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip

For the descriptive analyses the answers were split into oppose/neutral (1-3) and agree (4-5).

As shown in Figure 9: Support for policy measures regarding speeding in the three regions., the proportion of individuals who support the policy measures regarding speeding ranges from 42.1% in Europe22 for limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares) to 64.6% in America8 for limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip. For detailed comparisons between countries see Figure A 6: Support of policy measures regarding speeding, separated by countries.
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SUPPORT OF POLICY MEASURE

Reference population: all road users, *not including Armenia, Kyrgyzstan, Uzbekistan (different methodology)
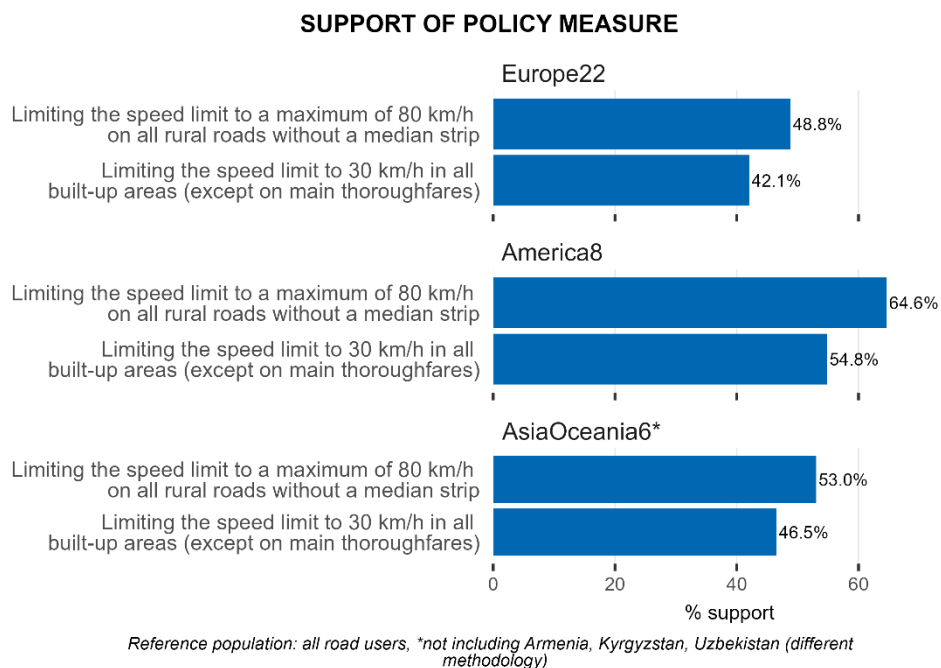
Figure 9: Support for policy measures regarding speeding in the three regions.

The support of the policy measures differs significantly by region. For both limiting the speed limit on rural areas (chi-square= 248.58, df = 2, p-value < 0.001, Cramer's V = 0.128), as well as for limiting the speed limit in all built-up areas (chi-square = 163.39, df = 2, p-value < 0.001, Cramer's V = 0.104), respondents in America8 show the highest support, followed by AsiaOceania6 and Europe22.

An analysis of the influence of gender indicates that women show higher support for both speeding policy measures than men (see Table 9). The strongest difference was found in America8 for limiting the speed limit to 30km/h in all built-up areas (except on main thoroughfares; chi-square= 35.03, df = 1, p-value < 0.001, Cramer's V = 0.102). Additionally, there were significant age group differences for all regions for both policy measures. In Europe22 there was a tendency that younger age groups showed less support than older age groups, while in America8 and AsiaOceania6 middle age groups seemed to show higher support than the older or younger ones. The strongest effect was found in America8 for limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares; chi-square= 92.46, df = 5, p-value < 0.001, Cramer's V = 0.166). For detailed statistical comparisons, see the Table A 9 and Table A 10 in the Appendix 4).

Table 9: Support for policy measures regarding speeding in the three regions separated by gender and age group.

| Policy measure | Region | Gender | | Age group | | | | | |
		Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)	Europe22	38.6%$_a$	45.5%$_b$	34.1%$_a$	41.1%$_{a,b}$	43.6%$_{b,d}$	39.0%$_{a,b}$	42.9%$_{b,c}$	49.8%$_d$
	America8	49.7%$_a$	59.9%$_b$	49.1%$_a$	63.5%$_b$	65.2%$_b$	51.2%$_a$	46.5%$_a$	44.1%$_a$
	AsiaOceania6*	43.4%$_a$	49.7%$_b$	46.2%$_{a,b,c}$	55.1%$_a$	47.7%$_{a,b}$	42.7%$_{b,c}$	48.1%$_{a,b}$	36.0%$_c$
limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip	Europe22	44.0%$_a$	53.6%$_b$	38.0%$_a$	44.0%$_{a,b}$	48.0%$_{b,d}$	48.8%$_{b,c,d}$	52.0%$_d$	59.0%$_e$
	America8	61.0%$_a$	68.0%$_b$	56.4%$_a$	71.0%$_b$	75.0%$_b$	58.2%$_a$	61.3%$_a$	59.6%$_a$
	AsiaOceania6*	50.9%$_a$	55.2%$_a$	47.8%$_a$	60.1%$_b$	53.1%$_{a,b}$	52.6%$_{a,b}$	52.6%$_{a,b}$	48.5%$_{a,b}$

*Note: reference population: all road users. % support (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

3.1.6. Enforcement

To determine whether respondents perceive enforcement regarding speeding as something that is actually implemented, they were asked the following question:

- On a typical journey, how likely is it that you (as a car driver) will be checked by the police (including cameras or radars) for respecting the speed limits?

The question was answered using a 7-point Likert scale, ranging from very unlikely (1) to very likely (7). For the descriptive analyses the answers were split into unlikely/neutral l (1-4) and likely (5-7).

As shown in Figure 10: Perception of enforcement (being checked by the police for respecting the speed limits) of car drivers, separated by countries., the proportion of individuals who perceive enforcement regarding speeding as likely ranges on regional level from 36.4% in Europe22 to 50.8% in AsiaOceania6.

The perceived enforcement differs significantly by region. The proportion of respondents who perceived enforcement regarding speeding as likely was highest for AsiaOceania6 (52.3%), followed by America8 (43.5%) and Europe22 (36.4%; chi-square= 161.36, df = 2, p-value < 0.001, Cramer's V = 0.117).

An analysis of the influence of gender indicates that women perceive enforcement regarding speeding as less likely than men in Europe22 (chi-square= 11.73, df = 1, p-value < 0.001, Cramer's V = 0.041) and America8 (chi-square= 13.17, df = 1, p-value < 0.001, Cramer's V = 0.072), but not in AsiaOceania6

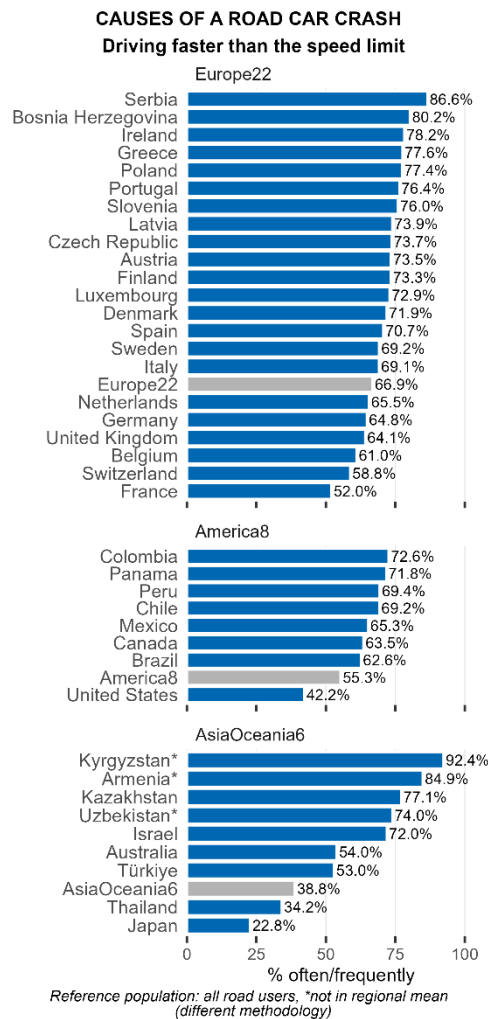(p-value = 0.084; see Table 10). A similar pattern is observed when comparing age groups: younger age groups tend to perceive enforcement as more likely than older age groups, both in Europe22 (chi-square= 58.17, df = 5, p-value < 0.001, Cramer's V = 0.091) and America8 (chi-square= 49.74, df = 5, p-value < 0.001, Cramer's V = 0.140), but not in AsiaOceania6 (p-value = 0.493; see Table 10).

These results align with the fact that men and younger individuals report speeding more frequently, thereby increasing their likelihood of being stopped by the police. It is likely that these groups are subjected to more frequent enforcement checks, leading to a higher perception of the probability of police control.
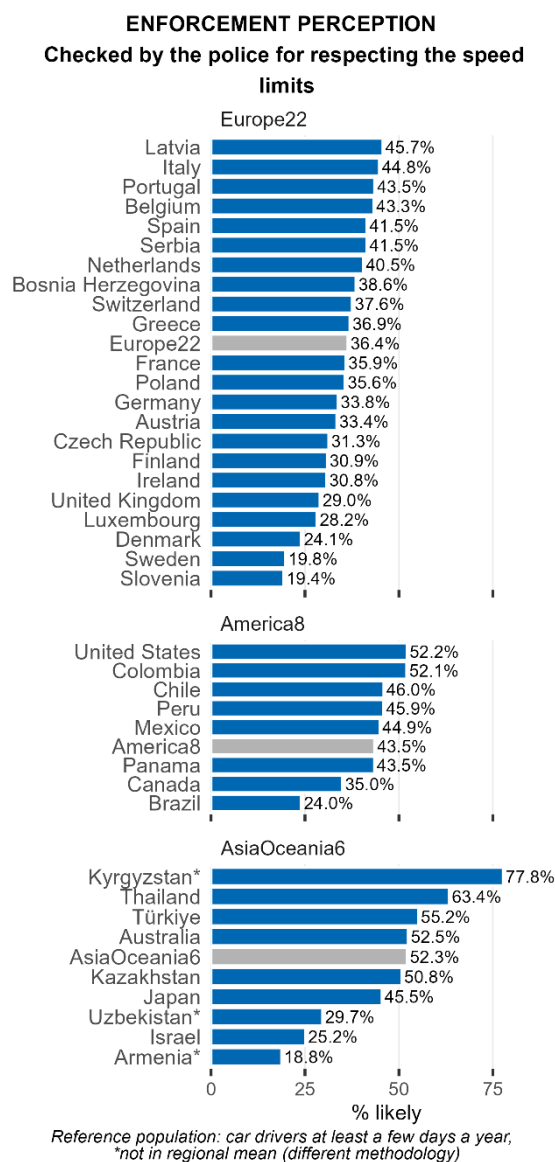
Figure 10: Perception of enforcement (being checked by the police for respecting the speed limits) of car drivers, separated by countries.

Table 10: Perceived enforcement (being checked by the police for respecting the speed limits) in the three regions separated by gender and age group.

		Gender		Age group					
	Region	Male	Female	18-34	25-34	35-44	45-54	55-64	65-74
Perceived probability of being checked by the police for respecting the speed limits on a typical journey	Europe22	38.3%$_a$	34.4%$_b$	34.3%$_{a,c}$	43.4%$_b$	39.7%$_{a,b}$	34.4%$_{a,c}$	33.8%$_{a,c}$	30.2%$_c$
	America8	47.0%$_a$	39.8%$_b$	42.5%$_{a,b,d}$	48.1%$_{a,b}$	52.7%$_a$	39.5%$_{b,d}$	37.4%$_{b,c,d}$	30.6%$_d$
	AsiaOceania6*	50.7%$_a$	54.2%$_a$	51.3%$_a$	53.5%$_a$	53.5%$_a$	53.0%$_a$	53.0%$_a$	46.8%$_a$

Note: reference population: car drivers at least a few days a year. % likely (5-7). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

3.2   **Advanced Analysis**

In this report the mixed effects logistic regression model approach under the generalized linear mixed models (GLMMs) framework was used. GLMMs are an extension of linear mixed models that allow dependent variables from different distributions, such as binary responses. Mixed effects logistic regression is used to model binary outcome variables, in which the log odds of the outcomes are modeled as a linear combination of the independent variables when there are both fixed and random effects. This approach was employed to determine which factors influence the likelihood of car drivers' self-declared speeding behaviour and intention to exhibit such behaviour. It accounts for both the fixed effects of the predictors and the random effects associated with the different countries, thereby addressing the nested data structure.

The following equation shows the general matrix form of the model:

$$y = X\beta + Zu + \varepsilon \quad (1)$$

Where:

y is a $N \times 1$ column vector containing the outcome variable,

X is a $N \times p$ matrix containing the p predictor variables,

β is a $p \times 1$ column vector of the fixed-effects regression coefficients,

Z is the $N \times q$ design matrix for the q random effects (the random complement to the fixed X),

u is a $q \times 1$ vector of the random effects (the random complement to the fixed β),

ε is a $N \times 1$ column vector of the residuals, i.e. the error terms.

The adjusted odds ratio (OR) is a helpful measure of association between the independent variable and an outcome, which is often used to ease interpretation. In particular, the odds ratio is the ratio of odds of the event occurring given $X = 0$ and $X = 1$. Taking the anti-log of the regression coefficient, the odds ratio can be provided. An odds ratio higher than one demonstrates a positive association between the dependent and explanatory variables, while value less than one indicates a negative relationship between them. An odds ratio, which is equal to one, shows that there is no association among the variables.

The corrected Akaike Information Criterion (AICc), which accounts for the number of included independent variables, is used for the process of model selection between models with different combination of explanatory variables. It is important to mention that the extra value of any random effects is assessed by conducting a custom ANOVA between the fixed effects binary Generalized Linear Model (GLM) and any formulated GLMMs.

The present analysis focuses only on car drivers and was conducted in R-studio using the lme4 package (Bates et al., 2008).

3.2.1   Factors associated with car drivers' self-declared speeding inside built-up areas

Possible factors affecting car drivers' self-declared speeding inside built-up areas are presented in Table 11.

Table 11: Logistic regression model for speeding inside built-up areas in the last 30 days.

Independent variable (reference category)	Dependent variable: Over the last 30 days, how often did you as a CAR DRIVER …? **drive faster than the speed limit inside built-up areas** {0=never; 1=at least once}				
	Beta Estimate	S.E.	z-value	P(>[z])	Adj. Odds Ratio
(Intercept)	0.409	0.090	4.551	**<0.001**	-
Gender (ref: Male)					
Female	-0.258	0.027	-9.522	**<0.001**	0.773
Age (ref: 18-34)					
35-54	-0.099	0.033	-3.040	**0.002**	0.906
55-74	-0.236	0.036	-6.607	**<0.001**	0.790
How acceptable do you, personally, feel it is for a CAR DRIVER to …? drive faster than the speed limit inside built-up areas (ref: unacceptable/neutral)					
Acceptable	1.534	0.084	18.221	**<0.001**	4.637
To what extent do you agree with each of the following statements? I have to drive fast; otherwise, I have the impression of losing time. (ref: disagree/neutral)					
Agree	1.511	0.084	18.064	**<0.001**	4.531
Do you oppose or support a legal obligation …? limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares) (ref: oppose/neutral)					
Support	-1.039	0.029	-36.426	**<0.001**	0.354

The fixed effects results of the model indicate several significant associations. Firstly, women are 22.7% less likely to report speeding inside built-up areas when compared to men, as evidenced by an OR of 0.773. Age also plays a notable role in speeding behaviour as drivers aged 35-54 are 9.4% less likely to report speeding inside built-up areas compared to drivers aged 18-34, with an OR of 0.906, while drivers aged 55-74 are 21.0% less likely to report such behaviour compared to the 18-34 age group, with an OR of 0.790.

Furthermore, the perception of the acceptability of speeding significantly influences behaviour. Drivers who find it acceptable to drive faster than the speed limit inside built-up areas (personal acceptability) are almost 5 times more likely to report speeding compared to those who find it unacceptable or are neutral, as indicated by an OR of 4.637. Similarly, drivers who agree that they have to drive fast to avoid the impression of losing time (behaviour belief/attitude) are 4.5 times more likely to report speeding compared to those who disagree or are neutral (OR= 4.531). Finally, support for speed limit reduction is associated with lower reported speeding behaviour. Drivers who support limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares) are 64.6% less likely to report speeding compared to those who oppose or are neutral, as indicated by an OR of 0.354.

The visual representation in Figure 11 illustrates the values of random intercepts for the countries participating in the ESRA3 survey for the model described in Table 11. Random intercepts are additional

terms in the equation that account for variability between groups or clusters in the data (in this case ESRA participating countries). The random intercepts assigned to each country account for discrepancies in the baseline level of the dependent variable when compared to the fixed effect intercept. A positive random intercept for a specific country indicates that the baseline log odds of the outcome variable for that country exceed the overall average as estimated by the fixed effect intercept. Conversely, a negative random intercept signifies that the baseline log odds of the outcome variable for that country fall below the overall average. Incorporating random intercepts for each country into the model allows for the accommodation of between-country variations in the baseline level of the outcome variable, thereby facilitating more precise and robust estimates of the effects of other predictors in the model.

For example, the largest positive deviation from the fixed effect intercept in self-declared speeding behaviour inside built-up areas is observed in Finland, while the largest negative deviation is seen in Kyrgyzstan. This means that the likelihood of reporting speeding inside built-up areas is highest among Finnish individuals and lowest among individuals from Kyrgyzstan. These random intercepts highlight the substantial between-country variation in self-declared speeding behaviour, underscoring the importance of accounting for country-specific effects in the analysis.

Figure 11: Random intercepts for countries in the Binary GLMM for car drivers' self-declared behaviour of speeding inside built-up areas.

The extra value of the inclusion of random effects in the model was assessed by conducting a custom ANOVA between the fixed effects binary GLM and the formulated GLMMs. These assessments are shown in Table 12 for car drivers' self-declared behaviour of speeding inside built-up areas. The ANOVA results indicate that the added value occurring from the inclusion of random intercepts improves the quality of the model by a statistically significant amount.

Table 12: Log-likelihood comparison for car drivers' self-declared speeding inside built-up areas binary logistic models.

Model Family	Model Configuration	df	χ^2	$P(\chi^2)$
GLM	Fixed effects	7		
GLMM	Fixed effects & Random Intercepts	8	1032.68	**<0.001**

3.2.2   Factors associated with car drivers' self-declared speeding outside built-up areas (except motorways/freeways)

Possible factors affecting car drivers' self-declared speeding outside built-up areas (except motorways/freeways) are presented in Table 13.

Table 13: Logistic regression model for speeding outside built-up areas (except motorways/freeways) in the last 30 days.

Independent variable (reference category)	Dependent variable: Over the last 30 days, how often did you as a CAR DRIVER …? **drive faster than the speed limit outside built-up areas (except motorways/freeways)** {0=never; 1=at least once}				
	Beta Estimate	S.E.	z-value	P(>[z])	Adj. Odds Ratio
(Intercept)	0.595	0.088	6.681	**<0.001**	-
Gender (ref: Male)					
Female	-0.224	0.028	-8.021	**<0.001**	0.799
Where you live, how acceptable would most other people say it is for a CAR DRIVER to ….? drive faster than the speed limit outside built-up areas (except motorways/freeways) (ref: unacceptable/neutral)					
Acceptable	0.520	0.051	10.125	**<0.001**	1.682
How acceptable do you, personally, feel it is for a CAR DRIVER to …? drive faster than the speed limit outside built-up areas (except motorways/freeways). (ref: unacceptable/neutral)					
Acceptable	0.982	0.073	13.462	**<0.001**	2.670
To what extent do you agree with each of the following statements? I have to drive fast; otherwise, I have the impression of losing time. (ref: disagree/neutral)					
Agree	0.693	0.100	6.905	**<0.001**	2.000
To what extent do you agree with each of the following statements? I trust myself when I drive significantly faster than the speed limit. (ref: disagree/neutral)					
Agree	0.782	0.050	15.540	**<0.001**	2.186
To what extent do you agree with each of the following statements? I often drive faster than the speed limit. (ref: disagree/neutral)					
Agree	1.431	0.082	17.403	**<0.001**	4.183

Independent variable (reference category)	Dependent variable: Over the last 30 days, how often did you as a CAR DRIVER …? **drive faster than the speed limit outside built-up areas (except motorways/freeways)** {0=never; 1=at least once}				
	Beta Estimate	S.E.	z-value	P(>[z])	Adj. Odds Ratio
To what extent do you agree with each of the following statements? I intend to respect speed limits in the next 30 days. (ref: disagree/neutral)					
Agree	-0.377	0.033	-11.492	**<0.001**	0.686
Do you oppose or support a legal obligation …? limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip (ref: oppose/neutral)					
Support	-0.731	0.029	-25.318	**<0.001**	0.481

Based on the fixed effects results of the model for speeding outside built-up areas (except motorways/freeways) it can be observed that female car drivers are 20.1% less likely to report speeding compared to men, as indicated by an odds ratio (OR) of 0.799. Regarding other's acceptability, drivers who perceive that most other people find it acceptable to exceed speed limits outside built-up areas are 68.2% more likely to report speeding compared to those who perceive it as unacceptable or are neutral, with an OR of 1.682.

Personal acceptability of speeding also significantly influences behaviour: drivers who personally find it acceptable to drive faster than the speed limits outside built-up areas are over 2.6 times more likely to report speeding compared to those who find it unacceptable or are neutral, as shown by an OR of 2.670. Furthermore, drivers who agree with the statement "I have to drive fast; otherwise, I have the impression of losing time" (behaviour belief/attitude) are two times more likely to report speeding compared to those who disagree or are neutral, with an OR of 2.000. Trust in one's ability to drive fast also impacts speeding behaviour. Drivers who trust themselves when driving significantly faster than the speed limit (perceived behaviour control) are over twice as likely to report speeding, as evidenced by an OR of 2.186. Additionally, drivers who often drive faster than the speed limit (habits) are 4 times more likely to report speeding compared to those who disagree or are neutral, with an OR of 4.183.

Intention to respect speed limits appears to reduce the likelihood of speeding. Drivers who intend to respect speed limits in the next 30 days are 31.4% less likely to report speeding compared to those who disagree or are neutral, as indicated by an OR of 0.686. Lastly, support for speed limit reductions on rural roads is associated with lower reported speeding behaviour. Drivers who support limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip are 51.9% less likely to report speeding compared to those who oppose or are neutral, as shown by an OR of 0.481.

The visual representation of the countries' random intercepts for the dependent variable of self-declared speeding outside built-up areas is presented in Figure 12 (model described in Table 13). The largest positive deviation from the fixed effect intercept in self-declared speeding behaviour outside built-up areas (except motorways/freeways) is observed in Luxembourg, while the largest negative deviation is seen in Uzbekistan. This means that the likelihood of reporting speeding outside built-up areas is highest among individuals from Luxembourg and lowest among individuals from Uzbekistan.
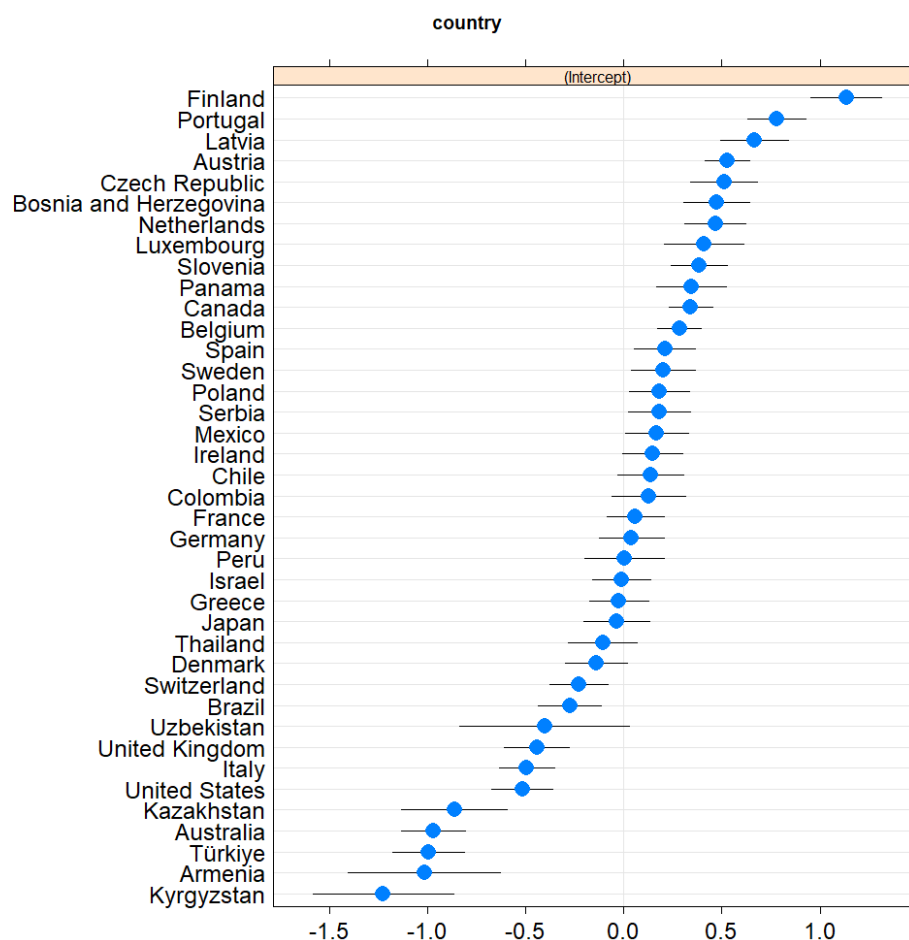
Figure 12: Random intercepts for countries in the Binary GLMM for car drivers' self-declared behaviour of speeding outside built-up areas (except motorways/freeways).

The extra value of the inclusion of random effects in the model was assessed by conducting a custom ANOVA between the fixed effects binary GLM and the formulated GLMMs. These assessments are shown in Table 14 for car drivers' self-declared behaviour of speeding outside built-up areas (except motorways/freeways). The ANOVA results indicate that the added value occurring from the inclusion of random intercepts improves the quality of the model by a statistically significant amount.

Table 14: Log-likelihood comparison for car drivers' self-declared speeding outside built-up areas (except motorways/freeways) binary logistic models.

Model Family	Model Configuration	df	χ^2	$P(\chi^2)$
GLM	Fixed effects	9		
GLMM	Fixed effects & Random Intercepts	10	907.15	<0.001

3.2.3   Factors associated with car drivers' self-declared speeding on motorways/freeways

Possible factors affecting car drivers' self-declared speeding on motorways/freeways are presented in Table 15.

Table 15: Logistic regression model for speeding on motorways/freeways in the last 30 days.

Independent variable (reference category)	Dependent variable: Over the last 30 days, how often did you as a CAR DRIVER …? drive faster than the speed limit on motorways/freeways {0=never; 1=at least once}				
	Beta Estimate	S.E.	z-value	P(>[z])	Adj. Odds Ratio
(Intercept)	0.252	0.080	3.153	**0.002**	-
Gender (ref: Male)					
Female	-0.362	0.027	-13.170	**<0.001**	0.696
How acceptable do you, personally, feel it is for a CAR DRIVER to …? drive faster than the speed limit on motorways/freeways (ref: unacceptable/neutral)					
Acceptable	1.368	0.053	25.625	**<0.001**	3.927
To what extent do you agree with each of the following statements? I have to drive fast; otherwise, I have the impression of losing time. (ref: disagree/neutral)					
Agree	0.461	0.094	4.907	**<0.001**	1.586
To what extent do you agree with each of the following statements? I trust myself when I drive significantly faster than the speed limit. (ref: disagree/neutral)					
Agree	0.812	0.049	16.601	**<0.001**	2.252
To what extent do you agree with each of the following statements? I often drive faster than the speed limit. (ref: disagree/neutral)					
Agree	1.330	0.078	17.042	**<0.001**	3.781
To what extent do you agree with each of the following statements? I intend to respect speed limits in the next 30 days. (ref: disagree/neutral)					
Agree	-0.435	0.032	-13.558	**<0.001**	0.647

The fixed effect coefficients indicate that female car drivers are 30.4% less likely to report speeding compared to male car drivers, as indicated by an OR of 0.696. Personal acceptability of speeding significantly influences behaviour as drivers who personally find it acceptable to exceed speed limits on motorways/freeways are nearly 3.9 times more likely to report such behaviour compared to those who find it unacceptable or are neutral, as shown by an OR of 3.927.

Furthermore, drivers who agree with the statement "I have to drive fast; otherwise, I have the impression of losing time" (behaviour belief/attitude) are 58.6% more likely to report speeding on motorways compared to those who disagree or are neutral, with an OR of 1.586. Moreover, car drivers who trust themselves when driving significantly faster than the speed limit (perceived behaviour control) are more than twice as likely to report speeding on motorways, as evidenced by an OR of 2.252. Additionally, car drivers who often drive faster than the speed limit (habits) are over 3.7 times more

likely to report speeding on motorways compared to those who disagree or are neutral, with an OR of 3.781. Intention to respect speed limits appears to reduce the likelihood of speeding on motorways as car drivers who intend to respect speed limits in the next 30 days are 35.2% less likely to report such behaviour compared to those who disagree or are neutral, as indicated by an OR of 0.647.

Figure 13 presents the random intercepts of the ESRA3 participating countries' random intercepts for the dependent variable of self-declared speeding on motorways (model described in Table 15). The largest positive deviation from the fixed effect intercept in self-declared speeding behaviour on motorways/freeways is observed in Finland, while the largest negative deviation is seen in Australia. This means that the likelihood of reporting speeding on motorways/freeways is highest among individuals from Finland and lowest among individuals from Australia.
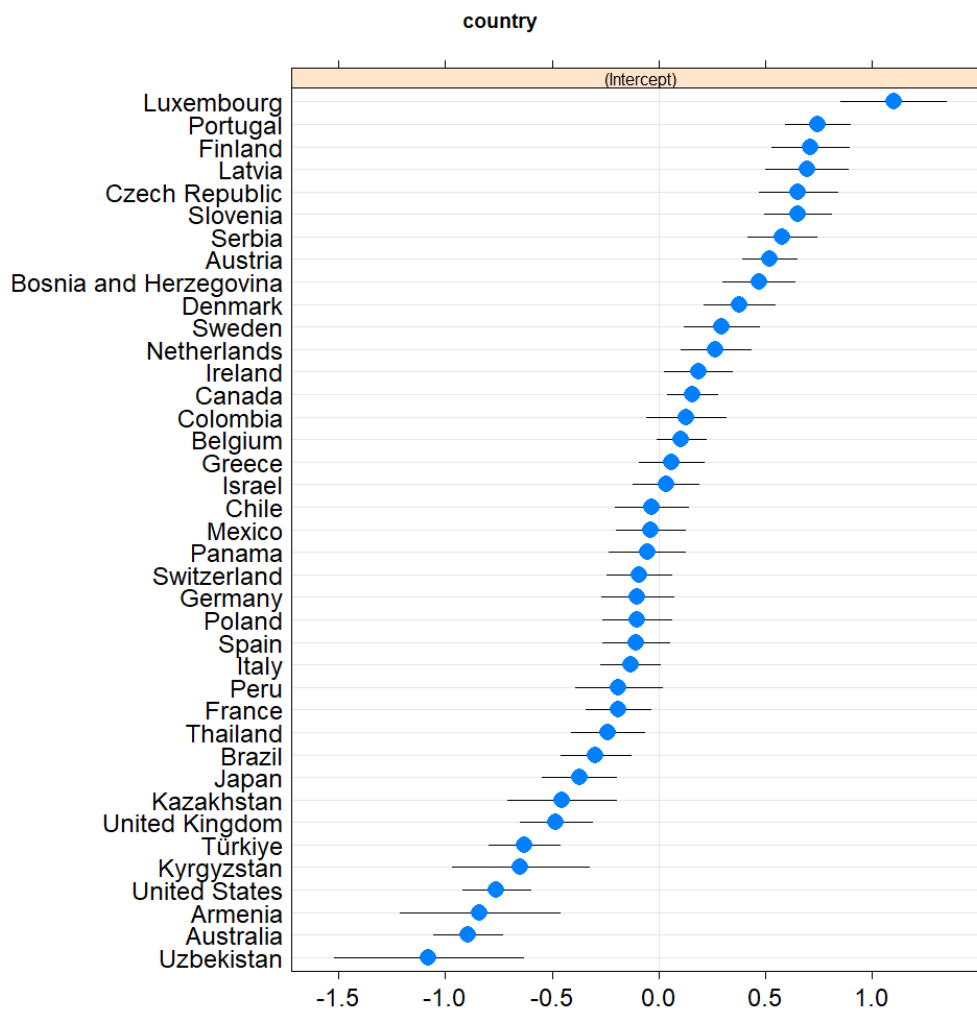

Figure 13: Random intercepts for countries in the Binary GLMM for car drivers' self-declared behaviour of speeding on motorways/freeways.

The added value of the inclusion of random effects in the model was assessed by conducting a custom ANOVA between the fixed effects binary GLM and the formulated GLMMs. These assessments are shown in Table 16 for car drivers' self-declared behaviour of speeding on motorways/freeways. The ANOVA results indicate that the added value occurring from the inclusion of random intercepts improves the quality of the model by a statistically significant amount.

Table 16: Log-likelihood comparison for car drivers' self-declared speeding on motorways/freeways binary logistic models.

Model Family	Model Configuration	df	χ^2	$P(\chi^2)$
GLM	Fixed effects	7		
GLMM	Fixed effects & Random Intercepts	8	858.88	**<0.001**

3.2.4 Factors associated with car drivers' self-declared too fast driving for the road/traffic conditions at the time

Possible factors affecting car drivers' self-declared too fast driving for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users) are presented in Table 17.

Table 17: Logistic regression model for driving too fast for the road/traffic conditions at the time in the last 30 days.

Independent variable (reference category)	Dependent variable: Over the last 30 days, how often did you as a CAR DRIVER …? **drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)** {0=never; 1=at least once}				
	Beta Estimate	S.E.	z-value	P(>[z])	Adj. Odds Ratio
(Intercept)	-0.325	0.074	-4.368	**<0.001**	-
Gender (ref: Male)					
Female	-0.331	0.028	-11.573	**<0.001**	0.718
Age (ref: 18-34)					
35-54	-0.208	0.033	-6.247	**<0.001**	0.812
55-74	-0.518	0.038	-13.673	**<0.001**	0.596
How acceptable do you, personally, feel it is for a CAR DRIVER to …? drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users) (ref:unacceptable/neutral)					
Acceptable	1.435	0.090	15.883	**<0.001**	4.200
To what extent do you agree with each of the following statements? I have to drive fast; otherwise, I have the impression of losing time. (ref: disagree/neutral)					
Agree	0.617	0.072	8.553	**<0.001**	1.853
To what extent do you agree with each of the following statements? I trust myself when I drive significantly faster than the speed limit. (ref: disagree/neutral)					
Agree	0.509	0.041	12.258	**<0.001**	1.664
To what extent do you agree with each of the following statements? I often drive faster than the speed limit. (ref: disagree/neutral)					
Agree	0.881	0.052	16.869	**<0.001**	2.413
To what extent do you agree with each of the following statements? I intend to respect speed limits in the next 30 days. (ref: disagree/neutral)					
Agree	-0.478	0.031	-15.251	**<0.001**	0.620

The fixed effects results of the model for driving too fast for the road/traffic conditions at the time reveal that women are 28.2% less likely to report driving too fast for the conditions compared to men, as indicated by an odds ratio (OR) of 0.718. Car drivers aged 35-54 are 18.8% less likely to report this behaviour compared to drivers aged 18-34, with an OR of 0.812, while drivers aged 55-74 are 40.4% less likely to report such behaviour compared to the 18-34 age group, with an OR of 0.596.

Personal acceptability of driving too fast for the conditions significantly influences behaviour as car drivers who personally find it acceptable are 4.2 times more likely to report driving too fast for the conditions compared to those who find it unacceptable or are neutral (OR=4.2). Furthermore, drivers who agree with the statement "I have to drive fast; otherwise, I have the impression of losing time" (behaviour belief/attitude) are 1.9 times more likely to report this behaviour compared to those who disagree or are neutral, with an OR of 1.853. Additionally, car drivers who trust themselves when driving significantly faster than the speed limit (perceived behavior control) are 66.4% more likely to report driving too fast for the conditions, as evidenced by an OR of 1.664. Furthermore, respondents who often drive faster than the speed limit (habits) are 2.4 times more likely to report this behaviour compared to those who disagree or are neutral, with an OR of 2.413. Lastly, drivers who intend to respect speed limits in the next 30 days are 38% less likely to report this behaviour compared to those who disagree or are neutral, as indicated by an OR of 0.620.

Figure 14 presents the random intercepts of the ESRA3 participating countries' random intercepts for the dependent variable of self-declared too fast driving for the road/traffic conditions at the time (model described in Table 17). The largest positive deviation from the fixed effect intercept in self-declared too fast driving for the road/traffic conditions at the time is observed in Finland, while the largest negative deviation is seen in Armenia. This means that the likelihood of reporting this behaviour is highest among individuals from Finland and lowest among individuals from Armenia.
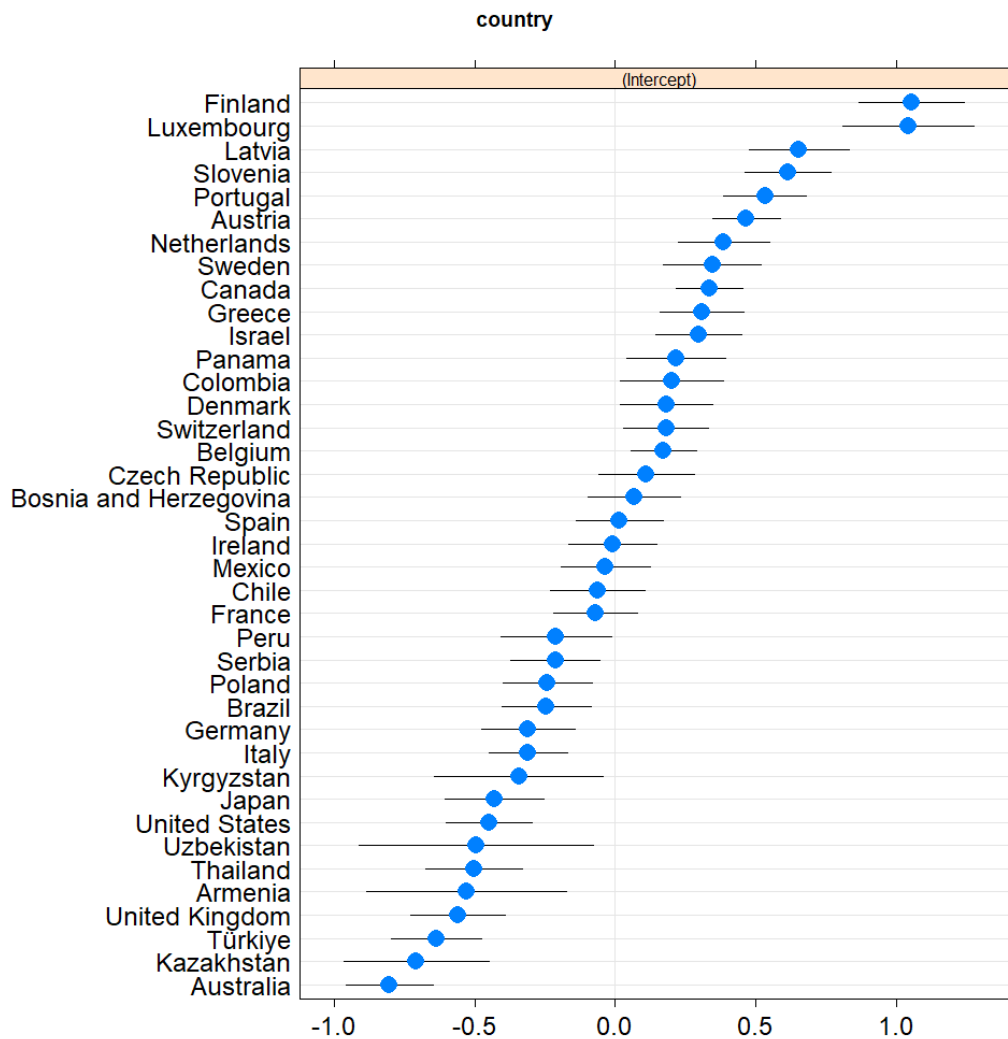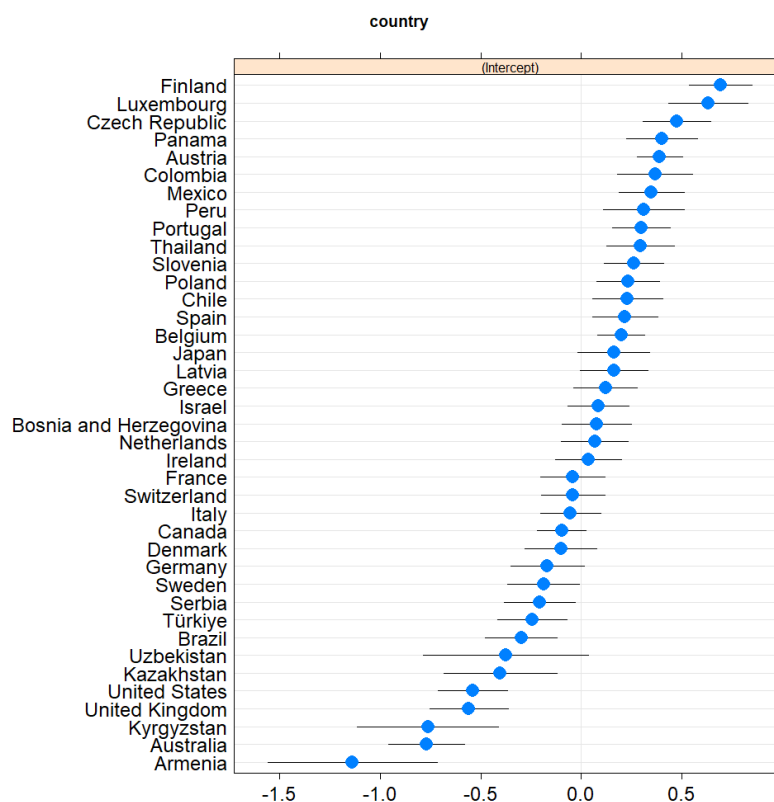

Figure 14: Random intercepts for countries in the Binary GLMM for car drivers' self-declared behaviour of driving too fast for the road/traffic conditions at the time.

The added value of the inclusion of random effects in the model was assessed by conducting a custom ANOVA between the fixed effects binary GLM and the formulated GLMMs. These assessments are shown

in Table 18 for driving too fast for the road/traffic conditions at the time. The ANOVA results indicate that the added value occurring from the inclusion of random intercepts improves the quality of the model by a statistically significant amount.

Table 18: Log-likelihood comparison for car drivers' self-declared too fast driving for the road/traffic conditions at the time binary logistic models.

Model Family	Model Configuration	df	χ^2	$P(\chi^2)$
GLM	Fixed effects	9		
GLMM	Fixed effects & Random Intercepts	10	435.10	<0.001

3.2.5   Factors associated with car drivers' intention to respect speed limits in the next 30 days

Possible factors affecting car drivers' intention to respect speed limits in the next 30 days are presented in Table 19.

Table 19: Logistic regression model for car drivers' intention to respect speed limits in the next 30 days.

Independent variable (reference category)	To what extent do you agree with each of the following statements? **I intend to respect speed limits in the next 30 days.** {0=disagree/neutral; 1=agree}				
	Beta Estimate	S.E.	z-value	P(>[z])	Adj. Odds Ratio
(Intercept)	0.350	0.070	4.988	<0.001	-
Gender (ref: Male)					
Female	0.339	0.029	11.589	<0.001	1.404
Age (ref: 18-34)					
35-54	0.161	0.033	4.747	<0.001	1.175
55-74	0.395	0.039	10.213	<0.001	1.484
Where you live, how acceptable would most other people say it is for a CAR DRIVER to ….? drive faster than the speed limit outside built-up areas (except motorways/freeways) (ref: unacceptable/neutral)					
Acceptable	-0.660	0.039	-16.617	<0.001	0.517
To what extent do you agree with each of the following statements? Respecting speed limits is boring or dull. (ref: disagree/neutral)					
Agree	-0.618	0.047	-13.144	<0.001	0.539
To what extent do you agree with each of the following statements? I trust myself when I drive significantly faster than the speed limit. (ref: disagree/neutral)					
Agree	-0.609	0.040	-15.089	<0.001	0.544
How often do you think each of the following factors is the cause of a road crash involving a car? driving faster than the speed limit. (ref: not that often/not frequently)					
Often/frequently	0.788	0.031	25.624	<0.001	2.199

The fixed effects results of the model for car drivers' intention to respect speed limits in the next 30 days show that women are 40.4% more likely to intend to respect speed limits compared to men, as indicated by an odds ratio (OR) of 1.404. Drivers aged 35-54 are 17.5% more likely to intend to respect speed limits compared to drivers aged 18-34, with an OR of 1.175, while drivers aged 55-74 are 48.4% more likely to intend to respect speed limits compared to the 18-34 age group, with an OR of 1.484.

The perception of other's acceptability also influences intentions as car drivers in areas where it is more acceptable to drive faster than the speed limit outside built-up areas (except motorways/freeways) are 48.3% less likely to intend to respect speed limits, as shown by an OR of 0.517. Attitudes towards speed limits also play a crucial role as drivers who agree that respecting speed limits is dull are 46.1% less likely to intend to respect speed limits, with an OR of 0.539. Similarly, drivers who trust themselves when driving significantly faster than the speed limit (perceived behaviour control) are 45.6% less likely to intend to respect speed limits, as indicated by an OR of 0.544. Perception of speeding as a cause of road crashes also affects intentions as drivers who believe that speeding is often or frequently the cause of road crashes are 2.2 times more likely to intend to respect speed limits, as evidenced by an OR of 2.199.

The countries' random intercepts (model described in Table 19) for this model are visualised in Figure 15. The largest positive deviation from the fixed effect intercept in car drivers' intention to respect the speed limits in the next 30 days is observed in Colombia, while the largest negative deviation corresponds to Uzbekistan. This means that the likelihood of respecting the speed limits is highest among individuals from Colombia and lowest among individuals from Uzbekistan.
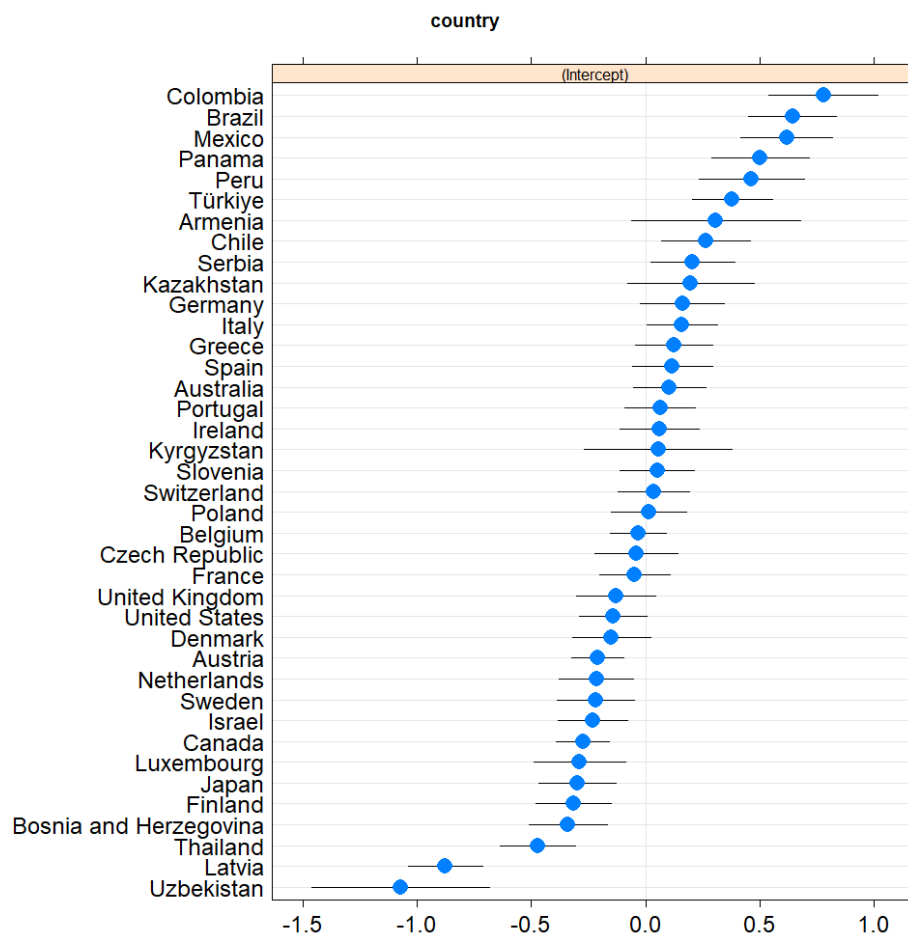
Figure 15: Random intercepts for countries in the Binary GLMM for car drivers' intention to respect the speed limits in the next 30 days.

The added value of the inclusion of random effects in the model was assessed by conducting a custom ANOVA between the fixed effects binary GLM and the formulated GLMMs. These assessments are shown in Table 20 for driving too fast for the road/traffic conditions at the time. The ANOVA results indicate that the added value occurring from the inclusion of random intercepts improves the quality of the model by a statistically significant amount.

Table 20: Log-likelihood comparison for car drivers' intention to respect speed limits in the next 30 days binary logistic models.

Model Family	Model Configuration	df	χ^2	$P(\chi^2)$
GLM	Fixed effects	8		
GLMM	Fixed effects & Random Intercepts	9	386.85	**<0.001**

3.3   Comparison over time (ESRA2-ESRA3)

This chapter compares ESRA3 results with ESRA2 results. ESRA2 results regarding speeding are provided by Holocher and Holte (2019). The ESRA2 results that are shown in this chapter are different from the results published in ESRA2 publications. Because of methodological differences the ESRA2 results were recalculated in order to be comparable with the ESRA3 results. Between ESRA2 and ESRA3 there are differences on sample level and on question/item level. On sample level there is a difference in population between ESRA2 and ESRA3: in ESRA2 the population consisted out of adults aged 18 years and older, while in ESRA3 the population was adults between 18 and 74 years old. In ESRA3 we also applied a stricter data cleaning compared to ESRA2 (for more information see also the methodology reports (Meesmann et al., 2023; Meesmann & Wardenier, 2024). To take these two differences into account, ESRA2 results were reweighted and recalculated so that the population is the same as in ESRA3 and consequently the results are comparable. On question and item level there are also differences between ESRA2 and ESRA3. For some questions, there is a difference in reference population, e.g., in ESRA2 attitudes towards safe and unsafe traffic behaviour were surveyed for all road users while in ESRA3 they were only surveyed for car drivers. This means that the results do not have the same reference, for example 30% of all road users or 30% of all car drivers does not have the same meaning. Differences in reference populations can often be recalculated and so these were also taken into account in the recalculated ESRA2 results. Furthermore, some questions and/or items of questions have a different formulation between ESRA2 and ESRA3. For some questions/items we considered the formulation between the two editions too different to be compared, therefore these questions/items are not included in the comparisons. Lastly, comparisons only focus on country level as the countries included in the according regional means are also too different between ESRA2 and ESRA3 (e.g., in ESRA2 the region America includes three countries, while in ESRA3 this region includes eight countries).

Despite the efforts of the ESRA initiative to make the presented ESRA2 and ESRA3 results as comparable as possible, these comparisons have limitations and should be interpreted with caution. There can still be potential methodological effects that can explain differences in the results. It concerns elements on which we have little to no control due to various reasons. Examples of such kind of methodological differences are changes in the characteristics or composition of the sample (e.g., level of education, rural vs. urban population or number of moped riders in the mixed group of moped riders and motorcyclists) and changes in answer patters due to different presentation of the question (e.g., matrix questions with many items vs. single item questions). Secondly, when comparing the results between ESRA2 and ESRA3, the presented confidence intervals should also be considered. A difference in the percentage between ESRA2 and ESRA3 can seem large, while in fact the confidence intervals overlap or are not far apart. Because of these reasons, differences between ESRA2 and ESRA3 should not always be interpreted as actual changes in the population.

In this report, the ESRA2-ESRA3 comparison focuses on the self-declared speeding behaviour of car drivers. The comparison was done at a country level for 24 countries with comparable data in ESRA2 and in ESRA3: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and United States. For these countries the formulation of the question ('Over the last 30 days, how often did you as a car driver …?') and the answer scale (5-points scale, where 1 = never & 5 = ((almost) always) were the same in ESRA2 and ESRA3.

In 2025 the ESRA initiative plans to publish a dedicated report on 10 years of ESRA. This report will offer deeper insights into the evolution of ESRA and compare results over time since its start in 2015. So far ESRA1 results regarding speeding are provided by Yannis et al. (2016)

Of the items on self-declared behaviour included in ESRA3, it was possible to compare three items related to speeding: "drive faster than the speed limit inside built up areas", "drive faster than the speed limit on motorways/freeways, and "drive faster than the speed limit outside built-up areas (except motorways/freeways) – the formulation of the last questions was not the same in both editions. In ESRA2 it said "drive faster than the speed limit outside built-up areas (but not on motorways/freeways)". Figure 16, Figure 17, and Figure 18 shows the percentages of "at least once" (answers 2 to 5 in a 5-points scale) in the past 30 days. The correspondent 95% Confidence Intervals (95% CI) are shown as error indicators.

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
Drive faster than the speed limit inside built-up areas
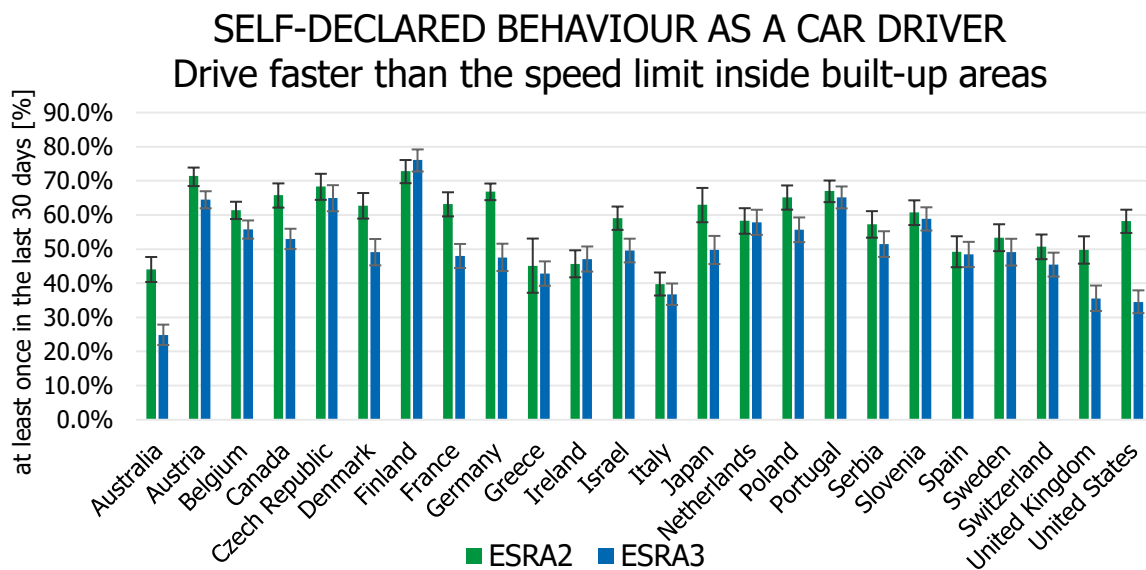
Figure 16: Self-declared speeding behaviour inside built-up areas as a car driver, in ESRA2 and in ESRA3, by country (% at least once in the past 30 days ± 95% Confidence Intervals). ESRA2 results recalculated for comparability.

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
drive faster than the speed limit on motorways/freeways
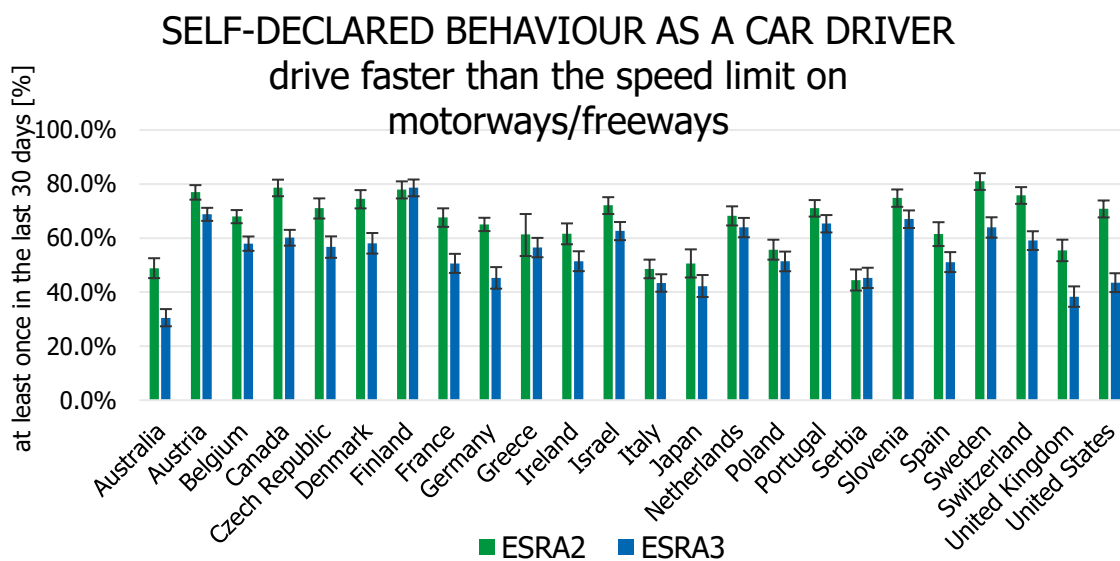
Figure 17: Self-declared speeding behaviour on motorways/freeways as a car driver, in ESRA2 and in ESRA3, by country (% at least once in the past 30 days ± 95% Confidence Intervals). ESRA2 results recalculated for comparability.

The proportion of car drivers who reported driving faster than the speed limit inside built-up areas decreased in 22 and increased in two countries (Figure 16). The same can be found for driving faster than the speed limit on motorways/freeways (Figure 17). Additionally, in every country, there was a decrease of people who reported driving faster than the speed limit outside built-up areas (except motorways/freeways; Figure 18). On average, self-declared speeding decreased by 7.8% inside built-up areas, by 13.1% outside built-up areas, and by 11.3% on motorways/freeways. It should be noted that the countries showing a descriptive increase in self-declared speeding behaviour did not exhibit a significant difference, while a significant reduction in self-declared speeding behaviour was observed in numerous countries (see Table A 11 in Appendix 4 for detailed information).

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
drive faster than the speed limit outside built-up areas (except motorways/freeways)
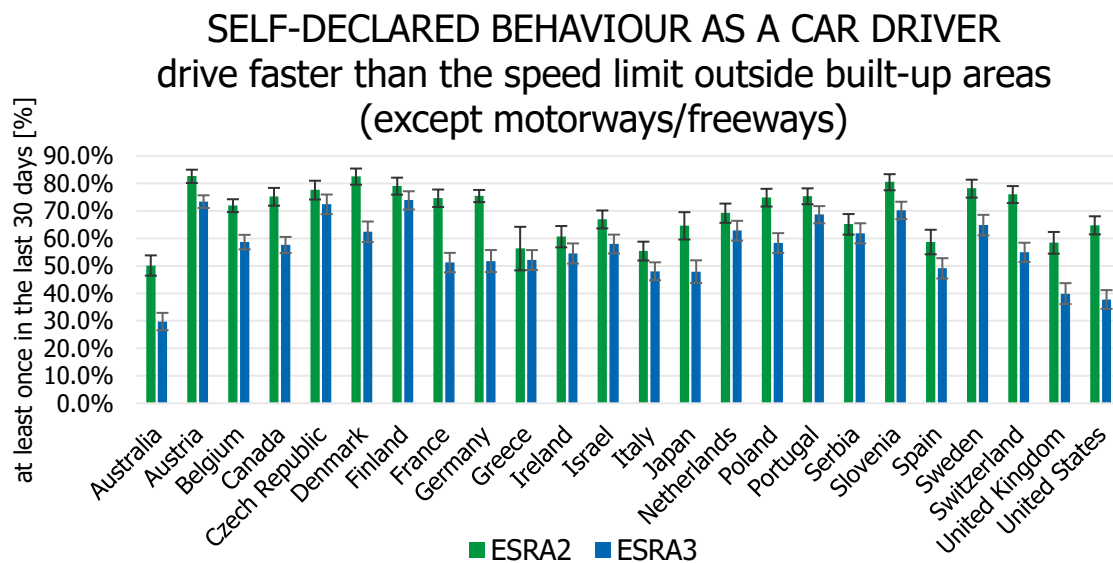
Figure 18: Self-declared speeding behaviour outside built-up areas as a car driver, in ESRA2 and in ESRA3, by country (% at least once in the past 30 days ± 95% Confidence Intervals). ESRA2 results recalculated for comparability.

Although any interpretation of the temporal comparison should be approached cautiously and in light of methodological differences, it appears that speeding behaviour is reported less frequently. Further analyses are needed to determine the extent to which this may be explained by differences in attitudes, enforcement, or other factors.

As stated above, the observed changes between ESRA2 and ESRA3 should be interpreted with caution, as they could be influenced by methodological differences in the surveys, or for example, by the COVID-19 pandemic (Lyon et al., 2024). Future measurements (ESRA4 in 2026) should be used to confirm changes over time (trends). If possible, other national monitoring data that assess the same (or similar) variables over time could also be used for external validation of the observed national trends/changes.

3.4   Limitations of the data

The data analysis has the following limitations. First, the sample size of 26,174 drivers from 39 different countries is quite large. Such a large sample size means that even small differences can become statistically significant, which may explain why almost all chi-squared tests show significant differences when comparing results between the three different regions. Therefore, the effect size (Cramer's V) is also reported and corresponding size interpretation according to Cohen (1988) are presented in Table 2. It should be noted, that most effect sizes have to be considered as small (e.g., below 0.2 or 0.1). This should be taken into account when interpreting the results.

Furthermore, the data were gathered via an online panel survey. Online panels can suffer from selection bias and coverage bias, as they often exclude individuals without internet access or those less inclined to participate in online surveys, often leading to an underrepresentation of the age group of 75+. Non-response bias further affects results, as those who choose to participate may differ significantly from non-respondents. Additionally, regular participants may alter their responses due to panel conditioning.

Unlike direct monitoring of road user behaviour, self-reported data inherently includes unexplained variance due to the absence of objective data and situational factors. As a result, this method cannot fully explain the differences observed between countries.

Additionally, while the survey effectively captures various attitudes, expectations, and elements of traffic safety culture — including values, beliefs, and attitudes that influence road user behaviours and

stakeholder actions — it does not account for all potential factors that may shape these expectations. External variables, such as personal capabilities, or infrastructural differences, are not directly included in the survey. These factors can differ significantly between countries and may further influence road users' responses. Explaining specific results within a single country or the differences observed between countries in this survey goes beyond the scope of this report. These explanations cannot be derived from the present data and require further research and additional information.

4 Summary and discussion

Speeding is a major factor in road safety (ETSC, 2019) and significantly impacts both the number and severity of crashes (OECD/ITF, 2018; SWOV, 2012). A recent meta-analysis examining the impact of city-wide 30 km/h speed limits in Europe found that these limits improved road safety by reducing both the likelihood of crash risks and the severity of crashes (Yannis & Michelaraki, 2024). According to the European Commission, about 50 to 60% of drivers exceed the speed limit (European Commission, 2018). This aligns with findings from the ESRA3 survey, where self-declared speed violations among the three regions range from 37.1% to 47.3% for speeding inside built-up areas, 41.6% to 52.8% for speeding outside built-up areas, 39.1% to 49.7% for speeding on motorways/freeways, and 27.8% to 31.0% for driving too fast for the road/traffic conditions at the time. Additionally, self-declared speeding rates are lower among females compared to males. In European countries, younger drivers are more frequently reported to speed, whereas in America, the older age groups report significantly more speeding on the different road types. The reasons for these differences are complex and beyond the scope of this report.

Although around half of the drivers report speeding, the acceptability of this unsafe behaviour is much lower. Personal acceptability of driving faster than the speed limit outside built-up areas (excluding motorways/freeways) is also lower than perceived acceptability of the same behaviour by others, suggesting that respondents consider speeding to be more acceptable by others than by themselves. In addition, men tend to have higher levels of acceptance of speeding than women and perceived acceptability of speeding by others decreased with increasing age group (for personal acceptability this was only found in Europe).

Furthermore, the intention to drive within the speed limit in the next 30 days was notably higher (between 66.3% and 73.4%) compared to the proportion of respondents who reported not driving above the speed limit in the last 30 days.

Regarding the perceived impact of speeding on road safety, responses vary across regions, with 38.8% to 66.9% of respondents believing that speeding is frequently a cause of road crashes. These findings suggest that a significant portion of road users recognize the dangers associated with speeding.

Nearly half of all respondents also reported supporting policy measures regarding speeding. In particular, speed limits of 80 km/h on all rural roads without a median strip are supported, with approval ranging from 48.8% to 64.6%. However, the other half of respondents oppose such policy measures. Given that speed limits are a crucial tool for improving road safety, more communicative strategies are needed to further increase the acceptance of speed limitations.

In many countries, car drivers perceive the chances of being monitored by police for speeding during a standard journey as low. Given these low expectations, there may be merit in revising the approach to police checks, possibly by increasing their frequency or implementing continuous monitoring measures.

Advanced analyses revealed that self-declared speeding behaviour can be explained by various factors. The developed statistical models provided clear, quantifiable insights into the likelihood of different factors influencing speeding behaviour, making the relationships between these factors and speeding more interpretable through odds ratios. In addition to the previously mentioned gender and age influences, it was found that higher acceptability (both social and personal), stronger behaviour beliefs, and higher perceived control are associated with more frequent reports of speeding behaviour. Conversely, support for lower speed limits and the intention to respect speed limits in the future are associated with less frequent self-declared speeding behaviour. Additionally, a stronger intention to respect speed limits in the future was explained by lower social acceptability of speeding, a more positive attitude toward respecting speed limits, lower perceived behavioural control, and lower perceived safety regarding speeding.

An initial examination of the temporal trends in ESRA3 indicates a notable decrease in reported speeding across several countries compared to ESRA2. While caution is necessary in interpreting these comparisons due to methodological disparities, there appears to be a trend towards increased compliance with speed limits. Further investigations are needed to identify factors contributing to this trend and to potentially replicate and further develop successful measures.

The analysis of self-declared speeding behaviour also suggests several key recommendations, which could be instrumental in reducing both speeding and the associated crash risks. First of all communication strategies should be developed to align with road safety expectations, effectively reducing speeding-related crashes. The analysis of attitudes towards speeding and support for policy measures shows that perceived behaviour control in speeding behaviour is notably high, especially in Europe22 and America8, with around 15% of respondents reported that they trust themselves when driving faster than the speed limit. Additionally, support for policy measures is only around 50%, highlighting the need for more targeted communication strategies to shift attitudes and behaviours. In addition, enhancing speed management policies through stricter penalties and increased enforcement could help to shift public expectations and attitudes. At the moment, the perceived likelihood of being checked for speeding in the different regions ranges from 36.4% to 52.5%, which suggests that enforcement could be improved to have a stronger deterrent effect. Tailoring infrastructural changes and behavioural interventions in line with the specific needs and conditions of each country, is another important recommendation. This is supported by the random effects analyses, which indicate that there are significant differences between countries in terms of self-reported and intended speeding behaviour. . Finally, it is important to foster the acceptability of stricter traffic rules among road users. Public support for stricter speed limits, as shown by the data, remains relatively low at around 50%. Promoting greater acceptance of these measures is critical to the successful implementation of road safety strategies and to fostering compliance with lower speed limits.

The initial aim of ESRA was to develop a system for gathering reliable and comparable information about people's attitudes towards road safety in several European countries. This objective has been achieved and the initial expectations have even been exceeded. ESRA has become a global initiative which already conducted surveys in more than 60 countries across six continents. The outputs of the ESRA project have become building blocks of national and international road safety monitoring systems.

The ESRA project has also demonstrated the feasibility and the added value of joint data collection on road safety attitudes and performance by partner organizations in a large number of countries. The intention is to repeat this survey every three to four years, retaining a core set of questions in every wave allowing the development of time series of road safety performance indicators.

Lists of tables and figures

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Appendix 1: ESRA3 Questionnaire

Introduction

In this questionnaire, we ask you some questions about your experience with, and your attitudes towards traffic and road safety. When responding to a question, please answer in relation to the traffic and road safety situation in [COUNTRY]. There are no right or wrong answers; what matters is your own experience and perception.

Socio-demographic information

Q1) **In which country do you live?** _____

Q2) **Are you ...** male – female - other

Q3) **How old are you (in years)?** [Drop down menu]

Q4_1) **Are you currently a student?** yes - no

Q4_2) **What is the highest qualification or educational certificate which you want to achieve?** primary education - secondary education - bachelor's degree or similar - master's degree or higher

Q4_3) **What is the highest qualification or educational certificate that you have obtained?** none - primary education - secondary education - bachelor's degree or similar - master's degree or higher

Q5) **Which of the descriptions comes closest to how you feel about your household's income nowadays?** living comfortably on present income - coping on present income - finding it difficult on present income - finding it very difficult on present income

Q6a) **Is the car you regularly drive equipped with seatbelts in the front seat?** yes – no
Only asked to LMIC countries.

Q6b) **Is the car you regularly drive equipped with seatbelts in the back seat?** yes - no
Only asked to LMIC countries.

Q7) **Are you using a carsharing organization (e.g., poppy or cambio[1])?** yes – no
Only asked to HIC/UMIC countries.

Q8) **Do you have to drive or ride a vehicle during your main professional activity?** yes, I transport mainly other person(s) (e.g., taxi, bus, rickshaw, …) - yes, I transport mainly goods (e.g., truck, courier, food delivery,…) - yes, I transport mainly myself (e.g., visiting patients, salesperson,…) - no, I drive or ride a vehicle only for commuting or private reasons

Q9) **Which phrase best describes the area where you live?** a farm or home in the countryside - a country village - a town or a small city - the suburbs or outskirts of a big city - a big city

Q10) **In which region do you live?** [List of regions per country]

Q11a) **How far do you live from the nearest stop of public transport?** less than 500 metres - between 500 metres and 1 kilometre - more than 1 kilometre

Q11b) **What is the frequency of your nearest public transport?** at least 3 times per hour - 1 or 2 times per hour - less than 1 time per hour

Mobility & exposure

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[1] *The examples in brackets were adapted to national context.*

Q12) **During the past 12 months, how often did you use each of the following transport modes in [country]? How often did you ...?** at least 4 days a week - 1 to 3 days a week - a few days a month - a few days a year - never

Items_(random order): take the train - take the bus or minibus - take the tram/streetcar - take the subway, underground, metro - take a plane - take a ship/boat or ferry - be a passenger on non-motorized individual public transport mode (e.g., bike taxi, animal carriages,…) - be a passenger on motorized individual public transport mode (e.g., car-taxi, moto-taxi, tuk-tuk, auto rickshaw, songthaew,…) - walk or run minimum 200m down the street - cycle (non-electric) - cycle on an electric bicycle / e-bike / pedelec - drive a moped (≤ 50 cc or ≤ 4 kW) - drive a motorcycle (> 50 cc or > 4kW) - ride an e-scooter (electric-kick style scooter) - drive a car (non-electric or non-hybrid) - drive a hybrid or electric car - be a passenger in a car - be a passenger on a moped or motorcycle - use another transport mode

Q13) **Over the last 30 days, have you transported a child (<18 years of age) in a car?** yes - no

Items (random order): under 150cm - above 150cm[2]

Self-declared safe and unsafe behaviour in traffic

Q14_1a) **Over the last 30 days, how often did you as a CAR DRIVER ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.
Binary variable for most items: at least once (2-5) - never (1); only exception: items on protective systems: always wear/transport (1) – not always wear/transport (2-5)
Items (random order):
- drive when you may have been over the legal limit for drinking and driving
- drive after drinking alcohol
- drive within 1 hour after taking drugs (other than prescribed or over the counter medication)
- drive within 2 hours after taking medication that may affect your driving ability
- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)
- drive faster than the speed limit on motorways/freeways
- drive without wearing your seatbelt
- transport children under 150cm[3] without using child restraint systems (e.g., child safety seat, cushion)
- transport children above 150cm[4] without wearing their seat belt
- talk on a hand-held mobile phone while driving
- talk on a hands-free mobile phone while driving
- read a message or check social media/news while driving
- drive when you were so sleepy that you had trouble keeping your eyes open

Q14_1b_1) You said that you have driven a car when you may have been over the legal limit for drinking and driving. Was this ...? You can indicate multiple answers: in the week during daytime - in the week during night-time - in the weekend during daytime - in the weekend during night-time - on motorways - on urban roads - on rural roads
Only asked to HIC/UMIC countries.

Q14_1b_2) You said that you have driven a car within 1 hour after taking drugs (other than prescribed or over the counter medication). Was this ...? You can indicate multiple answers: cannabis - cocaine - amphetamines (e.g., speed, extasy) - illicit opiates (e.g., morphine, codeine; not prescribed as medication) - other

Q14_1b_3) You said that you have driven a car within 2 hours after taking medication that may affect your driving ability. Was this ...? You can indicate multiple answers[5]: antihistamines and/or cough medicines (such as Claritin, Allegra, Benadryl) - antidepressants (such as Prozac, Zoloft, Wellbutrin) - prescription pain medicines (such as Tylenol with codeine, OxyContin, Percocet, Vicodin/ hydrocodone) - muscle relaxants (such as Soma, Flexeril) - sleep aids, Barbiturates, or Benzodiazapines

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[2] *This question was adapted to national legal regulation.*
[3] *This question was adapted to national legal regulation.*
[4] *This question was adapted to national legal regulation.*
[5] *The examples in brackets were adapted to national context.*

(such as Ambien, Lunesta, phenobarbital, Xanax, Valium, Ativan) - amphetamines (such as Adderall, Dexedrine, phentermine) - other

Q14_2) **Over the last 30 days, how often did you as a CAR PASSENGER ...? You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.**

Binary variable for most items: always wear/transport (1) – not always wear/transport (2-5)
Items (random order):
* travel without wearing your seatbelt in the back seat
* travel without wearing your seatbelt in the front seat

Q14_3) **Over the last 30 days, how often did you as a MOPED RIDER or MOTORCYCLIST ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for most items: at least once (2-5) - never (1); only exception: items on protective systems: always wear/transport (1) – not always wear/transport (2-5)
Items (random order):
* ride when you may have been over the legal limit for drinking and driving
* ride faster than the speed limit outside built-up areas (except motorways/freeways)
* not wear a helmet on a moped or motorcycle
* read a message or check social media/news while riding
* ride within 1 hour after taking drugs (other than prescribed or over the counter medication)
* ride too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users) - Only asked to LMIC countries.
* ride a motorcycle with more than 1 passenger

Q14_4) **Over the last 30 days, how often did you as a CYCLIST ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for most items: at least once (2-5) - never (1); only exception: items on protective systems: always wear/transport (1) – not always wear/transport (2-5)
Items (random order):

* cycle when you think you may have had too much to drink
* cycle without a helmet
* cycle while listening to music through headphones
* read a message or check social media/news while cycling
* cycle within 1 hour after taking drugs (other than prescribed or over the counter medication)
* cross the road when a traffic light is red

Q14_5) **Over the last 30 days, how often did you as a PEDESTRIAN ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for most items: at least once (2-5) - never (1); only exception: items on protective systems: always wear/transport (1) – not always wear/transport (2-5)
Items (random order):

* listen to music through headphones while walking down the street
* walk down the street when you think you may have had too much to drink
* read a message or check social media/news while walking down the street
* text a message while walking down the street
* cross the road when a pedestrian light is red
* cross the road at places other than at a nearby (distance less than 30m[6]) pedestrian crossing

Q14_6) **Over the last 30 days, how often did you as RIDER OF AN E-SCOOTER (electric-kick style scooter) ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "never" and 5 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable for most items: at least once (2-5) - never (1); only exception: items on protective systems: always wear/transport (1) – not always wear/transport (2-5)
Only asked to HIC/UMIC countries.

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[6] *This question was adapted to national legal regulation.*

Items (random order):

- ride with more than 1 person on board
- ride when you think you may have had too much to drink
- cross the road when a traffic light is red
- ride on pedestrian pavement/sidewalk
- ride without a helmet

Acceptability of safe and unsafe traffic behaviour

Q15) **Where you live, how acceptable would most other people say it is for a CAR DRIVER to ....?**
You can indicate your answer on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable".
The numbers in between can be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)
Items (random order):
- drive when he/she may be over the legal limit for drinking and driving
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive without wearing the seatbelt
- talk on a hand-held mobile phone while driving
- read a message or check social media/news while driving

Q16_1) **How acceptable do you, personally, feel it is for a CAR DRIVER to ...?** You can indicate your
answer on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable". The numbers in
between can be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)
Items (random order; instructed response item (trick item) as last item):
- drive when he/she may be over the legal limit for drinking and driving
- drive within 1 hour after taking drugs (other than prescribed or over the counter medication)
- drive within 2 hours after taking a medication that may affect the driving ability
- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)
- drive faster than the speed limit on motorways/freeways
- drive without wearing the seatbelt
- transport children in the car without securing them (child's car seat, seatbelt, etc.)
- talk on a hand-held mobile phone while driving
- talk on a hands-free mobile phone while driving
- read a message or check social media/news while driving
- drive when he/she is so sleepy that he/she has trouble keeping their eyes open
- Please, select the answer option number 5 "acceptable". (Instructed response item (trick item))

Q16_2) **How acceptable do you, personally, feel it is for a MOPED RIDER or MOTORCYCLIST to ...?**
You can indicate your answer on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable".
The numbers in between can be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)
Items (random order):
- ride when he/she may have been over the legal limit for drinking and driving
- ride faster than the speed limit outside built-up areas (except motorways/freeways)
- not wear a helmet on a moped or motorcycle
- read a message or check social media/news while riding
- ride a motorcycle with more than 1 passenger – Only asked to LMIC countries.

Q16_3) **How acceptable do you, personally, feel it is for a CYCLIST to ...?** You can indicate your answer
on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable". The numbers in between can
be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)
Items (random order):
- cycle when he/she may have had too much to drink
- cycle without a helmet
- read a message or check social media/news while cycling
- cross the road when a traffic light is red

Q16_4) **How acceptable do you, personally, feel it is for a PEDESTRIAN to …?** You can indicate your answer on a scale from 1 to 5, where 1 is "unacceptable" and 5 is "acceptable". The numbers in between can be used to refine your response.

Binary variable: acceptable (4-5) – unacceptable/neutral (1-3)
Items (random order):
- walk down the street when he/she may have had too much to drink
- read a message or check social media/news while walking down the street
- cross the road when a pedestrian light is red

Attitudes towards safe and unsafe behaviour in traffic

Q17) **To what extent do you agree with each of the following statements?** You can indicate your answer on a scale from 1 to 5, where 1 is "disagree" and 5 is "agree". The numbers in between can be used to refine your response.

Binary variable: agree (4-5) – disagree/neutral (1-3)
Items (random order):
Behaviour believes & attitudes
- For short trips, one can risk driving under the influence of alcohol.
- I have to drive fast; otherwise, I have the impression of losing time.
- Respecting speed limits is boring or dull.
- Motorized vehicles should always give way to pedestrians or cyclists.
- I use a mobile phone while driving, because I always want to be available.
- To save time, I often use a mobile phone while driving.
Perceived behaviour control = self-efficacy
- I trust myself to drive after drinking a small amount of alcohol (e.g., one glass of wine or one pint of beer).
- I have the ability to drive when I am a little drunk after a party.
- I am able to drive after drinking a large amount of alcohol (e.g., a bottle of wine).
- I trust myself when I drive significantly faster than the speed limit.
- I have the ability to drive significantly faster than the speed limit.
- I am able to drive fast through a sharp curve.
- I trust myself when I check messages on the mobile phone while driving.
- I have the ability to write a message on the mobile phone while driving.
- I am able to talk on a hand-held mobile phone while driving.
Habits
- I often drive after drinking alcohol.
- I often drive faster than the speed limit.
- I often use my mobile phone while driving.
Intention
- I intend not to drive after drinking alcohol in the next 30 days.
- I intend to respect speed limits in the next 30 days.
- I intend not to use my mobile phone while driving in the next 30 days.

Subjective safety & risk perception

Q18) **How safe or unsafe do you feel when using the following transport modes in [country]?** You can indicate your answer on a scale from 0 to 10, where 0 is "very unsafe" and 10 is "very safe". The numbers in between can be used to refine your response.

Items (random) = Items indicated by the respondent in Q12 are displayed.

Q19) **How often do you think each of the following factors is the cause of a road crash involving a car**? You can indicate your answer on a scale from 1 to 6, where 1 is "never" and 6 is "(almost) always". The numbers in between can be used to refine your response.

Binary variable: often/frequently (4-6) – not that often/not frequently (1-3)
Items (random order):
- driving after drinking alcohol
- driving within 1 hour after taking drugs (other than prescribed or over the counter medication)
- driving faster than the speed limit
- using a hand-held mobile phone while driving
- using a hands-free mobile phone while driving
- inattentiveness or daydreaming while driving
- driving while tired

Support for policy measures

Q20) **Do you oppose or support a legal obligation ...?** You can indicate your answer on a scale from 1 to 5, where 1 is "oppose" and 5 is "support". The numbers in between can be used to refine your response.

Binary variable: support (4-5) – oppose/neutral (1-3)
Items for all countries (random order):
- forbidding all drivers of motorized vehicles to drive with a blood alcohol concentration above 0.0 ‰ (zero tolerance)
- forbidding all drivers of motorized vehicles to use a hand-held mobile phone while driving
- limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)
- requiring all cyclists to wear a helmet
- limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip
- forbidding all novice drivers of motorized vehicles (license obtained less than 2 years ago) to drive with a blood alcohol concentration above 0.0 ‰ (zero tolerance)

Items only for HIC/UMIC countries (random order):
- installing an alcohol 'interlock' for drivers who have been caught drunk driving on more than one occasion (technology that won't let the car start if the driver's alcohol level is over a certain limit)
- requiring cyclists under the age of 12 to wear a helmet
- forbidding all cyclists to ride with a blood alcohol concentration above 0,0‰ (zero tolerance)

Items only for LMIC countries (random order):
- forbidding all professional drivers of motorized vehicles (e.g., taxis, vans, trucks, buses, …) to drive with a blood alcohol concentration above 0.0 ‰ (zero tolerance)
- requiring all moped and motorcycle riders and passengers to wear a helmet
- requiring all car drivers and passengers (front- and back seat) to wear a seatbelt
- making liability insurance mandatory for owners of cars

Q21) **Please think of the policy measure: "…" and indicate if you agree or disagree with the following statements about it. This policy measure would ...?** Disagree – agree

Random selection of one of the first 4 items in Q20 per respondent. All first 4 items in Q20 are be asked equally often in each country.
Items (random order):
- reduce the number of road crashes and injuries
- increase the safety feeling on the streets
- have negative side effects
- restrict people's individual freedom
- reduce the privacy of people
- limit people's mobility
- lead to discrimination
- be fair
- be expensive for people
- be easy to implement
- be difficult to enforce by the police
- be a burden for people
- be an unjustifiable intervention by the state
- be supported by many of my friends

Enforcement

Q22) **On a typical journey, how likely is it that you (as a car driver) will be checked by the police (including camera's or radars) for ...?** You can indicate your answer on a scale from 1 to 7, where 1 is "very unlikely" and 7 is "very likely". The numbers in between can be used to refine your response.

Binary variable: likely (5-7) – unlikely/neutral (1-4)
Items (random order):
- alcohol, in other words, being subjected to a Breathalyser test
- the use of illegal drugs
- respecting the speed limits
- wearing your seatbelt
- the use of hand-held mobile phone to talk or text while driving

Q23_1) **In the past 12 months, how many times have you been checked by the police for using alcohol while driving a car (i.e., being subjected to a Breathalyser test)?** Never – 1 time – at least 2 times – Binary variable: at least once – never

Q23_2)   **In the past 12 months, how many times have you been checked by the police for using drugs (other than prescribed or over the counter medication) while driving a car?** Never – 1 time – at least 2 times – Binary variable: at least once – never

Involvement in road crashes

The following questions focus on road crashes. With road crashes, we mean any collision involving at least one road vehicle (e.g., car, motorcycle, or bicycle) in motion on a public or private road to which the public has right of access. Furthermore, these crashes result in material damage, injury, or death. Collisions include those between road vehicles, road vehicles and pedestrians, road vehicles and animals or fixed obstacles, road and rail vehicles, and one road vehicle alone.

Q24a)   **In the past 12 months, have you personally been involved in a road crash where at least one person was injured (light, severe or fatal crashes)?** Yes – no

Q24b)   **Please indicate the transport mode(s) YOU were using at the time of these crashes.** You can indicate multiple answers: as a car driver – as a car passenger – as a moped or motorcycle rider – as a moped or motorcycle passenger – as a cyclist – as a pedestrian – as a rider of an e-scooter (electric-kick style scooter) – other

Infrastructure

Q25_1_a) **As a CAR DRIVER, what type of roads do you regularly use in [country]?** You can indicate multiple answers: inter-city motorways – thoroughfares and high-speed roads within cities – rural roads and roads connecting towns and villages – other streets and roads in urban areas

Q25_1_b) **As a CAR DRIVER, how would you rate the roads that you regularly use in terms of safety?** You can indicate your answer on a scale from 1 to 7, where 1 is "very unsafe" and 7 is "very safe". The numbers in between can be used to refine your response.

Binary variable: safe (5-7) – unsafe/neutral (1-4)
Items (random order):
- inter-city motorways
- thoroughfares and high-speed roads within cities
- rural roads and roads connecting towns and villages
- other streets and roads in urban areas

Q25_2_a) **As a MOPED RIDER or MOTORCYCLIST, what type of roads do you regularly use in [country]?** You can indicate multiple answers: thoroughfares and high-speed roads within cities – rural roads and roads connecting towns and villages – other streets and roads in urban areas

Q25_2_b) **As a MOPED RIDER or MOTORCYCLIST, how would you rate the roads that you regularly use in terms of safety?** You can indicate your answer on a scale from 1 to 7, where 1 is "very unsafe" and 7 is "very safe". The numbers in between can be used to refine your response.

Binary variable: safe (5-7) – unsafe/neutral (1-4)
Items (random order):
- thoroughfares and high-speed roads within cities
- rural roads and roads connecting towns and villages
- other streets and roads in urban areas

Q25_3_a) **As a CYCLIST, what type of roads/cycle lanes do you regularly use in [country]?** You can indicate multiple answers: rural roads and roads connecting towns and villages with cycle lanes – rural roads and roads connecting towns and villages without cycle lanes – streets and roads in urban areas with cycle lanes – streets and roads in urban areas without cycle lanes

Q25_3_b) **As a CYCLIST, how would you rate the roads/cycle lanes that you regularly use in terms of safety?** You can indicate your answer on a scale from 1 to 7, where 1 is "very unsafe" and 7 is "very safe". The numbers in between can be used to refine your response.

Binary variable: safe (5-7) – unsafe/neutral (1-4)
Items (random order):
- rural roads and roads connecting towns and villages with cycle lanes
- rural roads and roads connecting towns and villages without cycle lanes

- streets and roads in urban areas with cycle lanes
- streets and roads in urban areas without cycle lanes

Q25_4_a) As a PEDESTRIAN, what type of roads/sidewalks do you regularly use in [country]? You can indicate multiple answers: rural roads and roads connecting towns and villages with sidewalks – rural roads and roads connecting towns and villages without sidewalks – streets and roads in urban areas with sidewalks – streets and roads in urban areas without sidewalks

Q25_4_b) As a PEDESTRIAN, how would you rate the roads/sidewalks that you regularly use in terms of safety? You can indicate your answer on a scale from 1 to 7, where 1 is "very unsafe" and 7 is "very safe". The numbers in between can be used to refine your response.

Binary variable: safe (5-7) – unsafe/neutral (1-4)
Items (random order):
- rural roads and roads connecting towns and villages with sidewalks
- rural roads and roads connecting towns and villages without sidewalks
- streets and roads in urban areas with sidewalks
- streets and roads in urban areas without sidewalks

Social desirability scale

Introduction: The survey is almost finished. Some of the following questions[7] have nothing to do with road safety, but they are important background information. There are no good or bad answers.

Q26)   To what extent do you agree with each of the following statements? You can indicate your answer on a scale from 1 to 5, where 1 is "disagree" and 5 is "agree". The numbers in between can be used to refine your response.

Items (random order; instructed response item (trick item) as last item):
- In an argument, I always remain objective and stick to the facts.
- Even if I am feeling stressed, I am always friendly and polite to others.
- When talking to someone, I always listen carefully to what the other person says.
- It has happened that I have taken advantage of someone in the past.
- I have occasionally thrown litter away in the countryside or on to the road.
- Sometimes I only help people if I expect to get something in return.
- Please, select the answer option number 5 "agree". (Instructed response item (trick item))

Closing comment: Thank you for your contribution!

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[7] Q26 is asked together with some last questions on sociodemographic information, which have already been listed in the beginning of the questionnaire.

Appendix 2: ESRA3 weights

The following weights were used to calculate representative means on national and regional level. They are based on UN population statistics (United Nations Statistics Division, 2023). The weighting took into account small corrections with respect to national representativeness of the sample based on gender and six age groups (18-24y, 25-34y, 35-44y, 45-54y, 55-64y, 65-74y). For the regions, the weighting also took into account the population size of each country in the total set of countries from this region.

Individual country weight	Individual country weight is a weighting factor based on the gender*6 age groups (18-24y, 25-34y, 35-44y, 45-54y, 55-64y, 65-74y) distribution in a country as retrieved from the UN population statistics.
Europe22 weight	European weighting factor based on all 22 European countries participating in ESRA3, considering individual country weight and population size of the country as retrieved from the UN population statistics.
America8 weight	American weighting factor based on all 8 North and Latin American countries participating in ESRA3, considering individual country weight and population size of the country as retrieved from the UN population statistics.
AsiaOceania6 weight	Asian and Oceanian weighting factor based on the 6 Asian and Oceanian countries participating in ESRA3 with data collected through online panel (Australia, Israel, Japan, Kazakhstan, Thailand, Türkiye - Armenia, Kyrgyzstan, and Uzbekistan were not included due to different methodology in data collection – face-to-face CAPI), considering individual country weight and population size of the country as retrieved from the UN population statistics.

Appendix 3: Detailed Descriptive Results

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
Drive faster than the speed limit inside built-up areas

Europe22

Country	%
Finland	76.1%
Latvia	66.2%
Portugal	65.2%
Czech Republic	65.0%
Austria	64.5%
Luxembourg	60.8%
Slovenia	58.9%
Netherlands	57.9%
Belgium	55.7%
Poland	55.7%
Bosnia Herzegovina	55.2%
Serbia	51.5%
Sweden	49.1%
Denmark	49.1%
Spain	48.4%
France	48.0%
Germany	47.6%
Europe22	47.3%
Ireland	47.1%
Switzerland	45.4%
Greece	42.8%
Italy	36.7%
United Kingdom	35.5%

America8

Country	%
Canada	53.0%
Panama	51.3%
Chile	48.1%
Mexico	46.3%
Colombia	46.1%
Peru	42.4%
Brazil	40.5%
America8	39.6%
United States	34.5%

AsiaOceania6

Country	%
Japan	49.7%
Israel	49.6%
Thailand	40.0%
Uzbekistan*	39.1%
AsiaOceania6	37.1%
Kazakhstan	28.9%
Armenia*	24.9%
Australia	24.8%
Türkiye	22.0%
Kyrgyzstan*	19.2%

% at least once (last 30 days)

Reference population: car drivers at least a few days a month,
*not in regional mean (different methodology)

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
Drive faster than the speed limit outside built-up areas (except motorways/freeways)

Europe22

Country	%
Luxembourg	82.1%
Latvia	77.3%
Finland	73.9%
Austria	73.4%
Czech Republic	72.5%
Slovenia	70.2%
Portugal	68.7%
Sweden	64.9%
Netherlands	62.8%
Denmark	62.5%
Serbia	61.9%
Belgium	58.7%
Poland	58.3%
Bosnia Herzegovina	58.1%
Switzerland	54.9%
Ireland	54.5%
Europe22	52.8%
Greece	52.1%
Germany	51.8%
France	51.2%
Spain	49.1%
Italy	48.0%
United Kingdom	39.9%

America8

Country	%
Canada	57.6%
Colombia	51.2%
Panama	48.4%
Chile	48.1%
Mexico	47.6%
Peru	44.9%
Brazil	43.7%
America8	42.5%
United States	37.7%

AsiaOceania6

Country	%
Israel	58.0%
Japan	47.9%
Thailand	45.2%
Kazakhstan	42.2%
AsiaOceania6	41.6%
Uzbekistan*	34.6%
Armenia*	33.2%
Kyrgyzstan*	33.2%
Türkiye	33.1%
Australia	29.7%

% at least once (last 30 days)

Reference population: car drivers at least a few days a month,
*not in regional mean (different methodology)

Figure A 1: Self-declared speeding behaviour (% at least once in the past 30 days) of car drivers separated by countries. Left: inside built-up areas; Right: outside built-up areas.

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)

Europe22

Finland	48.0%
Luxembourg	47.9%
Austria	44.8%
Czech Republic	41.7%
Latvia	38.3%
Poland	37.6%
Portugal	36.4%
Slovenia	35.8%
Belgium	35.7%
Netherlands	35.2%
Spain	34.5%
Bosnia Herzegovina	32.0%
Greece	31.6%
Ireland	31.5%
Switzerland	31.1%
Denmark	30.7%
Europe22	30.5%
Sweden	30.3%
France	29.9%
Italy	28.5%
Germany	27.7%
Serbia	25.0%
United Kingdom	20.7%

America8

Mexico	38.3%
Peru	38.3%
Colombia	38.2%
Panama	37.0%
Chile	34.6%
Canada	30.5%
America8	27.8%
Brazil	25.3%
United States	23.7%

AsiaOceania6

Thailand	40.4%
Israel	35.7%
Japan	33.5%
Uzbekistan*	33.3%
AsiaOceania6	31.0%
Türkiye	25.5%
Kazakhstan	23.2%
Kyrgyzstan*	16.9%
Australia	16.8%
Armenia*	10.7%

% at least once (last 30 days)
*Reference population: car drivers at least a few days a month, *not in regional mean (different methodology)*

SELF-DECLARED BEHAVIOUR AS A CAR DRIVER
Drive faster than the speed limit on motorways/freeways

Europe22

Luxembourg	79.3%
Finland	78.7%
Latvia	70.7%
Austria	68.8%
Slovenia	67.0%
Portugal	65.3%
Sweden	64.0%
Netherlands	63.9%
Switzerland	59.1%
Denmark	58.1%
Belgium	58.0%
Czech Republic	56.7%
Greece	56.5%
Ireland	51.4%
Poland	51.4%
Bosnia Herzegovina	51.2%
Spain	51.1%
France	50.6%
Europe22	49.7%
Serbia	45.2%
Germany	45.2%
Italy	43.4%
United Kingdom	38.3%

America8

Canada	60.1%
Colombia	54.8%
Panama	53.7%
Mexico	49.4%
Chile	47.0%
America8	46.0%
Brazil	44.5%
Peru	43.9%
United States	43.5%

AsiaOceania6

Israel	62.6%
Uzbekistan*	49.5%
Armenia*	43.1%
Kyrgyzstan*	42.3%
Thailand	42.2%
Japan	42.2%
AsiaOceania6	39.1%
Türkiye	33.6%
Kazakhstan	32.9%
Australia	30.5%

% at least once (last 30 days)
*Reference population: car drivers at least a few days a month, *not in regional mean (different methodology)*

Figure A 2: Self-declared speeding behaviour (% at least once in the past 30 days) of car drivers separated by countries. Left: too fast for the road/traffic conditions; Right: on motorways/freeways

BEHAVIOUR BELIEVES & ATTITUDES
I have to drive fast, otherwise, I have the impression of losing time.

Europe22

Country	% agree
Austria	7.3%
Denmark	7.0%
Switzerland	6.3%
Luxembourg	6.2%
Belgium	5.9%
Latvia	5.6%
Netherlands	5.0%
Sweden	4.9%
Spain	4.9%
Finland	4.8%
Italy	4.8%
Czech Republic	4.6%
Greece	4.4%
Europe22	4.3%
Ireland	4.2%
Bosnia Herzegovina	4.2%
France	4.0%
Poland	4.0%
Germany	3.9%
Portugal	3.8%
United Kingdom	3.0%
Slovenia	2.8%
Serbia	2.8%

America8

Country	% agree
Mexico	6.9%
United States	6.9%
Peru	6.8%
America8	6.4%
Canada	5.7%
Brazil	5.4%
Panama	5.3%
Colombia	4.7%
Chile	4.2%

AsiaOceania6

Country	% agree
Uzbekistan*	11.8%
Armenia*	8.0%
Thailand	6.2%
Israel	5.2%
Japan	4.9%
AsiaOceania6	4.9%
Türkiye	4.9%
Kyrgyzstan*	3.4%
Kazakhstan	3.0%
Australia	2.7%

% agree

Reference population: car drivers at least a few days a year,
*not in regional mean (different methodology)

BEHAVIOUR BELIEVES & ATTITUDES
Respecting speed limits is boring or dull.

Europe22

Country	% agree
Portugal	16.4%
Belgium	15.9%
Austria	15.5%
Netherlands	13.8%
France	13.5%
Denmark	13.1%
Czech Republic	12.6%
Luxembourg	12.0%
Switzerland	11.9%
Sweden	11.5%
Bosnia Herzegovina	11.0%
Finland	10.0%
Europe22	9.6%
Italy	9.4%
Spain	9.3%
Germany	8.3%
Latvia	8.0%
Slovenia	7.7%
Serbia	6.9%
Greece	6.6%
Poland	6.3%
Ireland	5.9%
United Kingdom	5.0%

America8

Country	% agree
Canada	10.4%
Peru	10.2%
Brazil	10.1%
America8	8.1%
Mexico	7.6%
United States	7.1%
Colombia	7.0%
Panama	6.8%
Chile	5.9%

AsiaOceania6

Country	% agree
Armenia*	17.3%
Uzbekistan*	12.3%
Japan	10.0%
Thailand	9.5%
Israel	9.1%
Kazakhstan	8.4%
AsiaOceania6	8.2%
Kyrgyzstan*	6.2%
Türkiye	5.8%
Australia	5.5%

% agree

Reference population: car drivers at least a few days a year,
*not in regional mean (different methodology)

Figure A 3: Behaviour believes and attitudes of regarding speeding behaviour of car drivers, separated by countries.

PERCEIVED BEHAVIOUR CONTROL
**I trust myself when I drive significantly faster
than the speed limit.**

Europe22

Austria	30.2%
Netherlands	23.6%
Portugal	21.8%
Slovenia	20.6%
Poland	20.2%
Luxembourg	19.9%
Sweden	18.6%
Germany	17.1%
Belgium	16.8%
Switzerland	16.3%
Denmark	15.7%
Latvia	15.2%
Europe22	14.5%
Finland	13.3%
Serbia	12.9%
Italy	12.8%
Czech Republic	12.8%
Ireland	12.5%
Bosnia Herzegovina	11.5%
Spain	11.0%
Greece	10.2%
France	9.9%
United Kingdom	9.8%

America8

Brazil	16.6%
Mexico	15.9%
Canada	14.8%
Colombia	14.2%
Panama	13.3%
America8	13.1%
Peru	11.0%
United States	10.7%
Chile	9.5%

AsiaOceania6

Armenia*	22.4%
Uzbekistan*	18.0%
Israel	15.5%
Kyrgyzstan*	13.1%
Kazakhstan	9.9%
Thailand	9.1%
Türkiye	8.0%
Australia	7.2%
AsiaOceania6	6.6%
Japan	2.8%

% agree

*Reference population: car drivers at least a few days a year,
not in regional mean (different methodology)

PERCEIVED BEHAVIOUR CONTROL
**I have the ability to drive significantly faster
than the speed limit.**

Europe22

Austria	28.3%
Czech Republic	21.9%
Luxembourg	19.8%
Netherlands	17.9%
Germany	17.2%
Ireland	16.7%
Switzerland	16.6%
Finland	16.5%
Serbia	15.4%
Italy	14.9%
Belgium	14.8%
Denmark	14.7%
Poland	14.3%
Portugal	14.2%
Europe22	13.9%
Latvia	13.2%
Bosnia Herzegovina	13.1%
Sweden	12.5%
Slovenia	12.4%
United Kingdom	11.1%
France	10.3%
Spain	8.6%
Greece	8.2%

America8

Canada	14.7%
Brazil	11.5%
America8	9.7%
United States	9.1%
Colombia	8.6%
Mexico	8.5%
Peru	7.1%
Panama	6.6%
Chile	5.1%

AsiaOceania6

Armenia*	29.0%
Uzbekistan*	16.8%
Israel	14.3%
Türkiye	14.2%
Kyrgyzstan*	10.3%
Thailand	9.1%
AsiaOceania6	8.5%
Kazakhstan	8.3%
Australia	8.0%
Japan	3.5%

% agree

*Reference population: car drivers at least a few days a year,
not in regional mean (different methodology)

Figure A 4: Perceived behaviour control regarding speeding behaviour of car drivers, separated by countries.

PERCEIVED BEHAVIOUR CONTROL
I am able to drive fast through a sharp curve.

Europe22

Country	%
Austria	18.6%
Netherlands	16.1%
Switzerland	14.4%
Italy	13.7%
Czech Republic	13.3%
Luxembourg	12.8%
Finland	12.5%
Germany	12.4%
Sweden	11.5%
Belgium	11.0%
Denmark	9.7%
Europe22	9.5%
Latvia	9.1%
Poland	7.7%
Slovenia	7.4%
Spain	6.8%
United Kingdom	6.2%
Ireland	6.0%
Bosnia Herzegovina	5.6%
Portugal	5.2%
Greece	5.1%
France	4.9%
Serbia	4.6%

America8

Country	%
Mexico	8.9%
Canada	8.2%
United States	7.9%
America8	7.6%
Colombia	7.4%
Chile	6.7%
Panama	6.4%
Brazil	6.2%
Peru	5.5%

AsiaOceania6

Country	%
Armenia*	13.8%
Uzbekistan*	9.2%
Thailand	7.0%
Türkiye	5.7%
Kazakhstan	4.7%
AsiaOceania6	4.5%
Israel	4.3%
Australia	4.2%
Kyrgyzstan*	4.0%
Japan	2.2%

% agree

Reference population: car drivers at least a few days a year,
*not in regional mean (different methodology)

HABITS
I often drive faster than the speed limit.

Europe22

Country	%
Austria	18.0%
Finland	15.9%
Latvia	14.5%
Netherlands	13.2%
Sweden	13.1%
Luxembourg	12.7%
Ireland	11.5%
Denmark	11.3%
Poland	10.5%
Belgium	9.8%
Czech Republic	9.6%
Switzerland	9.6%
Europe22	8.5%
France	8.3%
Spain	8.1%
Slovenia	7.9%
Portugal	7.6%
Germany	7.4%
Greece	7.3%
Italy	7.0%
United Kingdom	6.3%
Bosnia Herzegovina	5.6%
Serbia	4.4%

America8

Country	%
Canada	17.3%
United States	12.3%
America8	9.7%
Mexico	6.7%
Brazil	6.3%
Colombia	5.8%
Panama	5.4%
Chile	5.3%
Peru	4.8%

AsiaOceania6

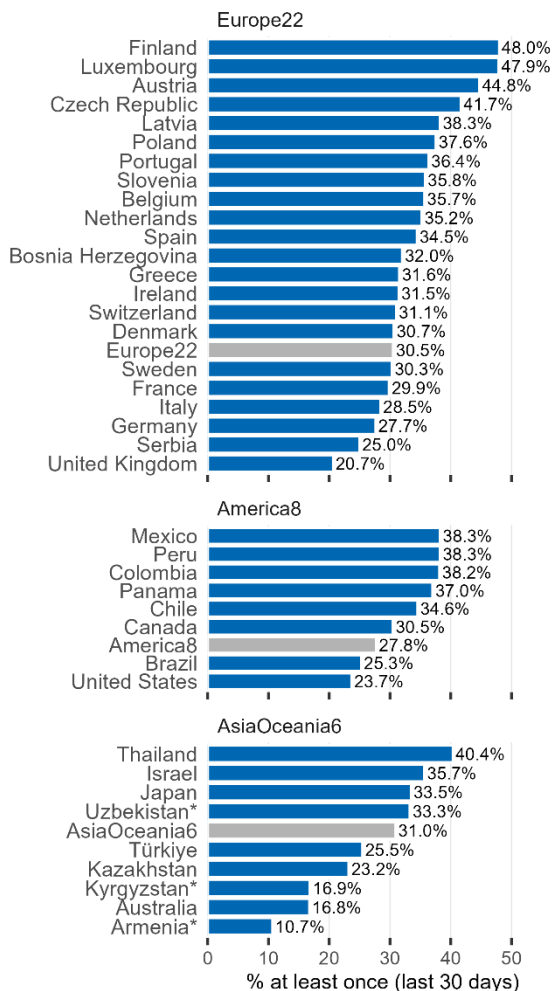| Country	%
Israel	15.1%
Uzbekistan*	12.9%
Japan	11.9%
Armenia*	10.1%
Thailand	8.5%
AsiaOceania6	8.1%
Australia	5.4%
Türkiye	3.5%
Kazakhstan	3.2%
Kyrgyzstan*	0.6%

% agree

Reference population: car drivers at least a few days a year,
*not in regional mean (different methodology)

Figure A 5: Perceived behaviour control and habits regarding speeding behaviour of car drivers, separated by countries.

SUPPORT OF POLICY MEASURE
Limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip

Europe22

Country	%
Serbia	72.1%
Bosnia Herzegovina	67.1%
Ireland	65.2%
Greece	58.7%
Italy	58.3%
United Kingdom	57.9%
Spain	56.3%
Portugal	56.2%
Denmark	51.0%
Europe22	48.8%
Sweden	47.4%
Germany	46.6%
Netherlands	43.8%
Switzerland	43.1%
Finland	42.8%
France	41.8%
Belgium	39.7%
Slovenia	35.8%
Austria	34.1%
Poland	31.5%
Czech Republic	29.1%
Luxembourg	27.6%
Latvia	27.0%

America8

Country	%
Colombia	73.5%
Mexico	72.7%
Peru	68.5%
Brazil	68.2%
America8	64.6%
Chile	63.0%
Panama	61.5%
United States	59.7%
Canada	53.6%

AsiaOceania6

Country	%
Kyrgyzstan*	79.3%
Türkiye	71.6%
Thailand	70.6%
Armenia*	70.1%
Kazakhstan	63.4%
Uzbekistan*	61.0%
Australia	56.0%
AsiaOceania6	53.0%
Israel	51.6%
Japan	31.1%

% support

*Reference population: all road users, *not in regional mean (different methodology)*

SUPPORT OF POLICY MEASURE
Limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)

Europe22

Country	%
Spain	57.6%
Sweden	55.7%
Greece	54.5%
Ireland	54.2%
Bosnia Herzegovina	48.5%
United Kingdom	47.1%
Serbia	45.7%
France	43.7%
Netherlands	43.1%
Europe22	42.1%
Germany	40.8%
Italy	39.4%
Latvia	38.1%
Belgium	37.1%
Portugal	34.8%
Switzerland	32.9%
Luxembourg	30.5%
Finland	28.7%
Austria	28.4%
Poland	27.6%
Slovenia	27.4%
Denmark	25.5%
Czech Republic	24.4%

America8

Country	%
Peru	69.4%
Mexico	63.5%
Panama	63.4%
Colombia	60.9%
America8	54.8%
United States	53.8%
Chile	52.9%
Brazil	49.8%
Canada	42.8%

AsiaOceania6

Country	%
Kyrgyzstan*	68.9%
Thailand	66.3%
Türkiye	64.5%
Armenia*	57.1%
Uzbekistan*	57.1%
Kazakhstan	49.8%
AsiaOceania6	46.5%
Australia	45.3%
Israel	37.5%
Japan	26.0%

% support

*Reference population: all road users, *not in regional mean (different methodology)*

Figure A 6: Support of policy measures regarding speeding, separated by countries.

Appendix 4: Detailed Statistical Results

Table A 1: Chi-Square tests for the effect of gender on self-declared speeding behaviour as a car driver for different road types/conditions in the three regions.

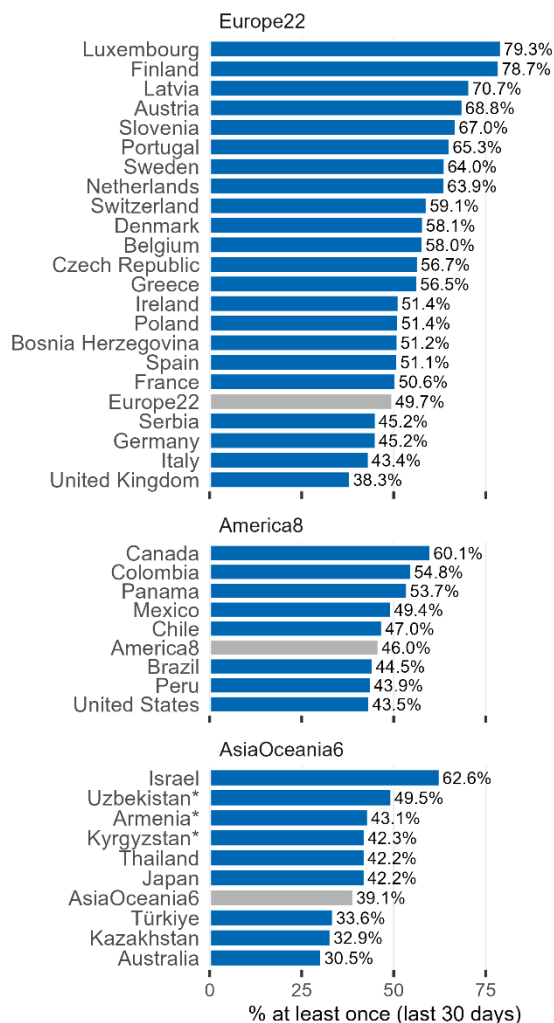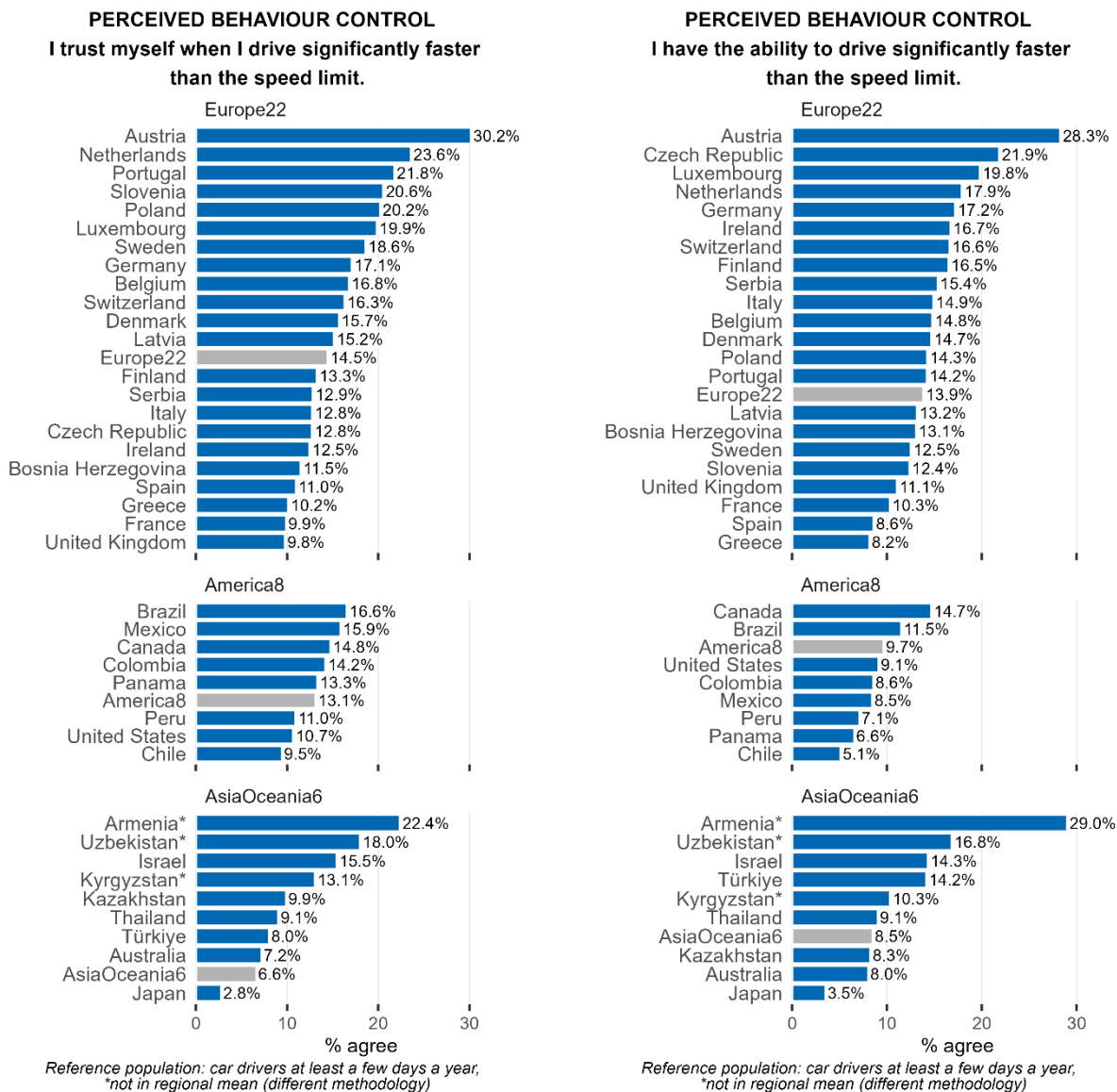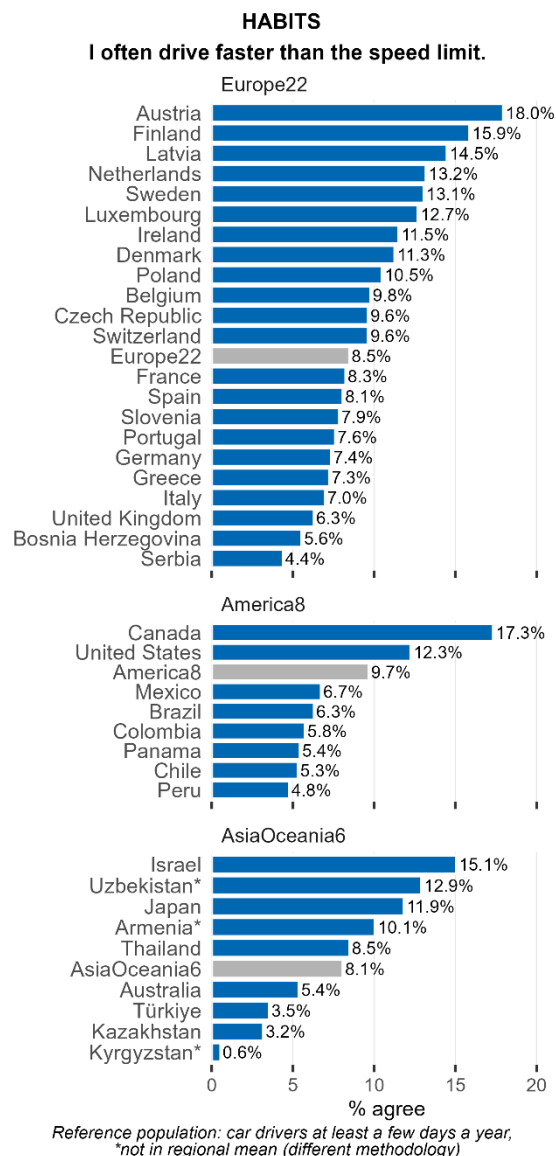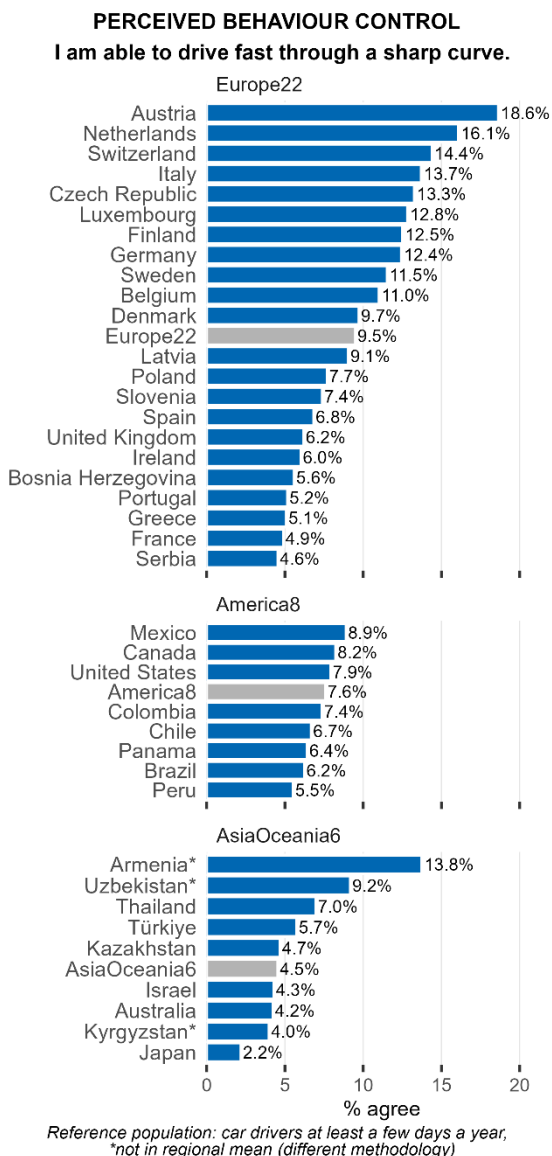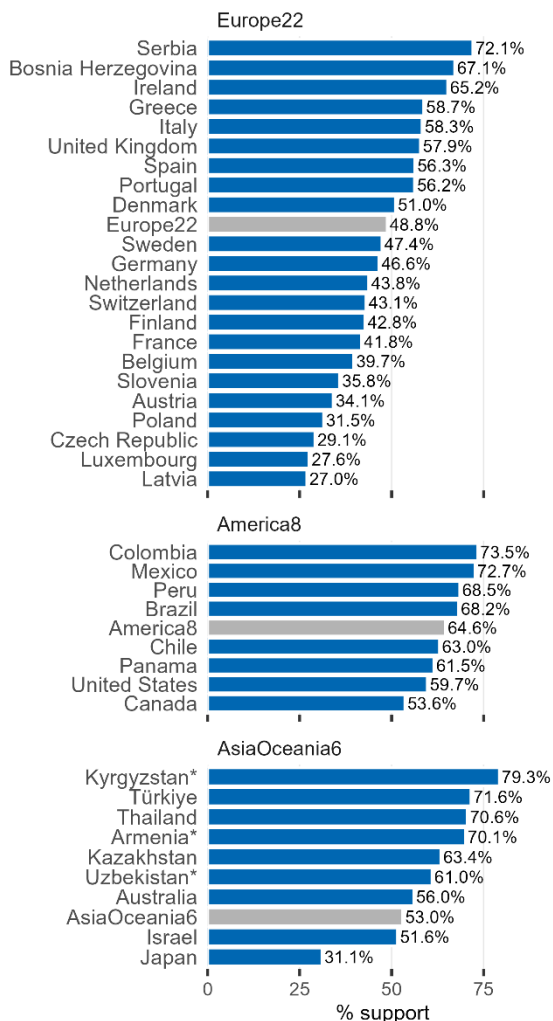| Road types/conditions	Region	Gender					
		Male	Female	Chi-square	df	p-value	Cramer's V
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	34.5%$_a$	26.2%$_b$	53.69	1	< 0.001	0.090
	America8	33.9%$_a$	21.1%$_b$	47.61	1	< 0.001	0.143
	AsiaOceania6*	35.2%$_a$	26.1%$_b$	21.86	1	< 0.001	0.097
Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	56.7%$_a$	48.6%$_b$	44.11	1	< 0.001	0.081
	America8	50.4%$_a$	34.0%$_b$	63.92	1	< 0.001	0.165
	AsiaOceania6*	47.8%$_a$	34.7%$_b$	40.92	1	< 0.001	0.133
Drive faster than the speed limit on motorways/freeways	Europe22	54.6%$_a$	44.4%$_b$	68.59	1	< 0.001	0.102
	America8	55.3%$_a$	36.0%$_b$	87.55	1	< 0.001	0.193
	AsiaOceania6*	46.7%$_a$	30.7%$_b$	61.48	1	< 0.001	0.163
Drive faster than the speed limit inside built-up areas	Europe22	50.3%$_a$	44.1%$_b$	82.95	1	< 0.001	0.086
	America8	46.4%$_a$	32.3%$_b$	48.35	1	< 0.001	0.144
	AsiaOceania6*	42.1%$_a$	31.5%$_b$	27.82	1	< 0.001	0.110

*Note: Reference population: car drivers at least a few days a month. % at least once in the past 30 days. *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

Table A 2: Chi-Square tests for the effect of age group on self-declared speeding behaviour as a car driver for different road types/conditions in the three regions.

Road types/conditions	Region	Age group						Chi-square	df	p-value	Cramer's V
		18-34	25-34	35-44	45-54	55-64	65-74				
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	42.9%$_a$	35.2%$_{a,b}$	34.1%$_b$	31.0%$_{b,c,d}$	25.3%$_d$	17.2%$_e$	160.95	5	< 0.001	0.155
	America8	33.5%$_a$	27.7%$_{a,b}$	27.7%$_{a,b}$	28.7%$_{a,b}$	27.8%$_{a,b}$	19.2%$_b$	14.13	5	0.015	0.078
	Asia-Oceania6*	31.5%$_a$	32.8%$_a$	33.2%$_a$	29.3%$_a$	30.4%$_a$	27.1%$_a$	4.45	5	0.486	0.044
Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	59.2%$_a$	49.6%$_{b,c}$	53.6%$_{a,b}$	56.8%$_a$	53.4%$_{a,b}$	45.1%$_c$	47.61	5	< 0.001	0.085
	America8	50.3%$_a$	32.3%$_b$	32.6%$_b$	46.5%$_a$	57.3%$_a$	49.1%$_a$	88.05	5	< 0.001	0.194
	Asia-Oceania6*	41.0%$_a$	39.5%$_a$	43.1%$_a$	43.9%$_a$	41.3%$_a$	39.8%$_a$	2.69	5	0.747	0.034
Drive faster than the speed limit on motorways/freeways	Europe22	57.5%$_a$	48.3%$_{b,c}$	50.7%$_{a,b}$	52.1%$_{a,b}$	50.4%$_{a,b}$	40.9%$_c$	49.81	5	< 0.001	0.086
	America8	52.0%$_a$	35.8%$_b$	36.1%$_b$	50.6%$_a$	59.7%$_a$	55.5%$_a$	84.67	5	< 0.001	0.190
	Asia-Oceania6*	40.5%$_a$	36.9%$_a$	39.6%$_a$	41.6%$_a$	37.6%$_a$	38.5%$_a$	2.86	5	0.721	0.035
Drive faster than the speed limit inside built-up areas	Europe22	55.6%$_a$	46.7%$_{b,c}$	47.6%$_{a,b}$	50.6%$_{a,b}$	45.5%$_{b,c}$	39.8%$_c$	46.62	5	< 0.001	0.084
	America8	47.7%$_a$	31.8%$_b$	33.8%$_{b,c}$	42.6%$_{a,c}$	48.5%$_a$	41.3%$_{a,b}$	42.58	5	< 0.001	0.135
	Asia-Oceania6*	33.3%$_a$	33.3%$_a$	37.4%$_a$	39.1%$_a$	39.3%$_a$	40.2%$_a$	7.16	5	0.209	0.056

*Note: Reference population: car drivers at least a few days a month. % at least once in the past 30 days. *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

Table A 3: Chi-Square tests for the effect of gender on self-declared speeding behaviour as a moped rider/motorcyclist for different road types/conditions in the three regions.

Road types/conditions	Region	Gender		Chi-square	df	p-value	Cramer's V
		Male	Female				
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	32.1%ₐ	26.5%ₐ	4.46	1	0.035	0.058
	America8	34.8%ₐ	15.9%_b	44.33	1	< 0.001	0.212
	AsiaOceania6*	34.3%ₐ	25.8%_b	9.03	1	0.003	0.091
Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	36.9%ₐ	31.4%ₐ	3.91	1	0.048	0.054
	America8	38.7%ₐ	19.0%_b	44.70	1	< 0.001	0.213
	AsiaOceania6*	36.0%ₐ	27.0%_b	9.90	1	0.002	0.096

Note: Reference population: moped riders/motorcyclists at least a few days a month. % at least once in the past 30 days. *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A 4: Chi-Square tests for the effect of age group on self-declared speeding behaviour as a moped rider/motorcyclist for different road types/conditions in the three regions.

Road types/conditions	Region	Age group						Chi-square	df	p-value	Cramer's V
		18-34	25-34	35-44	45-54	55-64	65-74				
Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe 22	41.5%ₐ	30.5%ₐ,_b	30.1%ₐ,_b	27.5%ₐ,_b	24.0%ₐ,_b	16.4%_b	20.55	5	< 0.001	0.125
	America8	32.9%ₐ	22.2%ₐ	27.8%ₐ	24.9%ₐ	36.0%ₐ	32.9%ₐ	9.49	5	0.091	0.098
	Asia-Oceania 6*	32.0%ₐ	25.2%ₐ	30.4%ₐ	35.3%ₐ	30.0%ₐ	36.8%ₐ	7.41	5	0.192	0.082
Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe 22	45.2%ₐ	31.1%ₐ	34.7%ₐ	36.7%ₐ	37.0%ₐ	26.3%ₐ	14.31	5	0.014	0.104
	America8	37.5%ₐ,_b	26.2%ₐ	25.7%ₐ	32.8%ₐ,_b	48.3%_b	55.9%ₐ,_b	23.22	5	< 0.001	0.154
	Asia-Oceania6*	34.4%ₐ	27.2%ₐ	32.8%ₐ	36.9%ₐ	32.0%ₐ	27.4%ₐ	6.38	5	0.271	0.077

Note: Reference population: moped riders/motorcyclists at least a few days a month. % at least once in the past 30 days. *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A 5: Chi-Square tests for the effect of gender on others' and personal acceptability of speeding for a car driver for different road types/conditions in the three regions

Road types/conditions	Region	Gender		Chi-square	df	p-value	Cramer's V
		Male	Female				
OA: Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	14.8%ₐ	11.2%_b	24.60	1	<0.001	0.053
	America8	14.2%ₐ	9.3%_b	19.64	1	<0.001	0.076
	AsiaOceania6*	10.9%ₐ	9.7%ₐ	1.20	1	0.274	0.019
PA: Drive faster than the speed limit outside built-up	Europe22	12.0%ₐ	7.1%_b	62.48	1	<0.001	0.085
	America8	11.3%ₐ	4.7%_b	49.68	1	<0.001	0.122

Road types/conditions	Region	Gender Male	Gender Female	Chi-square	df	p-value	Cramer's V
areas (except motorways/freeways)	AsiaOceania6*	9.3%a	6.1%b	11.60	1	0.001	0.059
PA: Drive too fast for the road/traffic conditions at the time (e.g., poor visibility, dense traffic, presence of vulnerable road users)	Europe22	3.8%a	2.1%b	23.41	1	<0.001	0.052
	America8	6.3%a	2.3%b	32.32	1	<0.001	0.098
	AsiaOceania6*	4.3%a	3.5%a	1.20	1	0.273	0.019
PA: Drive faster than the speed limit on motorways/freeways	Europe22	16.2%a	10.4%b	63.66	1	<0.001	0.086
	America8	13.1%a	6.4%b	44.13	1	<0.001	0.115
	AsiaOceania6*	13.3%a	7.2%b	34.13	1	<0.001	0.101
PA: Drive faster than the speed limit inside built-up areas	Europe22	6.0%a	3.4%b	31.80	1	<0.001	0.061
	America8	7.1%a	2.9%b	31.70	1	<0.001	0.097
	AsiaOceania6*	5.4%a	4.4%a	1.79	1	0.181	0.023

*Note: OA: others' acceptability; PA: personal acceptability; reference population: car drivers at least a few days a month. % acceptable (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

Table A 6: Chi-Square tests for the effect of age group on others' and personal acceptability of speeding for a car driver for different road types/conditions in the three regions

Road types/conditions	Region	18-34	25-34	35-44	45-54	55-64	65-74	Chi-square	df	p-value	Cramer's V
OA: Drive faster than the speed limit outside built-up areas	Europe22	22.5%a	15.6%b	16.3%b	11.4%c	8.8%c,d	6.2%d	183.53	5	<0.001	0.145
	America8	11.3%a	12.0%a	11.1%a	14.3%a	11.2%a	8.8%a	7.48	5	0.188	0.047
	AsiaOceania6*	13.7%a	12.1%a,b	12.1%a,b	7.4%b	7.6%a,b	8.3%a,b	22.00	5	0.001	0.081
PA: Drive faster than the speed limit outside built-up areas (except motorways/freeways)	Europe22	17.6%a	12.0%b	11.6%b	9.1%b	5.2%c	4.5%c	164.00	5	<0.001	0.137
	America8	11.1%a	6.9%a	7.9%a	8.3%a	7.6%a	5.3%a	11.80	5	0.038	0.059
	AsiaOceania6*	8.7%a	8.9%a	8.8%a	5.9%a	6.3%a	7.3%a	7.34	5	0.197	0.047
PA: Drive too fast for the road/traffic conditions at the time	Europe22	5.9%a	5.4%a	3.9%a	1.8%b	1.1%b	0.6%b	121.87	5	<0.001	0.118
	America8	4.4%a	4.2%a	6.5%a	5.2%a	2.3%a	1.7%a	19.94	5	0.001	0.077
	AsiaOceania6*	4.6%a	5.7%a	4.1%a	2.4%a	2.8%a	3.4%a	12.69	5	0.026	0.061
PA: Drive faster than the speed limit on motorways/freeways	Europe22	22.5%a	17.5%a,b	14.2%b,c	13.1%c	8.7%d	6.4%d	178.98	5	<0.001	0.143
	America8	13.6%a	8.8%a	7.9%a	9.9%a	10.9%a	7.1%a	15.67	5	0.008	0.068
	AsiaOceania6*	12.5%a	11.2%a	11.0%a	9.3%a	8.6%a	8.8%a	6.73	5	0.242	0.045
PA: Drive faster than the speed limit inside built-up areas	Europe22	10.5%a	6.6%a,b	5.2%b	4.3%b,c	2.2%d	1.4%d	141.56	5	<0.001	0.128
	America8	6.3%a	5.4%a	5.7%a	6.1%a	2.0%a	2.9%a	17.35	5	0.004	0.072
	AsiaOceania6*	6.7%a	5.8%a	6.2%a	2.6%a	3.9%a	4.4%a	15.49	5	0.008	0.068

*Note: OA: others' acceptability; PA: personal acceptability; reference population: car drivers at least a few days a month. % acceptable (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

Table A 7: Chi-Square tests for the effect of gender on attitudes regarding speeding in the three regions.

Region	Gender		Chi-square	df	p-value	Cramer's V
	Male	Female				
Behaviour Beliefs and Attitudes						
I have to drive fast; otherwise I have the impression of losing time.						
Europe22	5.4%$_a$	3.2%$_b$	19.33	1	<0.001	0.053
America8	8.1%$_a$	4.5%$_b$	13.28	1	<0.001	0.072
AsiaOceania6*	5.9%$_a$	3.8%$_a$	6.02	1	0.014	0.050
Respecting speed limits is boring or dull.						
Europe22	11.4%$_a$	7.7%$_b$	26.37	1	<0.001	0.061
America8	10.0%$_a$	6.1%$_b$	12.81	1	<0.001	0.071
AsiaOceania6*	9.7%$_a$	6.5%$_b$	8.25	1	0.004	0.058
Perceived Behaviour Control						
I trust myself when I drive significantly faster than the speed limit.						
Europe22	17.4%$_a$	11.3%$_b$	53.08	1	<0.001	0.087
America8	16.5%$_a$	9.6%$_b$	26.58	1	<0.001	0.102
AsiaOceania6*	7.7%$_a$	5.3%$_a$	5.71	1	0.017	0.048
I have the ability to drive significantly faster than the speed limit.						
Europe22	17.4%$_a$	10.0%$_b$	80.47	1	<0.001	0.107
America8	13.4%$_a$	5.7%$_b$	43.29	1	<0.001	0.131
AsiaOceania6*	9.7%$_a$	7.1%$_a$	5.54	1	0.019	0.047
I am able to drive fast through a sharp curve.						
Europe22	13.1%$_a$	5.5%$_b$	116.53	1	<0.001	0.129
America8	10.9%$_a$	4.0%$_b$	43.14	1	<0.001	0.130
AsiaOceania6*	4.7%$_a$	4.4%$_a$	0.13	1	0.723	0.007
Habits						
I often drive faster than the speed limit.						
Europe22	9.8%$_a$	7.0%$_b$	18.03	1	<0.001	0.051
America8	11.8%$_a$	7.5%$_b$	13.46	1	<0.001	0.073
AsiaOceania6*	10.2%$_a$	5.6%$_b$	17.28	1	<0.001	0.084
Intention						
I intend to respect speed limits in the next 30 days.						
Europe22	67.8%$_a$	76.1%$_b$	59.42	1	<0.001	0.092
America8	69.2%$_a$	77.8%$_b$	24.34	1	<0.001	0.098
AsiaOceania6*	63.5%$_a$	69.6%$_b$	10.16	1	0.001	0.064

*Note: Reference population: car drivers at least a few days a month. % agree (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.*

Table A 8: Chi-Square tests for the effect of age group on attitudes regarding speeding in the three regions.

Region	Age group						Chi-square	df	p-value	Cramer's V
	18-34	25-34	35-44	45-54	55-64	65-74				
Behaviour Beliefs and Attitudes										
I have to drive fast; otherwise I have the impression of losing time.										
Europe22	8.7%$_a$	6.7%$_{a,b}$	4.7%$_{b,c}$	3.6%$_{c,d}$	2.2%$_{d,e}$	1.3%$_e$	86.21	5	<0.001	0.111
America8	8.1%$_a$	6.3%$_a$	6.2%$_a$	9.2%$_a$	4.4%$_a$	2.4%$_a$	16.82	5	0.005	0.081
AsiaOceania6*	8.1%$_a$	5.7%$_a$	5.0%$_a$	4.7%$_a$	4.0%$_a$	1.5%$_a$	14.70	5	0.012	0.077
Respecting speed limits is boring or dull.										
Europe22	12.3%$_a$	9.5%$_a$	9.6%$_a$	10.6%$_a$	8.1%$_a$	8.5%$_a$	11.66	5	0.040	0.041
America8	8.2%$_a$	7.6%$_a$	9.3%$_a$	9.4%$_a$	6.5%$_a$	6.4%$_a$	4.53	5	0.476	0.042

	Region	Age group						Chi-square	df	p-value	Cramer's V
		18-34	25-34	35-44	45-54	55-64	65-74				
	AsiaOceania6*	10.3%a	7.9%a	8.7%a	8.7%a	8.3%a	5.2%a	5.61	5	0.346	0.048
Perceived Behaviour Control											
I trust myself when I drive significantly faster than the speed limit.	Europe22	23.6%a	14.7%b,c	14.5%b,c	14.8%b	12.3%b,c	10.0%c	67.22	5	<0.001	0.098
	America8	14.2%a	11.6%a	11.9%a	17.6%a	14.1%a	9.0%a	14.19	5	0.014	0.075
	AsiaOceania6*	10.2%a	8.0%a	6.1%a	5.9%a	6.1%a	3.8%a	12.08	5	0.034	0.070
I have the ability to drive significantly faster than the speed limit.	Europe22	17.5%a	12.2%a	15.6%a	14.3%a	13.1%a	11.7%a	19.13	5	0.002	0.052
	America8	11.1%a	8.2%a	8.5%a	12.6%a	9.3%a	9.3%a	7.44	5	0.190	0.054
	AsiaOceania6*	10.3%a	11.8%a	8.2%a	7.5%a	7.2%a	5.2%a	13.67	5	0.018	0.074
I am able to drive fast through a sharp curve.	Europe22	14.2%a	9.8%a,b	9.9%a,b	9.5%a,b	7.7%b	7.5%b,c	27.55	5	<0.001	0.063
	America8	7.1%a,b	7.3%a,b	8.9%a,b	11.3%a	5.9%a,b	2.5%b	21.30	5	0.001	0.092
	AsiaOceania6*	6.9%a	5.4%a	3.7%a	4.0%a	3.9%a	4.1%a	5.91	5	0.315	0.049
Habits											
I often drive faster than the speed limit.	Europe22	14.7%a	9.4%b,c	9.5%b	9.3%b	5.8%c,d	3.8%d	80.17	5	<0.001	0.107
	America8	9.7%a,b	6.6%a	6.6%a	13.9%b	14.7%b,c	9.2%a,b	31.37	5	<0.001	0.111
	AsiaOceania6*	10.1%a	6.1%a	7.6%a	8.6%a	8.6%a	8.8%a	4.86	5	0.433	0.044
Intention											
I intend to respect speed limits in the next 30 days.	Europe22	62.8%a	65.1%a	68.4%a,b	74.0%b,c	78.9%c	79.3%c,d	126.68	5	<0.001	0.134
	America8	73.6%a	69.4%a	72.2%a	73.5%a	77.2%a	79.5%a	12.94	5	0.024	0.071
	AsiaOceania6*	66.6%a	67.1%a	66.5%a	65.0%a	64.6%a	68.7%a	1.75	5	0.882	0.027

Note: Reference population: car drivers at least a few days a month. % agree (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level.

Table A 9: Chi-Square tests for the effect of gender on the support for policy measures regarding speeding in the three regions.

Road types/conditions	Region	Gender		Chi-square	df	p-value	Cramer's V
		Male	Female				
limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)	Europe22	38.6%a	45.5%b	41.97	1	< 0.001	0.070
	America8	49.7%a	59.9%b	35.03	1	< 0.001	0.102
	AsiaOceania6*	43.4%a	49.7%b	13.27	1	< 0.001	0.063
limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip	Europe22	44.0%a	53.6%b	81.22	1	< 0.001	0.097
	America8	61.0%a	68.0%b	44.70	1	< 0.001	0.097
	AsiaOceania6*	50.9%a	55.2%b	6.15	1	< 0.001	0.043

Note: Reference population: all road users. % support (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level. See Table A1 for detailed statistical analyses.

Table A 10: Chi-Square tests for the effect of age group on the support for policy measures regarding speeding in the three regions.

Policy measure	Region	Age group						Chi-square	df	p-value	Cramer's V
		18-34	25-34	35-44	45-54	55-64	65-74				
limiting the speed limit to 30 km/h in all built-up areas (except on main thoroughfares)	Europe 22	34.1%$_a$	41.1%$_{a,b}$	43.6%$_{b,d}$	39.0%$_{a,b}$	42.9%$_{b,c}$	49.8%$_d$	65.83	5	< 0.001	0.087
	America8	49.1%$_a$	63.5%$_b$	65.2%$_b$	51.2%$_a$	46.5%$_a$	44.1%$_a$	92.46	5	< 0.001	0.166
	Asia-Oceania 6*	46.2%$_{a,b,c}$	55.1%$_a$	47.7%$_{a,b}$	42.7%$_{b,c}$	48.1%$_{a,b}$	36.0%$_c$	44.58	5	< 0.001	0.115
limiting the speed limit to a maximum of 80 km/h on all rural roads without a median strip	Europe 22	38.0%$_a$	44.0%$_{a,b}$	48.0%$_{b,d}$	48.8%$_{b,c,d}$	52.0%$_d$	59.0%$_e$	119.50	5	< 0.001	0.117
	America8	56.4%$_a$	71.0%$_b$	75.0%$_b$	58.2%$_a$	61.3%$_a$	59.6%$_a$	76.09	5	< 0.001	0.150
	Asia-Oceania6*	47.8%$_a$	60.1%$_b$	53.1%$_{a,b}$	52.6%$_{a,b}$	52.6%$_{a,b}$	48.5%$_{a,b}$	21.79	5	< 0.001	0.080

Note: Reference population: all road users. % support (4-5). *Not including Armenia, Kyrgyzstan, Uzbekistan (different methodology). Each subscript letter denotes a subset of gender / age categories whose column proportions do not differ significantly from each other at the 0.01 level. See Table A1 for detailed statistical analyses.

Table A 11: Self-declared speeding behaviour as a car driver in ESRA2 and ESRA3.

Country	Edition	Weighted Sample	Estimate	95% CI lower	95% CI upper
			drive faster than the speed limit inside built-up areas		
Australia	ESRA3	809	24.8%	21.9%	27.9%
	ESRA2	714	44.0%	40.4%	47.7%
Austria	ESRA3	1420	64.5%	61.9%	66.9%
	ESRA2	943	71.4%	68.5%	74.2%
Belgium	ESRA3	1346	55.7%	53.1%	58.4%
	ESRA2	1417	61.4%	58.8%	63.9%
Canada	ESRA3	1385	53.0%	50.0%	56.0%
	ESRA2	695	65.8%	62.1%	69.2%
Czech Republic	ESRA3	597	65.0%	61.1%	68.7%
	ESRA2	571	68.3%	64.4%	72.1%
Denmark	ESRA3	647	49.1%	45.2%	52.9%
	ESRA2	641	62.7%	58.9%	66.4%
Finland	ESRA3	683	76.1%	72.7%	79.2%
	ESRA2	660	72.8%	69.3%	76.1%
France	ESRA3	769	48.0%	44.5%	51.5%
	ESRA2	720	63.2%	59.6%	66.6%
Germany	ESRA3	618	47.6%	43.6%	51.6%
	ESRA2	1440	66.8%	64.3%	69.2%
Greece	ESRA3	754	42.8%	39.2%	46.4%
	ESRA2	596	45.0%	37.2%	53.1%
Ireland	ESRA3	706	47.1%	43.4%	50.8%
	ESRA2	693	45.7%	41.7%	49.6%
Israel	ESRA3	796	49.6%	46.1%	53.0%
	ESRA2	795	59.1%	55.6%	62.5%
Italy	ESRA3	906	36.7%	33.6%	39.9%
	ESRA2	811	39.7%	36.4%	43.1%
Japan	ESRA3	570	49.7%	45.6%	53.9%
	ESRA2	505	63.0%	57.9%	67.9%
Netherlands	ESRA3	700	57.9%	54.2%	61.5%
	ESRA2	667	58.3%	54.5%	62.0%
Poland	ESRA3	723	55.7%	52.0%	59.3%
	ESRA2	694	65.2%	61.6%	68.6%

Country	Edition	Weighted Sample	Estimate	95% CI lower	95% CI upper
Portugal	ESRA3	844	65.2%	61.9%	68.3%
	ESRA2	856	67.0%	63.8%	70.1%
Serbia	ESRA3	676	51.5%	47.7%	55.2%
	ESRA2	707	57.3%	53.3%	61.1%
Slovenia	ESRA3	805	58.9%	55.4%	62.2%
	ESRA2	783	60.7%	57.0%	64.3%
Spain	ESRA3	710	48.4%	44.7%	52.1%
	ESRA2	727	49.2%	44.7%	53.7%
Sweden	ESRA3	633	49.1%	45.2%	53.0%
	ESRA2	614	53.3%	49.4%	57.3%
Switzerland	ESRA3	776	45.4%	41.9%	49.0%
	ESRA2	742	50.7%	47.0%	54.3%
United Kingdom	ESRA3	644	35.5%	31.9%	39.3%
	ESRA2	599	49.7%	45.7%	53.7%
United States	ESRA3	782	34.5%	31.2%	37.9%
	ESRA2	807	58.2%	54.7%	61.5%

		drive faster than the speed limit outside built-up areas (except motorways/freeways) *			
Australia	ESRA3	809	29.7%	26.6%	32.9%
	ESRA2	714	50.1%	46.4%	53.8%
Austria	ESRA3	1420	73.4%	71.1%	75.7%
	ESRA2	943	82.7%	80.2%	85.0%
Belgium	ESRA3	1346	58.7%	56.0%	61.3%
	ESRA2	1417	71.9%	69.6%	74.2%
Canada	ESRA3	1385	57.6%	54.6%	60.5%
	ESRA2	695	75.2%	71.9%	78.4%
Czech Republic	ESRA3	597	72.5%	68.8%	76.0%
	ESRA2	571	77.7%	74.1%	81.0%
Denmark	ESRA3	647	62.5%	58.7%	66.1%
	ESRA2	641	82.6%	79.5%	85.4%
Finland	ESRA3	683	73.9%	70.5%	77.1%
	ESRA2	660	79.1%	75.9%	82.1%
France	ESRA3	769	51.2%	47.7%	54.7%
	ESRA2	720	74.7%	71.4%	77.8%
Germany	ESRA3	618	51.8%	47.7%	55.8%
	ESRA2	1440	75.5%	73.2%	77.6%
Greece	ESRA3	754	52.1%	48.5%	55.7%
	ESRA2	596	56.4%	48.4%	64.2%
Ireland	ESRA3	706	54.5%	50.8%	58.2%
	ESRA2	693	60.7%	56.7%	64.5%
Israel	ESRA3	796	58.0%	54.5%	61.4%
	ESRA2	795	67.0%	63.6%	70.2%
Italy	ESRA3	906	48.0%	44.8%	51.3%
	ESRA2	811	55.4%	52.0%	58.8%
Japan	ESRA3	570	47.9%	43.8%	52.0%
	ESRA2	505	64.7%	59.6%	69.5%
Netherlands	ESRA3	700	62.8%	59.2%	66.4%
	ESRA2	667	69.2%	65.7%	72.7%
Poland	ESRA3	723	58.3%	54.7%	61.9%
	ESRA2	694	74.9%	71.6%	78.0%
Portugal	ESRA3	844	68.7%	65.5%	71.7%
	ESRA2	856	75.4%	72.4%	78.2%
Serbia	ESRA3	676	61.9%	58.2%	65.5%
	ESRA2	707	65.2%	61.4%	68.9%
Slovenia	ESRA3	805	70.2%	67.0%	73.3%
	ESRA2	783	80.6%	77.5%	83.4%
Spain	ESRA3	710	49.1%	45.4%	52.8%
	ESRA2	727	58.7%	54.2%	63.1%
Sweden	ESRA3	633	64.9%	61.1%	68.6%
	ESRA2	614	78.2%	74.8%	81.4%

Country	Edition	Weighted Sample	Estimate	95% CI lower	95% CI upper
Switzerland	ESRA3	776	54.9%	51.4%	58.4%
	ESRA2	742	76.0%	72.8%	79.0%
United Kingdom	ESRA3	644	39.9%	36.1%	43.7%
	ESRA2	599	58.4%	54.4%	62.3%
United States	ESRA3	782	37.7%	34.4%	41.2%
	ESRA2	807	64.8%	61.5%	68.0%
			drive faster than the speed limit on motorways/freeways		
Australia	ESRA3	809	30.5%	27.3%	33.7%
	ESRA2	714	48.8%	45.2%	52.5%
Austria	ESRA3	1420	68.8%	66.3%	71.2%
	ESRA2	943	77.0%	74.2%	79.6%
Belgium	ESRA3	1346	58.0%	55.3%	60.6%
	ESRA2	1417	68.0%	65.5%	70.4%
Canada	ESRA3	1385	60.1%	57.2%	63.0%
	ESRA2	695	78.7%	75.5%	81.6%
Czech Republic	ESRA3	597	56.7%	52.7%	60.6%
	ESRA2	571	71.1%	67.2%	74.7%
Denmark	ESRA3	647	58.1%	54.2%	61.9%
	ESRA2	641	74.5%	71.0%	77.7%
Finland	ESRA3	683	78.7%	75.5%	81.7%
	ESRA2	660	77.9%	74.7%	81.0%
France	ESRA3	769	50.6%	47.1%	54.2%
	ESRA2	720	67.6%	64.2%	71.0%
Germany	ESRA3	618	45.2%	41.3%	49.2%
	ESRA2	1440	65.1%	62.6%	67.5%
Greece	ESRA3	754	56.5%	52.9%	60.1%
	ESRA2	596	61.3%	53.4%	68.9%
Ireland	ESRA3	706	51.4%	47.8%	55.1%
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Israel	ESRA3	796	62.6%	59.2%	65.9%
	ESRA2	795	72.1%	68.9%	75.1%
Italy	ESRA3	906	43.4%	40.1%	46.6%
	ESRA2	811	48.6%	45.1%	52.0%
Japan	ESRA3	570	42.2%	38.2%	46.3%
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Serbia	ESRA3	676	45.2%	41.5%	49.0%
	ESRA2	707	44.5%	40.6%	48.4%
Slovenia	ESRA3	805	67.0%	63.7%	70.2%
	ESRA2	783	74.9%	71.6%	78.0%
Spain	ESRA3	710	51.1%	47.4%	54.8%
	ESRA2	727	61.5%	57.0%	65.9%
Sweden	ESRA3	633	64.0%	60.1%	67.7%
	ESRA2	614	81.0%	77.8%	84.0%
Switzerland	ESRA3	776	59.1%	55.6%	62.5%
	ESRA2	742	75.9%	72.7%	78.8%
United Kingdom	ESRA3	644	38.3%	34.6%	42.1%
	ESRA2	599	55.4%	51.4%	59.4%
United States	ESRA3	782	43.5%	40.0%	47.0%
	ESRA2	807	70.8%	67.6%	73.9%

Note. Cells highlighted in green indicate a difference between ESRA3 and ESRA2 based on the 95% confidence intervals. ESRA2 results recalculated for comparability.

* slightly different formulation in ESRA2: drive faster than the speed limit outside built-up areas (but not on motorways/freeways.

ESRA

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E-Survey of Road users' Attitudes