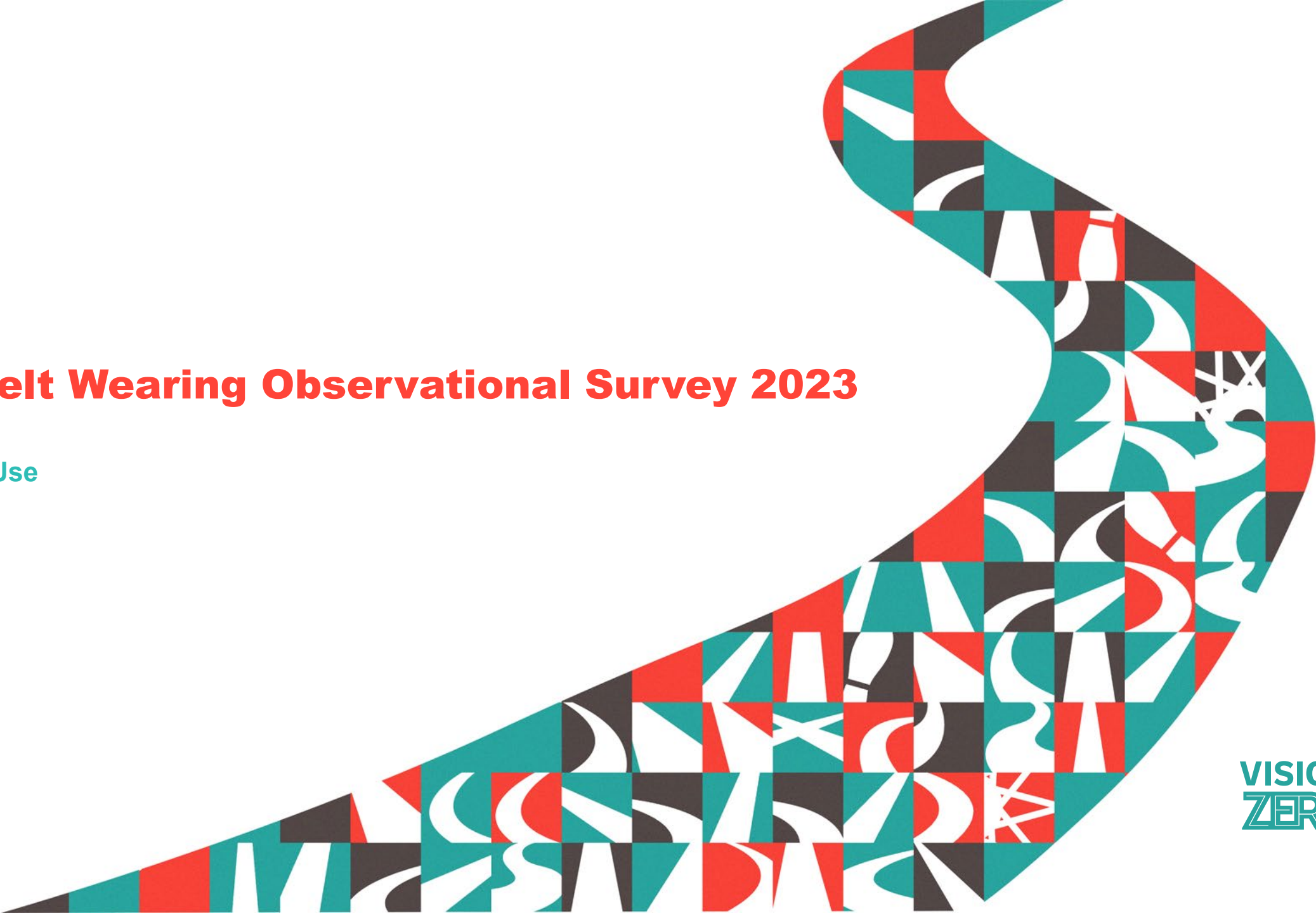




Seat Belt Wearing Observational Survey 2023

Safe Road Use

June 2024



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Executive Summary

Executive Summary

- The non-wearing of seat belts is a particularly dangerous road user behaviour, which has been recognised internationally as a key contributory factor in road traffic collisions and injury severity (WHO, 2018).
- Research conducted by the RSA found that 22%* of car users killed between 2019-2023 were not wearing a seat belt. Further to this, RSA research found that 7% of car users seriously injured between 2019 and 2023 were not wearing a seat belt at the time of the collision. Therefore, tracking seat belt wearing rates is of critical importance.
- The RSA has been conducting seat belt wearing observational surveys since 2006. Wearing rates have improved substantially among all vehicle occupants since then and were at their highest levels in 2022. The 2023 study saw the wearing rates decline, however, and this was particularly evident among front seat vehicle occupants.
- Rates of usage have typically been lower among rear seat passengers when compared to drivers and front seat passengers.
- However, this trend was not noticeable in the 2023 seat belt wearing observational survey, where the rates of seat belt usage were similar when comparing rear seat passengers with front seat vehicle occupants.
- 95% of drivers and rear seat passengers were observed wearing a seat belt in 2023, but this rate dropped to 94% among front seat passengers.

** Figures are provisional and subject to change. Car users include users of private cars, taxis and hackneys. Figures are sourced from the RSA collision database and are current as of 13 July 2024.*








Executive Summary

- In addition to an analysis of seat belt wearing by vehicle occupants, a breakdown by vehicle type, road type, gender, county, time of week, time of day, and a summary of the student survey results is also provided in this report.
- Seat belt wearing rates varied among the different vehicle types, being as low as 94% for occupants of LGVs and as high as 98% for occupants of HGVs.
- Rates of seat belt wearing among front seat vehicle occupants fell across all road types in the 2023 study when compared to the 2022 study. The picture was more nuanced for rear seat passengers.
- Seat belt wearing rates among vehicle occupants by gender fell across almost all categories in 2023 when compared to the previous year's study.
- In keeping with the trend in 2023 study, lower rates of usage were witnessed among almost all vehicle occupants during both weekdays and weekends when compared to the 2022 study.
- In general, high rates of usage were witnessed across all counties where observations took place.
- Overall, 97% of children observed as part of the primary and secondary school student surveys were wearing a seat belt.



Report Overview

-  Safety Performance Indicators
-  Methodological Approach
-  Analysis of seat belt wearing
-  Summary of main findings
-  International Comparison
-  Historic Rates



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Safety Performance Indicators

Safety Performance Indicators (SPIs) in the Government Road Safety Strategy, 2021-2030



- This observational study on seat belt wearing has been conducted in the context of the SPI approach as part of the Government Road Safety Strategy.
- Use of performance indicators has been recommended in international guidance from global organisations, including ETSC and ITF/OECD.
- It is critical that SPIs have an evidence base and established relationship with safety performance (i.e., death and serious injury reduction).
- They reflect elements of the operational and safety context to better understand the road traffic system.
- In an Irish context, SPIs will be used to measure our performance in specific areas, known to contribute to death and serious injury reduction, to help us refine our policy interventions.
- An SPI has been developed as part of the Safe Road Use intervention area to determine the percentage of vehicle occupants observed using a seat belt.



EC Projects

- Ireland participated in the EC Baseline Project from 2020 to 2022. A Baseline Project Report was published in early 2023: [Baseline Project Summary](#).
- Trendline is the follow-up to Baseline and will last until 2025. Further details about this project can be found at <https://trendlineproject.eu/>.
- The main aim of these projects is to ensure that a consistent approach to data collection and SPI reporting is adopted across the Member States.
- Ireland will collect and analyse data for the various SPIs over the course of 2023 and 2024, with the intention of delivering data to Trendline in late 2024/early 2025.
- A Trendline Project Report will be published by the end of 2025, and individual SPI reports will also be made available.
- A Seat Belt Wearing SPI was included as part of Baseline and has also been included as part of Trendline.

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Methodological Approach

Study Objectives

- The aim of this study was to gather observational data of seat belt wearing rates among vehicle occupants, both in the front and rear seats.
- As part of the study, a student survey was also conducted at locations close to primary and secondary schools.
- This report will outline the methodology used for the 2023 seat belt wearing survey and will present the key findings from the study.



Methodology

- A manual observational study of seat belt wearing by drivers and passengers (front and rear) was conducted at 157 sites in September and October 2023.
- A student survey at sites located near primary and secondary schools was also conducted as part of this study. It was not possible to conduct a student survey as part of the 2022 study, as school summer holidays had begun at the time of year when the surveys were being undertaken.
- The observational procedure involved trained observers standing at the roadside and observing the rate of seat belt usage among occupants of passenger cars and goods vehicles as they passed the site. Observations were recorded as the vehicle slowed down and/or stopped at the junction.
- Fieldwork was conducted by Nationwide Data Collection (NDC) on behalf of the RSA.
- A nationally representative sample was used as part of this study, and observations took place in all 26 counties.
- The 2023 study included 23,882 observations in total, and followed the methodology specified by Trendline.
- The approach adopted was broadly in line with the method used by the RSA in historic seat belt wearing surveys.
- All route types were included in the study, and observations were made on weekdays and weekends (daylight hours only).

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Analysis of seat belt wearing

Seat belt wearing by vehicle occupant

- 95% of drivers observed as part of the 2023 study were wearing a seat belt, which represents a decrease of 4% when compared to the 2022 study. This is the lowest rate recorded for drivers since the 2018 study.
- 94% of front passengers observed as part of the 2023 study were wearing a seat belt, and this represents a 5% decrease when compared to the 2022 study. This is the lowest rate recorded for front passengers since the 2016 study.
- 95% of rear passengers observed as part of the 2023 study were wearing a seat belt, and this continues a recent upward trend amongst this particular vehicle occupant.
- When interpreting these results, it is important to note that the time of year when the surveys were conducted in 2023 were different. In 2023, the surveys took place in September and October and in 2022 the surveys took place in June and July. However, a consistent methodological and sampling approach was used in both studies.

Table 1 – Seat belt wearing rate by vehicle occupant

Vehicle Occupant	% Wearing Seat Belt (2022)	% Not Wearing Seat Belt (2022)	Sample Size (2022)
Driver	95% (99%)	5% (1%)	13,739 (11,719)
Front Passenger	94% (99%)	6% (1%)	6,229 (3,221)
Rear Passenger	95% (93%)	5% (7%)	3,914 (1,104)



Seat belt wearing by vehicle type

- 98% of occupants of HGVs were wearing seat belts, with this rate dropping to 95% and 94% for occupants of cars and LGVs, respectively.
- The rates of seat belt wearing were down across all vehicle types when compared to the 2022 study, with the rate dropping most sharply for occupants of LGVs (down 5%).

Table 2 – Seat belt wearing rate by vehicle type

Vehicle Type	% Wearing Seat Belt (2022)	% Not Wearing Seat Belt (2022)	Sample Size (2022)
Cars	95% (98%)	5% (2%)	20,043 (14,386)
LGVs	94% (99%)	6% (1%)	2,778 (1,329)
HGVs	98% (99%)	2% (1%)	821 (329)



Seat belt wearing by road type

- Rates of seat belt wearing amongst front seat vehicle occupants fell across all road types in the 2023 study when compared to the 2022 study. Front passengers of vehicles driving on urban and rural roads showed the sharpest declines (both down 5%).
- Rates of seat belt wearing amongst rear seat passengers increased by 2% on urban roads, showed no change on rural roads, and declined by 3% on motorways in the 2023 study. At 92%, rear seat passenger compliance on rural roads was the lowest rate across all categories.

Table 3 – Seat belt wearing rate by road type

Road Type	Vehicle Occupant	% Wearing Seat Belt (2022)	% Not Wearing Seat Belt (2022)	Sample Size (2022)
Urban Roads (50km/h and 60km/h)	Driver	95% (99%)	5% (1%)	6,536 (5,526)
	Front Passenger	94% (99%)	6% (1%)	4,093 (1,573)
	Rear Passenger	95% (93%)	5% (7%)	2,939 (573)
Rural Roads (80km/h and 100km/h)	Driver	96% (99%)	4% (1%)	4,845 (5,012)
	Front Passenger	93% (98%)	7% (2%)	1,529 (1,387)
	Rear Passenger	92% (92%)	8% (8%)	758 (418)
Motorways (120km/h)	Driver	96% (99%)	4% (1%)	2,358 (1,181)
	Front Passenger	98% (100%)	2% (0%)	607 (261)
	Rear Passenger	97% (100%)	3% (0%)	217 (113)



Seat belt wearing by gender

- In the 2023 study, seat belt wearing rates among vehicle occupants by gender ranged from as low as 93% for male front passengers to as high as 96% for female drivers.
- All categories, except for male rear passengers, showed declines when compared to the 2022 study.

Table 4 – Seat belt wearing rate by gender

Gender	Vehicle Occupant	% Wearing Seat Belt (2022)	% Not Wearing Seat Belt (2022)	Sample Size (2022)
Female	Driver	96% (99%)	4% (1%)	4,853 (4,369)
	Front Passenger	95% (99%)	5% (1%)	3,335 (1,992)
	Rear Passenger	95% (96%)	5% (4%)	2,343 (655)
Male	Driver	95% (99%)	5% (1%)	8,886 (7,350)
	Front Passenger	93% (97%)	7% (3%)	2,894 (1,229)
	Rear Passenger	95% (90%)	5% (10%)	1,571 (449)



Seat belt wearing by county

Table 5 – Seat belt wearing rate by county – Front Seat Occupants and Rear Seat Passengers

County	% Wearing Seat Belt (2022)	% Not Wearing Seat Belt (2022)	Sample Size (2022)
Carlow	97% (N/A)	3% (N/A)	354 (N/A)
Cavan	96% (N/A)	4% (N/A)	352 (N/A)
Clare	96% (98%)	4% (2%)	556 (252)
Cork	94% (98%)	6% (2%)	1,559 (1,028)
Donegal	93% (97%)	7% (3%)	1,541 (822)
Dublin	96% (98%)	4% (2%)	6,670 (4,028)
Galway	95% (99%)	5% (1%)	1,980 (2,136)
Kerry	94% (98%)	6% (2%)	552 (407)
Kildare	94% (99%)	6% (1%)	475 (256)
Kilkenny	94% (99%)	6% (1%)	783 (621)
Laois	96% (99%)	4% (1%)	399 (224)
Leitrim	92% (100%)	8% (0%)	185 (110)
Limerick	95% (99%)	5% (1%)	1,682 (1,026)

Seat belt wearing by county

Table 5 – Seat belt wearing rate by county

County	% Wearing Seat Belt	% Not Wearing Seat Belt	Sample Size
Longford	95% (98%)	5% (2%)	455 (539)
Louth	97% (98%)	3% (2%)	775 (224)
Mayo	94% (97%)	6% (3%)	301 (312)
Meath	94% (99%)	6% (1%)	481 (674)
Monaghan	94% (98%)	6% (2%)	507 (275)
Offaly	92% (99%)	8% (1%)	207 (236)
Roscommon	93% (100%)	7% (0%)	330 (50)
Sligo	98% (N/A)	2% (N/A)	291 (N/A)
Tipperary	95% (98%)	5% (2%)	1,329 (1,075)
Waterford	93% (99%)	7% (1%)	710 (427)
Westmeath	94% (98%)	6% (2%)	830 (752)
Wexford	93% (99%)	7% (1%)	369 (362)
Wicklow	95% (99%)	5% (1%)	209 (208)

Seat belt wearing by time of week

- In the 2023 study, 95% of drivers and 94% of front passengers were wearing a seat belt during weekdays. The rates increased to 96% and 95% for these vehicles occupants at the weekend.
- 95% of rear passengers were wearing a seat belt during weekdays, with this rate dropping to 94% at the weekend.
- All categories, except for rear passengers during weekdays, showed declines when compared to the 2022 study.

Table 6 – Seat belt wearing rate by time of week

Time of Week	Vehicle Occupant	% Wearing Seat Belt (2022)	% Not Wearing Seat Belt (2022)	Sample Size (2022)
Weekday (Monday to Friday)	Driver	95% (99%)	5% (1%)	12,571 (10,572)
	Front Passenger	94% (99%)	6% (1%)	5,707 (2,742)
	Rear Passenger	95% (93%)	5% (7%)	3,545 (893)
Weekend (Saturday and Sunday)	Driver	96% (99%)	4% (1%)	1,168 (1,147)
	Front Passenger	95% (98%)	5% (2%)	522 (479)
	Rear Passenger	94% (95%)	6% (5%)	369 (211)



Seat belt wearing by time of day

■ In the 2023 study, a consistent rate of seat belt wearing was observed across all times of the day, as can be seen in Table 7.

Table 7 – Seat belt wearing rate by time of day

Time of Day	% Wearing Seat Belt	% Not Wearing Seat Belt	Sample Size
7am – 10am	95%	5%	3,635
10am – 1pm	95%	5%	5,434
1pm – 4pm	95%	5%	8,943
4pm – 7pm	95%	5%	5,870



Seat belt wearing – student survey

- The following statistics were generated using data from surveys of seat belt wearing compliance by primary and secondary school children. These findings only relate to data regarding children.
- Overall, 97% of the 1,786 children observed as part of these surveys were wearing a seat belt.

Table 8 – Seat belt wearing student survey results

Gender	% Wearing Seat Belt	% Not Wearing Seat Belt	Sample Size
Male	97%	3%	860
Female	98%	2%	926

Occupant Type	% Wearing Seat Belt	% Not Wearing Seat Belt	Sample Size
Front Passenger	98%	2%	830
Rear Passenger	97%	3%	956

School Type	% Wearing Seat Belt	% Not Wearing Seat Belt	Sample Size
Primary	96%	4%	778
Secondary	98%	2%	1,008



Summary of main findings

Summary of main findings

- Seat belt wearing rates declined among front seat vehicle occupants in 2023, whilst the usage rates continued to rise for rear seat passengers.
- Only 94% of occupants of LGVs were observed wearing a seat belt in 2023, a decline of 5% from the previous study. 95% of car occupants were seen wearing a seat belt in 2023, a drop of 3% from last year's study. 98% of HGV occupants were observed wearing a seat belt in this year's study, a decline of 1% from the 2022 study.
- Seat belt wearing rates among front seat vehicle occupants fell across all road types in the 2023 study when compared to the 2022 study. The sharpest declines were seen among front seat passengers on urban and rural roads (both down 5%). Rear seat passenger compliance on rural roads was the lowest rate across all categories, at 92%.
- Rates of seat belt wearing among vehicle occupants by gender fell across almost all categories in 2023 when compared to the 2022 study. Wearing rates for both male and female front seat passengers decreased by 4% year-over-year.
- Lower rates of usage were witnessed among almost all vehicle occupants during both weekdays and weekends when compared to the 2022 study. Usage among front seat passengers was down 5% during weekdays.
- Generally high rates of compliance were witnessed across the counties where observations took place. In terms of regional distribution, seat belt wearing ranged from as low as 92% in Leitrim and Offaly to a high of 98% in Sligo.
- Overall, 97% of children observed as part of the primary and secondary school student surveys were wearing a seat belt.

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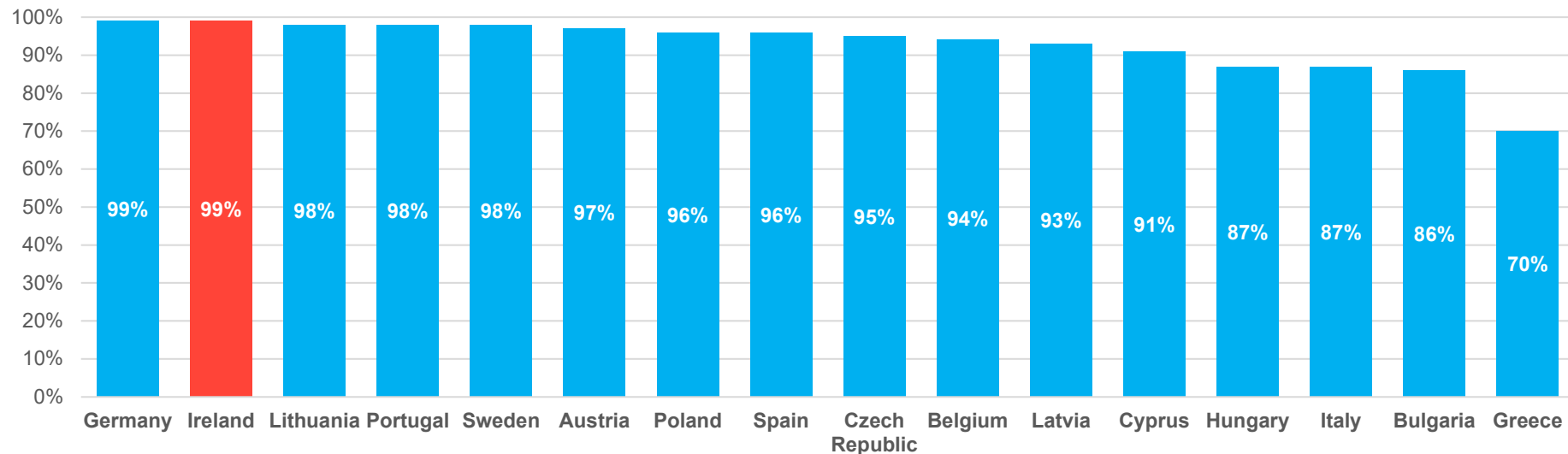


International Comparison

Baseline Project – Safety Belt SPI

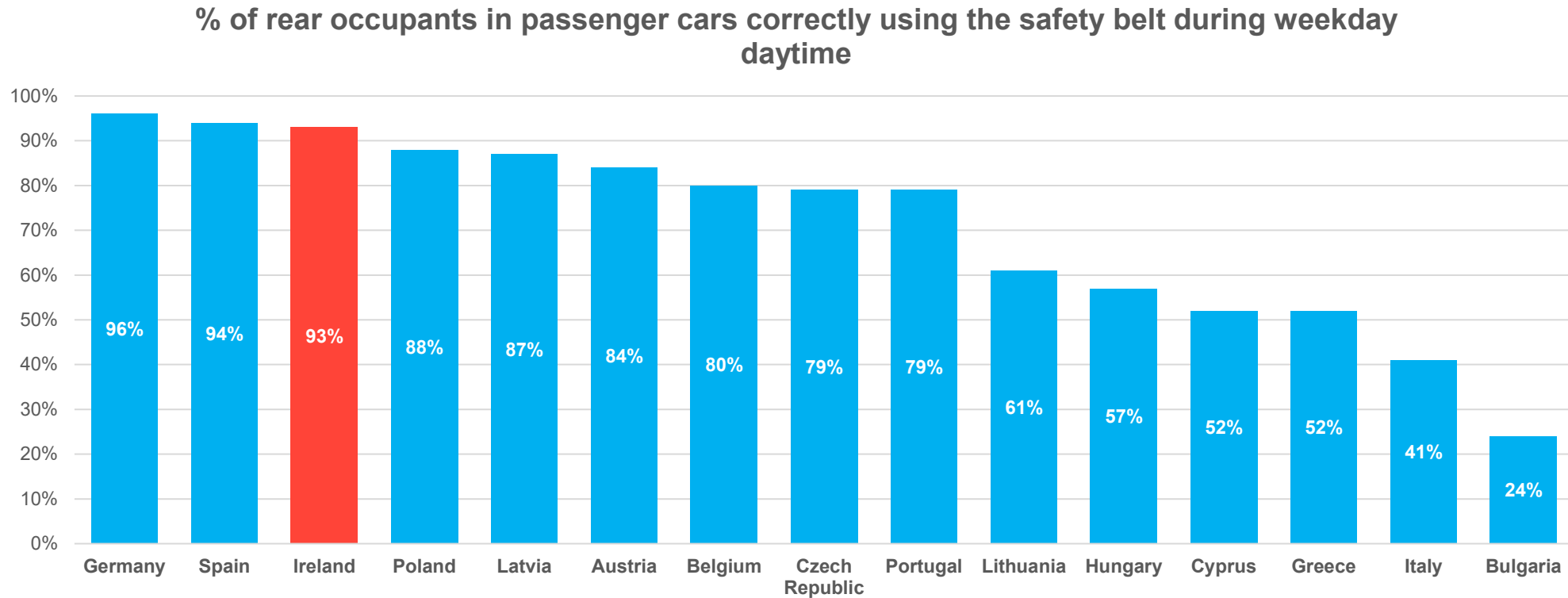
- The following graph is based on information taken from the Baseline [Safety Belt SPI Report](#). Results for Ireland is based on data collected by the RSA in 2022.
- It shows the percentage of drivers in passenger cars correctly using the safety belt during weekday daytime. Ireland’s rate of approximately 99% is the joint highest across the Member States.

% of drivers in passenger cars correctly using the safety belt during weekday daytime



Baseline Project – Safety Belt SPI

■ The following graph shows the percentage of rear seat occupants in passenger cars correctly using the safety belt during weekday daytime. Ireland’s rate of approximately 93% is the third highest across the Member States.



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Historic Rates

Appendix 1 – Historic Seat Belt Wearing Rates

Historic seat belt wearing rates by vehicle occupant

Year	Drivers	Front Passengers	Rear Passengers
2006		*86%	63%
2007		*88%	84%
2008	90%	90%	78%
2009	90%	89%	79%
2011	94%	94%	90%
2012	93%	90%	89%
2013	94%	93%	89%
2014	92%	93%	88%
2015	94%	94%	81%
2016	92%	94%	74%
2017	96%	96%	83%
2018	94%	95%	89%
2021	99%	98%	93%
2022	99%	99%	93%
2023	95%	94%	95%

** In the 2006 and 2007 studies, percentages for drivers and front passengers were expressed in terms of front seat occupants.*



Seat Belt Wearing – Historic Rates

- The graph below illustrates the typically higher rates of seat belt wearing among front seat vehicle occupants when compared to rear seat occupants.
- In the 2023 study, however, this difference was not evident, and the rates have largely converged amongst the various types of vehicle occupants.

