

Rail Accidents and Level Crossing Safety Statistics

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TRANSPORT



Overview

- Publication of UNECE rail accidents
- Decision on collection method
- Collection of level crossing safety statistics
- Level crossing data collected
- Decision on continuing data collection
- Challenges of comparing safety across all modes



Rail accidents: Background

- WP.6 decided in 2016 to send a questionnaire on rail accidents to non-EUAR countries
- Sent in February 2017
- Data for nine countries provided: Armenia, Bosnia, Canada, Georgia, Kazakhstan, FYR Macedonia, Moldova, Serbia, USA
- WP.6 in 2017 decided to make this data collection permanent



Dataset published

- Data published in December 2017:
w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT_40-TRTRANS_06-TRRAILACC
- Combined with EUAR data, so data for 36 countries in total are available

UNECE Statistical Database >> Transport >> Railway Safety >> Rail fatalities and injuries, by victim type and nature of accident

1 Choose table 2 Choose variable 3 Show table

Rail fatalities and injuries, by victim type and nature of accident

Select variable About table

Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value

Nature of Accident *	Variable *	Victims	Country *
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Total 7 Selected 0 Total Collisions Derailments Accidents involving level crossings Accidents caused by rolling stock in motion Fires in rolling stock Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Total 3 Selected 0 Killed or injured Killed Injured Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Total 4 Selected 0 Total Passengers Employees Others Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Total 56 Selected 0 Albania Andorra Armenia Austria Azerbaijan Belarus Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row

Year *

Total 11 Selected 0
2006
2007
2008
2009
2010
2011
Search
 Beginning of row



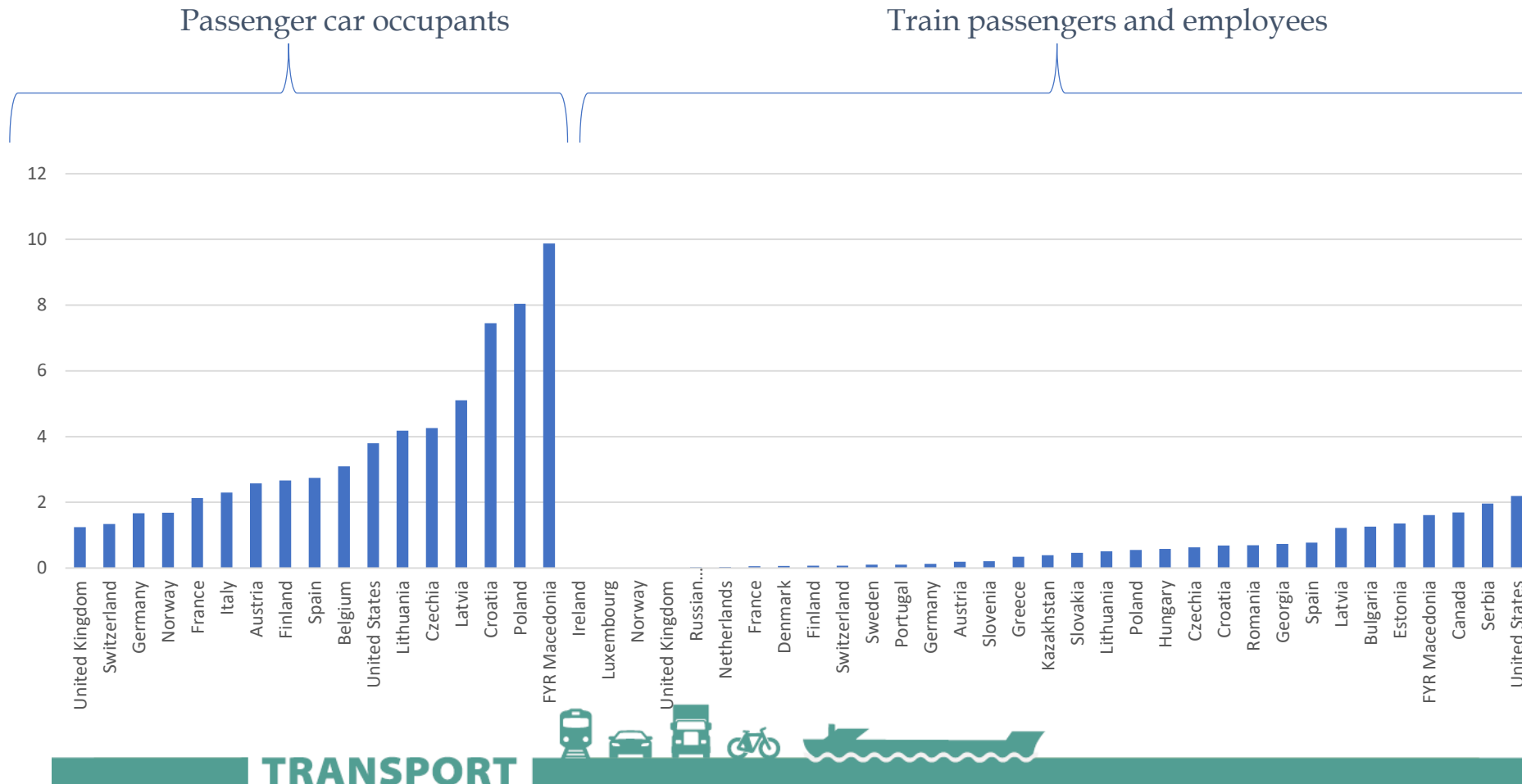
Uses of the data

- In addition to rail safety analysis, can be combined with activity data to make comparisons with other modes
- But... include pedestrian fatalities in car figures or not? If not, then should level crossing users and trespassers be excluded from rail? This is typically the majority of “rail” fatalities
- Rail (+ bus, metro) accidents also tend to be infrequent incidents but with mass casualties, so multiyear averages need to be considered



Cross-modal safety

- Provisional analyses, fatalities for **vehicle occupants** per billion passenger-km (latest year for car occupants, three-year average for rail occupants)



Level Crossing Safety Statistics

- Recommendation of Group of Experts of Safety at level Crossings (WP.1/GE.1), WP.6 agreed in 2016 to send a pilot questionnaire on safety at level crossings
- Questionnaire sent in July 2017
- By December, responses from 10 countries (8 with some relevant data)
- Albania, Azerbaijan, Canada, Georgia, Moldova Russia, Serbia, USA



Data verification with rail accidents

- Level crossing users (car occupants, pedestrians) sometimes excluded from the rail accidents dataset, otherwise both datasets broadly agreed
- Suicides should be excluded from both datasets.



Decisions and future plans

- Forthcoming: SDG paper on cross-modal safety
- Rail accidents: incorporate into the Web Common Questionnaire or keep as excel? When is best time of year to send this questionnaire?
- Level Crossings: continue collection as a pilot? Make permanent? (Or integrate into rail accident collection?)

