

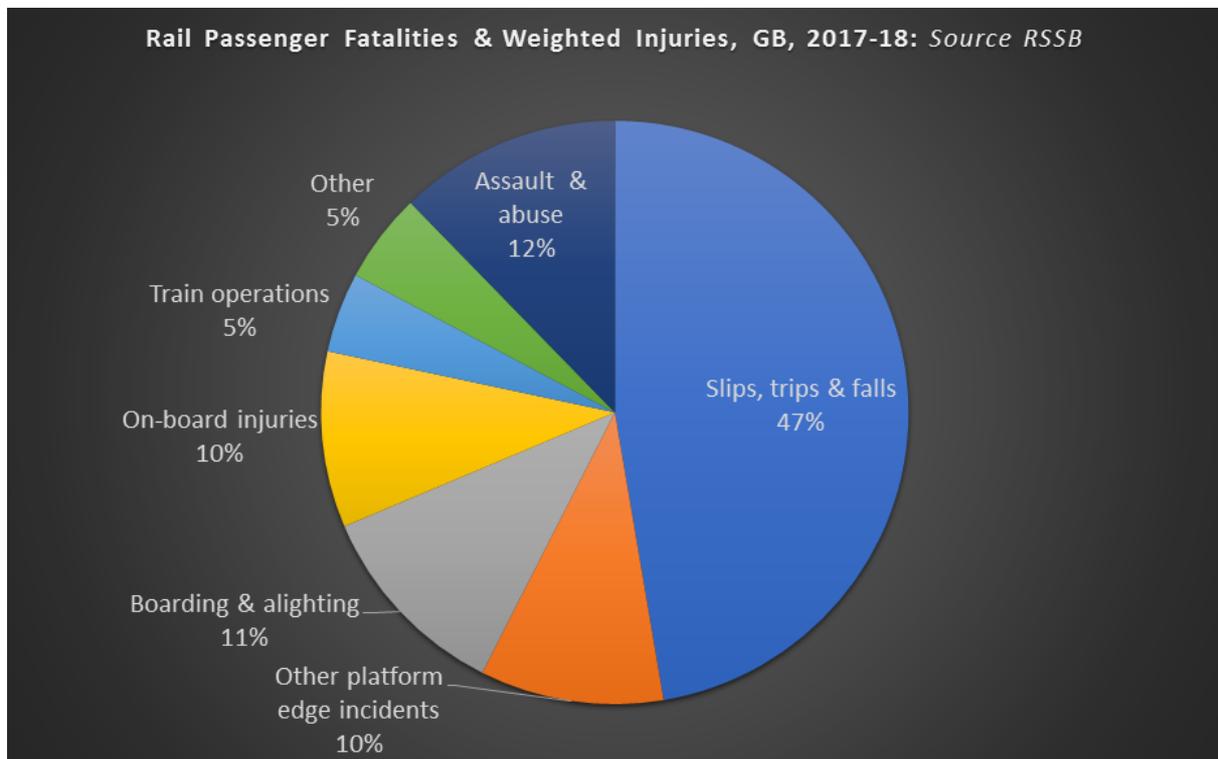
## Position paper on Rail Safety Data

**Economic Commission for Europe, Inland Transport Committee  
Working Party on Rail Transport, Seventy-third session  
Geneva, 25-27 November 2019**

1. The Working Party received a presentation from the Secretary of the Working Party on Rail Statistics (WP.6) on UNECE Rail Statistics at its 72<sup>nd</sup> session in November 2018. This included a description of its work on Rail Accident Statistics. Accident data are collected on the number of passengers, employees and others killed or injured, and then categorised into those resulting from collisions, derailments, accidents involving level crossings, accidents caused by rolling stock in motion, fires in rolling stock and 'other'.
2. During the ensuing discussion it emerged that these categories did not appear to include fatalities and injuries incurred as a consequence of 'slips, trips and falls' (STFs) on trains or on stations. Although the consequence in each case is the same (i.e. loss of balance), these events have distinct causes and therefore require different risk management measures.
3. Minute 60 of the 72<sup>nd</sup> session of the Working Party on Rail Transport records agreement that, since safety is a topic of significance to the railways, the agenda item on Improving Safety at Level Crossings would be widened to cover all aspects of rail safety.
4. The European Passengers' Federation (EPF), an international not-for-profit organisation established under Belgian law to represent the interests of passengers at European level, drew attention to the limited availability of data on STFs within the UNECE area. That which is in the public domain suggests that STFs may account for a significant share of total rail passenger fatalities and injuries. The Secretariat agreed that EPF could table a position paper setting out its thoughts.
5. This paper:
  - Outlines the possible significance of STFs in the context of railway passenger safety;
  - Argues that understanding of the significance of STFs in railway passenger safety is hampered by the lack of publicly available comparative data with the results that STFs may receive inadequate attention;
  - Suggests that the Inland Transport Committee and its Working Parties, as appropriate, should seek to identify any insufficiency of data collection and availability, leading to the consequential hampering of efforts to facilitate a safer passenger railway environment.
6. During the discussion on safety at the 72<sup>nd</sup> session EPF drew attention to British data on the impact of STFs on rail passengers in Great Britain where STFs account for almost half of passenger fatalities and weighted injuries. The United Kingdom's railways (of which those in Great Britain account for over 98% of passenger kilometres) are currently one of the safest and most intensively used systems.<sup>1</sup>
7. Britain's Rail Safety & Standards Board<sup>ii</sup> publishes an Annual Safety Performance Report (ASPR) which records deaths and injuries from accidental causes. The ASPR is a highly regarded source of data. It uses 'Fatalities and Weighted Injuries' (FWI) to provide a quantitative measure of safety harm. This was developed as a tool to assist

in monitoring safety performance, risk assessment and cost-benefit analysis. One FWI is deemed as equivalent<sup>iii</sup> to:

- one fatality, or
  - 10 major injuries (e.g. hospital attendance for more than 24 hours), or
  - 200 Class 1 minor injuries (e.g. taken to hospital from scene of accident for less than 24 hours), or
  - 200 Class 1 shock/trauma events (e.g. witnessing a fatality or train accident), or
  - 1,000 Class 2 minor injuries, or 1,000 Class 2 shock/trauma events.
8. According to RSSB's most recent ASPR there were no passenger fatalities in train derailments or collisions on Britain's railways during 2018/19, the twelfth year in succession that this has been the case. Nevertheless, a significant number of FWIs was recorded as resulting from the operation of the railway.
  9. The current level of accident risk on the British national railway network is 132.2 FWI a year. 43% of FWIs occur to passengers, 20% occur to the workforce, and 37% to other members of the public (mainly actual or attempted suicides). A further 7.2 FWI/year occurs in yards, depots and sidings. The overall level of passenger harm recorded for 2018/19 was 60.6 fatalities and weighted physical injuries.
  10. Almost half of this was accounted for by passengers suffering 'slips, trips and falls' (STFs) either at stations or on trains<sup>iv</sup>. Actual fatalities were associated with incidents on stairs and escalators, people falling over the edge of the platform or getting down on to the track, and some tragic cases where passengers stuck their head out of the train window. The greater part of FWIs from STFs occurred in incidents resulting in only minor injuries.



11. The extent to which the problem of STFs is replicated elsewhere in Europe is unknown. There are examples of STF data being made available elsewhere in the world, but its release is currently unusual – for any transport mode. Although STFs can comprise many thousands of incidents and account for a large proportion of passenger risk, as in Britain, they appear to be regarded as of low consequence and causing mainly minor injuries (see, for example, page 18 of the annual safety report for 2012-13 of the National Rail Safety Regulator, Australia). In light of the RSSB data it seems reasonable to ask whether this reflects a complacency that may distort risk management priorities. The challenge of adapting legacy buildings and vehicles to ensure a built environment that is as safe for users as is reasonably practical may have less appeal to operators than more newsworthy investment schemes elsewhere on the railway system.
12. Without appropriate intervention, the risk of STFs is likely to increase. Over 30% of adults over the age of 65 suffer a fall each year. With an ageing population the proportion of older passengers is likely to increase. This has implications for FWIs. The UN Convention on the Rights of Persons with Disabilities has created an additional pressure: Article 9 ensures access to transportation for people with disabilities on an equal basis with others. This may create additional pressure to address STF risks. The biggest recorded cause of STFs at stations is a loss of footing, reportedly accentuated by people’s increasing fixation with their smartphone screens. The rail sector – as well as other transport modes – may need to assess the implications of these changing patterns of behaviour when seeking to minimise STFs.
13. EPF considers that there should be better informed understanding of the extent of STFs. To what extent do they constitute a significant hazard for rail passengers and undermine the overall safety of the rail system? It is proposed that, as a first step, the Working Party on Rail Transport should invite the Working Party on Rail Statistics to evaluate the potential for gathering useful data on STFs, so that these can then be used to help improve the management of rail passenger safety throughout the UNECE region.

Christopher Irwin, European Passengers’ Federation, November 2019

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<sup>i</sup> The European Union Agency for Railways (ERA) reports annually on the safety of the EU’s railways. Its annual Report on Railway Safety and Interoperability in the EU provides useful comparative national data on Fatalities and Weighted Serious Injuries (FWSIs). However, the data does not include STFs.

<sup>ii</sup> RSSB is a not-for-profit company owned by major rail industry stakeholders. It works closely with Government and with the Office of Rail & Road, the national safety authority for rail in the UK, with the objectives of improving safety and performance and value for money across the industry.

<sup>iii</sup> In contrast with FWSI, the indicator used by the ERA, FWIs additionally record minor injuries, shock and trauma events.

<sup>iv</sup> It is, of course, possible that because FWIs attributable to other causes are atypically low in Britain, STFs contribute a larger proportion of residual risk in that country than is likely to be the case for most other countries. Nevertheless, the absolute number of FWIs is significant.