Railway safety statistics in the EU

Statistics Explained

Data from December 2023.

Planned article update: 15 December 2024.

- " In 2022, there were 1 615 significant railway accidents in the EU, with a total of 808 persons killed and 593 seriously injured. "
- " Despite the increase in 2022, the number of significant railway accidents has gradually decreased since 2010, with 614 fewer accidents in 2022 than in 2010 (-27.5 %). "
- "In 2022, more than half of fatalities from railway accidents in the EU involved unauthorised persons on the tracks (64.1 %) and almost one-third occurred at level crossings (28.6 %). "

In 2022, 1 615 significant railway accidents were reported in the EU . A total of 808 persons were killed in these accidents, while another 593 persons were seriously injured. At the EU level, the number of fatalities in railway accidents decreased gradually over the last decade, from 1 245 in 2010 to 808 in 2022, a fall by 35.1 %. However, it should be noted that from 2019 to 2021, the decreases in railway accidents, fatalities and seriously injured persons coincided with a sharp drop in passenger transport by rail caused by the Covid-19 pandemic. The large increase in remote working and home schooling, combined with recommendations to avoid unnecessary travel during the pandemic, contributed to the rail passenger transport almost halving in the EU – see the article on railway passenger transport statistics for more details. With the end of the restrictions, rail traffic increased significantly, which can explain the increase observed in the number accidents and consequently in the number of fatalities in 2022 compared to 2021 (+18.3 %). Suicides occurring on railways are reported separately. With 2 394 reported cases in 2022, suicides outnumbered the victims accounted for by railway accidents. Eurostat publishes data collected by the European Union Agency for Railways (ERA) in its free dissemination database. This information is also published by ERA. It should be noted that there are no railways in the EU Member States Cyprus and Malta, nor in the EEA/EFTA country Iceland.

Number of railway accidents rebounded in 2022

15.9 % more railway accidents in the EU in 2022 compared with 2021

The number of significant railway accidents in the EU fell almost continuously between 2010 and 2020, with the only exceptions being a sharp increase in 2014 (+6.7 %) and a slight increase in 2017 (+2.1 %). In 2021, the number of significant accidents increased by (+4.3 %) and increased again by 221 in 2022 compared with 2021, to a total of 1 615 accidents (+15.9 %). Railway safety has generally improved in the EU, with 614 fewer accidents in 2022 compared with 2010, a reduction of 27.5 %. Following the sharp increase in 2014, the decrease compared with the previous year was particularly marked in 2015 (-12.8 %). The increase in accidents from 2021 to 2022 concerned all accident categories with the exception of two: the number of derailments fell by -6.4 % to 73 accidents in 2022, level crossing accidents by -2.6 % to 416. Other categories all increased: fires in rolling stock (+58.8 %), accidents to persons by rolling stock in motion (excluding suicides) increased by 25 %. The number of collisions increased by 43.3 % to 139 accidents in 2022 and 'other significant railway accidents' by 18.8 % to 114.

Accident figures for EU countries are comparable from 2010 onwards, following the implementation of common definitions across all Member States. Prior to 2010, Belgium, Poland and Slovakia generally reported all railway accidents instead of only significant accidents. As a result, there was a lower number of accidents in several categories from 2010 onwards compared with previous years. Looking at the detailed 2022 figures on significant

railway accidents (Figure 1), the largest category at the EU level was accidents to persons caused by rolling stock in motion, with the 846 registered accidents representing 52 % of the total. Typically, these accidents involve persons on railway tracks (unauthorised persons or trespassers) who are hit by a running train. Accidents at level crossings, including pedestrians, is the other main category, with a total number of 416 accidents in 2022 (26 % of the total). Together, these two categories represented 78 % of the total number of railway accidents in the EU.

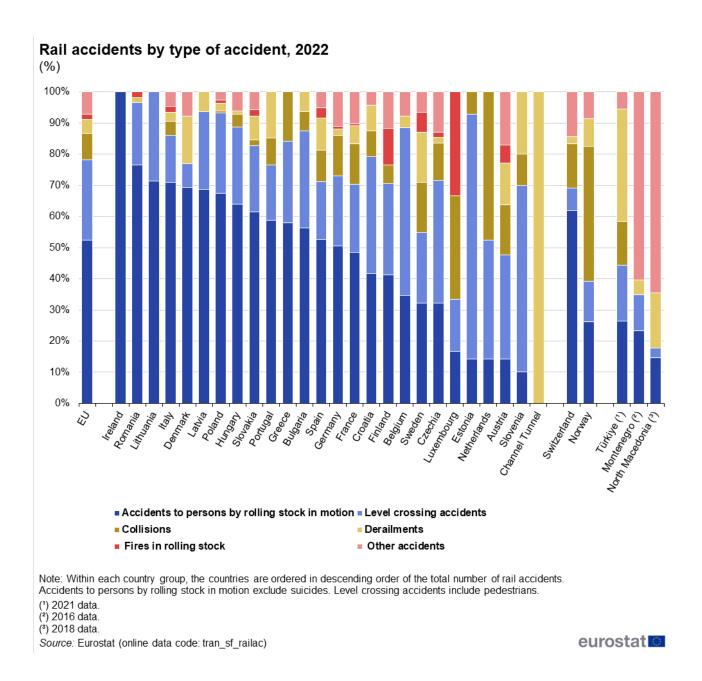


Figure 1: Rail accidents by type of accident, 2022 Source: Eurostat (tran_sf_railac)

Germany registered 337 accidents, the highest number of railway accidents among the EU Member States, followed by Poland with 225. Together those two countries recorded more than one-third (35 %) of all significant railway accidents in the EU in 2022. At some distance, France (138 accidents), Romania (115) and Czechia (109) followed. By contrast, Ireland reported only one significant railway accident in 2022 (an accident to persons by rolling stock in motion) and Luxembourg only six accidents.

Rebound in fatalities following the end of the restrictions related to the pandemic

The number of persons killed in railway accidents in the EU was 35.1 % lower in 2022 than in 2010

Figure 2 shows the number of persons killed in railway accidents in the EU from 2010 to 2022. The total number of fatalities gradually declined from 1 245 persons killed in railway accidents in 2010 to 683 in 2021, before increasing to 808 in 2022, showing a reduction of 35.1 % over the period. With the exception of slight increases in 2013 (+3 fatalities) and 2016 (+12 fatalities), the number of persons who lost their lives decreased year-on-year throughout the period 2010-2021. The strongest decrease was recorded from 2019 to 2020, with 115 fewer persons killed in such accidents (-14.3 %). The number of fatalities decreased again in 2021, with four fewer fatalities compared with 2020, but increased to 808 fatalities in 2022, an increase of 125 compared with 2021 (+18.3 %).

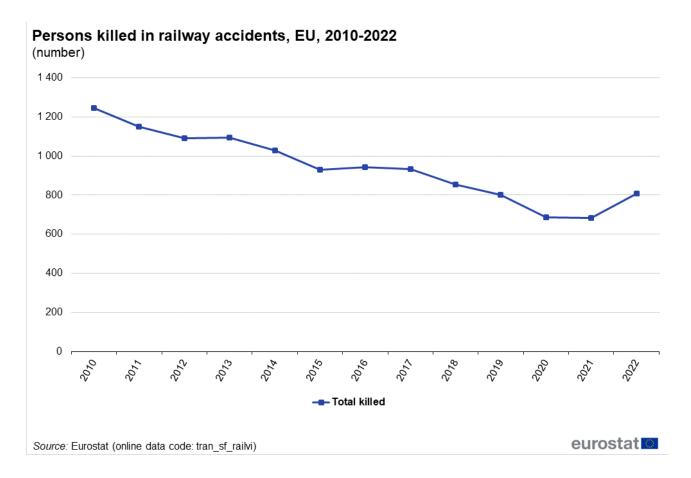


Figure 2: Persons killed in railway accidents, EU, 2010-2022 (number) Source: Eurostat (tran_sf_railvi)

Figure 3 presents the number of rail deaths per thousand kilometers of railway tracks in 2022. The EU average of 2.4 masks wide differences between Member States. Six Member States registered more than four deaths per thousand kilometers of railway tracks: Hungary (6.5), Latvia (5.9), Slovakia (5.0), Croatia (4.6), Poland (4.4) and Romania (4.2). Six Member States registered less than one fatal-

ity per thousand kilometers of railway tracks (Spain, the Netherlands, Finland, Sweden, Estonia and Ireland) in 2022.

Persons killed in railway accidents, 2022

(per thousand km of railway tracks)

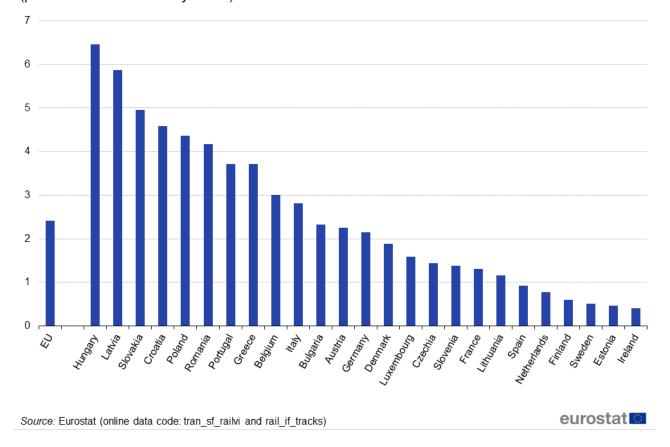


Figure 3: Persons killed in railway accidents, 2022 (per thousand km of railway tracks) Source: Eurostat (tran_sf_railvi), (rail_if_tracks)

The overall trend in the data shows that travelling by railway is safe, with few fatalities among rail passengers. According to ERA's 2023 report on railway safety and interoperability, the rates of significant accidents, fatalities, and fatalities and weighted serious injuries (FWSIs) per million train-km have decreased substantially since 2010. However, it should be noted that there are substantial differences between EU Member States.

Most fatalities were unauthorised persons on railway premises

The main type of accidents was accidents caused by unauthorised persons on railway premises

Focusing on 2022, fatalities in the category 'Unauthorised persons' (Table 1) remained the largest category of victims, with 518 cases (64 % of the total number of persons killed in railway accidents). The second largest category was 'Level crossing users' with 231 deaths (29 %). Only a fraction of the registered fatalities were railway passengers. In most of the years for which harmonised data are available (i.e. from 2010 onwards), railway passenger fatalities represented only a marginal share (between 1 % and 5 %) of the persons killed. The exception was 2013, when the 97 passengers killed in railway accidents represented 9 % of the total. This was solely attributable to a railway accident in Santiago de Compostela in July 2013. The 79 fatalities from this accident represented all of Spain's fatalities in the category 'Railway passengers' and 81 % of all railway passengers killed in accidents in the EU in 2013. In 2022, the share of railway passengers in the total number of fatalities increase at 2.5 % (20 railway passengers killed), 15 more fatalities compared with 2021.

¹For further details, see ERA's Railway Safety Overview 2023 .

Persons killed in railway accidents by category of user, 2022

(number)

	TOTAL	Railway passengers	Railway employees	Level crossing users	Unauthorised persons	Others
EU	808	20	24	231	518	15
Belgium	19	0	1	11	6	1
Bulgaria	15	1	2	5	7	0
Czechia	22	0	2	16	4	0
Denmark	6	0	1	0	5	0
Germany	151	8	7	40	90	6
Estonia	1	0	0	1	0	0
Ireland	1	0	0	0	1	0
Greece	10	0	0	2	8	0
Spain	21	0	0	7	12	2
France	64	4	0	15	42	3
Croatia	18	1	3	10	4	0
taly	69	1	2	11	55	0
Latvia	13	0	0	3	9	1
Lithuania	4	0	0	0	4	0
Luxembourg	1	0	0	0	0	1
Hungary	75	0	2	29	44	0
Netherlands	4	0	0	2	2	0
Austria	22	1	0	16	5	0
Poland	165	3	0	40	121	1
Portugal	12	1	0	2	9	0
Romania	82	0	0	13	69	0
Slovenia	3	0	0	3	0	0
Slovakia	18	0	2	2	14	0
Finland	4	0	1	1	2	0
Sweden	8	0	1	2	5	0
Norway	7	0	0	1	6	0
Switzerland	18	0	5	2	9	2
Montenegro (¹)	5	0	0	:	:	5
North Macedonia (²)	6	0	0	:	:	6
Türkiye (³)	29	0	0	:	:	29

^(:) Not available

Source: Eurostat (online data code: tran_sf_railvi)



Table 1: Persons killed in railway accidents by category of user, 2022 (number) Source: Eurostat (tran_sf_railvi)

Table 2 outlines the fatalities from railway accidents according to the type of accident. In 2022, more than two-thirds (69 %) of these fatalities in the EU were caused by 'accidents to persons by rolling stock in motion', typically involving persons who are unauthorised on the railway tracks and are hit by a running train. Together with level-crossing accidents, which caused 29

% of fatalities, these accidents were responsible for almost 98 % of all deaths occurring in railway accidents in the EU.

^{(1) 2016} data.

^{(2) 2018} data.

^{(8) 2021} data.

Persons killed in railway accidents by type of accident, 2022

(number)

(number)	TOTAL	Collisions	Derailments	Level crossing accidents (incl. pedestrians)	Accidents to persons by rolling stock in motion (excl. suicides)	Fires in rolling stock	Other accidents
EU	808	6	6	237	555	1	3
Belgium	19	0	0	11	8	0	0
Bulgaria	15	0	0	7	8	0	0
Czechia	22	1	0	16	4	0	1
Denmark	6	0	0	0	6	0	0
Germany	151	2	5	40	104	0	0
Estonia	1	0	0	0	1	0	0
Ireland	1	0	0	0	1	0	0
Greece	10	0	0	2	8	0	0
Spain	21	0	0	8	13	0	0
France	64	0	0	16	48	0	0
Croatia	18	3	0	10	5	0	0
Italy	69	0	0	11	57	1	0
Latvia	13	0	0	3	10	0	0
Lithuania	4	0	0	0	4	0	0
Luxembourg	1	0	0	0	1	0	0
Hungary	75	0	0	30	43	0	2
Netherlands	4	0	0	2	2	0	0
Austria	22	0	1	16	5	0	0
Poland	165	0	0	41	124	0	0
Portugal	12	0	0	2	10	0	0
Romania	82	0	0	13	69	0	0
Slovenia	3	0	0	3	0	0	0
Slovakia	18	0	0	2	16	0	0
Finland	4	0	0	1	3	0	0
Sweden	8	0	0	3	5	0	0
Norway	7	0	0	1	6	0	0
Switzerland	18	0	0	2	15	0	1
Montenegro (1)	5	0	0	1	4	0	0
North Macedonia (2)	6	0	0	3	3	0	0
Türkiye (³)	29	0	0	14	15	0	0

^{(1) 2016} data.

Source: Eurostat (online data code: tran_sf_railvi)



Alt=a table showing persons killed in railway accidents by type of accident in the year 2022 in the EU, EU Member States, some EFTA countries and some candidate countries.

The number of persons killed in 'accidents to persons by rolling stock in motion' was particularly high in Poland (124 fatalities) and Germany (104 fatalities) in 2022. Together, the five EU Member States Germany, Poland, Romania, Italy and France registered more than two-thirds (72%) of the persons killed in 'accidents to persons by rolling stock in motion'.

Fewer persons seriously injured since 2010

Significant reduction in persons seriously injured in railway accidents since 2010, especially for railway passengers

Over the period 2010-2022, the number of persons seriously injured in railway accidents at the EU level fell for all types of persons (Figure 4). This trend is noticeable despite occasional year-to-year fluctuations. Whereas the

^{(2) 2018} data.

^{(°) 2021} data.

average annual decrease in the total number of seriously injured persons was 11.3 % per year from 2010 to 2015, an increase of 21.0 % in the number of injured persons was observed in 2016 compared with 2015. The high number of injured railway passengers registered in 2010 was due to a severe train collision at Buizingen (Belgium) with 171 persons seriously injured. In 2016, the number of injured passengers registered a significant increase compared with the previous year, due to a number of larger accidents involving passenger trains that were recorded across the EU. The number of seriously injured persons fell again in 2017, but remained at the same level in 2018. However, the number of injured persons from railway accidents fell significantly from 2018 to 2019 (-18.2 % to 612 injured persons) and from 2019 to 2020 (-23.5 % to 468 injured persons). In 2021, the number of injured persons increased by 9.4 % (512 injured persons), and increased again by 15.8 % (593 injured persons) in 2022.

Persons seriously injured in railway accidents by category of person, EU, 2010-2022

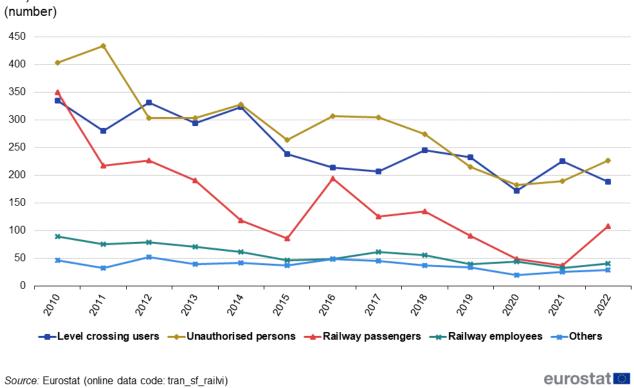


Figure 4: Persons seriously injured in railway accidents by category of person, EU, 2010-2022 (number) Source: Eurostat (tran_sf_railvi)

Focusing on the year 2022, Table 3 illustrates the number of persons injured in the different types of accidents. Half of the seriously injured persons were registered in accidents involving rolling stock in motion (308 injured persons, 52 % of the total), followed by level crossing accidents (200 persons, or 34 %). Germany (72 seriously injured persons), Czechia (31), Poland (29), France (24) and Italy (21) recorded the highest numbers of persons injured in accidents to persons by rolling stock in motion. It should be noted that the comparison of seriously injured persons between countries may be slightly biased due to differences in reporting regimes.

Far fewer persons were injured in other types of accidents. Train collisions were the cause of serious injuries to 54 persons in 2022, of which 20 persons were injured in accidents in Germany and 18 in Slovakia. In 16 of the 25 EU Member States with railways, no persons were seriously injured in train collisions in 2022. Overall in the EU, there was 20 persons seriously injured in derailments in 2022, 16 in Germany.

Persons seriously injured in railway accidents by type of accident, 2022

(number)

<u>(number)</u>	TOTAL	Collisions	Derailments	Level crossing accidents (incl. pedestrians)	Accidents to persons by rolling stock in motion (excl. suicides)	Fires in rolling stock	Other accidents
EU	593	54	22	200	308	1	8
Belgium	5	0	0	2	2	0	1
Bulgaria	18	2	0	6	10	0	0
Czechia	64	0	0	31	31	0	2
Denmark	5	0	0	1	3	0	1
Germany	136	20	16	28	72	0	0
Estonia	15	0	0	14	1	0	0
Ireland	0	0	0	0	0	0	0
Greece	9	1	0	3	5	0	0
Spain	27	6	0	2	19	0	0
France	30	0	0	6	24	0	0
Croatia	10	2	0	2	4	0	2
ltaly	25	1	0	3	21	0	0
Latvia	2	0	0	1	1	0	0
Lithuania	2	0	0	0	2	0	0
Luxembourg	0	0	0	0	0	0	0
Hungary	39	3	0	18	17	0	1
Netherlands	4	0	0	3	1	0	0
Austria	36	0	5	20	11	0	0
Poland	50	0	1	20	29	0	0
Portugal	13	0	0	3	10	0	0
Romania	39	1	0	18	19	1	0
Slovenia	5	0	0	4	1	0	0
Slovakia	44	18	0	9	16	0	1
Finland	7	0	0	3	4	0	0
Sweden	8	0	0	3	5	0	0
Norway	0	0	0	0	0	0	0
Switzerland	14	1	0	1	11	0	1
Montenegro (¹)	4	0	0	1	2	0	1
North Macedonia (²)	6	0	0	3	3	0	0
Türkiye (³)	18	0	0	10	7	0	1

^{(1) 2016} data.



Table 3: Persons seriously injured in railway accidents by type of accident, 2022 (number) Source: Eurostat (tran_sf_railvi)

Suicides cost far more lives than accidents

Suicides on the railways outnumber the number of persons killed and seriously injured in accidents by far

Suicides occurring on railways are reported separately from persons killed or injured in railway accidents. For the EU as a whole, the number of such suicides remained between 2 200 and 2 800 per year in the period 2010-2021. The highest number was recorded in 2012 with 2 734 suicides on railway premises. In the following years, the numbers fluctuated. The highest decrease was observed between 2012 and 2013, with -6.7 % while the highest increase was observed between 2015 and 2016, with +3.9 %. The number of suicides on railway premises has fallen consistently from 2017 to 2020 but registered a slight increase in 2021 (+1.4 %).

In 2022, 2 294 suicides were reported, 60 more than in the previous year. With 684 recorded suicides in 2022, Germany accounted for almost one-third (29 %) of the EU total. There was

^{(2) 2018} data.

^{(8) 2021} data.

Source: Eurostat (online data code: tran_sf_railvi)

Suicides on railway premises, 2010-2022 (number)

(number)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU	2 532	2 687	2 734	2 552	2 608	2 511	2 608	2 532	2 379	2 313	2 204	2 234	2 394
Belgium	84	98	102	94	97	92	104	88	93	93	94	88	106
Bulgaria	18	27	33	17	29	22	15	23	15	19	20	11	14
Czechia	198	235	224	207	279	205	203	203	184	211	204	161	214
Denmark	20	20	32	23	21	27	27	24	25	30	20	19	17
Germany	899	853	872	834	781	806	798	771	732	646	678	678	684
Estonia	0	0	5	1	5	7	1	5	6	5	2	9	4
Ireland	6	6	5	3	5	2	5	7	9	2	5	4	6
Greece	2	4	1	5	4	7	4	7	5	2	4	1	0
Spain	124	128	138	118	139	108	115	126	90	89	69	71	87
France	328	332	356	291	298	302	314	297	288	261	203	243	238
Croatia	19	28	24	15	28	30	27	21	23	20	13	19	22
Italy	109	140	124	134	143	127	165	176	144	135	116	132	129
Latvia	13	10	7	3	6	11	9	7	4	10	3	5	7
Lithuania	4	5	13	8	6	4	10	3	4	2	5	4	6
Luxembourg	3	7	5	4	6	3	3	2	1	0	2	0	5
Hungary	121	155	148	79	79	57	76	82	63	69	114	121	85
Netherlands	201	215	202	220	192	223	221	215	194	194	198	186	210
Austria	90	87	80	99	92	95	99	73	92	71	74	75	95
Poland	44	28	80	71	71	88	116	112	105	156	127	138	183
Portugal	51	42	58	47	44	39	32	52	29	40	23	33	29
Romania	23	76	57	66	80	42	48	48	62	41	38	42	42
Slovenia	15	25	16	13	18	16	26	15	13	17	16	24	22
Slovakia	48	40	38	55	44	64	61	69	71	57	54	52	77
Finland	44	64	32	55	64	48	60	56	48	58	53	35	52
Sweden	68	62	82	90	77	86	69	50	79	85	69	83	60
Norway	7	11	8	10	15	7	12	18	16	7	15	10	12
Switzerland	126	103	140	140	151	145	140	140	139	126	114	127	105
Montenegro	:	:	:	:	:	:	:	:	:	:	:	:	:
North Macedonia	:	:	:	:	:	:	:	:	:	:	:	:	:
Türkiye	:	:	:	:	:	:	:	:	:	:	:	:	:
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^(:) Not available



Alt= a table showing suicides on railway premises from the year 2010 to the year 2022 in the EU, EU Member States, some EFTA countries and some candidate countries.

Source data for tables and graphs

Rail accident fatalities in the EU (December 2023)

Data sources

The sources used for the statistics in this publication are data reported to the European Union Agency for Railways (ERA). Railway safety data have been collected by ERA since 2006 through the Common Safety Indicators (CSIs). These were introduced by Annex I to the Railway Safety Directive (Directive 2004/49/EC). EU Member States have a legal obligation to submit their CSI data to ERA. ERA publishes an overview of safety-related CSIs as soon as data have been consolidated. The CSIs data are reported via and available through the ERA extranet. The full set of CSI data is made available in the annually published Railway Safety Performance Report. Accident figures are reliable from 2010 onwards, following the strict application of standard definitions. In the past, Belgium, Poland and Slovakia typically reported all railway accidents instead of significant accidents only. This meant a lower count in several categories of accidents since 2010.

Eurostat has signed an agreement with ERA to disseminate these railway safety data through its free dissemination database. The data disseminated by Eurostat constitute a subset of the data available at ERA.

Railway accident data were also collected through Annex H to Regulation (EC) No 91/2003 on rail transport statistics. This Regulation has been recast and replaced by Regulation (EC) No 2018/643. The data collection through Annex H was phased out and replaced with the data collected by ERA. However, Türkiye continues to

Source: Eurostat (online data code: tran_sf_railsu)

provide data according to Annex H of Regulation (EC) No 91/2003, as they do not have an agreement with ERA.

The railway accident data collected by ERA data are located in the 'Multimodal data (tran)' section under 'Transport safety (tran_sf)' in Eurostat's database. Historic data based on Annex H can be found in the section 'Railway transport - Historical data (2004-2015) (rail_ac_h)'.

Some differences may occasionally exist between these data, as ERA handles its own compilation procedures and quality checks. Also, whereas data reported to ERA are provided by the national safety authorities, data reported to Eurostat under the framework of Regulation (EC) No 91/2003 were reported by the national statistical institutes(NSIs). The NSIs might have depended on data from the same national safety authorities, but not necessarily.

Composition of EU aggregates:

EU: The European Union is composed of 27 Member States: Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland and Sweden.

It should be noted that the EU Member States Cyprus and Malta have no railways.

Regarding the data for EFTA countries, Iceland has no railways, while Liechtenstein's railways are included in the Austrian data as they are operated by the ÖBB.

The tables include the Channel Tunnel as a separate entity, as data referring to railway accidents in the Channel Tunnel cannot be assigned to either France or the United Kingdom. EU aggregates do not include Channel Tunnel figures.

Some data for the most recent reference year may remain provisional for some time. This is linked to ongoing investigations and hence decisions whether to include or exclude certain accidents and or their categorisation.

Methodological notes:

Number of people killed and injured per country may vary from year to year because of major railway accidents that take place in different countries. For several EU Member States with a few number of fatalities, the rate of persons killed per million inhabitants tend to fluctuate considerably from year to year meaning that the trend can only be seen over a longer time period (even if there was no major railway accident).

Context

National rail networks have different technical specifications for infrastructure – gauge widths, electrification standards and safety and signalling systems – which make it more difficult and costly to run a train from one country to another. EU policies exist to overcome such differences. Creating an integrated European railway area thus requires better technical compatibility – 'interoperability' – of infrastructure, rolling stock, signalling and other subsystems of the rail system. Procedures for authorising the use of rolling stock across the EU's rail network also need to be simplified.

The European Union Agency for Railways (ERA) helps promote interoperability and develop uniform technical standards, a process in which cooperation between EU countries and rail stakeholders is essential.

ERA, based in Lille/Valenciennes (France), is helping to build an integrated European railway area by improving rail safety and interoperability. Set up in 2006, it develops shared technical specifications and approaches to safety, working closely with stakeholders from the rail sector and national authorities, the EU institutions and other interested parties. Featuring a dedicated safety unit, the Agency also monitors and reports on rail safety in the EU.

Other articles

- · Railway passenger transport statistics quarterly and annual data
- · Railway freight transport statistics

Publications

- Key figures on European transport 2022 edition
- Eurostat: Energy, transport and environment statistics 2020 edition
- European Union Agency for Railways (ERA): ERA publications

Database

· Transport, see:

Multimodal data (tran)

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Transport safety (tran_sf)
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Rail transport safety (tran sf rail)

Rail accidents by type of accident (ERA data) (tran sf railac)

Rail accidents victims by type of accident (ERA data) (tran_sf_railvi)

Rail accidents involving the transport of dangerous goods (ERA data) (tran sf raildg)

Suicides involving railways (ERA data) (tran_sf_railsu)

Data collected through Annex H of Regulation (EC) No 91/2003:

· Transport , see:

Railway transport (rail)

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Railway transport - Accidents - Historical data (2004-2015) (rail ac h)
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Annual number of victims by type of accident (2004-2015) (rail ac catvict)

Annual number of accidents by type of accident (2004-2015) (rail ac catnmbr)

Annual number of accidents involving the transport of dangerous goods (2004-2015) (rail_ac_dnggood)

Dedicated section

Transport statistics

Methodology

- Rail transport safety (ESMS metadata file tran_sf_rail)
- Eurostat/United Nations Economic Commission for Europe (UNECE)/International Transport Forum (ITF): Illustrated Glossary for transport statistics, Fifth edition, 2019

Legislation

Rail transport statistics:

 Regulation (EC) No 91/2003 of the European Parliament and of the Council of 16 December 2002 on rail transport statistics, amended by Commission Regulation (EC) 1192/2003. See Annex H.

Regulation (EC) 91/2003 has been recast and replaced by:

 Regulation (EC) No 2018/643 of the European Parliament and of the Council of 18 April 2018 on rail transport statistics

Railway safety:

- Directive 2004/49/EC of the European Parliament and of the Council on safety on the Community's railways (Railway Safety Directive), as amended by:
 - Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community
 - Directive 2008/110/EC of the European Parliament and of the Council of 23 December 2008 amending the Railway Safety Directive
 - Commission Directive 2009/149/EC of 27 November 2009 amending Directive 2004/49/EC of the European Parliament and of the Council as regards Common Safety Indicators and common methods to calculate accident costs

Directive 2004/49/EC has been repealed and replaced by:

• Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety

Common Safety Indicators:

- Commission Directive 2009/149/EC amending Directive 2004/49/EC of the European Parliament and of the Council as regards Common Safety Indicators and common methods to calculate accident costs
- Commission Directive 2014/88/EC of 09 July 2014 amending Directive 2004/49/EC of the European Parliament and of the Council as regards Common Safety Indicators and common methods to calculate accident costs

Directives 2009/149/EC and 2014/88/EC have been repealed and replaced by:

• Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety

European Union Agency for Railways:

 Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004

External links

- European Union Agency for Railways (ERA)
- ERA Knowledge Hub