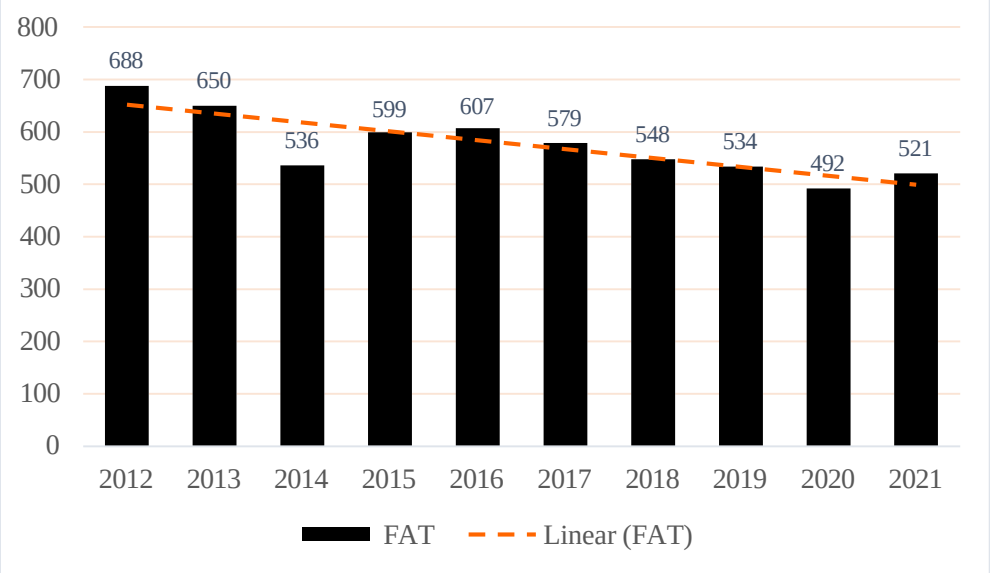
Republic of Serbia
Road Traffic Safety Agency

Statistical report on the state of road traffic safety in the Republic of Serbia for 2021



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Statistical report on the state of road traffic safety in the Republic of Serbia for 2021

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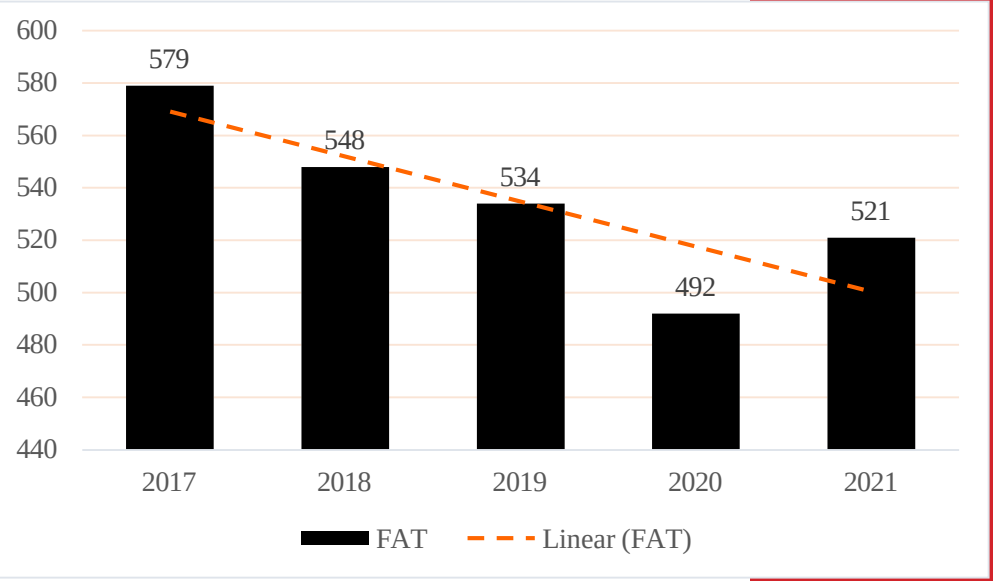
Introduction



Road Traffic Safety Agency

Republic of Serbia

1 Introduction

Reporting on the state of road traffic safety is a part of monitoring of state of road traffic safety, which contributes to the establishment of the system of road traffic safety and road traffic safety management in the subject area. The analyses which are included in the Statistical Report show the state of road traffic safety in the Republic of Serbia, based on which the improvement or deterioration of road traffic safety can be observed in relation to previous years, as well as identifying the scope of the issues concerning road traffic safety.

The statistical report consists of seven chapters:

- **The first chapter** of the Statistical Report shows the trend in the number of fatalities and number of injured persons in road accidents in the period of 40 years, as well as the distribution and analysis of the aforementioned period by stages. Subsequently, the five-year period from 2017 to 2021 is analysed in more detail, showing current trends concerning various types of road accidents, as well as trends concerning the consequences of road accidents. During this period, the fatality of different categories of road users (IRTAD division) was also analysed.
- In the **second chapter** of the Statistical Report, the analysis of road accidents and consequences in 2021 was carried out. At the beginning, an overview of absolute indicators in 2021 was presented, followed by a percentage change in relation to the previous year, i.e. 2020. This is followed by distribution of casualties in road accidents by their capacity, and according to categories of road users (IRTAD division). After that, the distribution by age groups is shown for each of the analysed categories, followed by the distribution of fatalities and injured persons by age groups and gender. An analysis of all drivers involved in road accidents with fatalities and injured persons was performed, as well as the distribution of drivers according to the driver's service at the time of the accident; in terms of weather analyses, the analysis of road accidents and consequences was performed per months during the year, days during the week, and hours during the day. After that, the distribution of road accidents by type groups was performed, and then the most common types in each of the groups of types were shown. At the end of the second chapter, the influential factors of road accidents were analysed by groups of influential factors, after which each group of influential factors was analysed separately.
- In the **third chapter** of the Statistical Report, the analysis of traffic casualties concerning children was performed through the presentation of a ten-year trend, and then through a more detailed analysis of the absolute indicators of children casualties in 2021. Namely, the analysis of children casualties was performed according to their capacity of traffic participation and categories of vehicles, by gender, age, months during the course of the year and hours during the day.

- In the **fourth chapter** of the Statistical Report, the analysis of casualties concerning young road users was carried out, primarily through the presentation of a ten-year trend, and then through a series of analyses such as: distribution of casualties concerning young people by capacity and vehicle category, age at the moment of the accident, gender; through the presentation of the distribution of road accidents with the participation of young people and their consequences by months during the course of the year, days during the week, and hours during the day. After that, the distribution of road accidents, in which young people have participated, was presented by groups of types of road accidents.
- In the **fifth chapter** of the Statistical Report, the analysis of casualties concerning persons aged 65 and up was performed. The ten-year trend of casualties, the distribution of casualties according to their capacity, vehicle category, age at the moment of the accident and gender is shown; followed by the distribution of road accidents and consequences by months during the course of the year, days during the week, and hours during the day. After that, the distribution of road accidents, in which persons aged 65 and up have participated, was presented by groups of types of road accidents.
- **The sixth chapter** of the Statistical Report deals with the analysis of indicators of the behaviour of road users and their trend/direction in the last nine years.
- **The seventh chapter** of the Statistical Report deals with the Conclusions, and contains the most important facts and conclusions obtained from the conducted analyses.

The following abbreviations are used throughout the Statistical Report:

ABBREVIATIONS	MEANING
RA	Road accident
RA FAT	Road accident with fatalities
RA INJ	Road accident with injured persons
RCAS	Road accident with casualties
RA MD	Road accident with only material damage
RA TOTAL	Total number of road accidents
FAT	Number of fatalities in road accidents
SeBI	Number of seriously body injured in road accidents
SlBI	Number of slightly injured body in road accidents
INJ	Number of persons injured in road accidents
CAS	Number of casualties in road accidents
PV	Passenger vehicle
FV	Freight vehicle
WNC	Weighted number of casualties
RSPI	Road safety performance indicator
IRTAD	International Traffic Safety Data and Analysis Group
CADaS	Common Accident Data Set

1.1 Presentation of the state of road traffic safety in the Republic of Serbia, for the period from 1981-2021

Road traffic safety in the Republic of Serbia in the last forty years can be divided, observed and analysed in four stages. The duration of each stage is as follows:

- Stage I from 1981 to 1990;
- Stage II from 1991 to 2000;
- Stage III from 2001 to 2010; and
- Stage IV from 2011.

Observing the **first stage**, the average number of fatalities in road accidents amounted to 1,745, while the average number of injured persons amounted to 21,388 persons. At the first stage, the increase in the number of registered vehicles was thought to be necessarily accompanied by an increase in the number of road accidents and their consequences. This stage is characterized by commencement with the introduction of elements of the system of road traffic safety in Serbia and the processes which were supposed to precede the establishment of road traffic safety management in the areas of the Socialist Federal Republic of Yugoslavia (SFRY) and Serbia. During this period, the Republic Council for Road Traffic Safety existed and functioned in Serbia, while a number of municipalities have also hosted functional local councils or committees for road traffic safety. This was actually the beginning of the period of introduction of the system of road traffic safety.

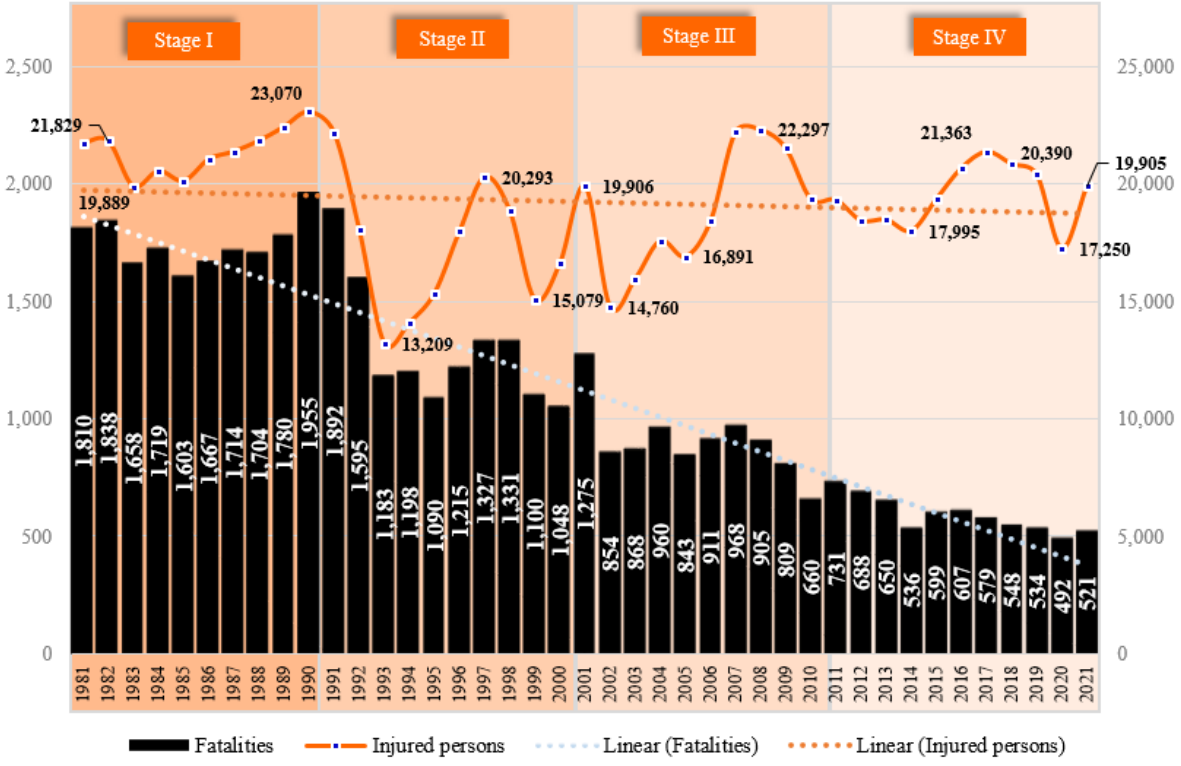


Figure 1-1 Number of fatalities and injured persons in the period from 1981 to 2021

In the **second stage**, the average number of fatalities in road accidents was reduced to 1,298, while the average number of injured persons in road accidents amounted to 17,171 persons. Characteristic of this period are the war events on the territory of the former SFRY and the bombing of the Republic of Serbia in 1999, when the standard of living was reduced, and consequently the number of registered motor vehicles. Reduction in the volume of traffic had also resulted in a decline in the number of road accidents and their consequences. This stage is characterized by the deterioration of the road traffic safety system and the termination of the process of establishing management in this area.

In the **third stage**, the average number of fatalities in road accidents was 905, while the number of injured persons in road accidents was 18,886 persons. This stage is characterized by the stabilization of the economic circumstances in the country and improvement in the living standard of the population. In 2002, the penal policy became stricter, whereby fines for traffic violations were increased by 7 to 10 times. Also, after a longer period of time, certain institutions began to act together, and a media campaign also took place during 2002 and 2003.

The **fourth stage** had commenced in 2011. So far, the average number of fatalities at this stage amounts to 590 persons, while the average number of injured persons in road accidents amounts to 19,454 persons. The beginning of this stage is characterized by the implementation of the "new" Law on Road Traffic Safety, which was adopted at the end of 2009. The adoption of the said Law had influenced the change in the state of road traffic safety, primarily due to changes in the penal policy, as well as due to the strong media campaign which had influenced the behaviour of road users. The Law of 2009 had created all legal conditions for the establishment of a road traffic safety management system in the Republic of Serbia. During 2015, the first Road Traffic Safety Strategy was adopted, which defines the mission, vision and goals. The said Strategy identifies key areas of action, as well as target-risk groups which require attention. Looking at Figure 1-1, it can be noticed that the lowest number of fatalities in road accidents had been recorded in 2020 (492 persons), which is the lowest number since the statistics on road accidents are statistically monitored and analysed in the Republic of Serbia. The conclusion of the stage was marked by the global pandemic of the coronavirus (COVID-19). Due to the epidemiological situation, a state of emergency was introduced in the territory of the Republic of Serbia, which limited the mobility of the population, especially during 2020.

1.2 Public road traffic risk in the period from 2001 to 2021

Public risk represents the magnitude of fatalities or injuries in road traffic in relation to the number of inhabitants of an area (e.g. the total number of fatalities in road accidents per million inhabitants of an area, or the number of fatalities in respect of members of an observed population or category of road users per million inhabitants of an observed area). This relative indicator of road traffic safety is very useful because it provides comparisons with other entities/territories, with which it would otherwise not be possible to make comparisons due to the difference in the number of inhabitants.

Figure 1-2 shows the value of public risk in Serbia, by year, in the period from 2001 to 2021, as well as the value of public risk for the countries of the European Union. Figure 1-2 also shows that the value of public risk is significantly higher in Serbia, compared to the countries of the European Union, with an average of around 33 fatalities per million inhabitants.

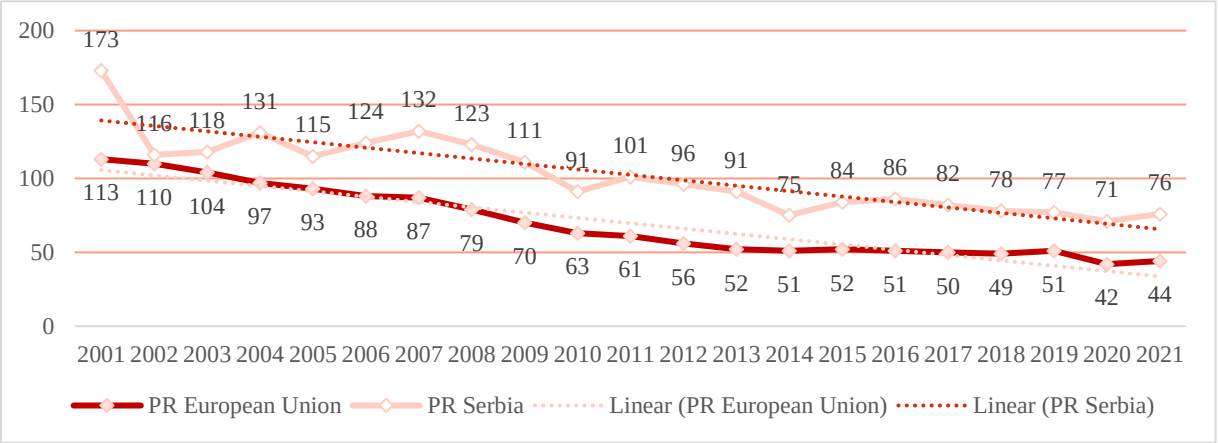


Figure 1-2 Public road traffic risk concerning fatalities in the Republic of Serbia and the EU, period 2001-2021

1.3 Values of main indicators of road traffic safety in the Republic of Serbia for the period from 2017-2021

In the period from 2017 to 2021, a total of 2,674 persons have been killed in road accidents in the Republic of Serbia, 16,474 persons have suffered serious injuries, while 83,280 persons have suffered slight injuries (Table 1-1).

In the observed five-year period, there have been a total of 173,360 road accidents, of which 2,451 road accidents with fatalities, 66,887 road accidents with injured persons and 104,022 road accidents with only material damage. The number of road accidents with only material damage is incomplete due to the fact that a certain number of road accidents with minor material damage is registered by insurance companies, for which the European report (form) on road accidents is filled. Such road accidents are not included in the number of road accidents with material damage shown in the Statistical Report.

Table 1-1 Basic indicators of road traffic safety in the Republic of Serbia, period 2017-2021

Year	RA FAT	RA INJ	RA CAS	RA MD	Total RA	FAT	SeBI	SlBI	INJ	Total CAS
2017	525	14.286	14.811	21.664	36.475	579	3.514	17.849	21.363	21.942
2018	491	13.744	14.235	21.583	35.818	548	3.338	17.508	20.846	21.394
2019	494	13.735	14.229	21.541	35.770	534	3.322	17.068	20.390	20.924
2020	459	11.849	12.308	18.410	30.718	492	2.953	14.297	17.250	17.742
2021	482	13.273	13.755	20.824	34.579	521	3.347	16.558	19.905	20.426
TOTAL	2.451	66.887	69.338	104.022	173.360	2.674	16.474	83.280	99.754	102.428

The following figures show the trend of various types of road accidents in the last five years, after which the trend of consequences of road accidents in the same period is shown.

In Figure 1-3, it can be noticed that there is a downward trend concerning the number of road accidents with fatalities. The highest number of road accidents with fatalities, in the observed five-year period, was recorded in 2017 (525), while the lowest number was recorded in 2020 (459).

Figure 1-4 shows the trend of road accidents with injured persons in the period from 2017 to 2021. When it comes to road accidents with injured persons, a slight downward trend in respect of the number of road accidents has been established over the years. The lowest number of road accidents with injured persons was recorded in 2020 (11,849), while the highest number was recorded in 2017 (14,286).

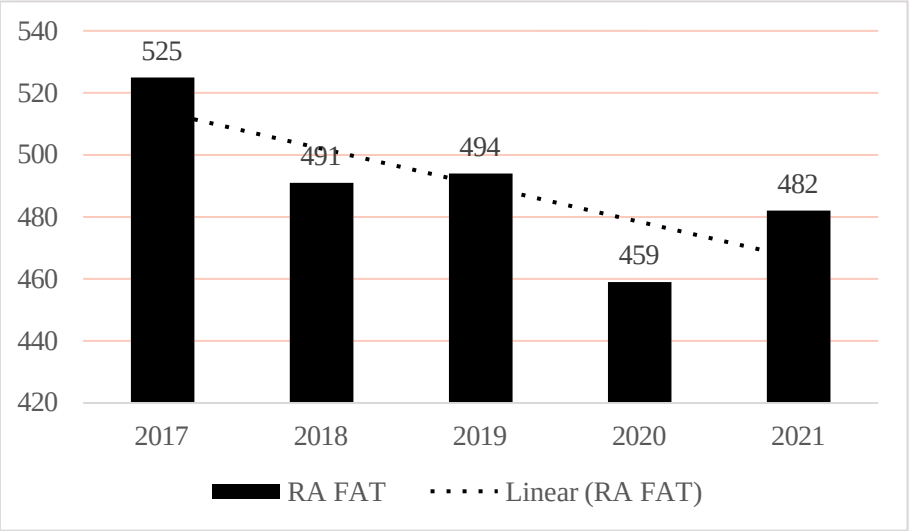


Figure 1-3 Number of road accidents with fatalities in the Republic of Serbia, period 2017-2021

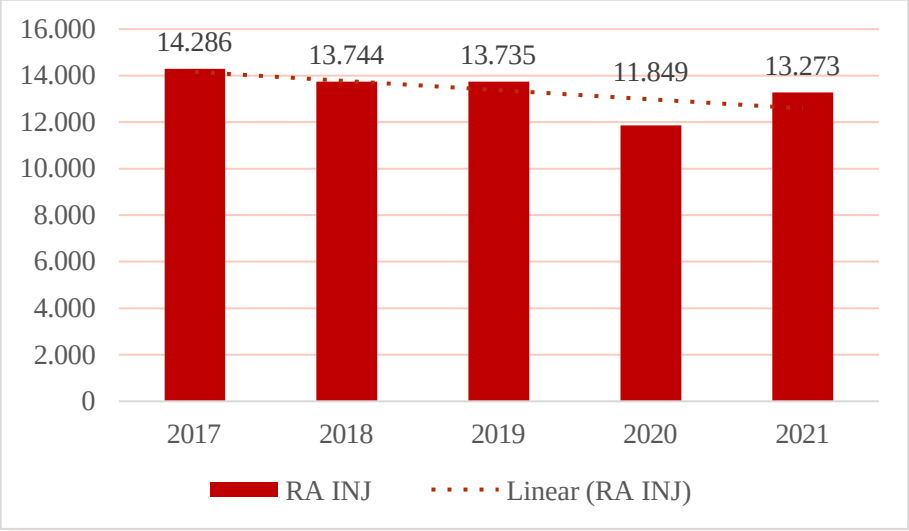


Figure 1-4 Number of road accidents with injured persons in the Republic of Serbia, period 2017-2021

Figure 1-5 shows the number of road accidents with only material damage, the expert investigation for which was carried out by the members of the traffic police, for the period from 2017 to 2021. One can notice that a slight downward trend in respect of the number of this type of road accidents has been established in the last five years.

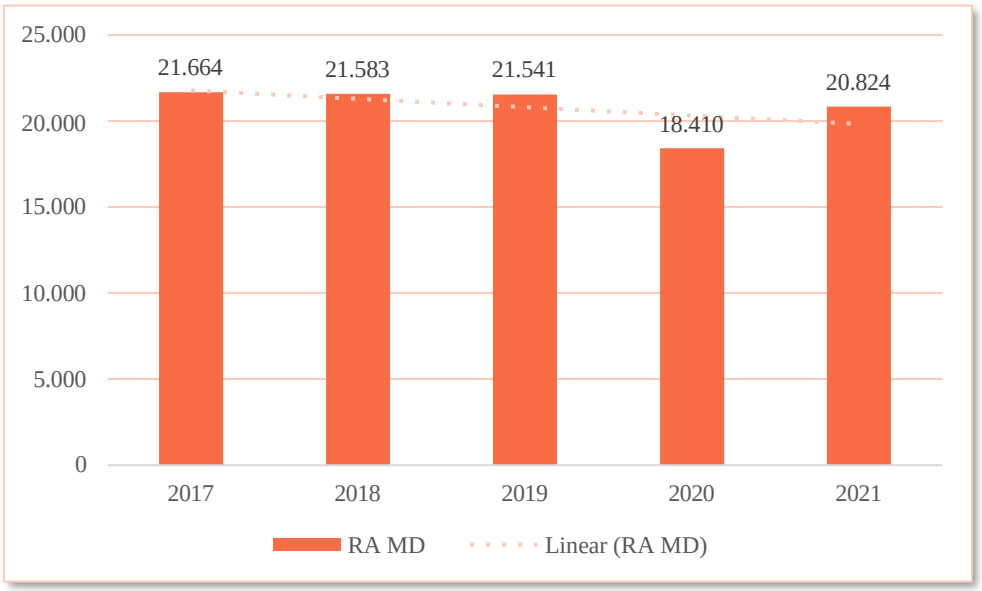


Figure 1-5 Number of road accidents with only material damage in the Republic of Serbia, period 2017-2021

Figures 1-6 show the trend concerning the number of fatalities in road accidents in the period from 2017 to 2021. One can notice that, in the observed period, the highest number of fatalities in road accidents had occurred in 2017 (579), the fewest number of fatalities in 2020 (492), as well as that there is a slight downward trend concerning the number of fatalities. The year 2020 was also the year when the historical minimum in the number of fatalities in road accidents in the Republic of Serbia was achieved since the recording of consequences of road accidents commenced. The National Road Traffic Safety Strategy of the Republic of Serbia, for the period from 2015 to 2020, stipulated that in 2020, the number of fatalities in road accidents should be halved compared to 2011 (when 731 persons were killed). The goal of the Strategy, which aimed for fatalities in road accidents not to surpass the maximum of 365 persons in 2020, has not been achieved.

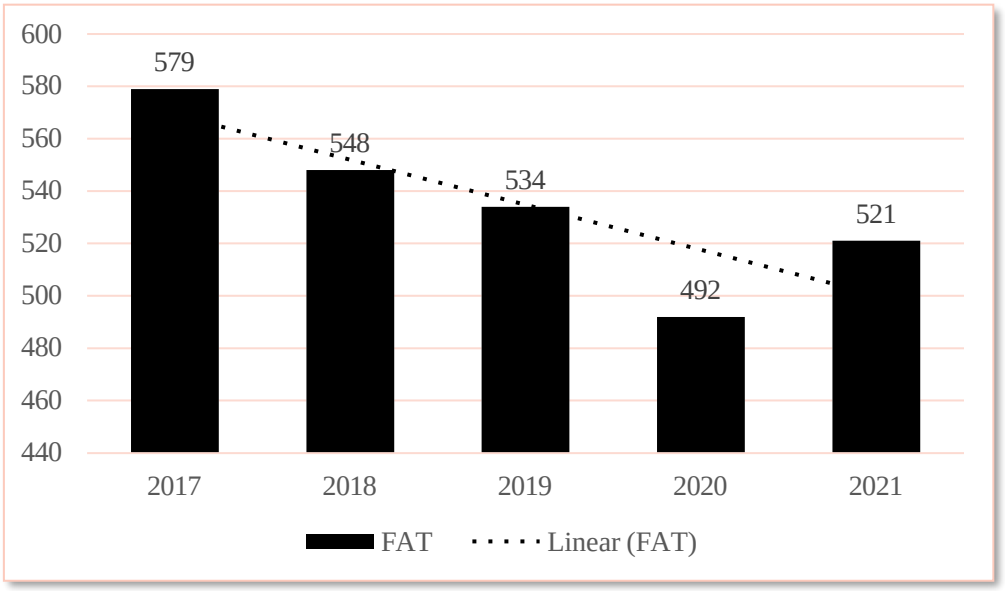


Figure 1-6 Number of fatalities in the Republic of Serbia, period 2017-2021

Figure 1-7 shows the total number of persons injured in road accidents in the period from 2017 to 2021. Observed for the entire period, it can be noticed that there is a slight downward trend concerning the number of injured persons over the years.

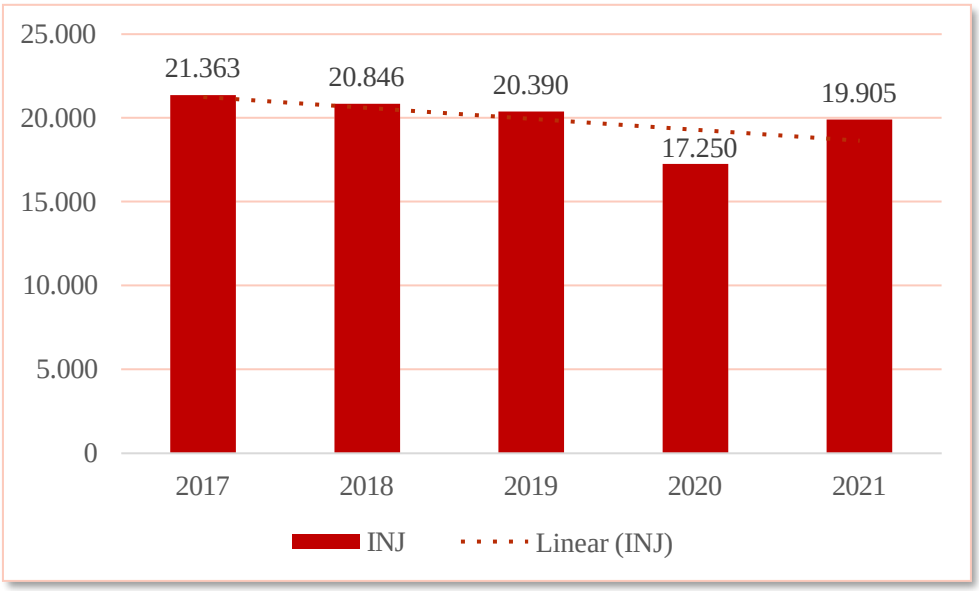


Figure 1-7 Number of injured persons in the Republic of Serbia, period 2017-2021

Figure 1-8 shows the number of seriously injured persons and slightly injured persons, respectively, in the period from 2017 to 2021. When it comes to seriously injured persons, the National Road Traffic Safety Strategy of the Republic of Serbia stipulated that in 2020, the number of serious bodily injuries should be halved compared to the number from 2011, which means that in 2020 this number should have amounted to 1,889 seriously injured persons in road accidents at most.

In the observed five-year period, the number of seriously injured persons fluctuates slightly over the years. The highest number of persons who have suffered serious bodily injuries had occurred in 2017 (3,514), while the lowest number had occurred in 2020 (2,953). In terms of minor bodily injuries, a decrease in the number of slightly injured persons can be observed over the years. In the observed period, the lowest number of persons with minor bodily injuries had occurred in 2020 (14,297), while the highest number had occurred in 2017 (17,849).

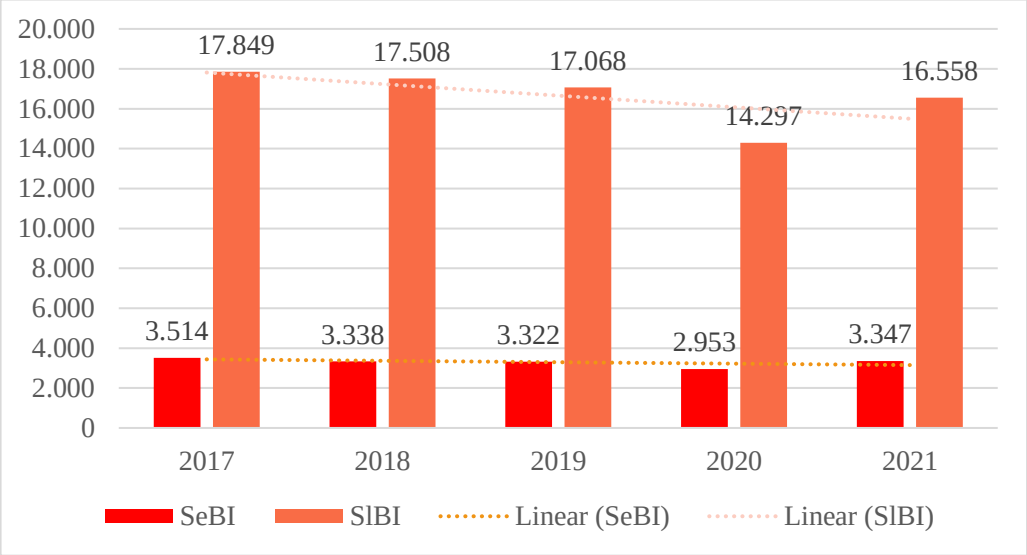


Figure 1-8 Number of seriously injured persons and slightly injured persons in the Republic of Serbia, period 2017-2021

1.4 Representation of various categories of participants in road accidents, Republic of Serbia, period 2017-2021

The categories of participants in road accidents in this report are observed and divided in accordance with the practice applied in the International Road Traffic and Accident Database (IRTAD), which is maintained by the International Traffic Safety Data and Analysis Group formed within the framework of the OECD (Organization for Economic Cooperation and Development). The difference which exists in the Statistical Report, in relation to the practice in IRTAD, is the fact that the data for freight vehicles and buses are individually observed. Hence, the data for the following categories of road users have been analysed:

1. Passenger vehicles (drivers and passengers),
2. Pedestrians,
3. Motorized two-wheelers (drivers and passengers),
4. Cyclists,
5. Tractors (drivers and passengers),
6. Freight vehicles (drivers and passengers),
7. Buses (drivers and passengers),
8. Other categories.

Figure 1-9 shows the number of fatalities according to the previously defined categories in the period from 2017 to 2021.

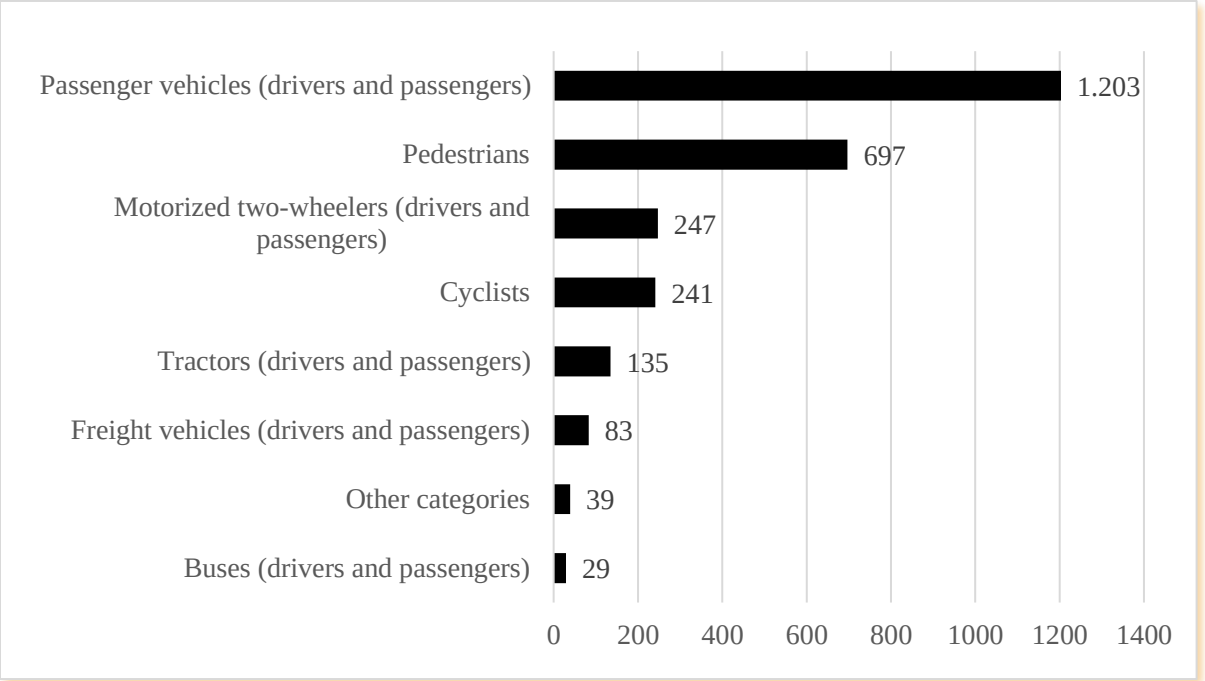


Figure 1-9 Number of fatalities in relation to the vehicle category and capacity of participation in traffic, period 2017-2021

A detailed analysis of the data from Figure 1-9 shows that the highest number of fatalities are drivers and passengers in passenger vehicles, which numbered 1,203, and which is 45% of the total number of fatalities. They are followed by pedestrians, of which there were 697 fatalities, which accounted for around one quarter of the fatalities (26%), followed by motorized two-wheelers and cyclists, of which there were 247 and 241 fatalities, respectively, which accounted for 9% of the fatalities. The World Health Organization has proclaimed the pedestrians, cyclists and drivers and passengers on motorcycles and mopeds a vulnerable category of road users, given the increased likelihood of their serious injury in case of a road accident when compared to drivers and passengers in passenger vehicles, buses, freight vehicles, and other categories of motorized vehicles. Therefore, vulnerable road users account for 44% of total fatalities in road accidents. They are followed by drivers and passengers on tractors, of which 135 have been killed in road accidents, which makes for 5% of fatalities. In the observed five-year period, a total of 83 drivers and passengers in freight vehicles (3%) and 29 drivers and passengers in buses (1%) have been killed.

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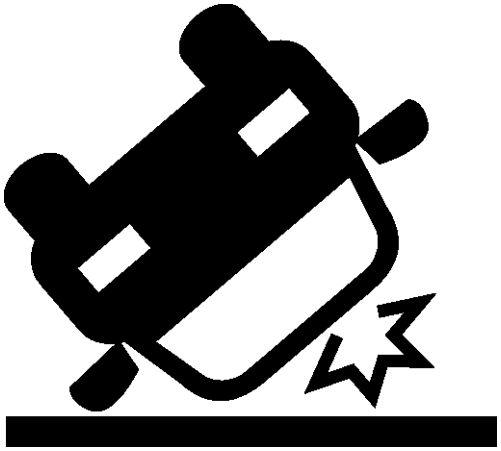
Road accidents and consequences according to basic features, 2021



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2 Road accidents and consequences according to basic features, Republic of Serbia, for 2021

2.1 Basic data on the number of RA and their consequences in 2021, compared to 2020

In this chapter of the Statistical Report, a comparative analysis of road accidents and the consequences of road accidents in 2021, in relation to the previous year, is presented.

In 2021, there were 482 road accidents with fatalities, in which a total of 521 persons were killed; as well as 13,273 road accidents with injured persons, in which 3,347 persons have suffered serious injuries, while 16,558 persons have suffered slight injuries.

Table 2-1 shows the number of RA and their consequences in 2021, as well as the percentage change compared to the previous year, i.e. 2020. It can be noticed that, in 2021, there had been an increase in the number of road accidents. The total number of road accidents had increased by 13%, the number of road accidents with fatalities had increased by 5%, while the number of road accidents with injured persons had increased by 12%. The number of killed and injured persons had also increased in 2021. There were 29 fatalities more in 2021 compared to 2020, which is an increase of 6%, the number of persons with serious bodily injuries had increased by 13%, while the number of persons with slight bodily injuries had increased by 16%.

Table 2-1 Change in the number of road accidents and their consequences in 2021, compared to 2020

Year	ROAD ACCIDENTS					CONSEQUENCES				
	RA FAT	RA INJ	RA CAS	RA MD	Total RA	FAT	SeBI	SlBI	INJ	Total CAS
2020	459	11.849	12.308	18.410	30.718	492	2.953	14.297	17.250	17.742
2021	482	13.273	13.755	20.824	34.579	521	3.347	16.558	19.905	20.426
Change	5%	12%	12%	13%	13%	6%	13%	16%	15%	15%

2.2 Capacity of fatalities and injured persons in road accidents

Figure 2-1 shows the distribution of persons killed in road accidents by their capacity in 2021. Most of the people killed were drivers of motor vehicles (229), which accounted for slightly less than half of all fatalities (44%), followed by pedestrians (148), who accounted for almost a third of all fatalities (29%) and passengers (94), who account for a little less than a fifth of the total number of fatalities (18%). Cyclists have a share of 9% in the total number of fatalities, and in 2021, a total of 48 cyclists have died in road accidents.

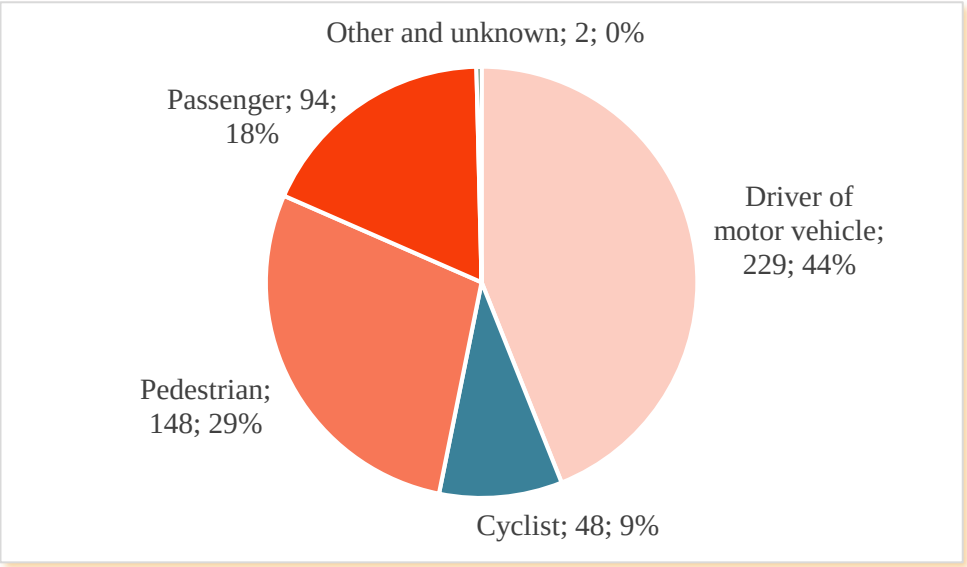


Figure 2-1 Distribution of fatalities according to the capacity of traffic participation, 2021

Figure 2-2 shows the distribution of the capacity of persons injured in road accidents in 2021. Most of the persons have suffered injuries as drivers of motor vehicles (9,396; 47%) and as passengers (6,570; 33%), followed by pedestrians (2,576; 13%) and cyclists (1,324; 7%).

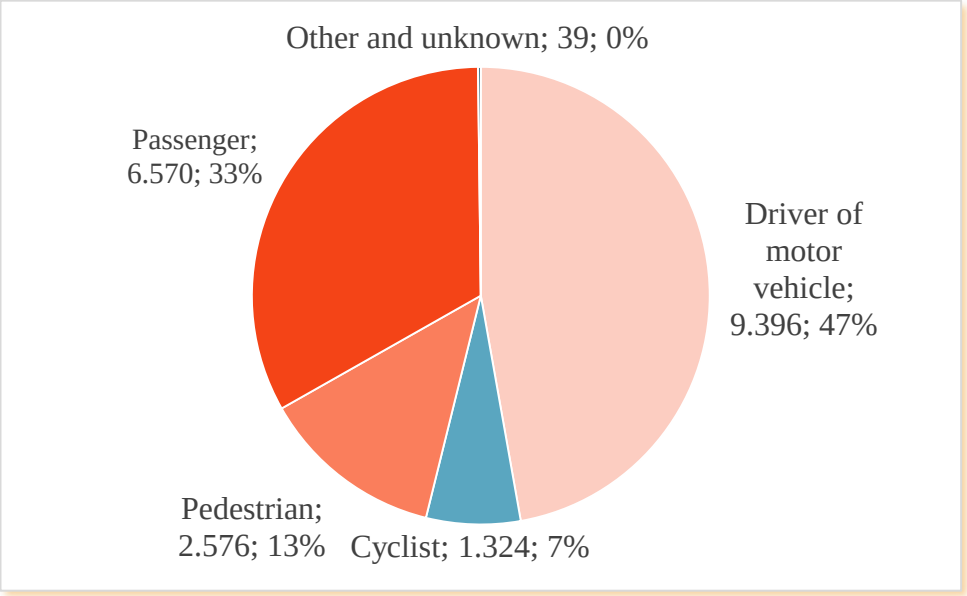


Figure 2-2 Distribution of injured persons according to the capacity of traffic participation, 2021

2.3 Categories of participants in road accidents

In accordance with the practice of the IRTAD International Traffic Safety Data and Analysis Group, the distribution of fatalities according to the categories of road users was carried out, observing the data for 2021.

In Figure 2-3, it can be noticed that the highest number of persons were killed in passenger cars (229; 44%), followed by pedestrians (148; 28%), cyclists (48; 9%) and on motorized two-wheelers (46; 9%). The vulnerable road users (pedestrians, cyclists and motorized two-wheelers) make up nearly one half of all fatalities in 2021 (46%). Drivers and passengers on tractors account for 5% (24 persons), drivers and passengers in freight vehicles account for 4% (20 persons), and drivers and passengers in buses account for 1% (1 person) of all fatalities.

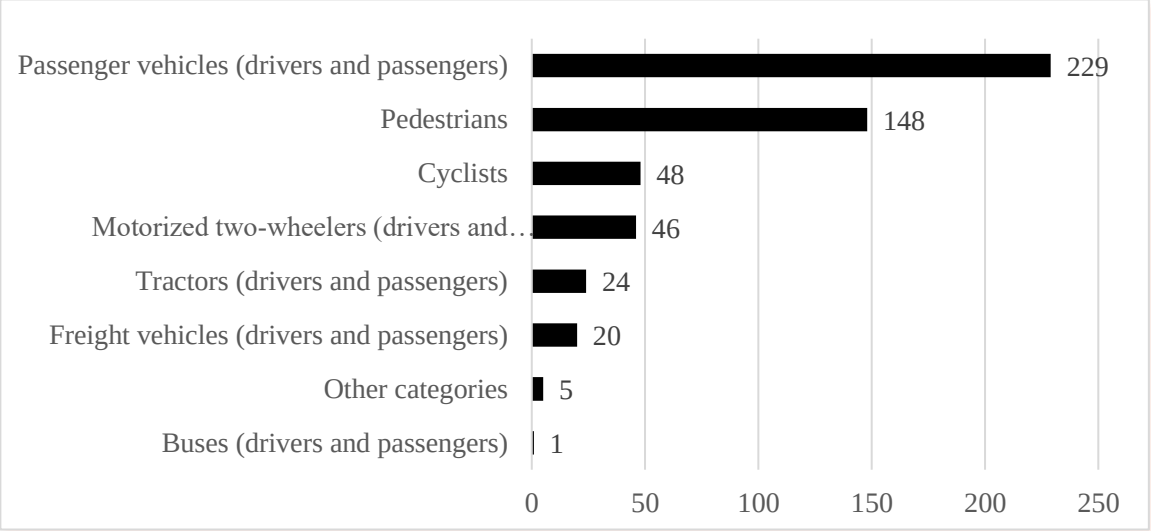


Figure 2-3 Number of fatalities by categories of road users, 2021

2.4 Age distribution of fatalities and injured persons in road accidents

Table 2-2 shows the distribution of fatalities and persons injured in road accidents in 2021, by age groups.

Table 2-2 Age distribution of FAT and INJ drivers, passengers and pedestrians, 2021

Age	FAT	INJ	Drivers		Passengers		Pedestrians	
			FAT	INJ	FAT	INJ	FAT	INJ
0-14	11	1.322	1	143	5	776	5	400
15-30	101	6.587	53	3.350	31	2.629	17	601
31-44	79	4.830	52	3.172	12	1.263	15	387
45-54	77	2.782	48	1.734	12	752	17	289
55-64	78	2.189	49	1.302	11	600	17	286
65 +	175	2.195	75	1.030	23	550	77	613
Total	**521**	**19.905**	**278**	**10.731**	**94**	**6.570**	**148**	**2.576**

Please note: The age and capacity of one fatality and 28 injured persons are not known.

If we observe the age structure of fatalities (Figure 2-4), it can be noticed that most of them are from the age group "65+", i.e. old people (175), followed by age groups 15-30, i.e. young people (101), the age group 31-44 (79), the age group 55-64 (78), and the age group 45-54 (77).

Among the injured persons (Figure 2-5), two age groups of persons were singled out: young road users aged 15-30 (6,587) and the age group 31-44 (4,830).

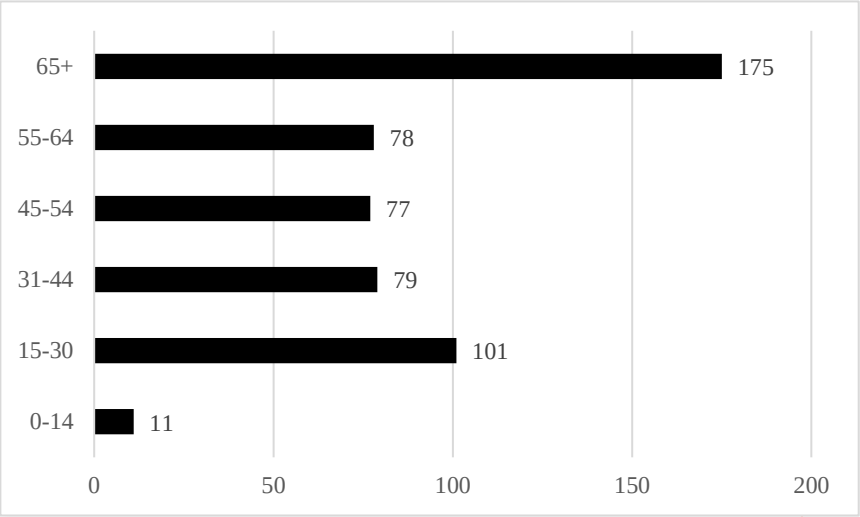


Figure 2-4 Age distribution of fatalities, 2021

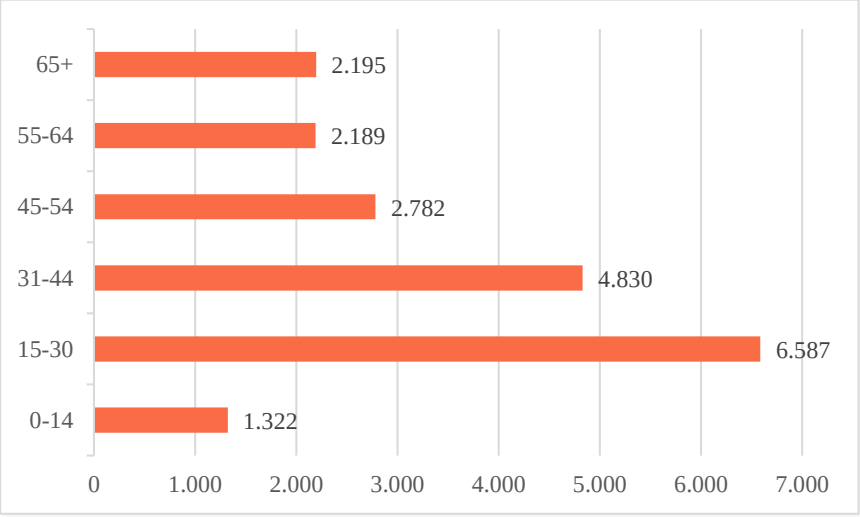


Figure 2-5 Age distribution of injured persons, 2021

2.5 Age distribution of fatalities according to the capacity of road users

The following figures show the age distribution for each of the capacities of road users: drivers, passengers, pedestrians.

In Figure 2-6, it can be noticed that the highest number of driver fatalities were from the age group "65+" (75 persons), followed by the age group 15-30 (53 persons) and age group 31-44 (52 faces). Figure 2-7 shows that the age group 15-30 (31 people), i.e. the category of young people, and the age group "65+" (23 persons), i.e. the category of old people, particularly stand out in the capacity of passengers. When it comes to pedestrian fatalities, older people are the dominant victims, i.e. persons from the age group "65+" (77 persons), who make up more than half of all pedestrian fatalities (52%), which is shown in Figure 2-8.

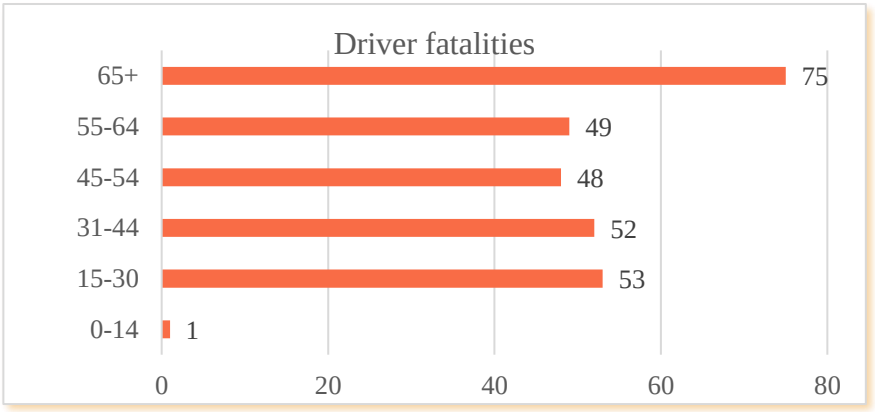


Figure 2-6 Age distribution of drive fatalitiess, 2021

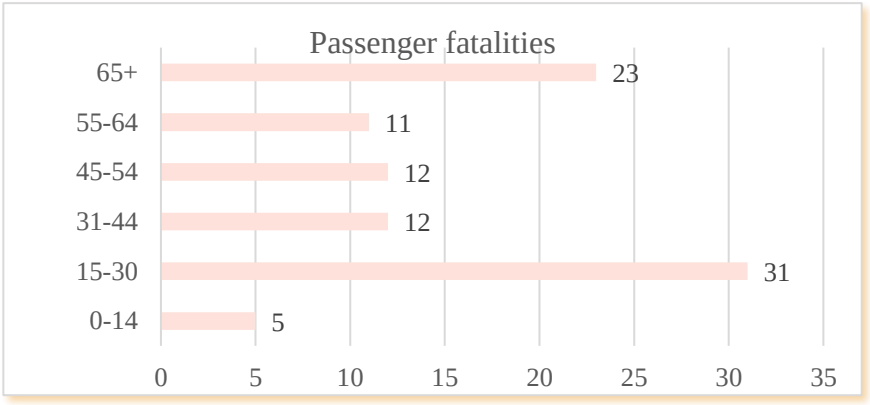


Figure 2-7 Age distribution of passengre fatalitiess, 2021

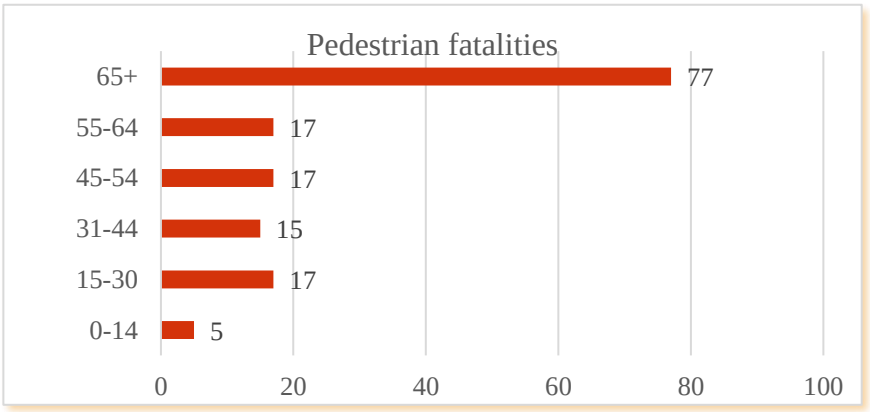


Figure 2-8 Age distribution of pedestrian fatalities, 2021

2.6 Age structure of casualties by categories of road users

The tables and figures within this section of the Report show the representation of each age group in the weighted number of casualties. The weighted number of traffic casualties was calculated for each of the analysed categories of road users, especially for the following age groups: 0-14, 15-24, 25-34, 35-44, 45-54, 55-64, and 65 years and up. The weighted number of casualties (WNC) means the reduction of the number of fatalities, seriously injured and slightly injured persons to a number which enables the comparison of casualties according to different parameters (for fatalities, a weighting factor 99 was used; for seriously injured persons, a weighting factor 13 was used; and for slightly injured persons, a weighting factor 1 was used).

Passenger vehicles (drivers and passengers)

By observing the category of **drivers and passengers in passenger vehicles**, it can be noticed that the age group 15-24 is the most vulnerable age group in traffic in the said capacity, with 20% of the weighted number of casualties in passenger vehicles. This is followed by persons from the age group 25-34 with 19%, as well as by persons from the age group 65+ with 16% of the weighted number of casualties in passenger vehicles. The rest follow with their respective percentages: the age group 45-54 with 15%, the age group 35-44 with 14%, and the age group 55-64 with 13% of the weighted number of casualties in passenger vehicles (Table 2-3 and Figure 2-9)).

Table 2-3 Age distribution of FAT, SeBI and SlBI drivers and passengers in PV and WNC, 2021

PV (drivers and assengers)				
	FAT	SeBI	SlBI	WNC[1]
0-14	4	49	653	**1.686**
15-24	38	317	2.645	**10.528**
25-34	35	283	2.627	**9.771**
35-44	26	232	2.050	**7.640**
45-54	34	213	1.577	**7.712**
55-64	38	174	1.077	**7.101**
65+	54	164	779	**8.257**
Total	**229**	**1.432**	**11.408**	**52.695**

[1] WNC – Weighted number of casualties (FAT*99+SeBI*13+SlBI*1)

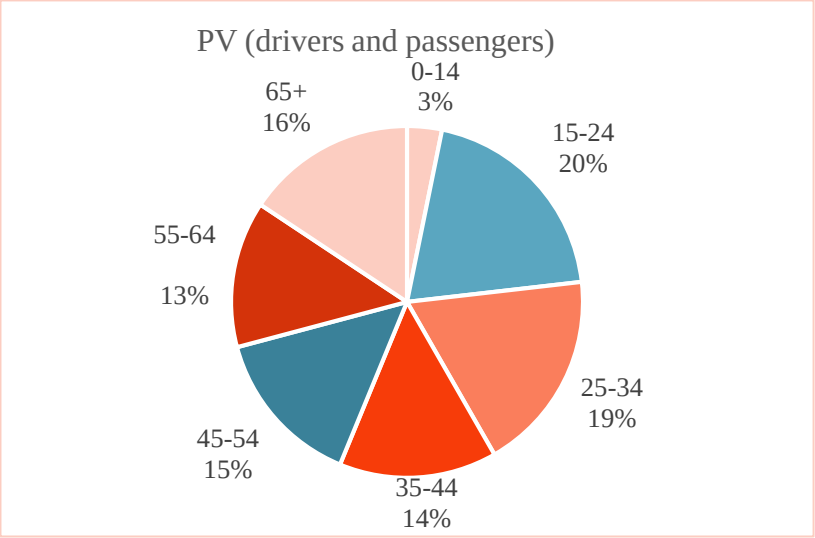


Figure 2-9 Age categories of the (weighted) number of casualties in respect of drivers and passengers in passenger vehicles, 2021

Pedestrians

In the category of road users **pedestrians**, the most represented age group is the age group 65+ (44%), followed by persons from the age group 55-64 who make up 13% of the weighted number of casualties (Table 2-4 and Figure 2-10).

Table 2-4 Age distribution of FAT, SeBI and SlBI pedestrians and WNC, 2021

	Pedestrians			
	FAT	SeBI	SlBI	WNC
0-14	5	79	321	**1.843**
15-24	9	72	350	**2.177**
25-34	10	68	221	**2.095**
35-44	13	68	209	**2.380**
45-54	17	85	204	**2.992**
55-64	17	113	173	**3.325**
65+	77	269	344	**11.464**
Total	**148**	**754**	**1.822**	**26.276**

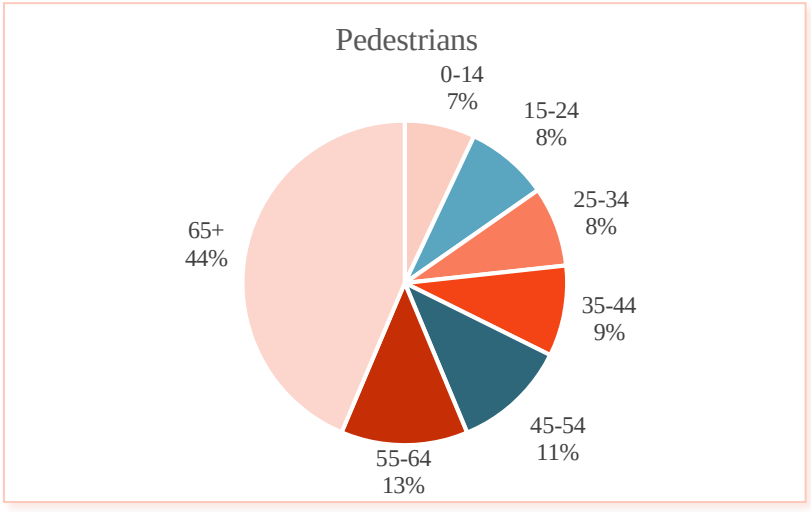


Figure 2-10 Age categories of the (weighted) number of casualties in respect of pedestrians, 2021

Cyclists (drivers and passengers)

In the category of cyclists in 2021, the age group 65+ (40%) was the most represented age group, followed by persons from the age group 55-64 (22%) in terms of casualties (Table 2-5 and Figure 2-11).

Table 2-5 Age distribution of FAT, SeBI and SlBI cyclists and WNC, 2021

Cyclists (drivers and passengers)				
	FAT	SeBI	SlBI	WNC
0-14	1	30	112	**601**
15-24	2	29	135	**710**
25-34	1	28	94	**557**
35-44	3	36	117	**882**
45-54	7	52	132	**1.501**
55-64	11	86	158	**2.365**
65+	23	149	184	**4.398**
Total	**48**	**410**	**932**	**11.014**

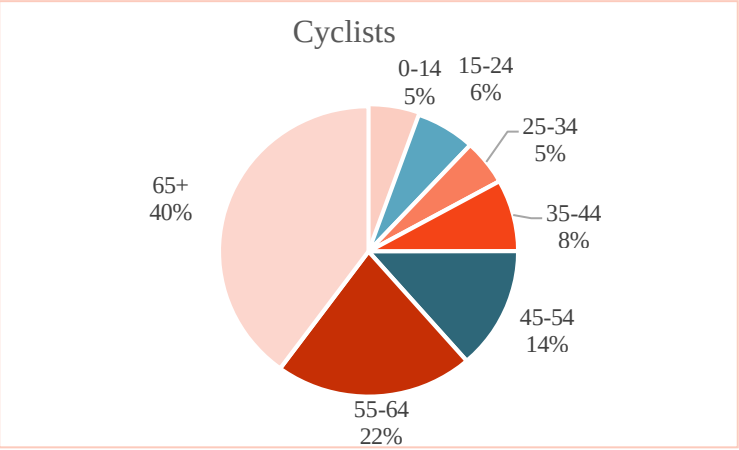


Figure 2-11 Age categories of the (weighted) number of casualties in respect of cyclists, 2021

Motorized two-wheelers (drivers and passengers)

In the category of motorized two-wheelers in 2021 (Table 2-6 and Figure 2-12), the age group 15-24 (24%) and the age groups 25-34 and 35-44 (with 21% each) are the most represented age groups in terms of casualties.

Table 2-6 Age distribution of FAT, SeBI and SlBI motorcycle and moped drivers and WNC, 2021

Motorized two-wheelers (drivers and passengers)				
	FAT	SeBI	SlBI	WNC
0-14	1	5	14	**178**
15-24	12	98	190	**2.652**
25-34	10	89	200	**2.347**
35-44	11	85	182	**2.376**
45-54	5	85	105	**1.705**
55-64	1	56	58	**885**
65+	6	33	52	**1.075**
Total	**46**	**451**	**801**	**11.218**

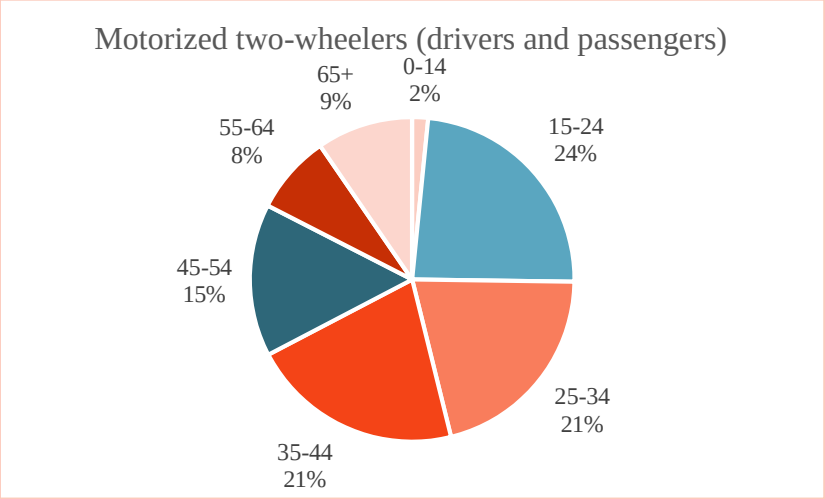


Figure 2-12 Age categories of the (weighted) number of casualties in respect of motorized two-wheelers, 2021

Tractors (drivers and passengers)

In the category of drivers and passengers on tractors, the age group 65+ (35%) is the most represented in terms of casualties, followed by the age group 45-54 with 28%, and the age group 55-64 with 19% (Table 2-7 and Figure 2-13).

Table 2-7 Age distribution of FAT, SeBI and SlBI drivers and passengers on tractors and WNC, 2021

Tractors (drivers and passengers)				
	FAT	SeBI	SlBI	WNC
0-14	0	1	3	**16**
15-24	0	5	9	**74**
25-34	1	1	10	**122**
35-44	2	10	12	**340**
45-54	8	8	14	**910**
55-64	4	15	23	**614**
65+	9	16	25	**1.124**
Total	**24**	**56**	**96**	**3.200**

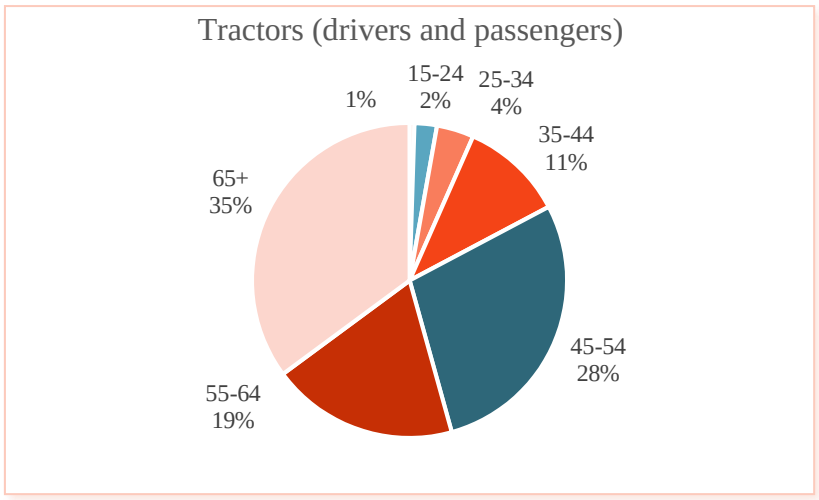


Figure 2-13 Age categories of the (weighted) number of casualties in respect of drivers and passengers on tractors, 2021

Buses (drivers and passengers),

In the category of bus drivers and passengers, the age group 65+ (32%) is the most represented in terms of casualties, followed by the age group 55-64 (19%), (Table 2-8 and Figure 2-14).

Table 2-8 Age distribution of FAT, SeBI and SlBI drivers and passengers in buses and WNC, 2021

Buses (drivers and passengers),				
	FAT	SeBI	SlBI	WNC
0-14	0	0	23	**23**
15-24	0	4	92	**144**
25-34	0	4	58	**110**
35-44	0	14	96	**278**
45-54	0	13	102	**271**
55-64	0	16	103	**311**
65+	1	26	93	**530**
Total	**1**	**77**	**567**	**1.667**

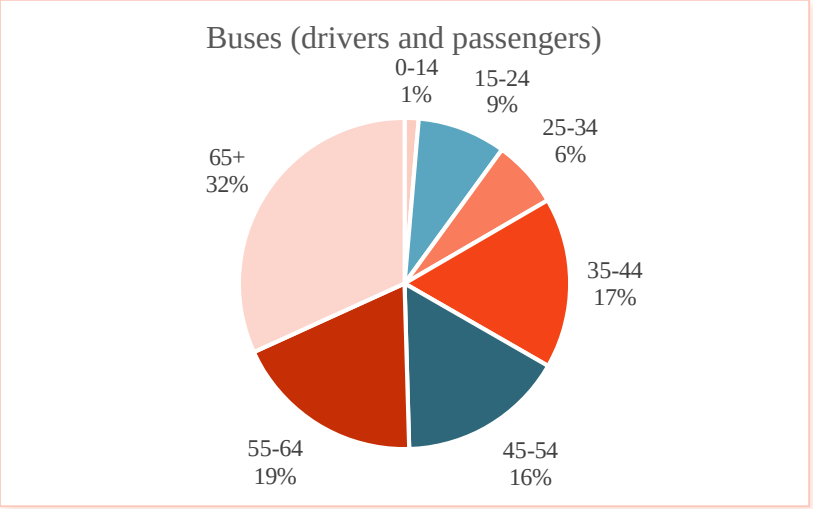


Figure 2-14 Age categories of the (weighted) number of casualties in respect of drivers and passengers in buses, 2021

Freight vehicles (drivers and passengers)

In the category of drivers and passengers in freight vehicles, the age group 45-54 (25%) is the most represented in terms of casualties, followed by the age group 25-34 (21%) (Table 2-9 and Figure 2-15).

Table 2-9 Age distribution of FAT, SeBI and SlBI drivers and passengers in freight vehicles and WNC, 2021

Freight vehicles (drivers and passengers)				
	FAT	SeBI	SlBI	WNC
0-14	0	1	10	**23**
15-24	1	11	109	**351**
25-34	3	29	233	**907**
35-44	3	20	195	**752**
45-54	6	26	136	**1,068**
55-64	4	21	99	**768**
65+	3	7	28	**416**
Total	20	115	810	**4,285**

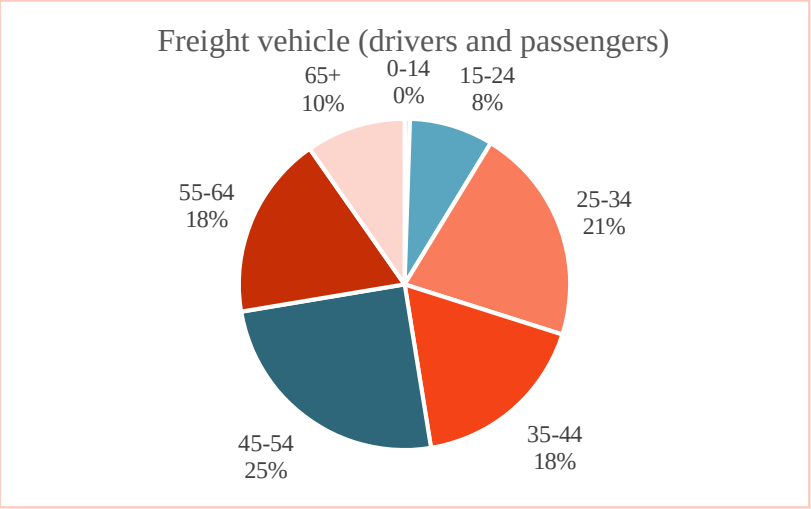


Figure 2-15 Age categories of the (weighted) number of casualties in respect of drivers and passengers in freight vehicles, 2021

2.7 Gender of the fatalities and injured persons in road accidents

Table 2-10 shows the distribution of fatalities, slightly and seriously injured persons, and total injured persons in road accidents by gender in 2021. For fatalities and total injured persons, the percentile representation of male and female persons is also provided. It can be noticed that males account for 78% of fatalities and 61% of injured persons in road accidents in 2021. On the other hand, females account for 22% of fatalities and 39% of persons injured in road accidents.

Table 2-10 Gender distribution of FAT, SeBI, SlBI, INJ and CAS persons in road accidents, 2021

Gender of road user	FAT	% FAT	SeBI	SlBI	INJ	% INJ	CAS
Male	404	78%	2.112	10.063	12.175	61%	**12.579**
Female	117	22%	1.235	6.495	7.730	39%	**7.847**
TOTAL	**521**	**100%**	**3.347**	**16.558**	**19.905**	**100%**	**20.426**

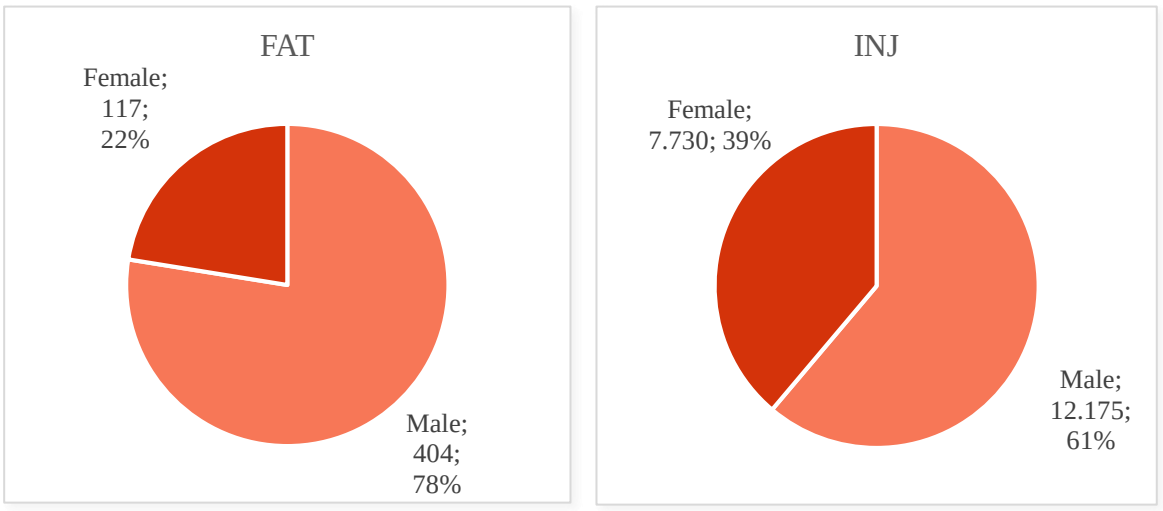


Figure 2-16 Distribution of fatalities and injured persons in RA according to gender, 2021

The following figures show the distribution of fatalities and injured persons by gender, for different capacities of road users: **driver, passenger, pedestrian.** It can be noticed that men suffer more fatalities as drivers and pedestrians. When it comes to injured persons, women more often suffer injuries as passengers and pedestrians, while men more often suffer injuries as drivers.

Drivers

In the capacity of drivers, men account for 92% of fatalities and 78% of injured persons. In the capacity of drivers, women account for 8% of fatalities and 22% of injured persons (Figure 2-17).

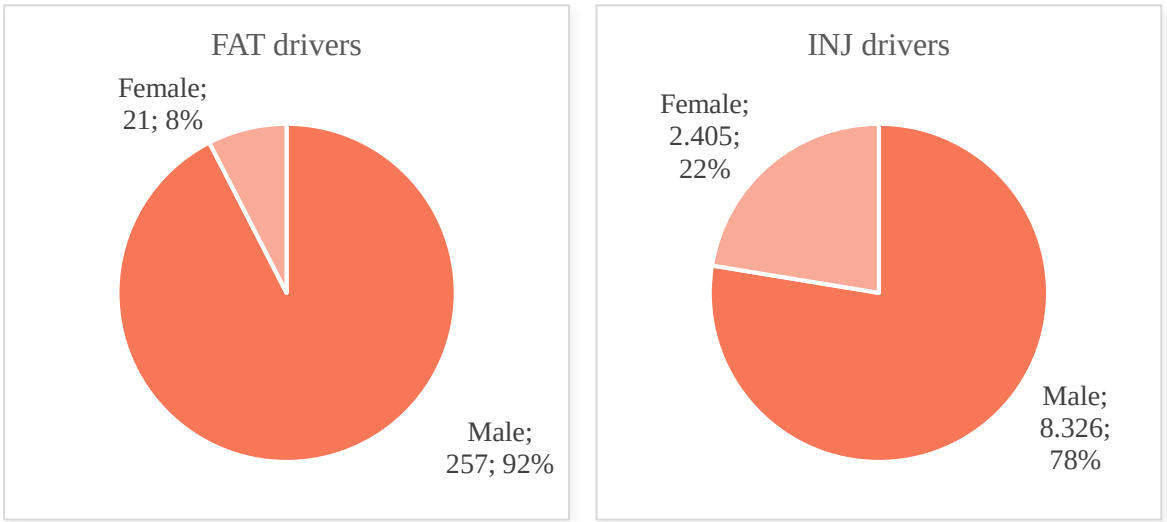


Figure 2-17 Distribution of fatalities and injured persons as drivers according to gender, 2021

Passengers

In the capacity of passengers, men account for 57% of fatalities and 43% of injured persons. In the capacity of passengers, women account for 43% of fatalities and 57% of injured persons (Figure 2-18).

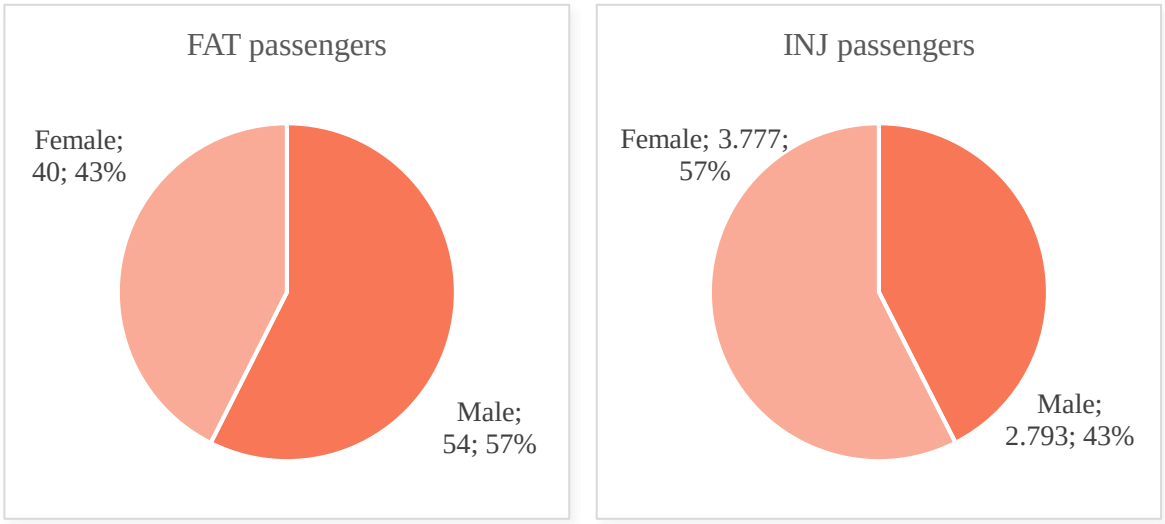


Figure 2-18 Distribution of fatalities and injured persons as passengers according to gender, 2021

Pedestrians

In the capacity of pedestrians, men account for 62% of fatalities and 40% of injured persons. In the capacity of pedestrians, women account for 38% of fatalities and 60% of injured persons (Figure 2-19).

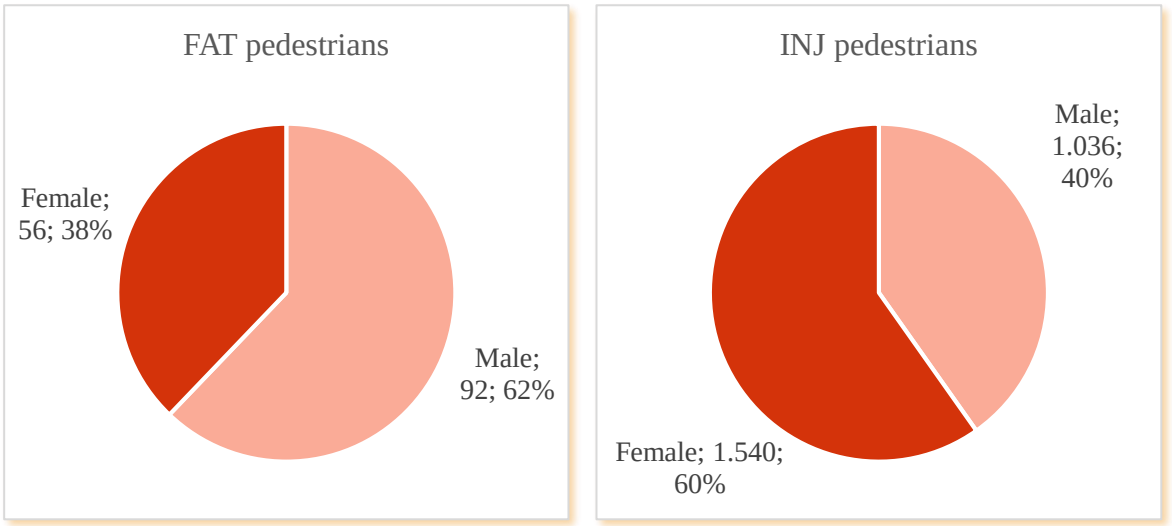


Figure 2-19 Distribution of fatalities and injured persons as pedestrians according to gender, 2021

2.8 Distribution of drivers who participated in road accidents, according to driver's service

Figure 2-20 shows the distribution of all drivers who participated in road accidents with fatalities, according to driver's service. As can be seen, the highest number of drivers in this category had their driver's license for up to three years (79 drivers who participated in road accidents with fatalities).

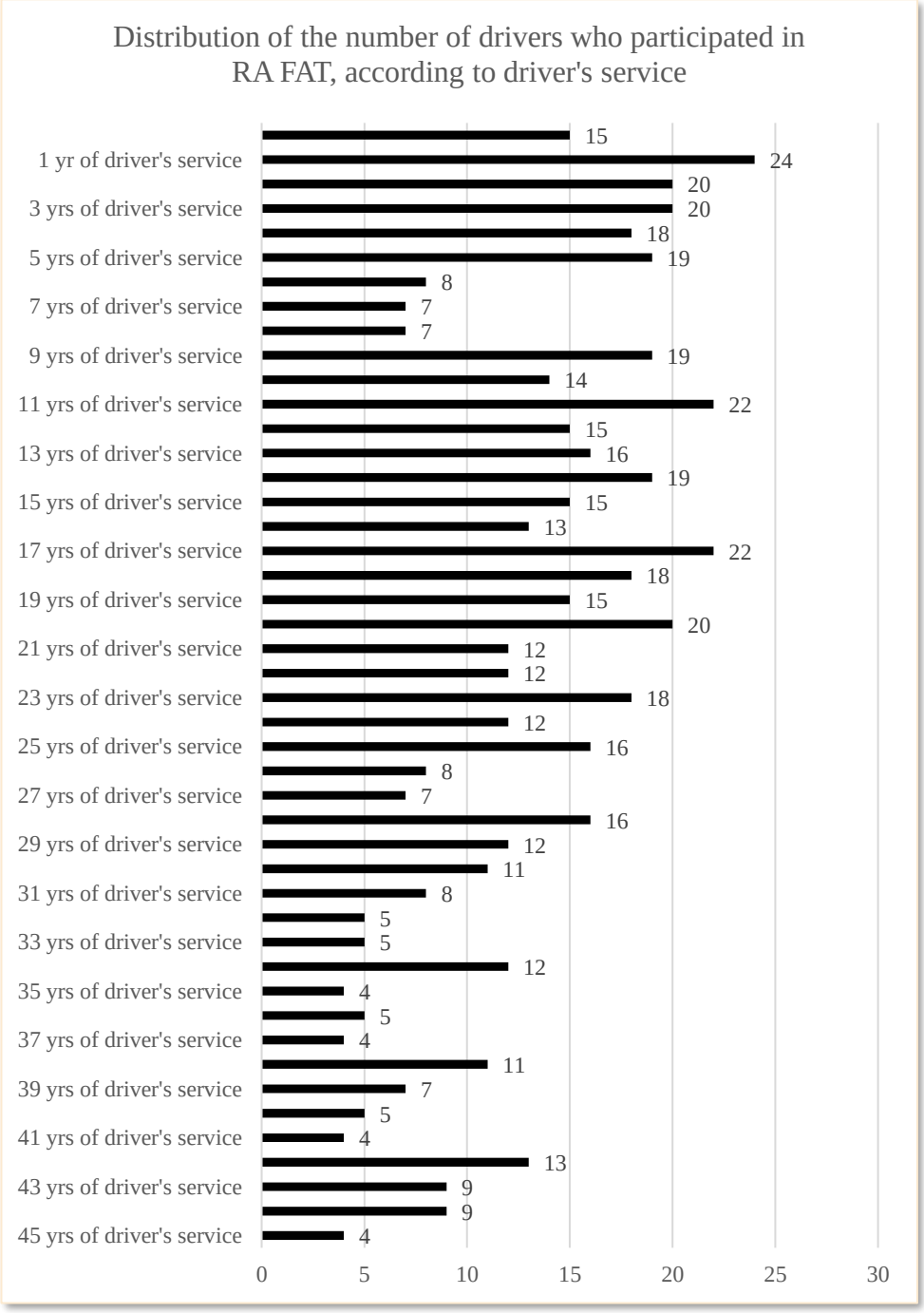


Figure 2-20 Distribution of drivers who participated in RA FAT according to driver's service, 2021

Figure 2-21 shows the distribution of all drivers who participated in road accidents with injured persons, according to driver's service. As can be seen, the highest number of drivers in this category had their driver's license for up to one year. The data highlights the fact that drivers with probationary driver's licenses have predominantly participated in road accidents with injured persons.

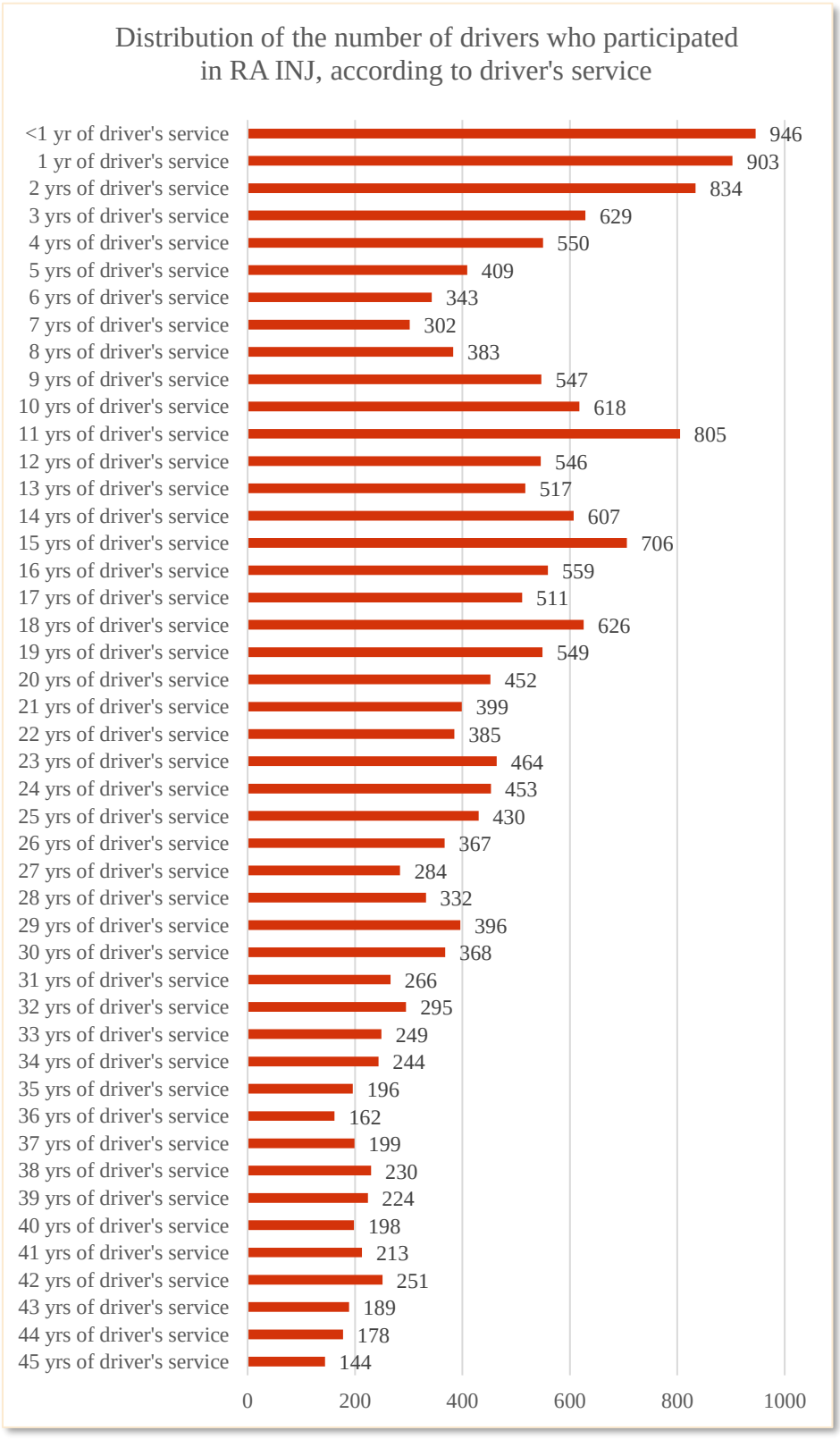


Figure 2-21 Distribution of drivers who participated in RA INJ according to driver's service, 2021

2.9 Monthly distribution of road accidents and consequences

Table 2-11 provides data on the number of road accidents and the number of fatalities, slightly and seriously injured persons, and the total number of injured persons by months during 2021.

Table 2-11 Monthly distribution of road accidents and their consequences, 2021

MONTH	RA FAT	RA INJ	RA MD	RA TOTAL	FAT	SeBI	SlBI	INJ
January	35	890	1,603	2,528	36	216	1,203	1,419
February	20	830	1,382	2,232	20	177	1,041	1,218
March	28	880	1,419	2,327	29	184	1,125	1,309
April	24	988	1,659	2,671	26	234	1,190	1,424
May	41	1,213	1,759	3,013	47	313	1,553	1,866
June	40	1,288	1,796	3,124	45	328	1,566	1,894
July	44	1,300	1,782	3,126	47	356	1,640	1,996
August	55	1,310	1,709	3,074	56	367	1,673	2,040
September	52	1,195	1,808	3,055	54	309	1,447	1,756
October	41	1,163	1,921	3,125	44	285	1,396	1,681
November	51	1,041	1,850	2,942	57	290	1,292	1,582
December	51	1,175	2,136	3,362	60	288	1,432	1,720
TOTAL	**482**	**13,273**	**20,824**	**34,579**	**521**	**3,347**	**16,558**	**19,905**

Figure 2-22 shows the number of road accidents with fatalities and the number of fatalities by months during 2021.

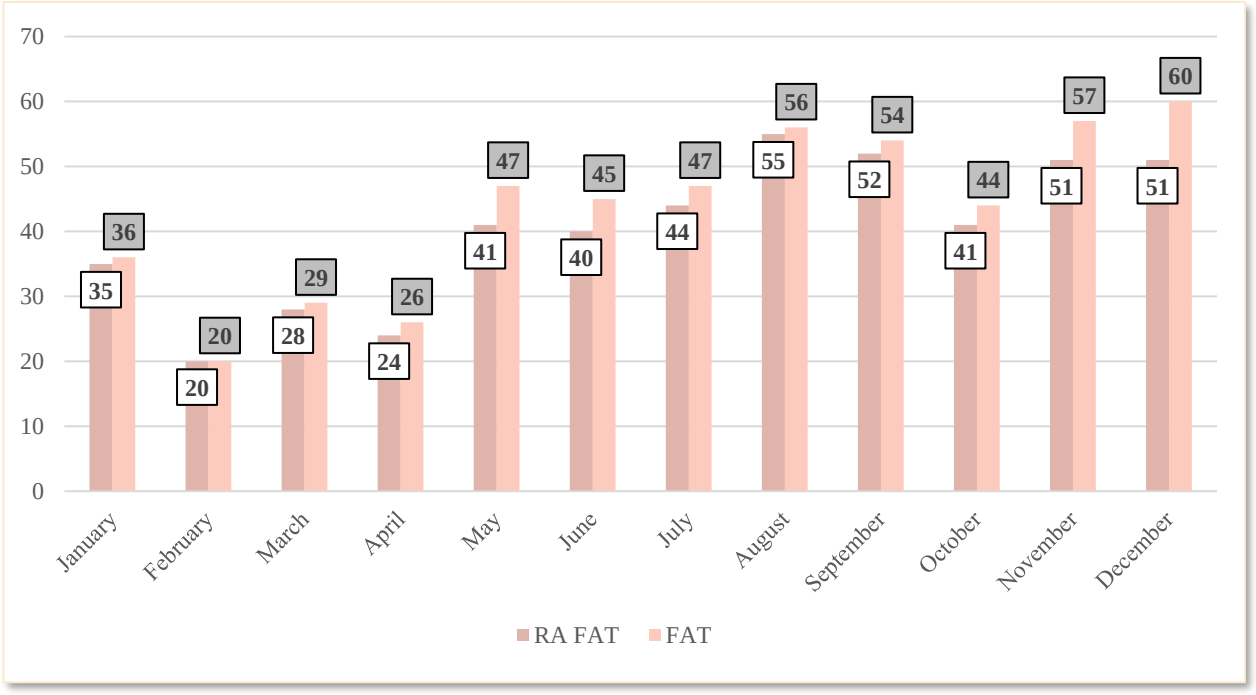


Figure 2-22 Monthly distribution of road accidents with fatalities and the number of fatalities, 2021

As can be seen, the fewest number of fatalities in road accidents had occurred in February (20),April (26) and March (29). The highest number of fatalities had occurred in December (60).

Figure 2-23 shows the number of road accidents with injured persons and the number of injured persons by months during 2021. The fewest number of persons who have suffered injuries in road accidents had occurred in February and March. The highest number of persons who have suffered injuries in road accidents had occurred in the period from May to August (7,796 persons).

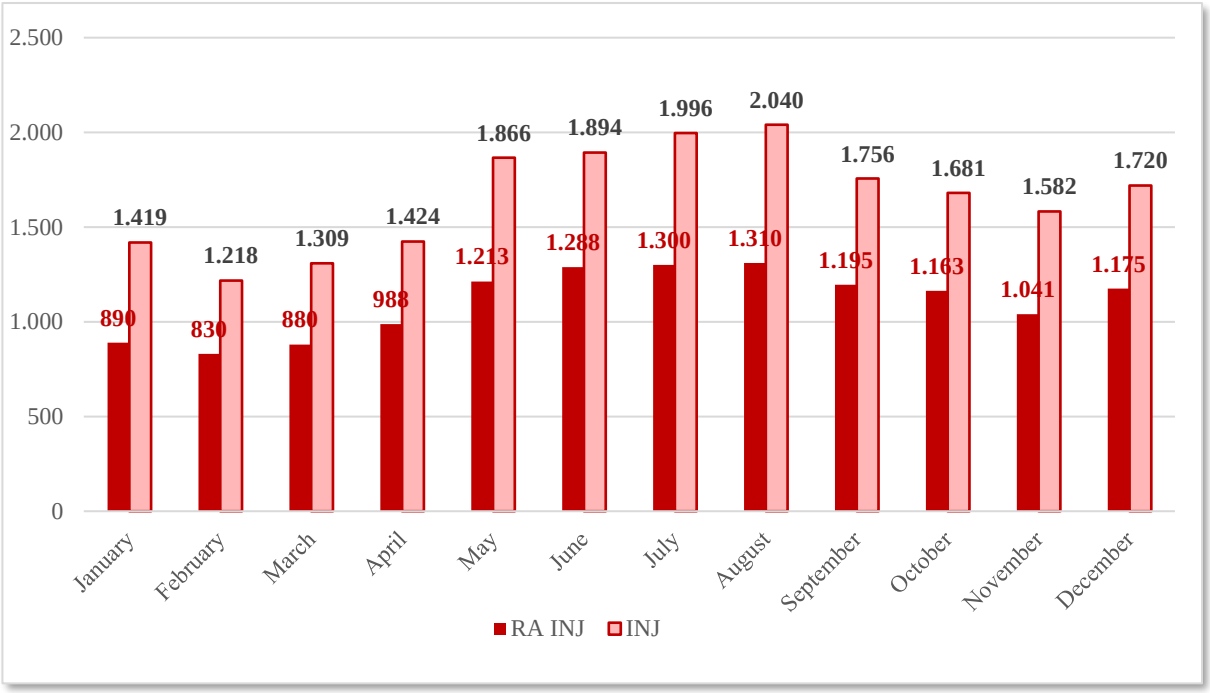


Figure 2-23 Monthly distribution of road accidents with injured persons and the number of injured persons, 2021

2.10 Distribution of road accidents per days of the week

Table 2-12 provides the data on the distribution of road accidents and their consequences, per days of the week, in 2021.

Table 2-12 Distribution of road accidents and their consequences, per days of the week, 2021

DAY	RA FAT	RA INJ	RA MD	RA TOTAL	FAT	SeBI	SlBI	INJ
Monday	69	1,942	3,132	5,143	73	418	2,371	2,789
Tuesday	53	1,811	2,841	4,705	60	441	2,256	2,697
Wednesday	68	1,868	2,982	4,918	70	410	2,190	2,600
Thursday	66	1,894	3,162	5,122	70	481	2,289	2,770
Friday	77	2,209	3,357	5,643	84	576	2,738	3,314
Saturday	82	1,924	2,888	4,894	89	517	2,487	3,004
Sunday	67	1,625	2,462	4,154	75	504	2,227	2,731
TOTAL	**482**	**13,273**	**20,824**	**34,579**	**521**	**3,347**	**16,558**	**19,905**

Figure 2-24 shows the distribution of the number of road accidents with fatalities, per day in the week, in 2021. The fewest number of road accidents with fatalities had occurred on Tuesdays, and the highest on Saturdays.

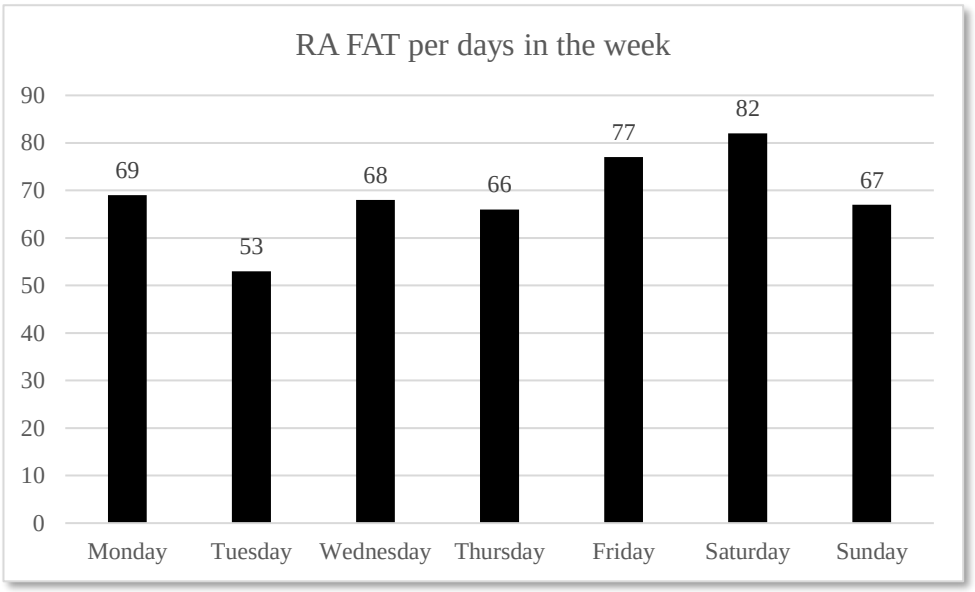


Figure 2-24 Distribution of road accidents with fatalities per days of the week, 2021

Figure 2-25 shows the distribution of the number of road accidents with injured persons, per day in the week, in 2021. As can be seen, the number of road accidents with injured persons is relatively consistent in the first four days of the week, while on Friday it increases and reaches its maximum value. After Friday, the number of road accidents with injured persons decreases, with the fewest number of such accidents occurring on Sundays.

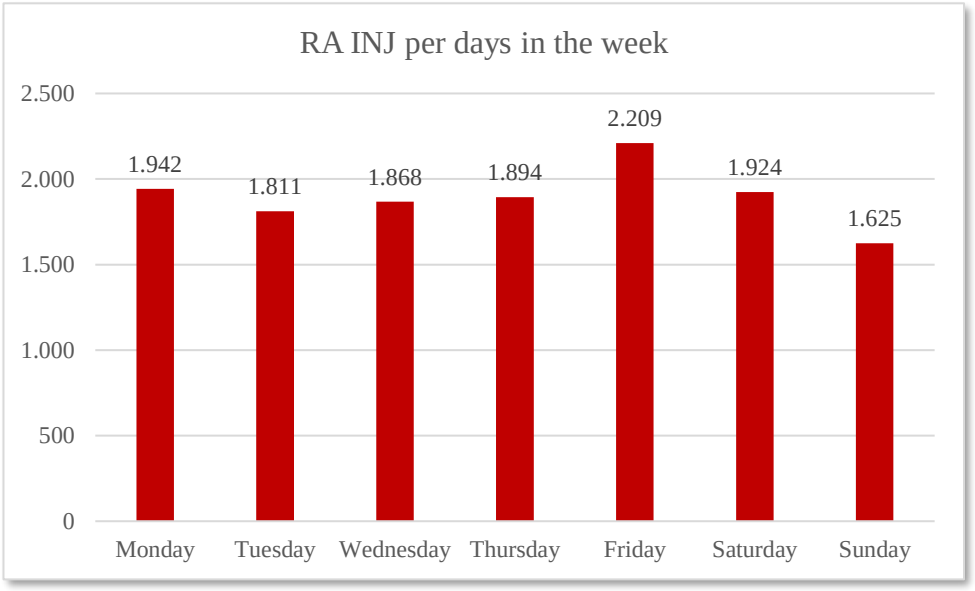


Figure 2-25 Distribution of road accidents with injured persons per days of the week, 2021

2.11 Hourly distribution of road accidents and consequences

Table 2-13 shows the distribution of road accidents and their consequences, per hours during the day, in 2021.

Table 2-13 Hourly distribution of road accidents and consequences, 2021

HOUR RA	RA FAT	RA INJ	RA CAS	RA MD	RA TOTAL	FAT	SeBI	SlBI	INJ	CAS
00:00-00:59	6	208	214	510	724	6	84	304	388	394
01:00-01:59	10	186	196	375	571	12	64	238	302	314
02:00-02:59	8	143	151	336	487	8	53	194	247	255
03:00-03:59	7	111	118	252	370	8	49	136	185	193
04:00-04:59	3	115	118	235	353	3	36	148	184	187
05:00-05:59	7	170	177	234	411	8	64	202	266	274
06:00-06:59	20	378	398	434	832	25	111	463	574	599
07:00-07:59	13	493	506	744	1,250	15	118	610	728	743
08:00-08:59	18	520	538	897	1,435	21	116	590	706	727
09:00-09:59	24	602	626	891	1,517	25	145	686	831	856
10:00-10:59	20	669	689	1,113	1,802	21	161	748	909	930
11:00-11:59	21	806	827	1,214	2,041	21	166	910	1,076	1,097
12:00-12:59	26	869	895	1,278	2,173	27	209	1,094	1,303	1,330
13:00-13:59	18	900	918	1,366	2,284	19	200	1,072	1,272	1,291
14:00-14:59	29	933	962	1,393	2,355	35	211	1,218	1,429	1,464
15:00-15:59	18	894	912	1,378	2,290	20	195	1,137	1,332	1,352
16:00-16:59	41	872	913	1,362	2,275	42	227	1,063	1,290	1,332
17:00-17:59	33	914	947	1,354	2,301	33	239	1,091	1,330	1,363
18:00-18:59	36	841	877	1,140	2,017	37	215	1,068	1,283	1,320
19:00-19:59	29	740	769	1,063	1,832	31	198	888	1,086	1,117
20:00-20:59	34	673	707	1,090	1,797	36	172	925	1,097	1,133
21:00-21:59	26	545	571	848	1,419	31	128	773	901	932
22:00-22:59	22	441	463	760	1,223	22	116	625	741	763
23:00-23:59	13	250	263	557	820	15	70	375	445	460
TOTAL	**482**	**13,273**	**13,755**	**20,824**	**34,579**	**521**	**3,347**	**16,558**	**19,905**	**20,426**

Hourly distribution is very important because it shows the number of accidents and the amount of casualties in parts of the day, while particularly important conclusions can be obtained by hourly analysis of casualties in respect of capacities of road users.

Figure 2-26 shows the distribution of the total number of road accidents and road accidents with casualties, per hours during the day, in 2021.

As can be seen, from 6 a.m. there is an increase in the number of road accidents, and this trend continues until 6 p.m. when it reaches its maximum value. After that, the number of road accidents experiences a slight decline, while after 10 p.m. it drops quite noticeably until 6 a.m.

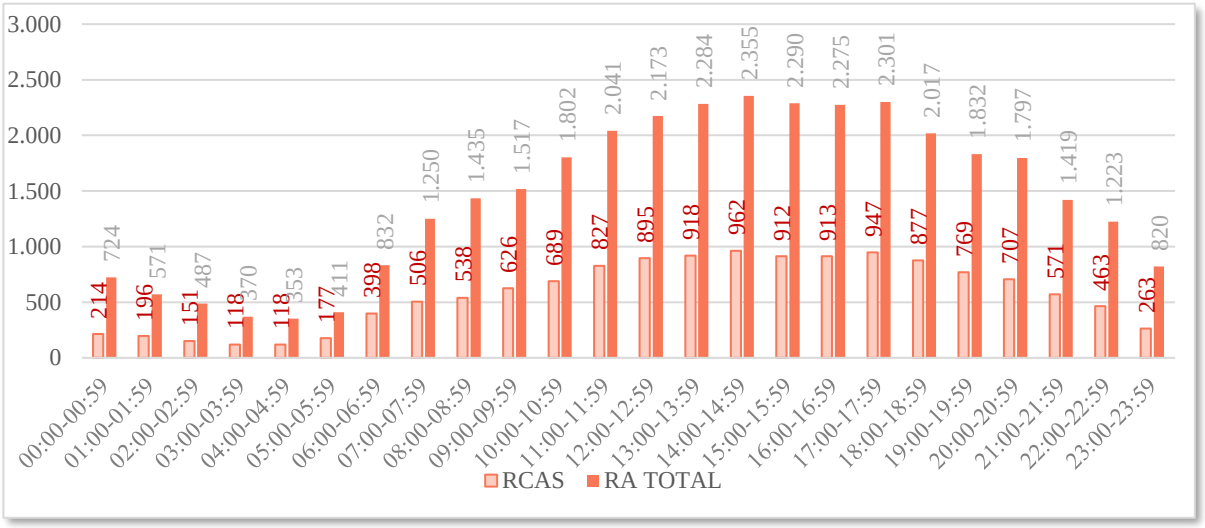


Figure 2-26 Hourly distribution of the total number of road accidents and road accidents with casualties, 2021

Figure 2-27 shows the distribution of killed and injured drivers and passengers, per hours during the day, in 2021. For driver and passenger fatalities during daytime, the period from 4 p.m. to 9 p.m. stands out. In the case of driver and passenger fatalities during night-time, the period from 10 p.m. to 2 a.m. stands out in particular.

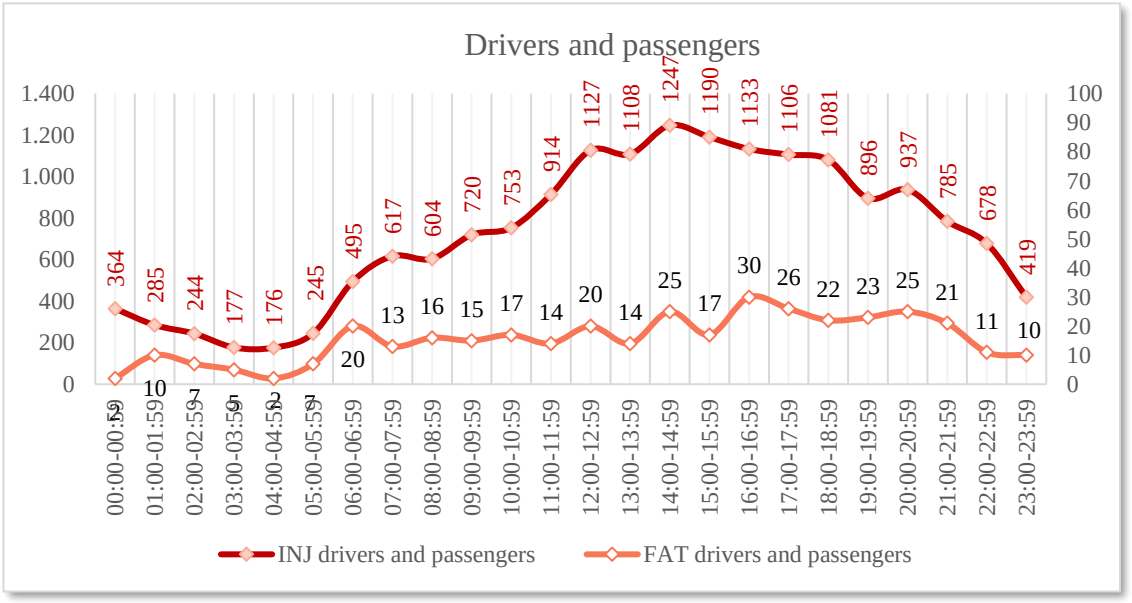


Figure 2-27 Hourly distribution of killed and injured drivers and passengers, 2021

Figure 2-28 shows the distribution of killed and injured pedestrians, per hours during the day, in 2021. When it comes to pedestrian fatalities, the period from 6 p.m. to 7 p.m. stands out.

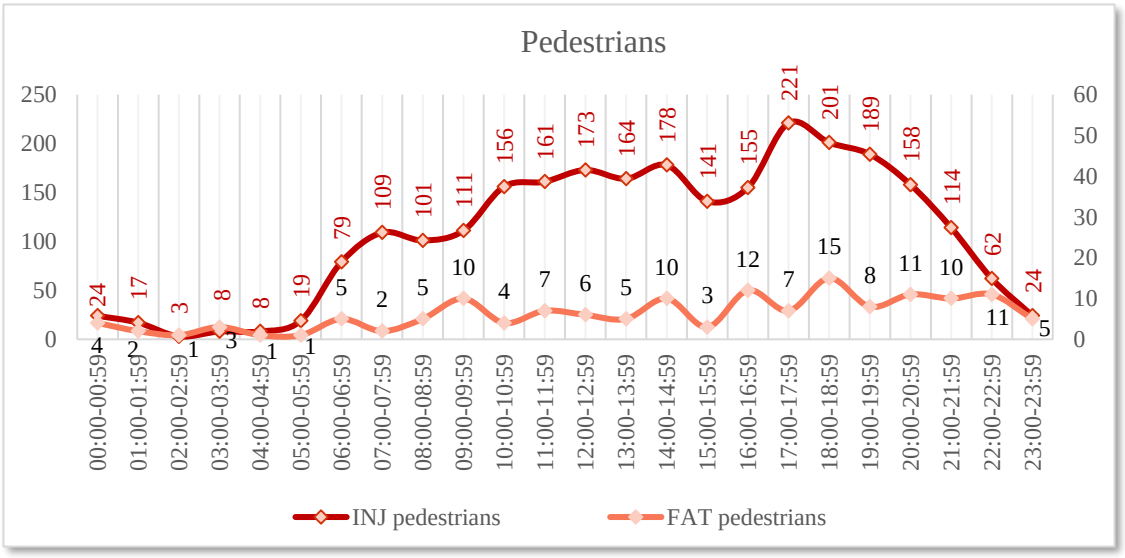


Figure 2-28 Hourly distribution of killed and injured pedestrians, 2021

2.12 Groups of road accident types

Since 2016, the members of the traffic police who are involved in the investigation of road accidents have started recording the data on the **types of road accidents**, which h is one of the novelties introduced in order to harmonize the manner of keeping data on road accidents with the recommendations of the European Commission. All defined types are divided into five so-called "type groups", as follows:

1. Road accidents with a single vehicle;
2. Road accidents with pedestrians;
3. Road accidents with parked vehicles;
4. Road accidents with at least two vehicles – without turning; and
5. Road accidents with at least two vehicles – turning or crossing.

For each road accident, the appropriate type group is defined, followed by a specific type within the selected group. In situations where it is necessary, two type groups can be linked to one road accident, i.e. two specific types within such groups – for example, if two vehicles were involved in a road accident, and there was also overthrowing of pedestrians, the groups *road accidents with at least two vehicles (with or without turning)* and *road accidents with pedestrians* would be selected. For this reason, the total number of defined types of road accidents may be higher than the number of road accidents. Types of road accidents change former forms of road accidents, which were recorded up until 2015.

Below is the distribution of identified groups of road accident types, in respect of road accidents and their consequences, in 2021 (Table 2-14).

Table 2-14 Distribution of identified groups of road accident types, in respect of road accidents and their consequences, in 2021

GROUP OF RA TYPES	RA FAT	RA INJ	RA CAS	RA MD	RA TOTAL	FAT	SeBI	SlBI	INJ	CAS
RA with at least two vehicles – without turning	129	4,171	4,300	6,715	11,015	48	784	6,415	7,199	7,347
RA with at least two vehicles – turning or crossing	69	3,838	3,907	4,604	8,511	77	800	5,349	6,149	6,226
RA with a single vehicle	136	2,608	2,744	4,827	7,571	48	956	2,716	3,672	3,820
RA with parked vehicles	8	335	343	4,687	5,030	10	92	386	478	488
RA with pedestrians	144	2,397	2,541	40	2,581	46	762	1,876	2,638	2,784
TOTAL	**486**	**13,349**	**13,835**	**20,873**	**34,708**	**29**	**3,394**	**16,742**	**20,136**	**20,665**

Figure 2-29 shows the distribution of identified groups of road accidents types, in respect of road accidents with fatalities, in 2021. As can be seen, the most commonly identified group of road accident types was *road accidents with pedestrians* (144); followed by *road accidents with a single vehicle* (136), and *road accidents with at least two vehicles – without turning* (129).

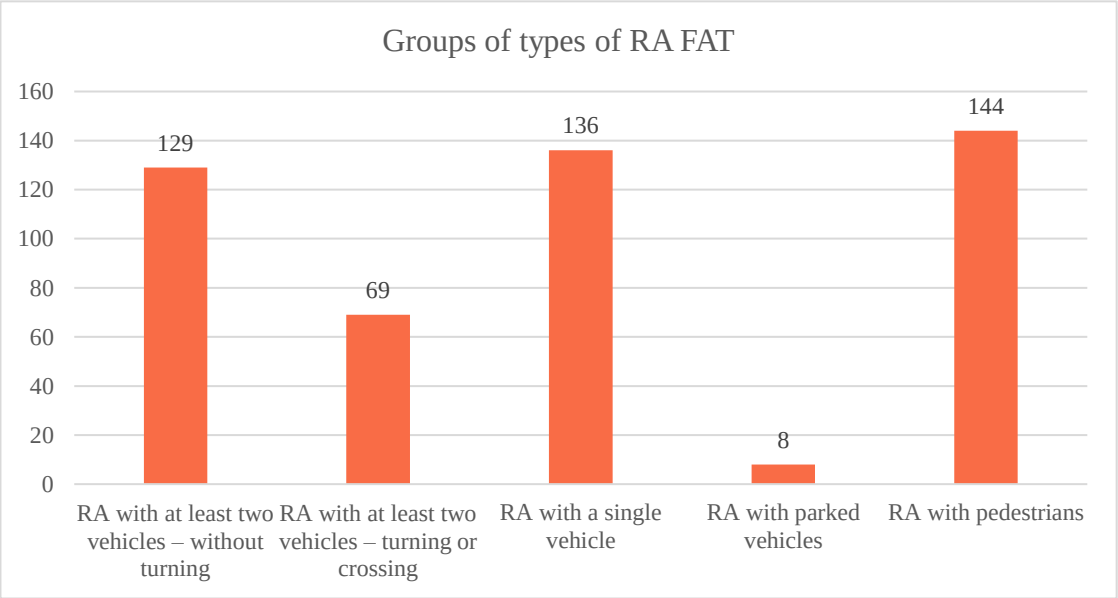


Figure 2-29 Distribution of road accidents with fatalities by groups of road accident types, 2021

Figure 2-30 shows the distribution of identified groups of road accidents types, in respect of road accidents with injured persons, in 2021. In this type of road accidents, the most identified group of road accident types was *road accident with at least two vehicles – without turning* (4.171), followed by *road accidents with at least two vehicles – turning or crossing* (3.838), *road accidents with a single vehicle* (2.608) and finally *road accidents with pedestrians* (2.397).

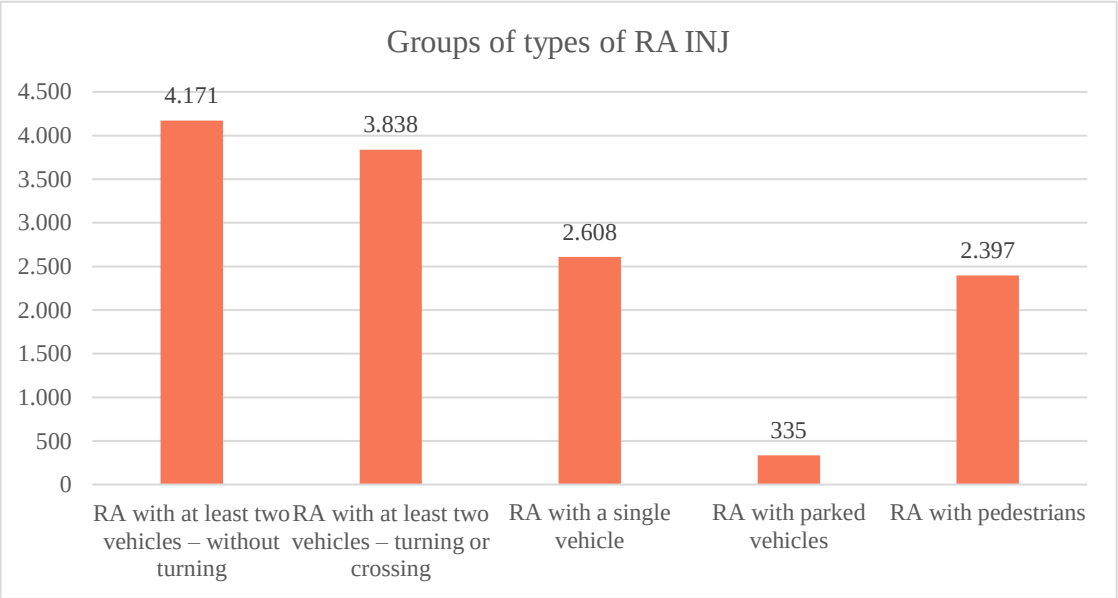


Figure 2-30 Distribution of road accidents with injured persons by groups of road accident types, 2021

Below is the distribution of the most common types for each of groups of road accidents types, in respect of road accidents with fatalities.

The most commonly selected type from the type group *road accidents with a single vehicle*, in respect of road accidents with fatalities, is *accident with a single vehicle – going off-road to the right from the route* (34) and *accident with a single vehicle – going off-road to the left from the route* (29), followed by *accident with a single vehicle – going off-road at a turn* (26) and *accident with a single vehicle and overturning* (22) (Figure 2-31).

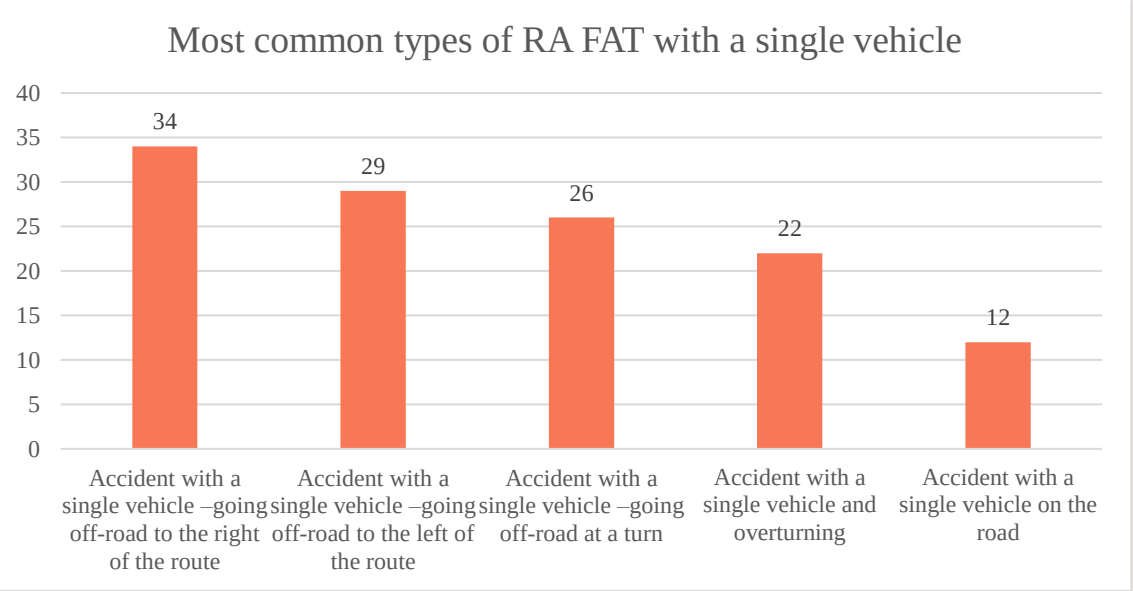


Figure 2-31 Distribution of the most common types of road accidents with fatalities from the group of RA types with a single vehicle, 2021

The most commonly selected type from the type group (Figure 2-32) *road accidents with two vehicles – without turning*, in respect of road accidents with fatalities – is *frontal collision* (56), followed by *catching-up* (36), *opposite directions without turning* (18) and *overtaking* (10).

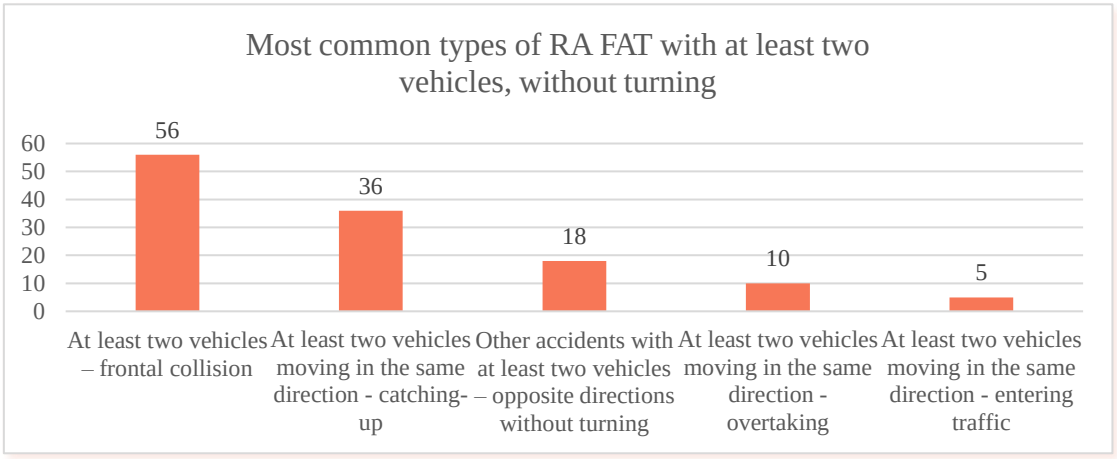


Figure 2-32 Distribution of the most common types of road accidents with fatalities from the group of RA types in which two vehicles participated without turning , 2021

The most commonly selected type from the type group *road accidents with pedestrians*, in respect of road accidents with fatalities, is the *pedestrian crossing from the right, off the intersection, without turning of the vehicle* (24) and *pedestrian crossing from the left, off the intersection, without turning of the vehicle* (22), followed by *pedestrian moving along the road in the direction of movement of the vehicle* (21), *pedestrian - other situations* (19), *pedestrian crossing from the right, at the intersection, without turning of the vehicle* (9), *pedestrian standing or moving, with the vehicle reversing* (8), *pedestrian crossing the road, off the intersection, without turning of the vehicle* (8) and *pedestrian crossing from the left, at the intersection, without turning of the vehicle* (6) (Figure 2-33).

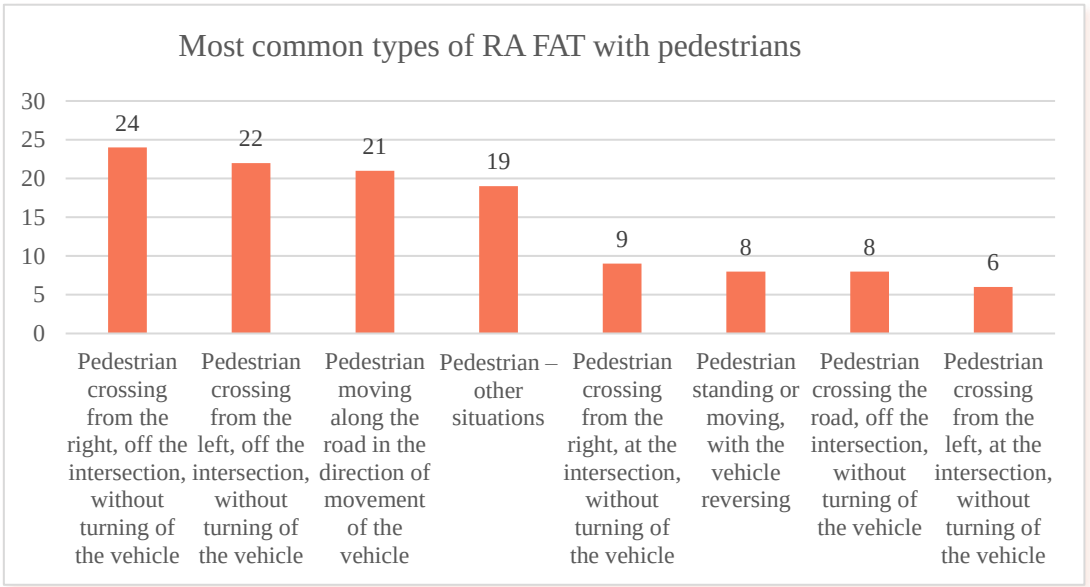


Figure 2-33 Distribution of the most common types of road accidents with fatalities from the group of RA types with pedestrians, 2021

The most commonly selected type from the type group *road accidents with at least two vehicles – vehicle turning or crossing*, in respect of road accidents with fatalities, are *at least two vehicles moving on the same road in opposite directions, turning left in front of another vehicle* (22), followed by *at least two vehicles moving on different roads with passing through the intersection, or with one vehicle crossing over the road, without turning* (10) and *at least two vehicles moving on different roads with turning left, and with coming of the vehicle from the left* (10) (Figure 2-34).

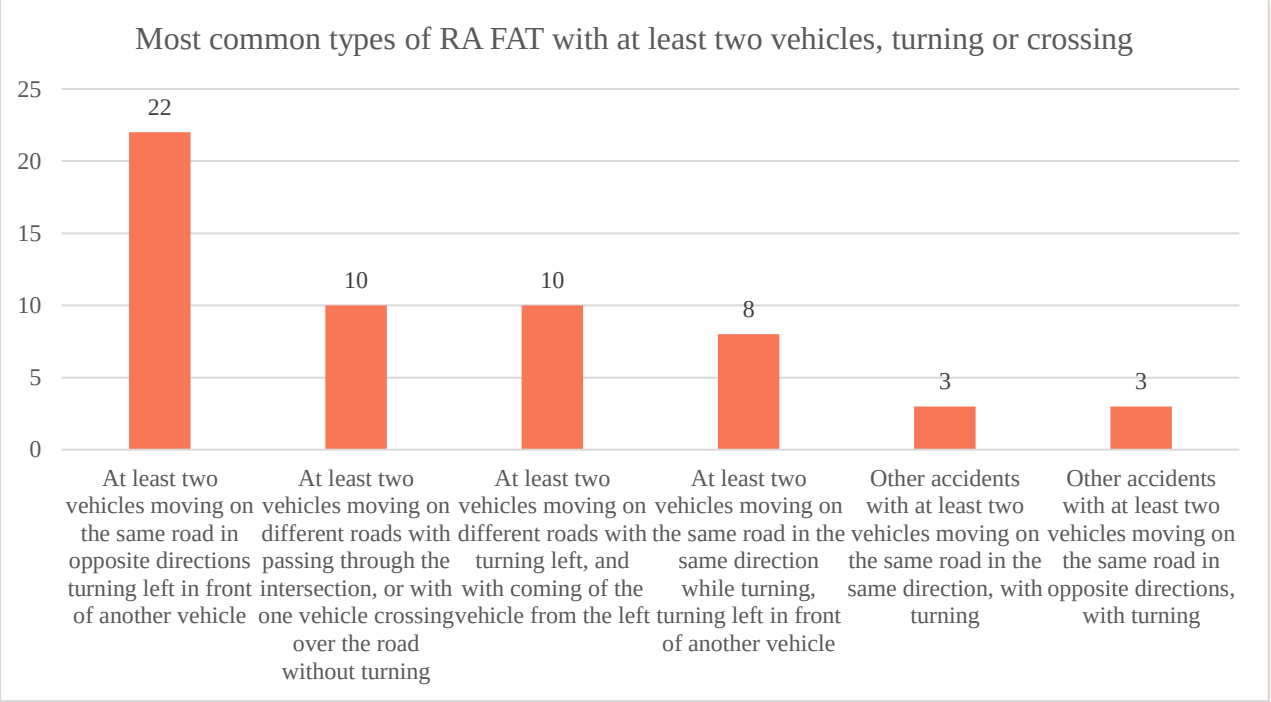


Figure 2-34 Distribution of the most common types of road accidents with fatalities from the group of RA types in which two vehicles participated with turning or crossing , 2021

The most commonly selected type from the type group *road accidents with parked vehicles*, in respect of road accidents with fatalities, is *collision with a parked vehicle on the right side of the road* (4), followed by *collision with a parked vehicle on the left side of the road* (2), *collision with a parked vehicle - either from the left or from the right side of the road* (1) and *other collisions with a parked vehicle* (1) (Figure 2-35).

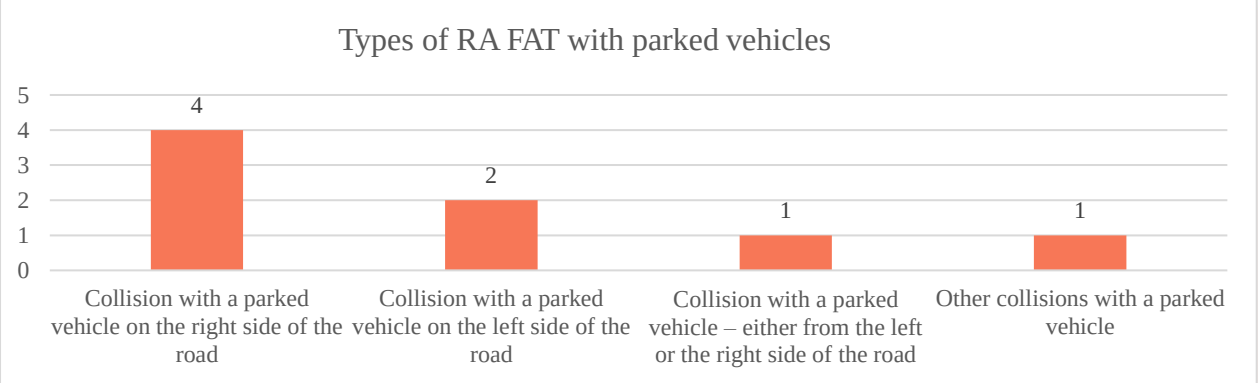


Figure 2-35 Distribution of the most common types of road accidents with fatalities from the group of RA types with parked vehicles, 2021

2.13 Groups of influential factors of road accidents

Evaluation of influential factors is one of the novelties in the management of data on road accidents, which was introduced in 2016. Namely, according to the new model, for each road accident, **all influential factors** for which the police officer performing the investigation **assesses that they have influenced the occurrence** of a specific road accident, are to be recorded. Unlike the previous "causes" of road accidents, where one cause was most commonly selected while many other factors were often neglected, according to the new model, the police officer has much more room to assess the overall situation, and to list a number of factors, if he believes that they have influenced the occurrence of a specific road accident in some way.

A total of 84 influential factors have been defined, which are classified into nine groups (Table 2-15). The first group consists of influential factors related to **the road and the road environment**, the second group consists of influential factors related to **vehicle malfunction**, groups III-VII consist of influential factors related to **drivers**, group VIII consists of influential factors related to **omissions made by the pedestrians**, and group IX includes **special cases**.

Table 2-15 Groups of influential factors

Group	Group of influential factors
Group I	Influence of the road and road environment
Group II	Influence of vehicle malfunction
Group III	Undertaking of reckless actions by the driver
Group IV	Incorrect performance of traffic actions by the driver
Group V	Omissions made by the driver due to poor psycho-physical condition, negligence, absent-mindedness
Group VI	Omissions made by the driver due to inexperience, inappropriate and improper behaviour
Group VII	Omissions made by the driver due to inadequate visibility, transparency, or complete vision of the road and traffic
Group VIII	Omissions made by the pedestrians
Group IX	Special cases

Considering that a number of influential factors can be recorded for a single road accident (multiple influential factors from the same group can be recorded), the total number of influential factors may be greater than the number of road accidents.

Table 2-16 shows the distribution of identified groups of influential factors for different types of road accidents (regardless of whether one or more influential factors for a particular group of influential factors were selected for a specific road accident). Namely, for each of **the groups of influential factors**, the fact relating to the number of individual accidents, in which such group of influential factors has been identified, is given.

Table 2-16 Distribution of identified groups of influential factors in road accidents, 2021

GROUP OF INFLUENTIAL FACTORS RA	RA FAT	RA INJ	RA MD
Undertaking of reckless actions by the driver	307	8,644	7,899
Incorrect performance of traffic actions by the driver	205	5,382	11,906
Omissions made by the driver due to poor psycho-physical condition, negligence, absent-mindedness	106	2,061	2,053
Omissions made by the pedestrians	77	751	24
Influence of the road and road environment	67	845	1,745
Omissions made by the driver due to inexperience, inappropriate and improper behaviour	61	960	882
Omissions made by the driver due to inadequate visibility, transparency, or complete vision of the road and traffic	54	704	433
Influence of vehicle malfunction	30	211	191
Special cases	16	458	761
TOTAL	**923**	**20,016**	**25,894**

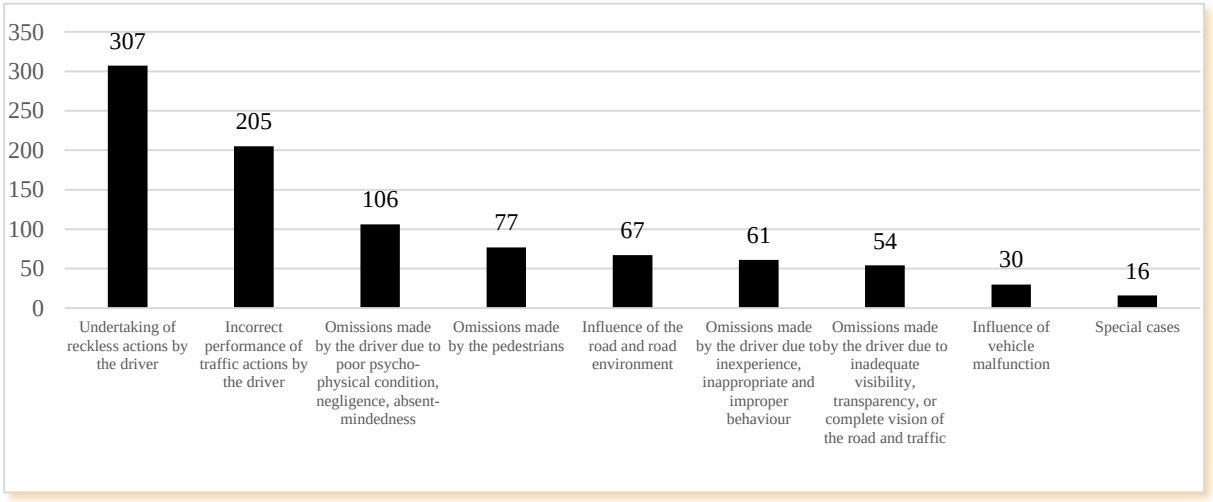


Figure 2-36 Distribution of identified groups of influential factors in road accidents with fatalities 2021

In 2021, out of the total number of road accidents with fatalities, the group *undertaking of reckless actions by the driver* was identified in 307 cases (64%); the group *incorrect*

performance of traffic actions by the driver was identified in 205 cases (43%); the group *omissions made by the driver due to poor psycho-physical condition, negligence, absent-mindedness* was identified in 106 cases (22%); the group *omissions made by the pedestrians* was identified in 77 cases (16%); the group *influence of the road and road environment* was identified in 67 cases (14%); the group *omissions made by the driver due to inexperience, inappropriate and improper behaviour* was identified in 61 cases (13%); the group *omissions made by the driver due to inadequate visibility, transparency, or complete vision of the road and traffic* was identified in 54 cases (11%); the group *influence of vehicle malfunction* was identified in 30 cases (6%); and the group *special cases* was identified in 16 cases (3%) (Figure 2-36).

2.14 The most common influential factors in each of the groups of influential factors, for road accidents with fatalities

Below is the distribution of the most commonly identified influential factors in road accidents with fatalities in 2021, for each of the groups of influential factors, respectively.

In the group of influential factors *influence of the road and road environment*, the most commonly identified influential factor was *the influence of the road layout* (19), followed by *slippery road due to weather conditions* (18), *inadequate/non-existent or insufficiently visible traffic signalization and/or road equipment* (16), *poor or inadequately maintained road* (12) and *lack of pavement in the settlement* (9) (Figure 2-37).

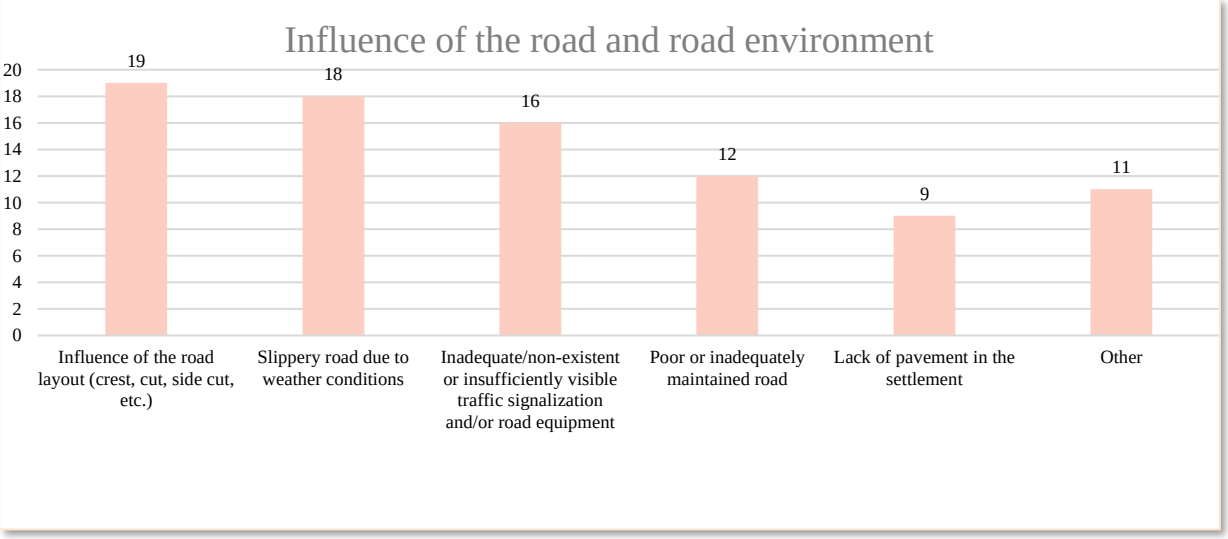


Figure 2-37 The most common influential factors from the group Influence of the road and the road environment, in road accidents with fatalities, 2021

The item "*Other*" presented in the figures is the sum of influential factors with fatalities whose representation is significantly lower compared to the others shown.

In the group of influential factors *influence of vehicle malfunction*, the most commonly identified influential factors were *malfunctioning lights or direction indicators* (15) and *other malfunctions on the vehicle* (8), followed by *malfunction of the stopping device* (7), *inadequate, defective or poorly inflated tires* (3) and *inadequately marked auxiliary vehicle* (2) (Figure 2-38).

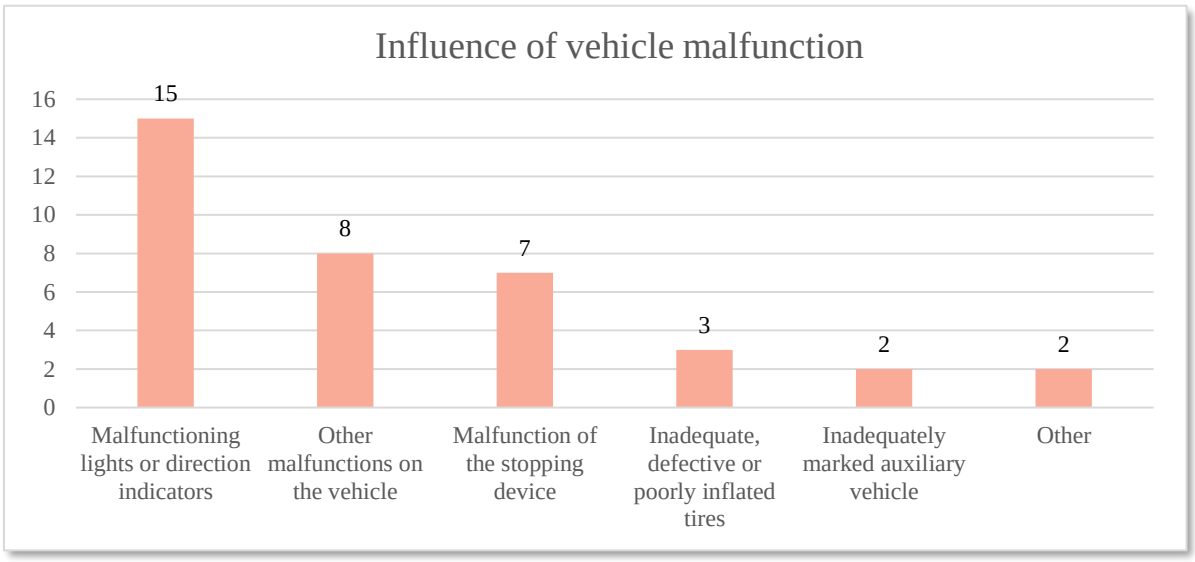


Figure 2-38 The most common influential factors from the group Influence of vehicle malfunction, in road accidents with fatalities, 2021

In the group of influential factors *undertaking of reckless actions by the driver*, the most commonly identified influential factor was *unadjusted speed to traffic conditions and road condition* (195) (Figure 2-39).

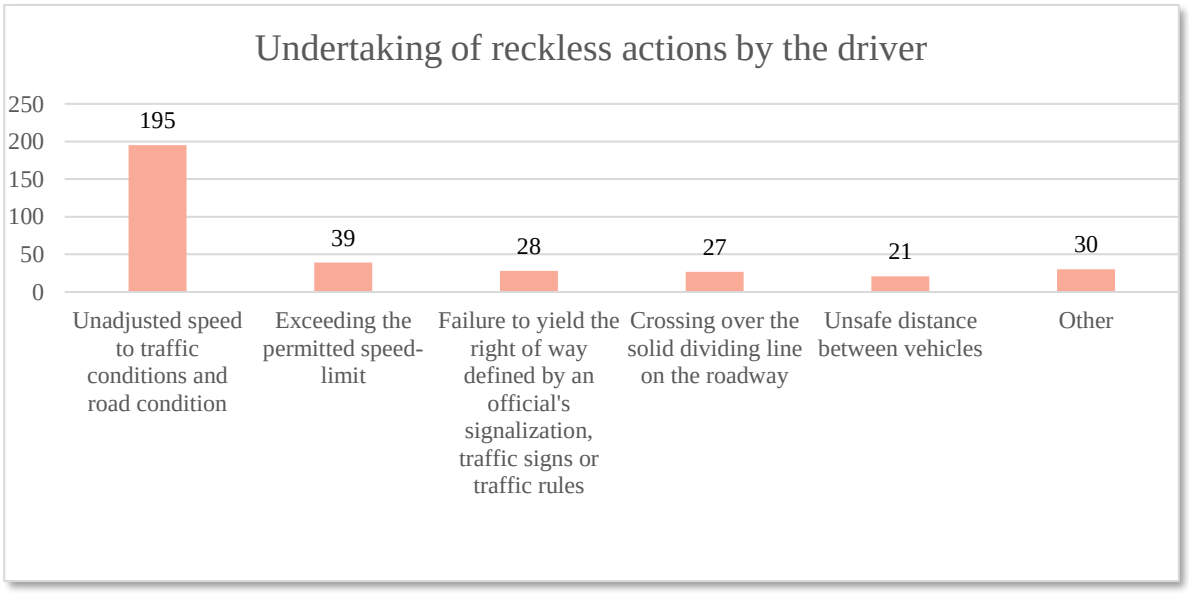


Figure 2-39 The most common influential factors from the group Undertaking of reckless actions by the driver, in road accidents with fatalities, 2021

In the group of influential factors, *incorrect performance of traffic actions by the driver*, the most commonly identified influential factors were *omissions made by the driver in regards to incorrect viewing of the traffic situation* (106) and *loss of control of the vehicle* (71) etc. (Figure 2-40).

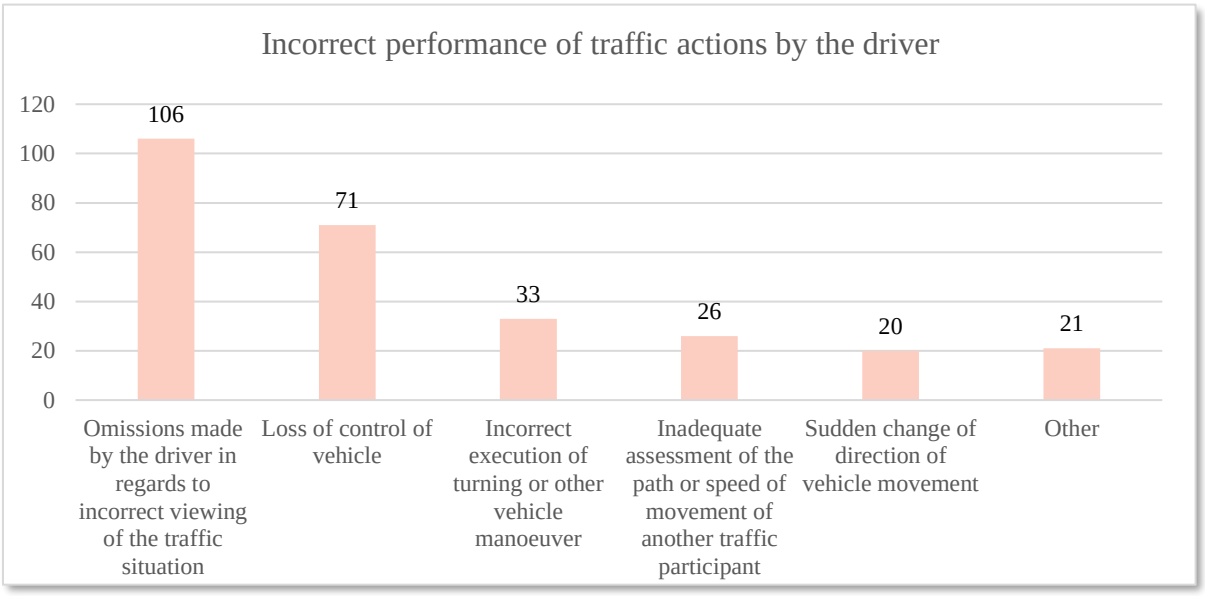


Figure 2-40 The most common influential factors from the group Incorrect performance of traffic actions by the driver, in road accidents with fatalities, 2021

In the group of influential factors *omissions made by the driver due to poor psycho-physical condition, negligence, absent-mindedness*, the most commonly identified influential factor was *driver under the influence of alcohol* (68). This means that alcohol had contributed to the occurrence of more than 14% of road accidents with fatalities, i.e. it influenced the occurrence of nearly every seventh road accident with fatalities (Figure 2-41).

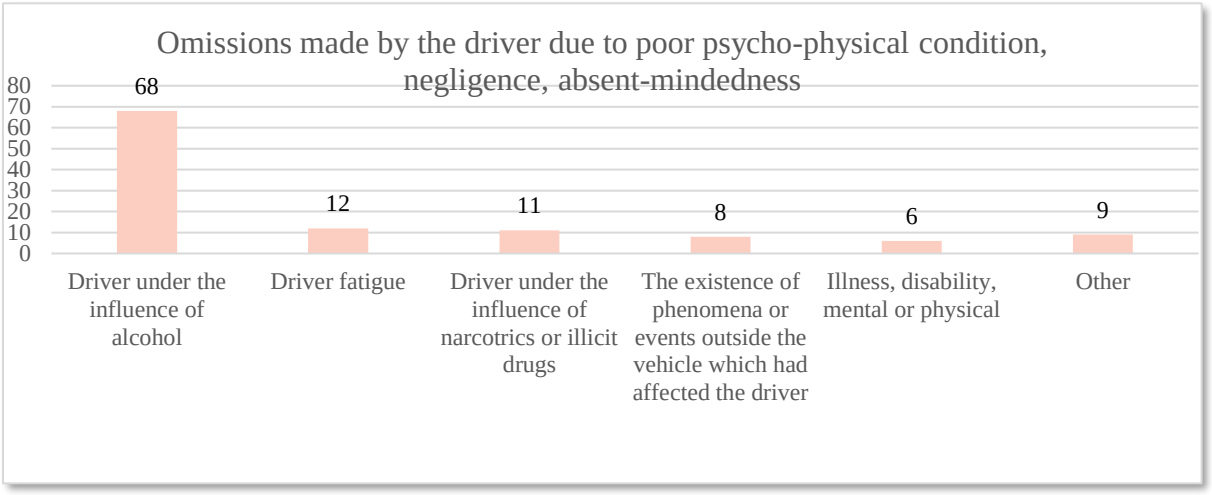


Figure 2-41 The most common influential factors from the group Omissions made by the driver due to poor psycho-physical condition, negligence, absent-mindedness, in road accidents with fatalities, 2021

In the group of influential factors *omissions made by the driver due to inexperience, inappropriate and improper behaviour*, the most commonly identified influential factor was *inexperience of the driver which contributed to the accident* (37), followed by *careless, reckless and fast driving* (27) (Figure 2-42).

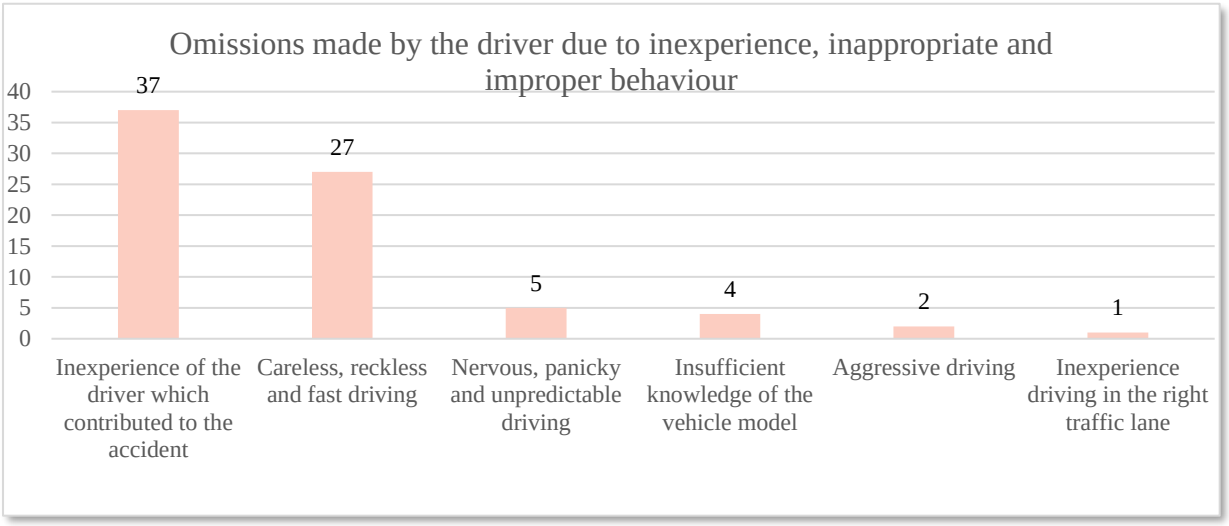


Figure 2-42 The most common influential factors from the group Omissions made by the driver due to inexperience, inappropriate and improper behaviour, in road accidents with fatalities, 2021

In the group of influential factors *Omissions made by the driver due to inadequate visibility, transparency, or complete vision of the road and traffic*, the most commonly identified influential factor was *influence of rain, sleet, snow, fog, smoke etc. on the visibility of the driver* (23), followed by *influence of the road layout on driver's visibility (crests, curves, etc.)* (16) and *influence of headlights of the oncoming vehicle (blinding of the driver)* (6) (Figure 2-43).

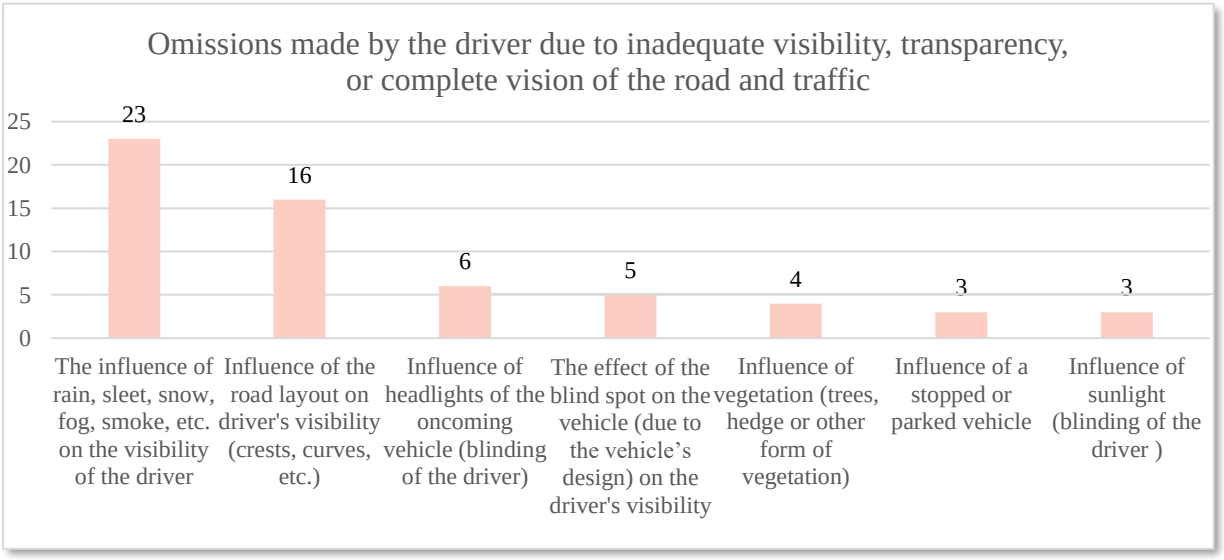


Figure 2-43 The most common influential factors from the group Omissions made by the driver due to inadequate visibility, transparency, or complete vision of the road and traffic, in road accidents with fatalities, 2021

In the group of influential factors, *omissions made by the pedestrians*, the most commonly identified influential factor was *incautiously stepping onto the pedestrian crossing, without previously making sure that such action could be done safely* (41), followed by *influence of dark pedestrian clothing on the occurrence of road accident* (28) (Figure 2-44).

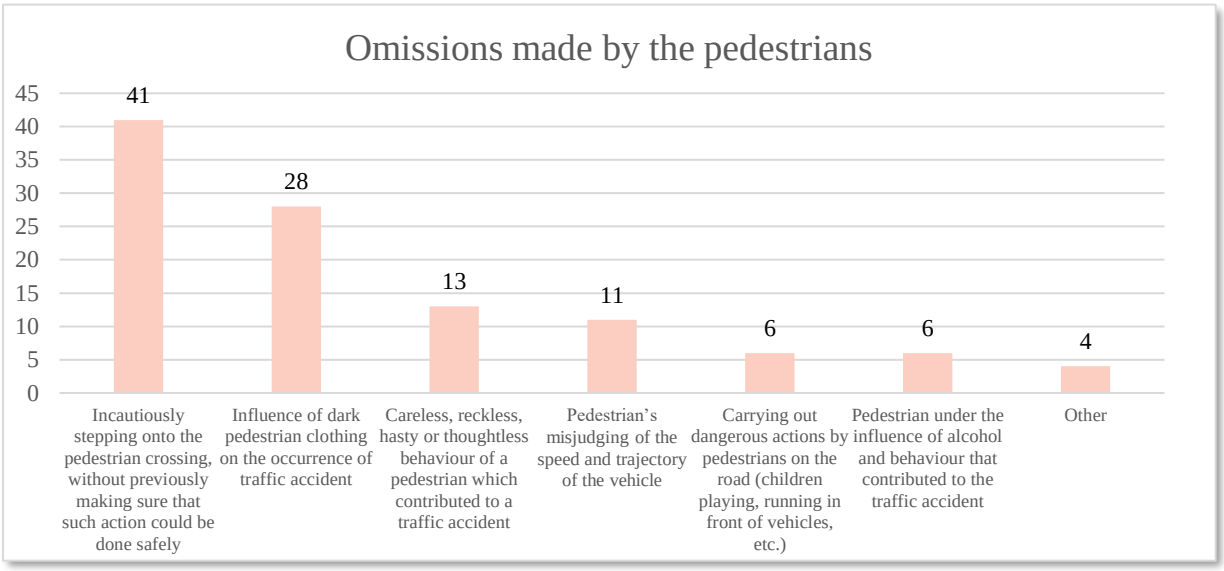


Figure 2-44 The most common influential factors from the group Omissions made by the pedestrians, in road accidents with fatalities, 2021

In the group of influential factors *special cases*, the most commonly identified influential factor was *dropping out or falling of a person off/from a moving vehicle, including injuries to passengers in public transport* (3), followed by *road accidents involving emergency services vehicles during their operation* (1), not counting *other factors that cannot be joined with the aforementioned factors, but have influenced the occurrence of a road accident* (12) (Figure 2-45).

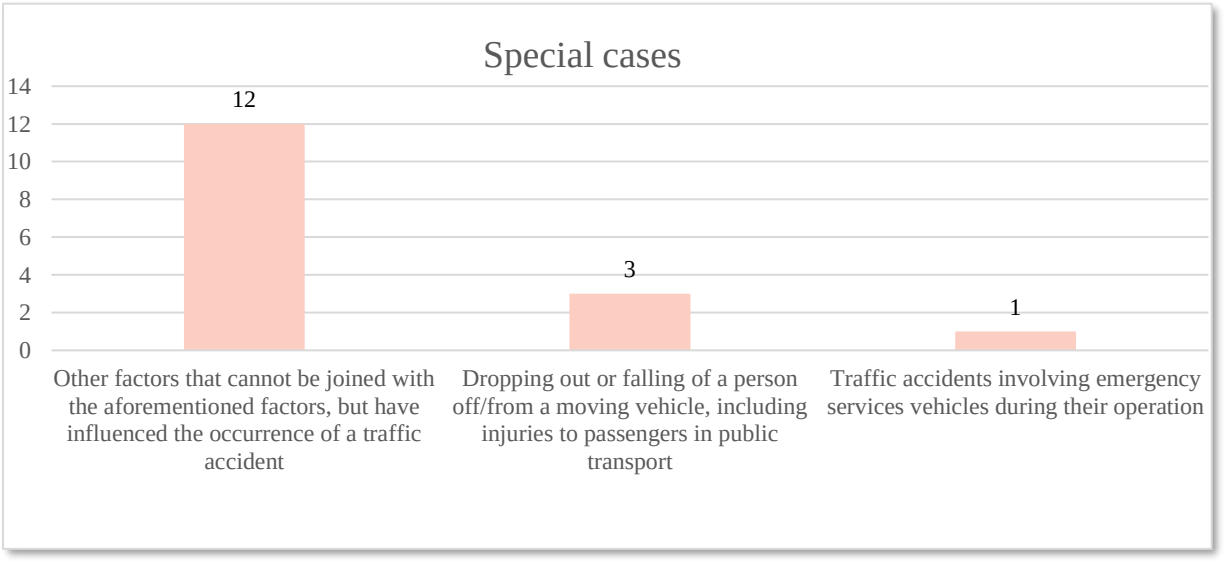
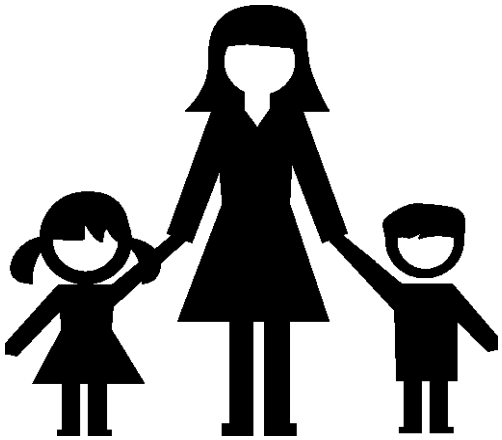


Figure 2-45 The most common influential factors from the group Special cases, in road accidents with fatalities, 2021

Republic of Serbia
Road Traffic Safety Agency

General analysis of casualties concerning children (0-14 years of age)



Road Traffic Safety Agency
Republic of Serbia

3 General analysis of casualties concerning children of up to 14 years of age

Children represent one of the most vulnerable categories of road users, primarily because they do not possess developed psychophysical abilities like adults do. Children do not possess enough experience or knowledge about safe traffic participation. The adopted rules of safe behaviour in children are particularly important for children pedestrians and children cyclists, while for children passengers in the vehicle, both safe behaviour and awareness of the significance of safe behaviour in traffic of their parents are equally important. Children, according to the recommendations of the World Health Organization, are considered to be all persons under the age of 14, including persons who are 14 years, 11 months and 30 days old.

The Statistical Report shows the number of killed and injured children by age in the period from 2011 to 2021, as well as basic data on the state of safety of children in traffic in 2021: distribution in terms of traffic participation, distribution of children fatalities depending on vehicle category, gender distribution, by capacity and gender, age distribution of children fatalities by age and sex, monthly distribution and hourly distribution of children casualties.

By analysing the number of children fatalities in road accidents in the period from 2011 to 2021 (Figure 3-1), it can be noticed that the highest number of children fatalities had occurred in 2011 (20). After 2011, a downward trend in respect of the number of children fatalities was established, which lasted until 2014, when a total of ten (10) children were killed. In the period from 2015 onwards, the number of children fatalities had fluctuated, only for this number to reach 10 children fatalities again in 2019. In 2021, there was a slight decrease in the number of children fatalities (11 children fatalities) compared to 2020.

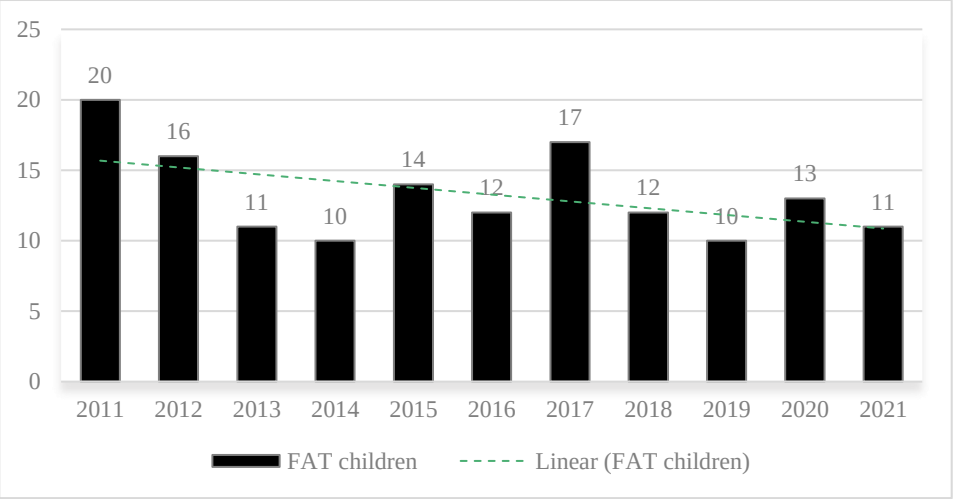


Figure 3-1 Number of children fatalities aged 0-14 years, in the period from 2011 to 2021

In the previous ten-year period, the highest number of injured children had occurred in 2011 (1,640), after which a downward trend in respect of the number of injured children in road accidents was established, which lasted until 2015, when 1,465 children have suffered injuries in this regard. In 2016, there was an increase in the number of injured children to 1,638. Since then, a downward trend in the number of injured children has been established, until 2020, when the fewest number of children have suffered injuries (1,127). In 2021, a total of 1,322 children have been injured, which is 195 more children than in 2020 (Figure 3-2).

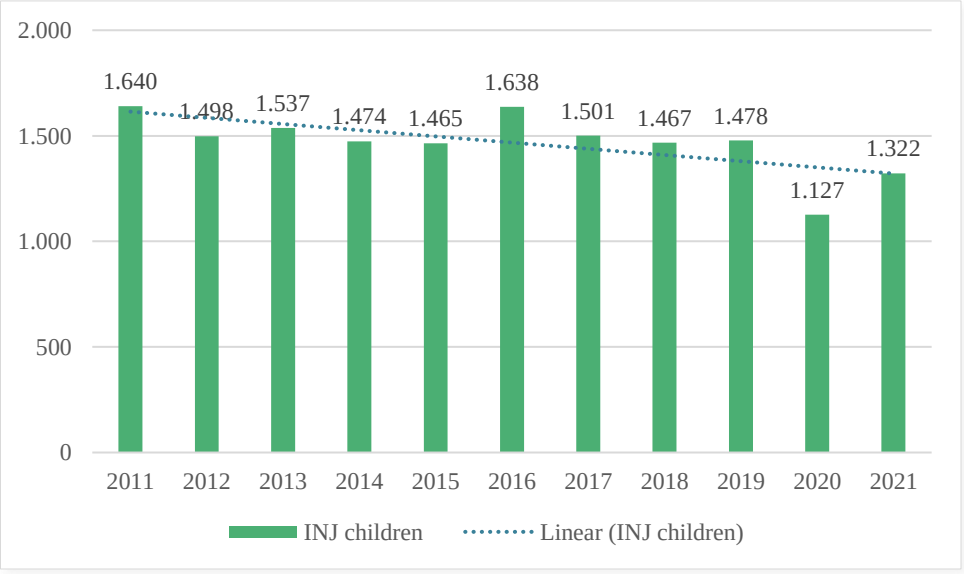


Figure 3-2 Number of injured children aged 0-14 years, in the period from 2011 to 2021

Table 3-1 shows the number of fatalities, seriously injured, slightly injured and totally injured children in 2021, according to the capacity of their traffic participation. In 2021, a total of 11 children fatalities have occurred, most of whom were killed as passengers in a vehicle (5), followed by their capacity as pedestrians (5), while one child was killed as a cyclist. In 2021, a total of 169 children have suffered serious bodily injuries, with the majority of children having participated in traffic in their capacity as pedestrians (79), passengers (57), and cyclists (30). The most of slight bodily injuries suffered by children had occurred in their capacity as passengers (719), pedestrians (321), and cyclists (99).

Table 3-1 Number of FAT, SeBI, SlBI and INJ in respect of children by their traffic participation capacity, in 2021

CAPACITY	FAT children	SeBI children	SlBI children	INJ children
Passenger	**5**	**57**	**719**	**776**
Pedestrian	**5**	**79**	**321**	**400**
Cyclist	**1**	**30**	**99**	**129**
Driver of moped	**0**	**2**	**9**	**11**
Other	**0**	**1**	**5**	**6**
TOTAL	**11**	**169**	**1,153**	**1,322**

Children pedestrians make up 45.5% of children fatalities, children passengers make up 45.5%, while 9% of children were killed in their capacity as cyclists (Figure 3-3).

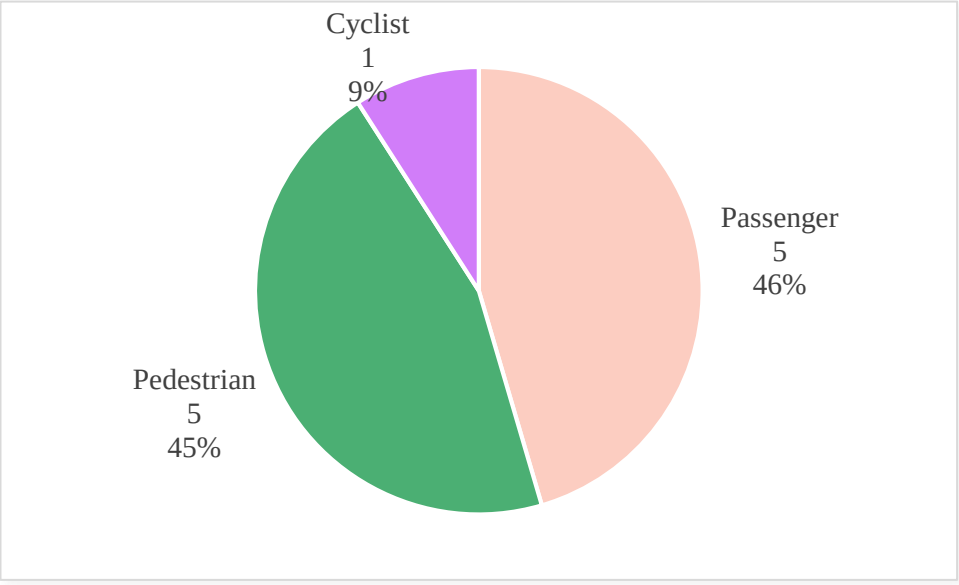


Figure 3-3 Capacities of children fatalities in road accidents, 2021

In Table 3-2, it can be noticed that one child had been killed in its capacity as cyclist. Five children were killed as passengers, of which four children in a passenger vehicle and one on a motorcycle. Four children who were killed as pedestrians have suffered fatal consequences in a road accident with a passenger vehicle, while one child was killed in a collision with a freight vehicle.

Table 3-2 Distribution of FAT in respect of children according to their traffic participation and vehicle category, 2021

Vehicle category	Number of FAT children		
	Driver	**Passenger**	**Pedestrian**
Passenger vehicle	0	4	4
Bicycle	1	0	0
Freight vehicle	0	0	1
Motorcycle	0	1	0

Children who have suffered injuries as passengers make up almost 59% of injured children, child pedestrians make up slightly over 30%, while child cyclists make up almost 10% of the total number of injured children (Figure 3-4).

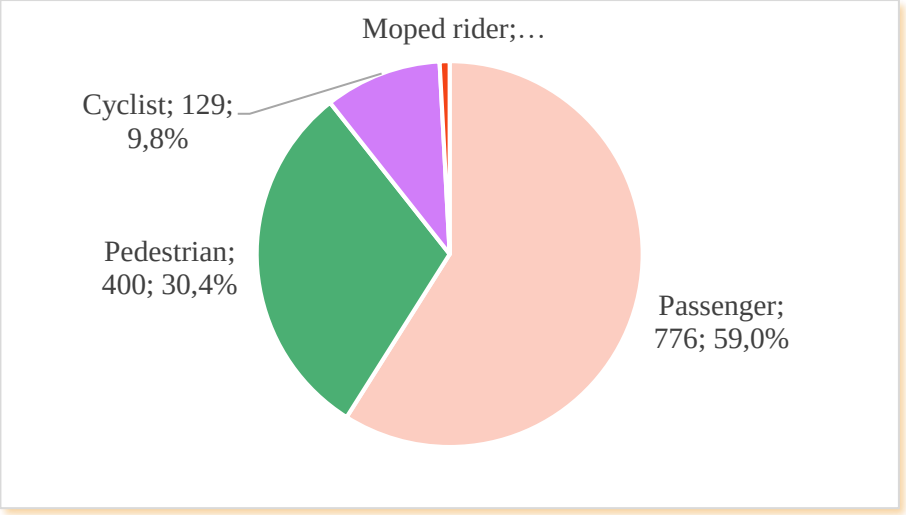


Figure 3-4 Capacities of injured children in road accidents, 2021

Table 3-3 shows the distribution of children fatalities, injured children and children casualties by gender. Of eleven children fatalities in road accidents in 2021, ten were boys and one was a girl. When it comes to injured children, boys make up 57% (757) while girls make up 43% (565) of the total number of injured children (Figure 3-5).

Table 3-3 Gender of children fatalities, injured children and children casualties, 2021

Gender	FAT children	INJ children	CAS children
Boys	10	757	767
Girls	1	565	566
TOTAL	**11**	**1,322**	**1,333**

[2] Children in their capacity as *drivers* and *passengers* were in a certain category of vehicles, while children in their capacity as *pedestrians* were killed by the mentioned vehicle category

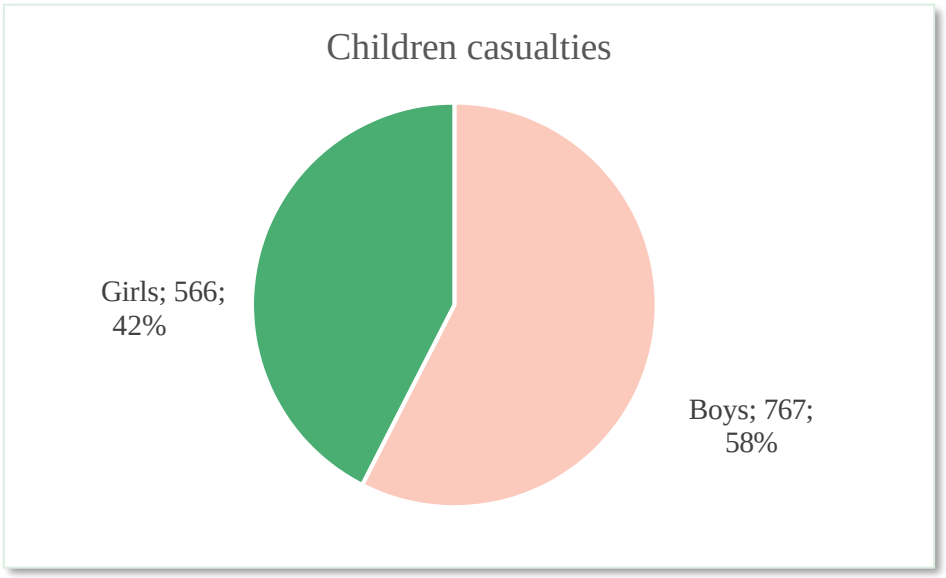


Figure 3-5 Distribution of children casualties in road accidents by gender, 2021

When looking at the capacity of children fatalities and their gender, one can notice the following: not a single female child was killed as a driver/cyclist; out of five children who were killed as passengers, four children were male and one was female, while all pedestrians fatalities were male in 2021 (Table 3-4).

Table 3-4 Distribution of children fatalities and injured children according to the their capacity of traffic participation and gender, 2021

	CAPACITY					
	Driver		Passengers		Pedestrians	
Gender	FAT	INJ	FAT	INJ	FAT	INJ
Boys	1	103	4	425	5	228
Girls	0	40	1	351	0	172
TOTAL	**1**	**143**	**5**	**776**	**5**	**400**

Figure 3-6 shows the distribution of injured children according to their capacity of traffic participation and gender. Of the total number of injured children in their capacity as drivers/cyclists, boys make up 80%, while girls make up 20%. Of the total number of injured children in their capacity as passengers, boys make up 55%, while girls make up 45%. Among the injured children pedestrians, boys make up 57%, while girls make up 43%.

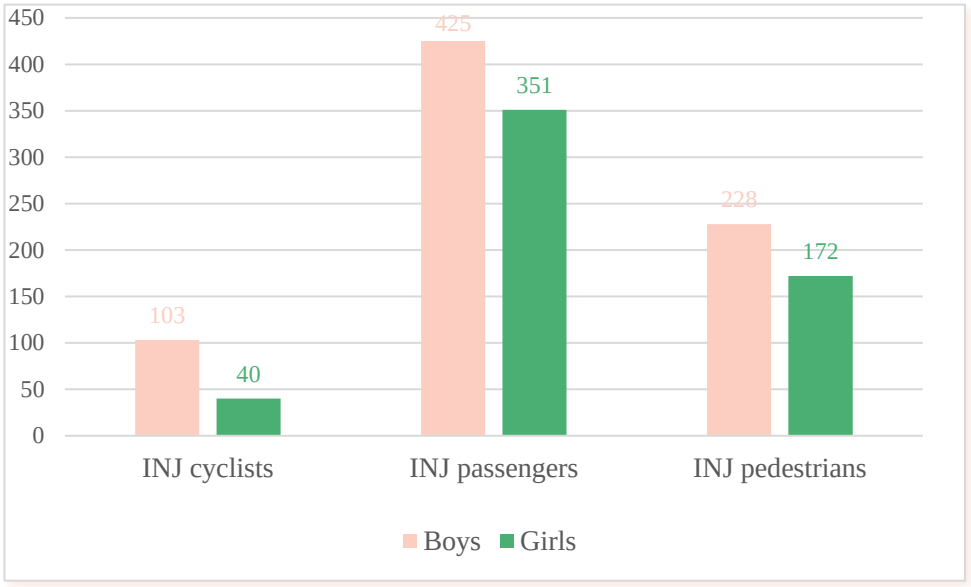


Figure 3-6 Distribution of injured children according to their capacity of traffic participation (cyclists, passengers, pedestrians) and gender, 2021

Figure 3-7 shows the distribution of children casualties in road accidents (fatalities and injured children), by age and gender. It can be noticed that, as children get older, the number of children casualties in traffic is also increasing. In addition, it can be noticed that boys suffer more casualties in road accidents than girls, especially in respect of children of school age.

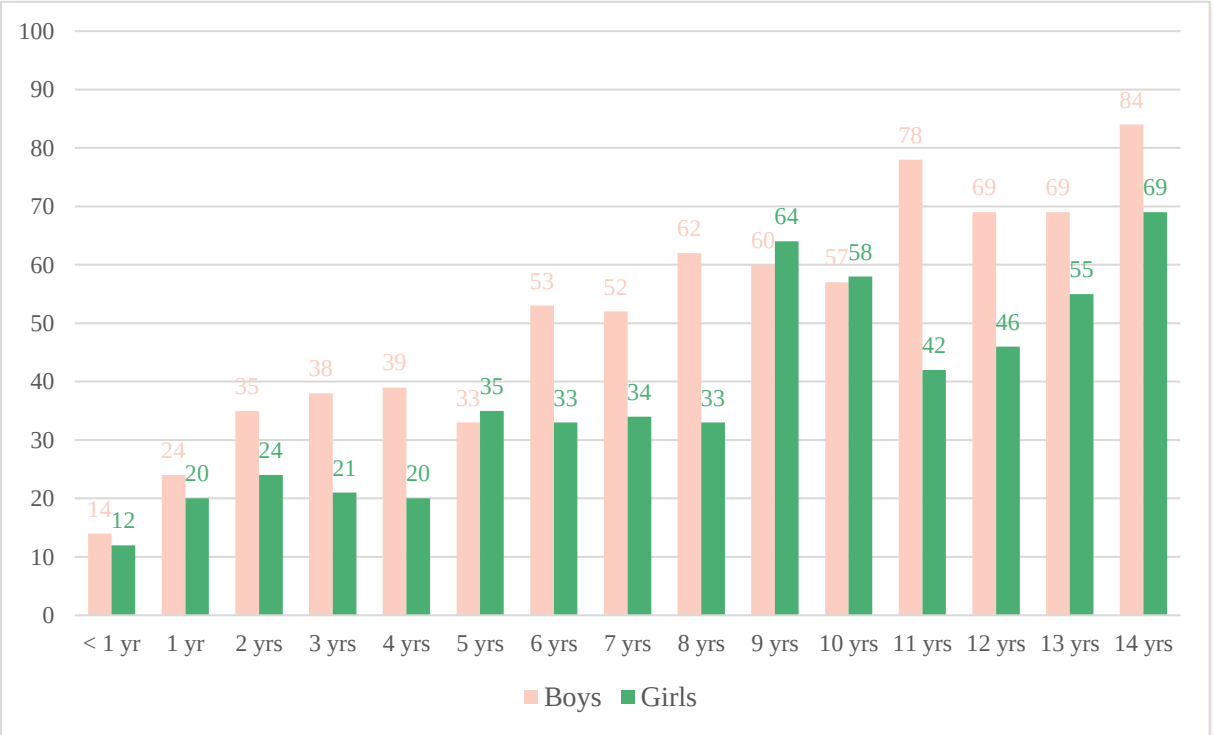


Figure 3-7 Age distribution of children casualties by gender, 2021

Table 3-5 shows the monthly distribution of children fatalities, seriously injured, slightly injured, and totally injured children and casualties in traffic in 2021.

Table 3-5 Monthly distribution of FAT, SeBI, SlBI, INJ and CAS in respect of children, 2021

MONTH	FAT children	SeBI children	SlBI children	INJ children	CAS children
January	1	6	68	74	75
February	1	12	50	62	63
March	1	11	71	82	83
April	1	11	99	110	111
May	2	19	99	118	120
June	1	19	145	164	165
July	1	16	105	121	122
August	1	23	142	165	166
September	0	14	101	115	115
October	0	13	92	105	105
November	2	9	91	100	102
December	0	16	90	106	106
TOTAL	**11**	**169**	**1,153**	**1,322**	**1,333**

Observed by months during the year, in 2021, two children were killed in road accidents in May and November, and one child in January, February, March, April, June, July and August, respectively. There were no children fatalities in road accidents in September, October and December (Figure 3-8).

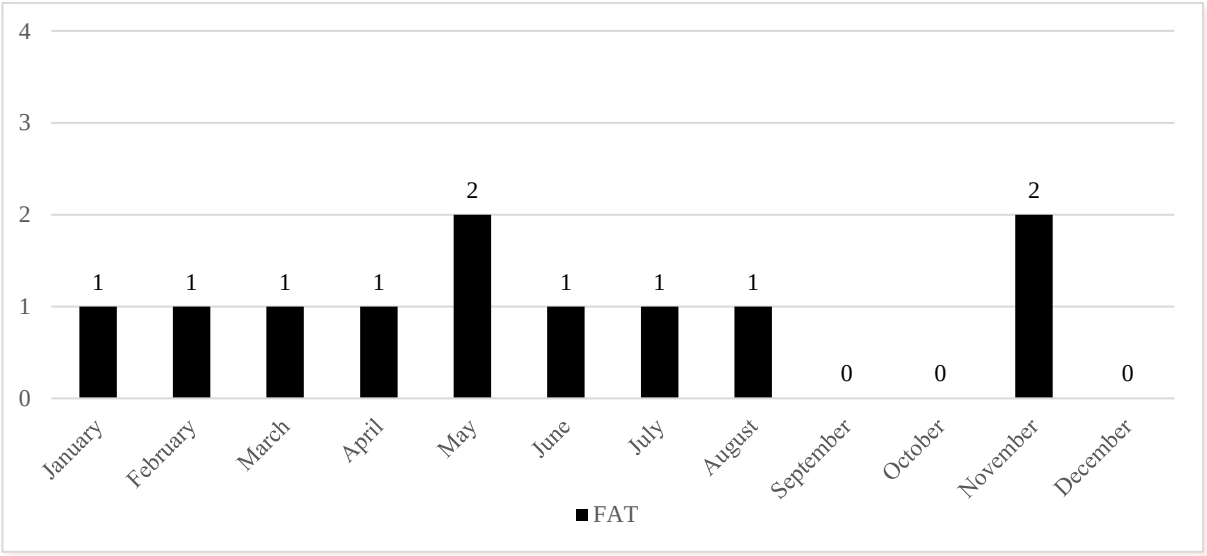


Figure 3-8 Monthly distribution of children fatalities, 2021

In 2021, the fewest number of children were injured in February (62). The period between June and August stands out as the period when the number of injured children had increased. The highest number of injured children had occurred in August (165) and June (164) (Figure 3-9).

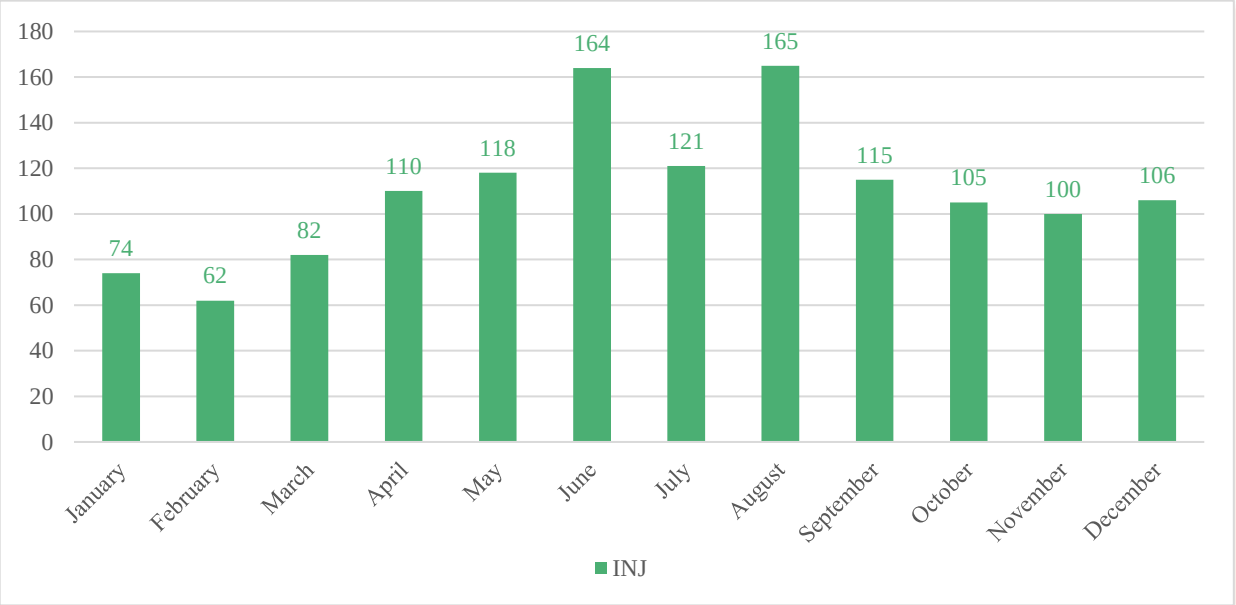


Figure 3-9 Monthly distribution of injured children, 2021

Table 3-6 shows the distribution of children casualties in their capacity as drivers/cyclists, passengers and pedestrians, by months during the year.

Table 3-6 Monthly distribution of children casualties in their capacity as drivers/cyclists, passengers and pedestrians, 2021

MONTH	Children casualties DRIVERS	Children casualties PASSENGERS	Children casualties PEDESTRIANS
January	1	49	25
February	6	31	25
March	8	41	34
April	12	67	32
May	14	67	39
June	27	81	56
July	20	79	23
August	20	129	17
September	17	59	38
October	6	56	43
November	7	67	28
December	6	55	45
TOTAL	**144**	**781**	**405**

In Figure 3-10, it can be noticed that the fewest number of children casualties in their capacity as passengers had occurred in February, after which the number of injured children passengers increases and fluctuates, until it reaches its maximum value in August (129).

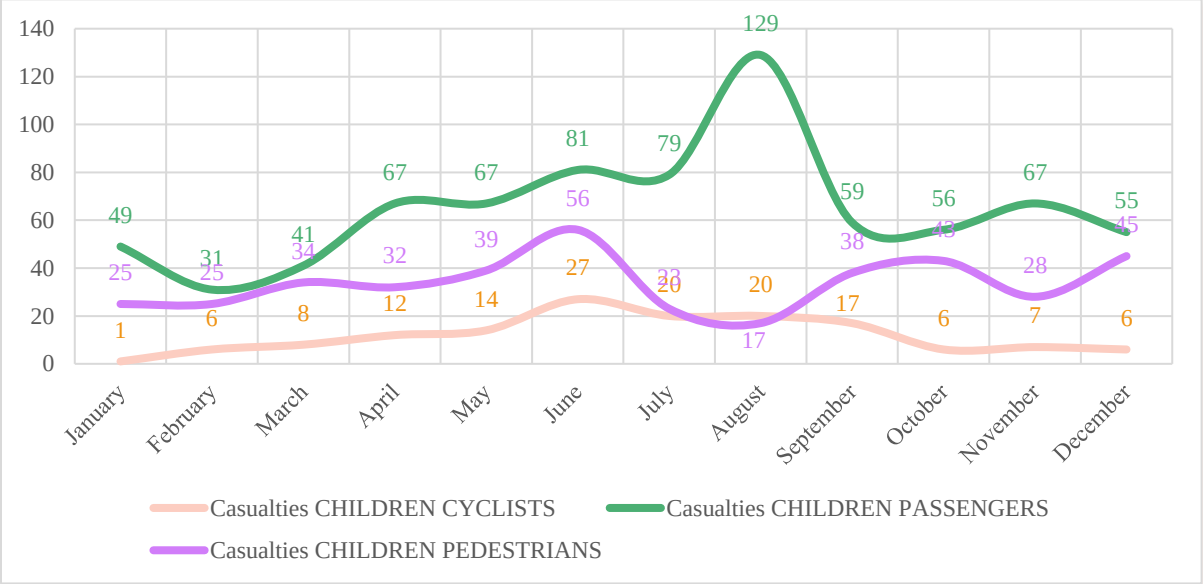


График 3-10 Месечна расподела настрадале деце возача, путника и пешака, 2021. година

The number of children casualties in their capacity as pedestrians fluctuates throughout the year. In August, there were at least (17) children pedestrian casualties. Children pedestrians casualties are most prevalent during the summer and autumn period. The most casualties in respect of children pedestrians have occurred in June (56). When it comes to child cyclists increased number of casualties can be noticed in the period from May to September, when the presence of children cyclists in traffic is at its peak.

The following Table 3-7 and Figure 3-11 show the hourly distribution of children fatalities, injured children and children casualties in their capacity as pedestrians, cyclists and passengers in 2021.

The highest number of children casualties, in their capacity as passengers, had occurred in the period between 11 a.m. and 10 p.m., while the period between 12 p.m. and 6 p.m. stands out as the period when a total of 416 children casualties have occurred, where 12 p.m. is particularly highlighted with a total of 79 children casualties. Most casualties in terms of children pedestrians have occurred between 1:00 p.m. and 9:00 p.m., where
1:00 p.m. particularly stands out with 40 children pedestrian casualties. Most casualties in terms of children cyclists have occurred in the period from 1:00 p.m. and 9:00 p.m., where 4:00 p.m. particularly stands out with 21 children cyclist casualties.

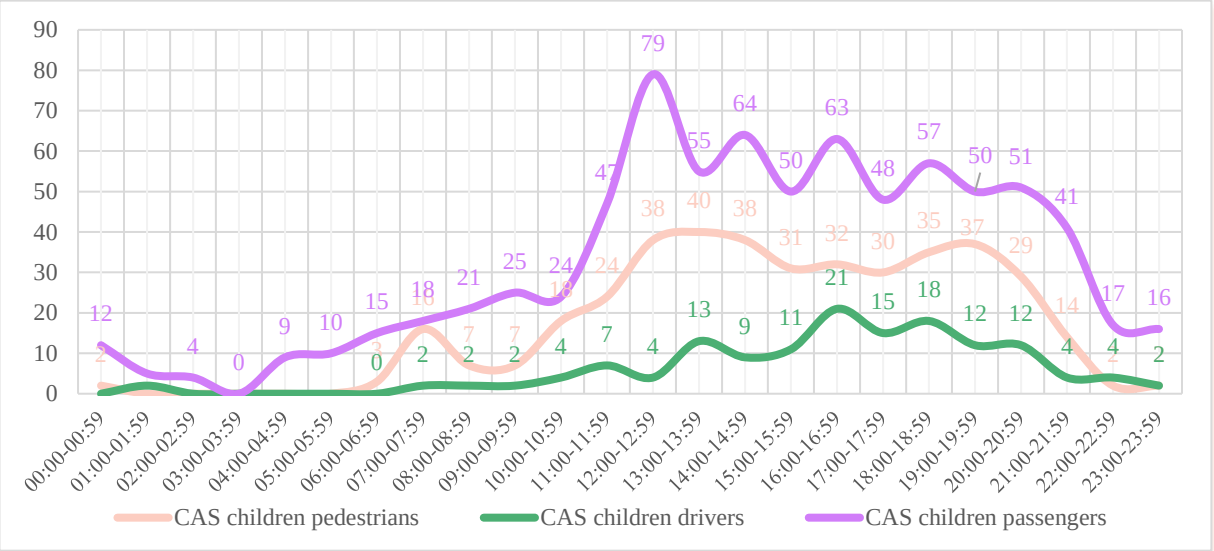


Figure 3-11 Hourly distribution of casualties in respect of children pedestrians, cyclists and passengers, 2021

Table 3-7 Hourly distribution of FAT, INJ and CAS in respect of children pedestrians, cyclists and passengers, 2021

	Children pedestrians			**Children cyclists**			**Children passengers**		
HOUR RA	FAT	INJ	CAS	FAT	INJ	CAS	FAT	INJ	CAS
00:00-00:59	0	2	2	0	0	0	0	12	12
01:00-01:59	0	0	0	0	2	2	1	4	5
02:00-02:59	0	0	0	0	0	0	0	4	4
03:00-03:59	0	0	0	0	0	0	0	0	0
04:00-04:59	0	0	0	0	0	0	0	9	9
05:00-05:59	0	0	0	0	0	0	0	10	10
06:00-06:59	0	3	3	0	0	0	0	15	15
07:00-07:59	0	16	16	0	2	2	0	18	18
08:00-08:59	0	7	7	1	1	2	0	21	21
09:00-09:59	0	7	7	0	2	2	0	25	25
10:00-10:59	0	18	18	0	4	4	0	24	24
11:00-11:59	0	24	24	0	7	7	0	47	47
12:00-12:59	0	38	38	0	4	4	1	78	79
13:00-13:59	0	40	40	0	13	13	0	55	55
14:00-14:59	0	38	38	0	9	9	1	63	64
15:00-15:59	0	31	31	0	11	11	0	50	50
16:00-16:59	1	31	32	0	21	21	0	63	63
17:00-17:59	0	30	30	0	15	15	1	47	48
18:00-18:59	2	33	35	0	18	18	0	57	57
19:00-19:59	0	37	37	0	12	12	1	49	50
20:00-20:59	2	27	29	0	12	12	0	51	51
21:00-21:59	0	14	14	0	4	4	0	41	41
22:00-22:59	0	2	2	0	4	4	0	17	17
23:00-23:59	0	2	2	0	2	2	0	16	16
TOTAL	**5**	**400**	**405**	**1**	**143**	**144**	**5**	**776**	**781**

Republic of Serbia
Road Traffic Safety Agency

General analysis of casualties concerning young road users (15-30 years of age)

Road Traffic Safety Agency

Republic of Serbia

4 General analysis of casualties concerning young road users (15-30 years of age)

According to the National Youth Strategy, the persons aged 15 to 30 are considered to be young people. Young people in Serbia are one of the most vulnerable age categories of road users. The Road Traffic Safety Strategy of the Republic of Serbia defines the principle of protection of young people: "The safety of young people in traffic is monitored with special attention, and special measures are undertaken in respect of safety of the young people".

In 2021, a total of 101 young people have been killed in road accidents in the Republic of Serbia, which amounts to 19% of the total number of people killed, i.e. every fifth person killed in road accidents had between 15 and 30 years of age. A total of 6,587 young road users have suffered injuries, which amounts to 33% of the total number of persons injured in road accidents.

It is characteristic for young people that they do not have enough experience when it comes to driving a vehicle; on the other hand, the degree of emotional maturity, as well as the way of life of young people, increases the risk of road accidents and the severity of the consequences of road accidents. Most casualties in respect of young people occur in their capacity as drivers and passengers, primarily in passenger vehicles and especially in the period from June to August. Fatalities in road accidents are more likely to occur in respect of young men than in respect of young women.

In the period from 2011 to 2021, the highest number of fatalities in respect of young road users had occurred in 2011 (185), while the lowest had occurred in 2019 (98). After 2011, a relatively stable downward trend, regarding the number of fatalities in respect of young road users, has been established (Figure 4-1).

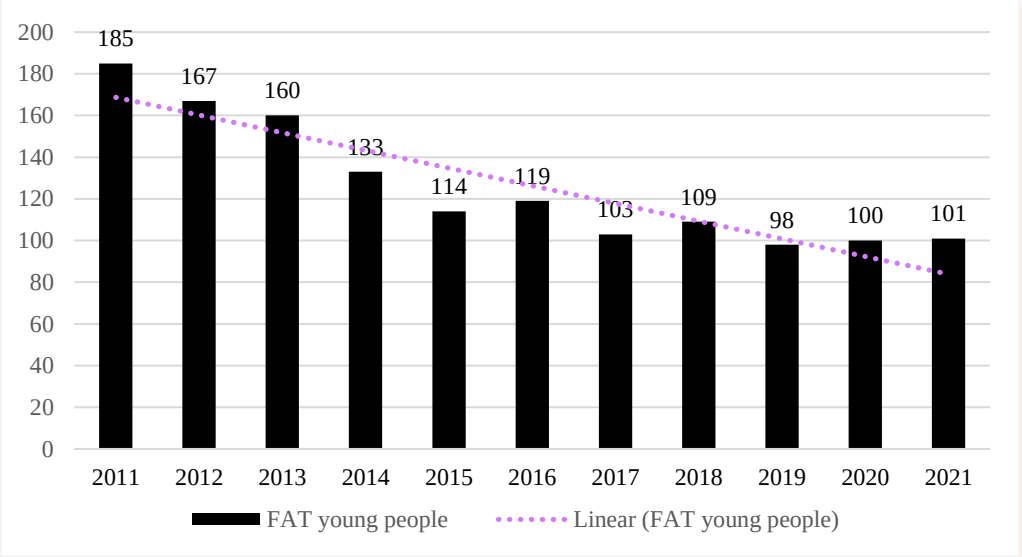


Figure 4-1 Number of fatalities in respect of young people aged 15-30, in the period from 2011 to 2021

In Figure 4-2, it can be seen that after 2011 (7,001), a downward trend in regards to the number of injured young road users was established, which lasted until 2014 (5,750). From 2015 onwards, there was a trend of growth in this respect until 2017, when the highest number of injured young road users was recorded (6,772). Since 2018, a decline in the number of injured persons has been recorded, which continued until 2020, when the lowest ever number of injured young people was recorded (5,537), after which the number of injured young people was on the rise once more in 2021 (6,587).

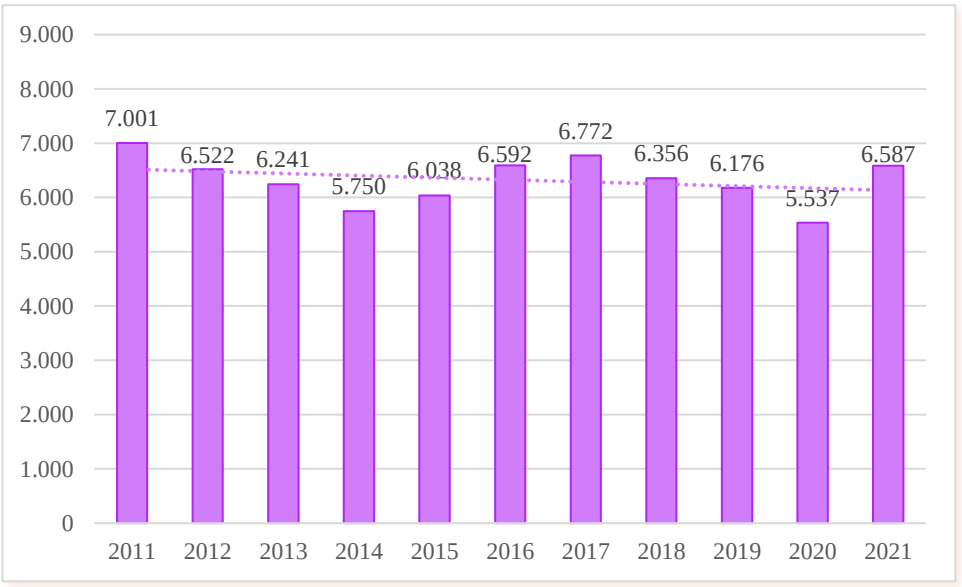


Figure 4-2 Number of injured young people aged 15-30, in the period from 2011 to 2021

Table 4-1 provides the data on the number of fatalities, seriously injured, slightly injured, and totally injured young people and casualties, by their capacity of traffic participation, in 2021.

Table 4-1 Distribution of FAT, SeBI, SlBI, INJ and CAS in respect of young people in traffic, 2021

CAPACITY	FAT	SeBI	SlBI	INJ	CAS
Driver	53	430	2,920	3,350	3,403
Pedestrian	17	117	484	601	618
Passenger	31	301	2,328	2,629	2,660
Other and unknown	0	4	3	7	7
Total	**101**	**852**	**5,735**	**6,587**	**6,688**

Of the total number of fatalities in respect of young people, as many as 52% were drivers, 31% were passengers, and 17% were pedestrians (Figure 4-3). Injured young people make up 51% in their capacity as drivers, 40% as passengers, and 9% as pedestrians (Figure 4-4).

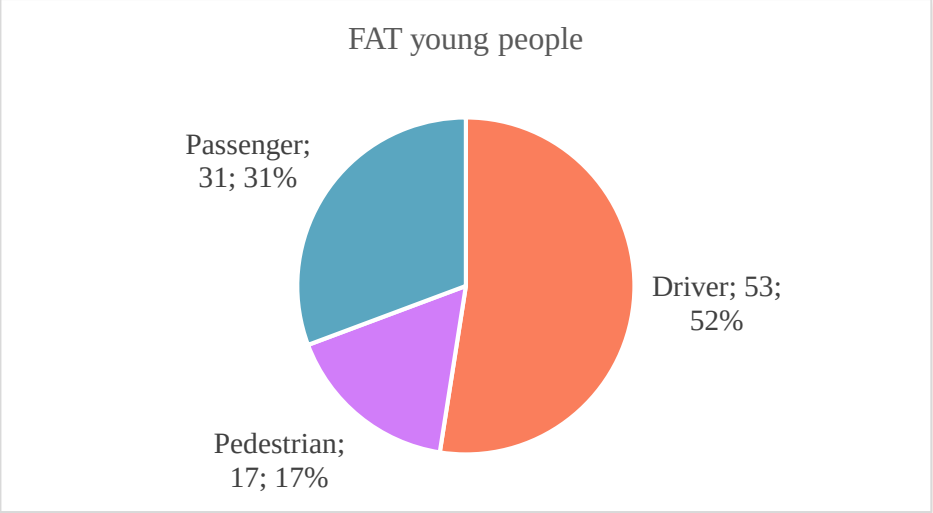


Figure 4-3 Distribution of fatalities in respect of young people, according to their capacity in road accidents, 2021

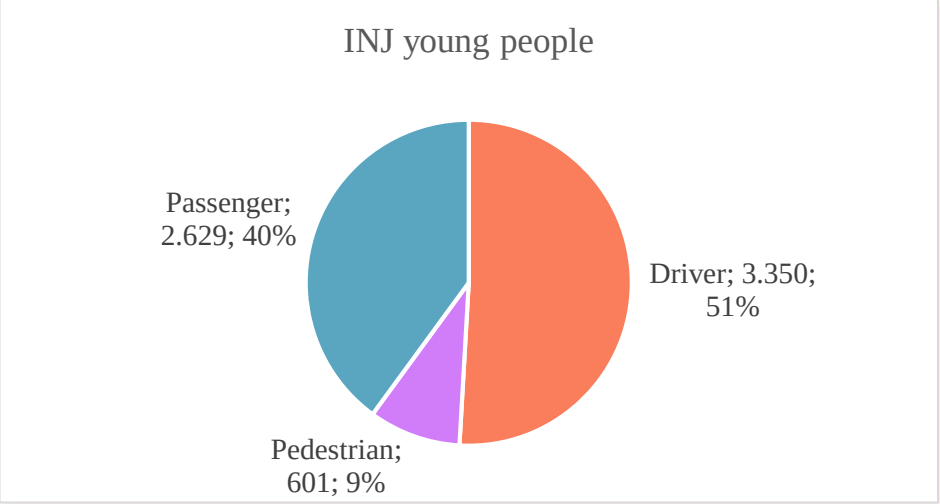


Figure 4-4 Distribution of injured[3] young people, according to their capacity in road accidents, 2021

[3] Another 7 persons were injured in traffic in other or unknown capacity

Table 4-2 shows the distribution of fatalities in respect of young people according to their capacity of traffic participation and vehicle category. Out of a total of 53 driver fatalities, 30 were operating a passenger vehicle (57%), while 15 were riding a motorcycle (28%). Out of a total of 31 passenger fatalities, 29 were in a passenger vehicle (94%) and 1 on a motorcycle and a moped (3% each), respectively. A total of 12 pedestrians were killed in road accidents with passenger vehicles, while 5 were killed in road accidents with freight vehicles.

Table 4-2 Distribution of fatalities in respect of young people, according to their capacity of traffic participation and vehicle category[4], 2021

FAT young people	Driver	Passenger	Pedestrian
Passenger vehicle	30	29	12
Motorcycle	15	1	0
Bicycle	2	0	0
Freight vehicle	3	0	5
Moped	2	1	0
Tractor	1	0	0
Total	**53**	**31**	**17**

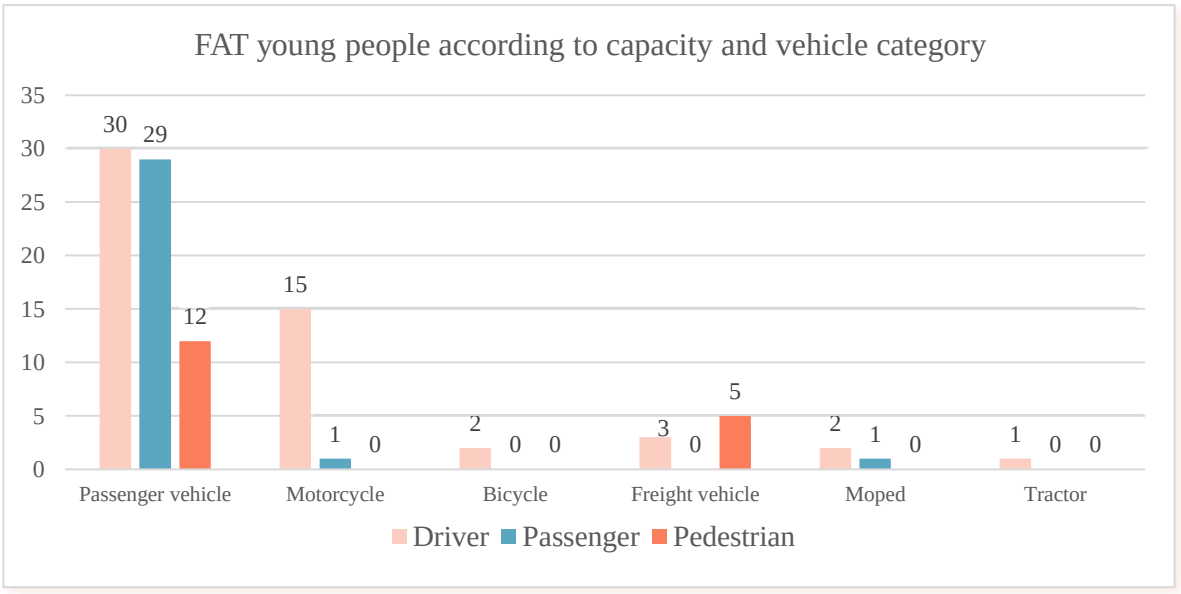


Figure 4-5 Fatalities in respect of young people, according to their capacity of traffic participation and vehicle category, 2021

Out of a total of 3,350 injured young drivers, most of them operated a passenger vehicle (2,502; 75%), followed by a motorcycle (310; 9%), a bicycle (228; 7%), and freight vehicle (185; 6%) and a moped (93; 3 %). Out of a total of 2,629 injured young passengers, most were passengers in a passenger vehicle (2,318; 88%). Most pedestrians were injured in road accidents with passenger vehicles (520; 87%) (Table 4-3).

[6] Young people in their capacity as drivers and passengers were in a certain vehicle category, while young people in their capacity as pedestrians were killed by the said vehicle category

Table 4-3 Injured young people, according to their capacity of traffic participation[5] and vehicle category[6], 2021

Vehicle category	Driver	Passenger	Pedestrian
Passenger vehicle	2,502	2,318	520
Motorcycle	310	49	7
Bicycle	228	5	3
Freight vehicle	185	86	29
Moped	95	10	3
Tractor	13	8	7
Heavy four-wheeler	7	6	0
Light four-wheeler	3	1	0
Motocultivator	2	0	0
Bus	1	133	16
Rig	1	1	0
Heavy three-wheeler	1	1	0
Special and working vehicle	1	1	0
Unknown vehicle type	1	1	14
Auxiliary vehicle	0	1	0
Auxiliary vehicle for tram vehicle	0	2	0
Tram vehicle	0	2	1
Trolley	0	3	0
Total	3,350	2,628	600

Table 4-4 provides the data on the number of fatalities, seriously injured, slightly injured, and totally injured young people and casualties by their age, in 2021.

Table 4-4 Age distribution of FAT, SeBI, SlBI, INJ and CAS in respect of young people, 2021

Age	FAT	SeBI	SlBI	INJ	CAS
15 yrs	3	40	167	207	210
16 yrs	3	44	216	260	263
17 yrs	5	56	291	347	352
18 yrs	5	75	442	517	522
19 yrs	7	47	474	521	528
20 yrs	12	64	432	496	508
21 yrs	6	54	368	422	428
22 yrs	10	63	366	429	439
23 yrs	6	52	392	444	450
24 yrs	5	55	405	460	465
25 yrs	10	58	409	467	477
26 yrs	9	64	367	431	440
27 yrs	6	60	347	407	413
28 yrs	4	35	346	381	385
29 yrs	3	44	379	423	426
30 yrs	7	41	334	375	382
TOTAL	**101**	**852**	**5,735**	**6,587**	**6,688**

[5] Another 9 persons were injured in traffic in other capacity

[6] Young people in their capacity as drivers and passengers were in a certain vehicle category, while young people in their capacity as pedestrians were killed by the said vehicle category

Most young people who were killed in road accidents were 20 years old (12 people). The number of injured young people by age increases, from 15-year-olds (207) all the way up to 19-year-olds (521), which is the age when most young people suffer injuries in respect of road accidents. After that age, the number of injured young people by age fluctuates and slightly decreases (Figure 4-6).

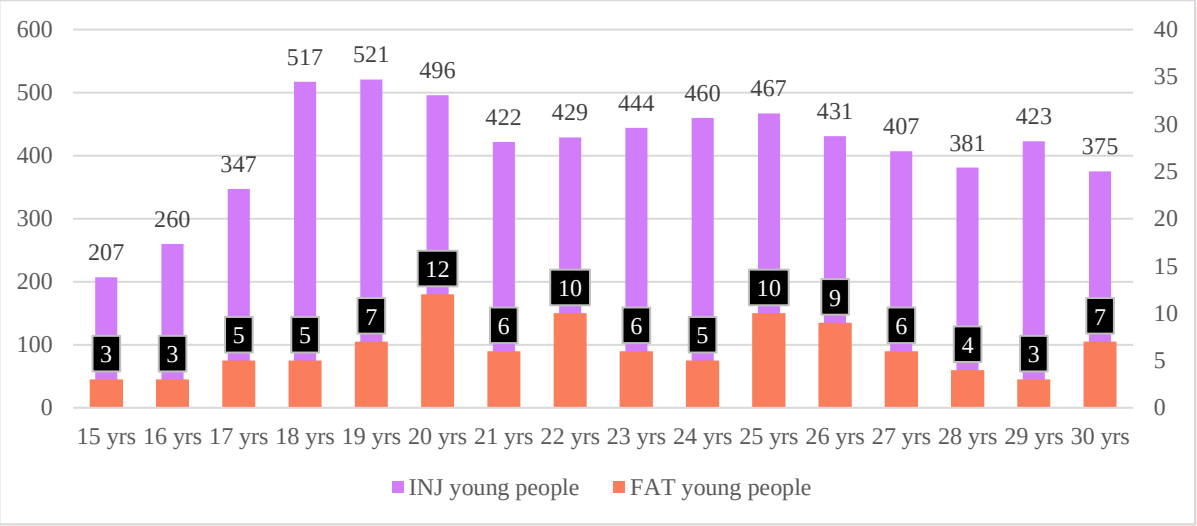


Figure 4-6 Age distribution of fatalities and injured young people, 2021

Table 4-5 shows the distribution of fatalities and injured young people in road accidents by gender, in 2021.

Table 4-5 Distribution of fatalities and injured young people in road accidents by gender, 2021

	FAT young people	INJ young people
Young men	84	4,183
Young women	17	2,404
Total	**101**	**6,587**

Fatalities in respect of young men make up 83%, and fatalities in respect of young women make up 17%, of the total number of young people who have been killed in road accidents in the Republic of Serbia in 2021 (Figure 4-7).

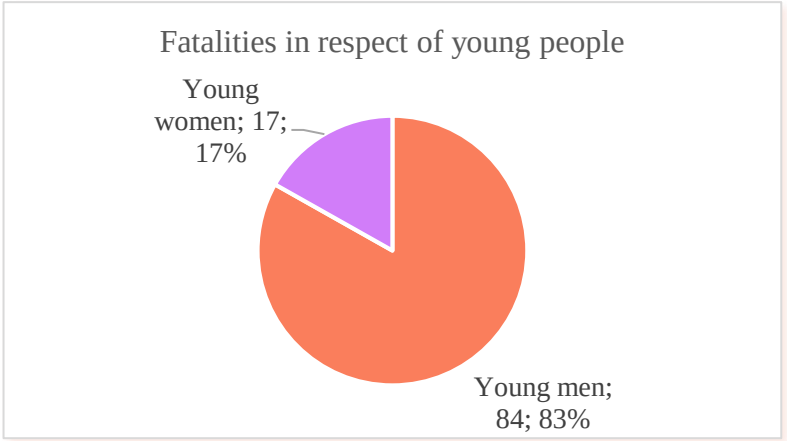


Figure 4-7 Distribution of fatalities in respect of young people by gender, 2021

In Figure 4-8, it can be noticed that injured young men make up 64%, and injured young women make up 36%, of the total number of young people injured in road accidents in the Republic of Serbia, in 2021.

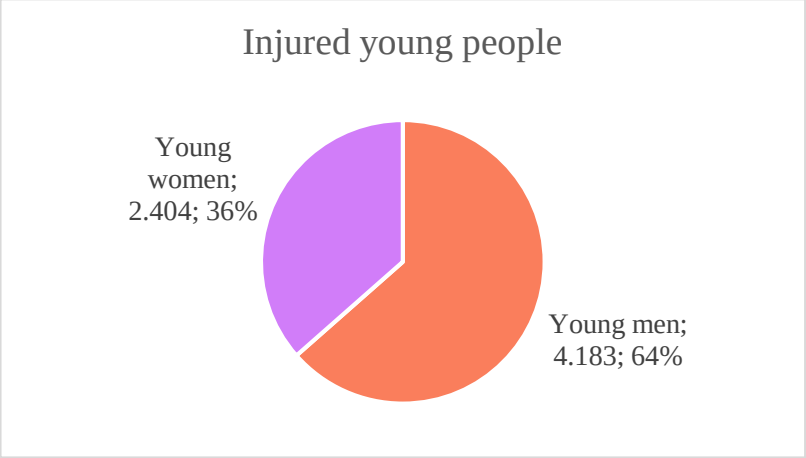


Figure 4-8 Distribution of injured young people by gender, 2021

By analysing the capacity of traffic participation of young men killed in 2021, it can be noticed that 61% of young men were killed as drivers, 24% as passengers, and 15% as pedestrians (Figure 4-9).

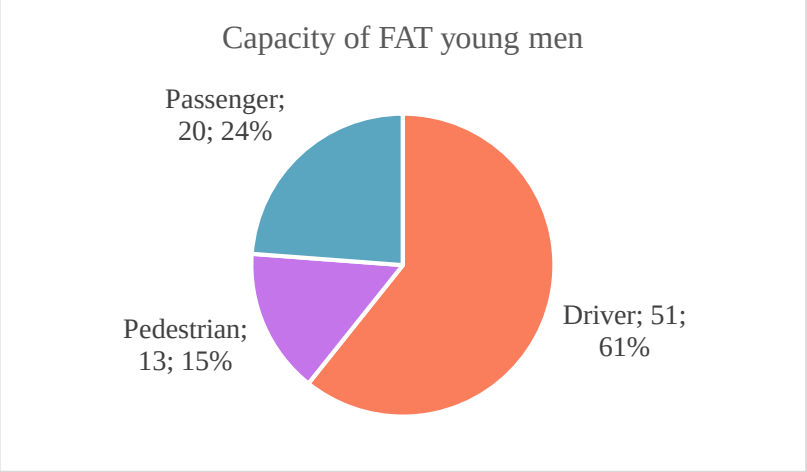


Figure 4-9 Distribution of fatalities in respect of young men, by their capacity of traffic participation, 2021

By analysing the capacity of traffic participation of young women killed in 2021, it can be noticed that 65% of young women were killed as passengers, 23% as pedestrians, and 12% as drivers (Figure 4-10).

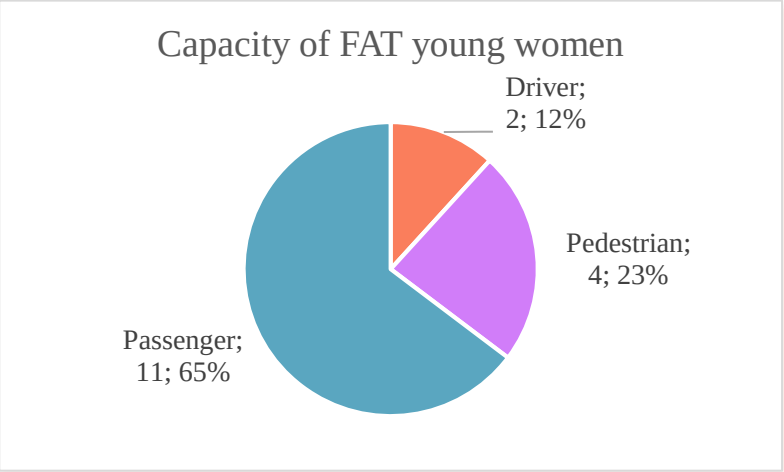


Figure 4-10 Distribution of fatalities in respect of young women, by their capacity of traffic participation, 2021

Table 4-6 shows the monthly distribution of fatalities, seriously injured, slightly injured, and totally injured young people and casualties in road accidents, in 2021.

The highest number of fatalities in respect of young people has occurred in the period from June to August, as well as in November and December. The fewest number of fatalities in respect of young people has occurred in March (3) and January (4).

The majority of young people were injured in the period from May to August, with August being particularly noteworthy (653). The fewest number of young people were injured in February (393) (Figure 4-11).

Table 4-6 Monthly distribution of FAT, SeBI, SlBI, INJ and CAS in respect of young people, 2021

MONTH	FAT	SeBI	SlBI	INJ	CAS
January	4	52	439	491	495
February	5	30	363	393	398
March	3	51	420	471	474
April	7	58	423	481	488
May	9	75	570	645	654
June	11	88	548	636	647
July	10	87	555	642	652
August	10	110	543	653	663
September	9	79	491	570	579
October	6	74	474	548	554
November	12	78	406	484	496
December	15	70	503	573	588
TOTAL	**101**	**852**	**5,735**	**6,587**	**6,688**

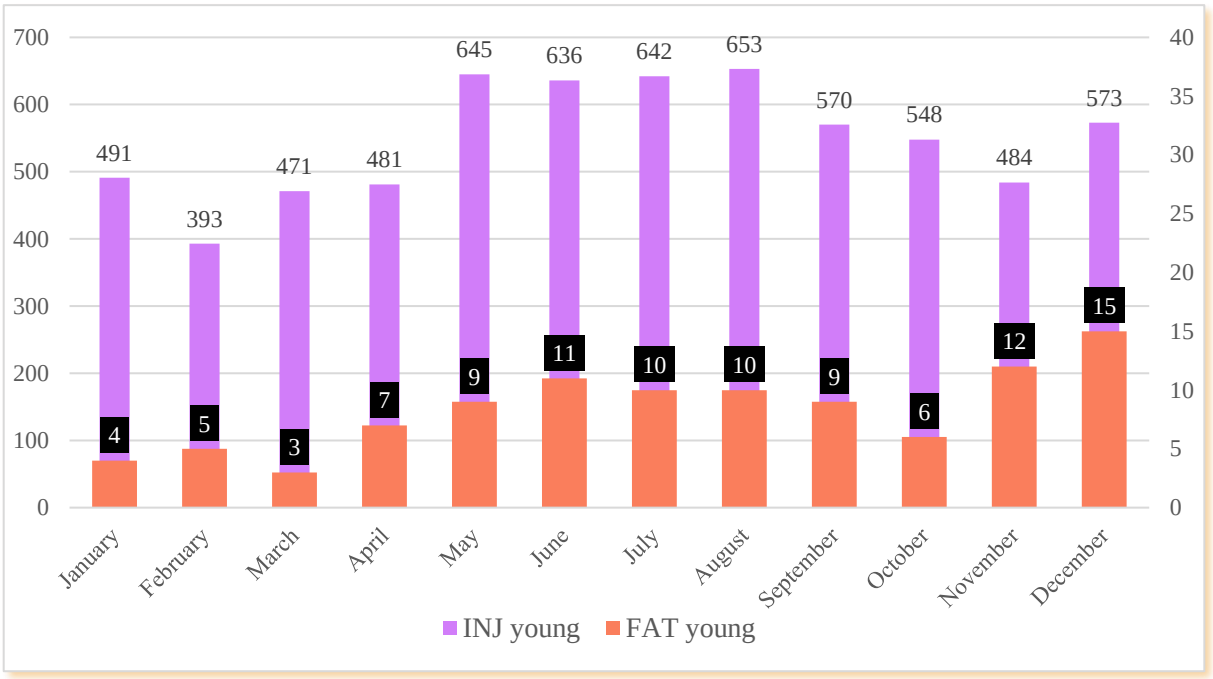


Figure 4-11 Monthly distribution of fatalities and injured young people, 2021

Table 4-7 shows the distribution of fatalities, seriously injured, slightly injured, and totally injured young people and casualties in road accidents per days of the week, in 2021.

Table 4-7 Distribution of FAT, SeBI, SlBI, INJ and CAS in respect of young people per days of the week, 2021

DAY	FAT	SeBI	SlBI	INJ	CAS
Monday	10	109	742	851	861
Tuesday	9	96	727	823	832
Wednesday	11	96	712	808	819
Thursday	10	98	795	893	903
Friday	15	133	961	1,094	1,109
Saturday	23	146	913	1,059	1,082
Sunday	23	174	885	1,059	1,082
TOTAL	101	852	5,735	6,587	6,688

Observed by days of the week, most young people were killed in road accidents on weekends, i.e. on Saturdays and Sundays (46% of fatalities in respect of young people). The fewest number of fatalities in respect of young people has occurred on Tuesdays (9 persons) (Figure 4-12).

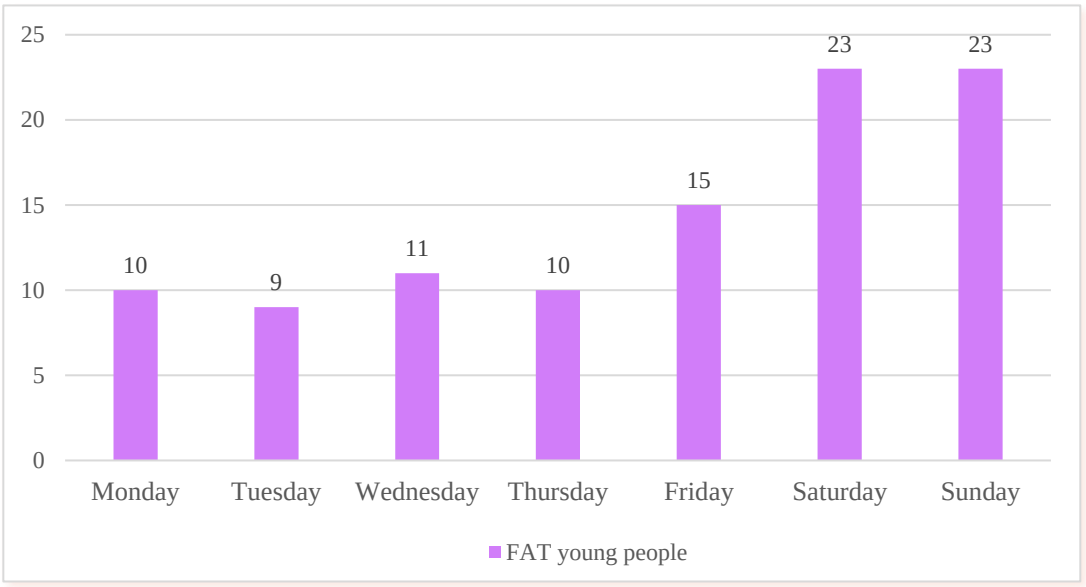


Figure 4-12 Distribution of fatalities in respect of young people per days of the week, 2021

Given that most casualties in respect of young people have occurred in their capacity as drivers and passengers, the hourly distribution of fatalities and injured young people as drivers and passengers on the territory of the Republic of Serbia in 2021 has been provided (Table 4-8).

Table 4-8 Hourly distribution of FAT and INJ in respect of young people as drivers and passengers, 2021

	Drivers and passengers	
HOUR RA	FAT	INJ
00:00-00:59	2	205
01:00-01:59	7	189
02:00-02:59	2	178
03:00-03:59	2	124
04:00-04:59	2	89
05:00-05:59	1	84
06:00-06:59	3	125
07:00-07:59	0	158
08:00-08:59	5	131
09:00-09:59	1	167
10:00-10:59	1	170
11:00-11:59	0	230
12:00-12:59	4	283
13:00-13:59	1	298
14:00-14:59	5	380
15:00-15:59	4	381
16:00-16:59	5	359
17:00-17:59	4	371
18:00-18:59	5	364
19:00-19:59	4	344
20:00-20:59	6	355
21:00-21:59	9	389
22:00-22:59	5	373
23:00-23:59	6	232
TOTAL	**84**	**5,979**

Fatalities in respect of young drivers and passengers have mostly occurred in the evening, night and early morning hours. The highest number of fatalities, in respect of young people as drivers and passengers, had occurred in the period between 9 p.m. and 2 a.m.. Most fatalities in respect of young people have occurred between 9 p.m. and 10 p.m. (9), while no fatalities in respect of young people have been recorded in the period between 7 a.m. and 8 a.m. The largest number of young people as drivers and passengers were injured in the period from 2 p.m. to 11 p.m., i.e. 55% of the total number of injured young people (Figure 4-13).

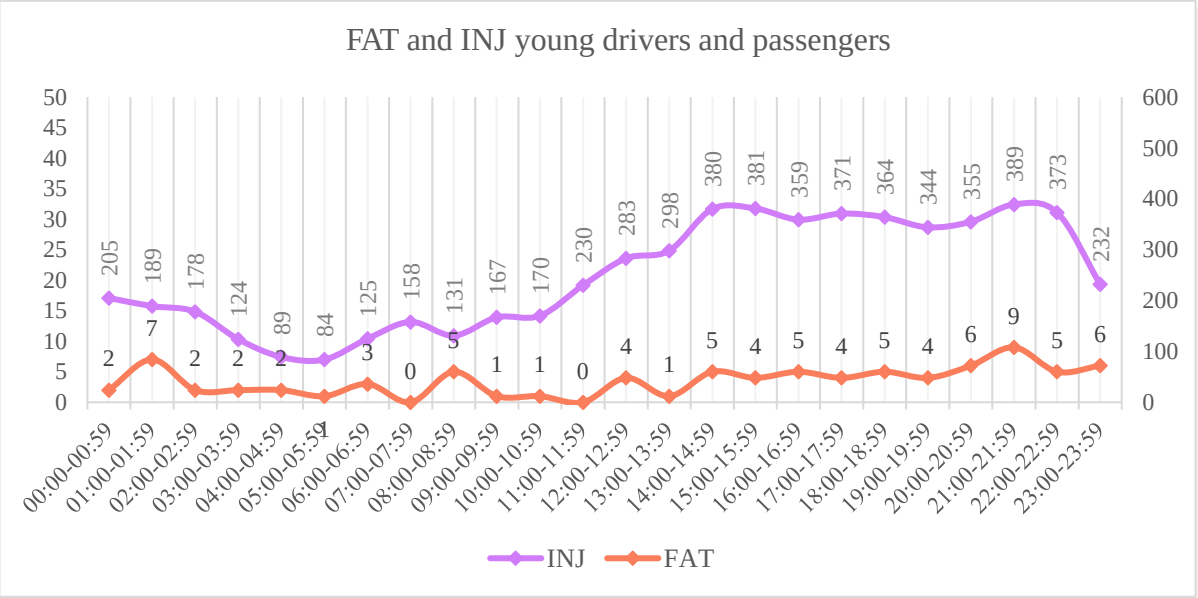


Figure 4-13 Hourly distribution of fatalities and injured young people as drivers and passengers, 2021

In road accidents with fatalities, in which young people were involved as road users, the most commonly identified type group was *road accidents with a single vehicle* (44), followed by *road accidents with at least two vehicles – without turning* (24) and *RA with pedestrians* (16) (Figure 4-14).

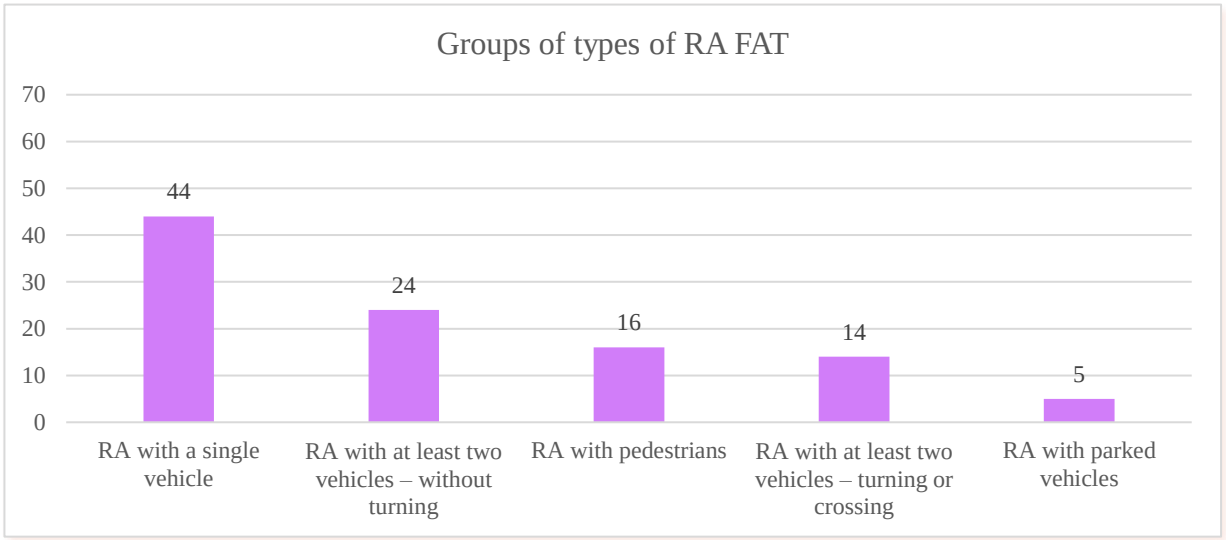


Figure 4-14 Distribution of the identified types of road accidents with fatalities, involving young people as road users, according to groups of RA types, 2021

Republic of Serbia
Road Traffic Safety Agency

General analysis of casualties concerning road users from the age category of 65+

Road Traffic Safety Agency

Republic of Serbia

5 General analysis of casualties concerning road users from the age category of 65+

In addition to the category of children and young people, as part of the Road Traffic Safety Strategy of the Republic of Serbia, special attention should be paid to the age category of road users aged 65 and up (category 65+). As people get older, psychomotor limitations and disorders in the form of reduced visual or listening ability arise, as well as the increase in response time, difficulties in regards to observation and dementia. The decline in psychomotor skills increases the likelihood of participation in road accidents. Thus, the percentage of people with difficulties in respect of traffic participation, due to impaired psychomotor skills, is significantly higher among people over 65 years of age, compared to the younger population. Older people are also physically more vulnerable; therefore, in most cases, they sustain more severe injuries in case of identical collisions when compared to younger persons.

In 2021, a total of 175 people aged 65 and up have been killed in road accidents in the Republic of Serbia, which accounts for nearly 34% of the total number of fatalities in traffic. In 2021, a total of 2,195 people aged 65 and up have suffered injuries in road accidents in the Republic of Serbia, which makes up around 11% of the total number of injured persons in traffic.

By analysing the number of fatalities in respect of people aged 65+ by years, it can be noticed that the downward trend concerning the number of fatalities from this age category, is unstable. The highest number of fatalities in respect of persons aged 65+ had occurred in 2012 (187), while the fewest number of fatalities from the said age category had occurred in 2014 (130); in 2021, an increase in the number of fatalities for this age category was recorded again (175) (Figure 5-1).

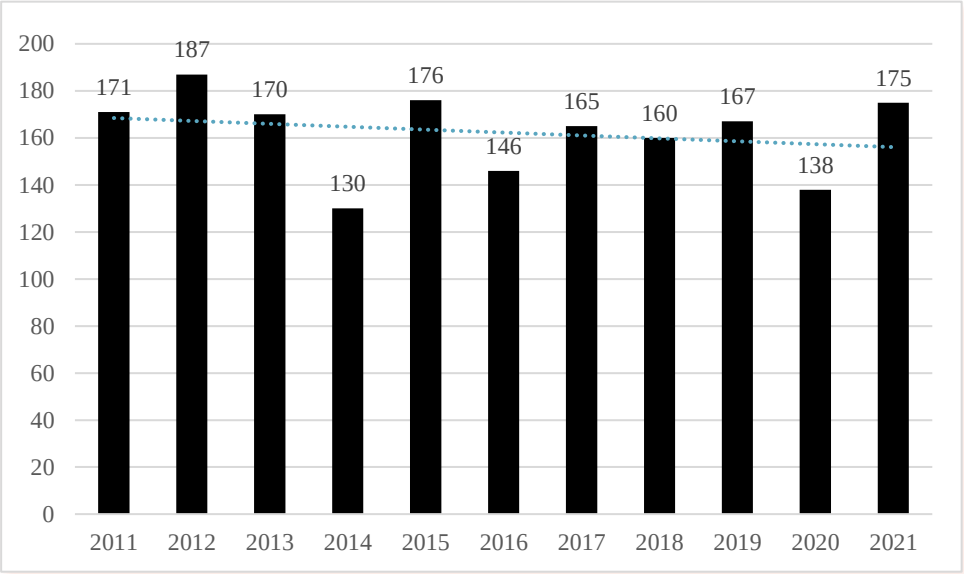


Figure 5-1 Number of fatalities in respect of people aged 65+, in the period from 2011 to 2021

In the observed period, there was no downward trend established in terms of the number of injured persons from the age category 65+. The highest number of persons from the age category 65+, who suffered injuries in road accidents, was recorded in 2019 (2,295) (Figure 5-2).

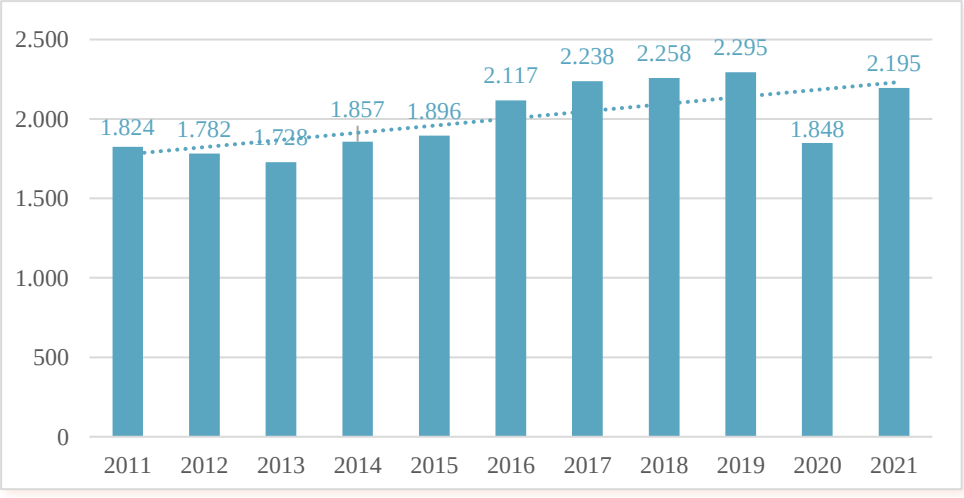


Figure 5-2 Number of injured persons aged 65+ in the period from 2011 to 2021

Table 5-1 provides the data on the number of fatalities, seriously injured, slightly injured, and totally injured people aged 65+ and casualties, by their capacity of traffic participation, in 2021.

Table 5-1 Distribution of FAT, SeBI, SlBI, INJ and CAS in respect of persons aged 65+, according to their capacity of traffic participation, 2021

CAPACITY	FAT	SeBI	SlBI	INJ	CAS
Driver	75	297	733	1030	1105
Pedestrian	77	269	344	613	690
Passenger	23	107	443	550	573
Other	0	0	2	2	2
TOTAL	**175**	**673**	**1,522**	**2,195**	**2,370**

Of the total number of fatalities in respect of persons aged 65+, 43% were drivers, 44% were pedestrians, and 13% were passengers (Figure 5-3). Injured persons aged 65+ account for 47% as drivers, 28% as pedestrians, and 25% as passengers, while two persons were not road users (Figure 5-4).

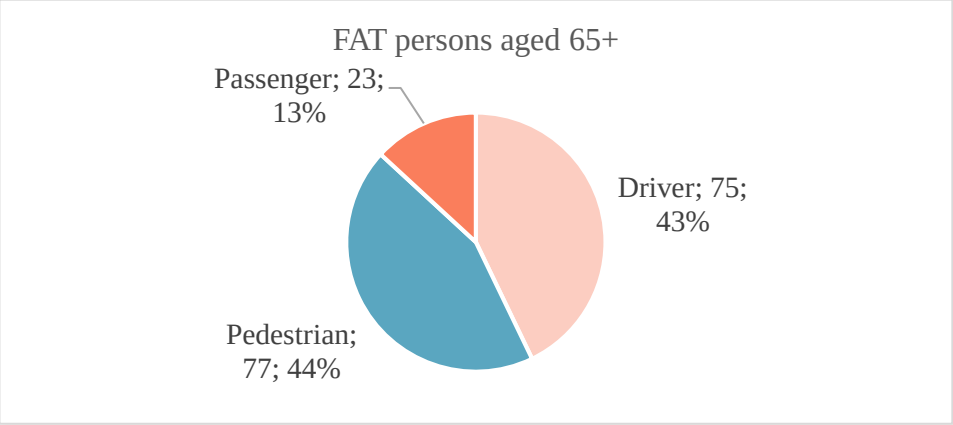


Figure 5-3 Distribution of fatalities in respect of people aged 65+ in road accidents, 2021

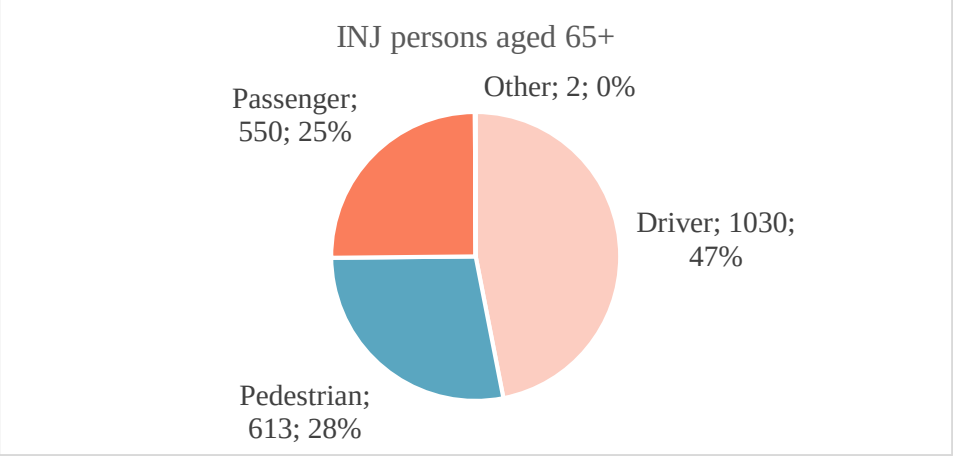


Figure 5-4 Distribution of injured persons aged 65+ in road accidents, 2021

Table 5-2 shows the distribution of fatalities in respect of people aged 65+ according to their capacity of traffic participation and vehicle category. Out of a total of 75 driver fatalities, 34 were operating

a passenger vehicle (45%), 23 were riding a bicycle (31%), 7 were operating a tractor (9%), and 4 were riding a moped (5%); out of a total of 77 pedestrians fatalities, 50 were killed in road accidents with passenger vehicles (65%), while 16 were killed in road accidents with freight vehicles (21%); out of a total of 23 passenger fatalities, 20 were in a passenger vehicle (87%), 2 were on a tractor (9%), and 1 was in a bus (4%).

Table 5-2 Distribution of FAT in respect of persons aged 65+, according to their capacity of traffic participation and vehicle category[7], 2021

FAT persons aged 65+, by capacity of traffic participation and vehicle category				
Vehicle category	**Driver**	**Pedestrian**	**Passenger**	**Total**
Passenger vehicle	34	50	20	104
Bicycle	23	1	0	24
Tractor	7	0	2	9
Moped	4	0	0	4
Freight vehicle	3	16	0	19
Motorcycle	2	5	0	7
Bus	0	2	1	3
Working machine	1	1	0	2
Tram vehicle	0	1	0	1
Other	1	1	0	2
Total	**75**	**77**	**23**	**175**

Figure 5-5 shows the data on fatalities and injured persons aged 65+, by their age, in 2021. Table 5-3 provides the data on seriously and slightly injured persons aged 65+, as well as the data on the total number of injured persons aged 65+, by their age, in 2021.

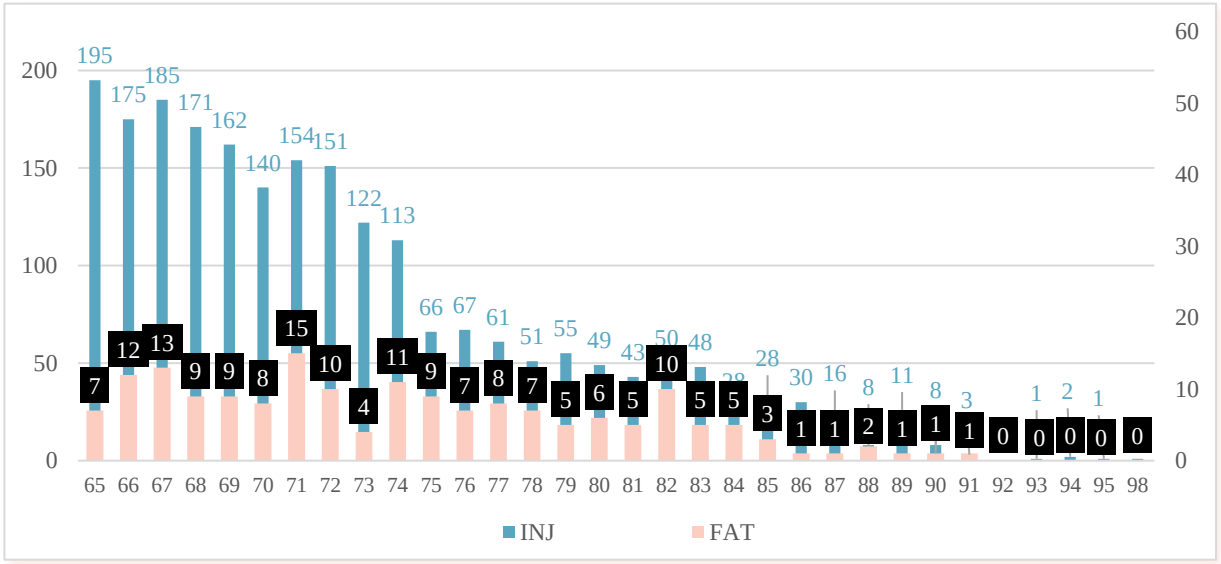


Figure 5-5 Age distribution of fatalities and injured persons aged 65+, 2021

[7] Persons aged 65+ in the capacity of *drivers* and *passengers* were in a certain vehicle category, while persons aged 65+ in the capacity of *pedestrians* were killed by that vehicle category

Table 5-3 Age distribution of FAT, SeBI, SlBI, INJ and CAS in respect of persons aged 65+, 2021

AGE	FAT	SeBI	SlBI	INJ	CAS
65 yrs	7	40	155	195	202
66 yrs	12	37	138	175	187
67 yrs	13	52	133	185	198
68 yrs	9	53	118	171	180
69 yrs	9	53	109	162	171
70 yrs	8	45	95	140	148
71 yrs	15	51	103	154	169
72 yrs	10	45	106	151	161
73 yrs	4	42	80	122	126
74 yrs	11	34	79	113	124
75 yrs	9	17	49	66	75
76 yrs	7	20	47	67	74
77 yrs	8	23	38	61	69
78 yrs	7	14	37	51	58
79 yrs	5	16	39	55	60
80 yrs	6	19	30	49	55
81 yrs	5	17	26	43	48
82 yrs	10	17	33	50	60
83 yrs	5	24	24	48	53
84 yrs	5	5	23	28	33
85 yrs	3	11	17	28	31
86 yrs	1	11	19	30	31
87 yrs	1	8	8	16	17
88 yrs	2	4	4	8	10
89 yrs	1	5	6	11	12
90 yrs	1	4	4	8	9
91 yrs	1	2	1	3	4
92 yrs	0	0	0	0	0
93 yrs	0	1	0	1	1
94 yrs	0	1	1	2	2
95 yrs	0	1	0	1	1
98 yrs	0	1	0	1	1
TOTAL	**175**	**673**	**1,522**	**2,195**	**2,370**

The highest number of fatalities, in respect of persons aged 65+, were 71 years old (15 people). The majority of injured persons, in respect of persons aged 65+, were between 65 and 72 years old (61% of injured elderly persons).

Table 5-4 shows the distribution of fatalities and injured persons aged 65+ in road accidents by gender, in 2021.

Table 5-4 Distribution of fatalities and injured persons aged 65+ by gender, 2021

	FAT persons aged 65+	INJ persons aged 65+
Male	122	1,225
Female	53	970
TOTAL	175	2,195

In the age group 65+, male fatalities account for 70%, while female fatalities account for 30%, of the total number of fatalities in this age category in road accidents in the Republic of Serbia in 2021 (Figure 5-6).

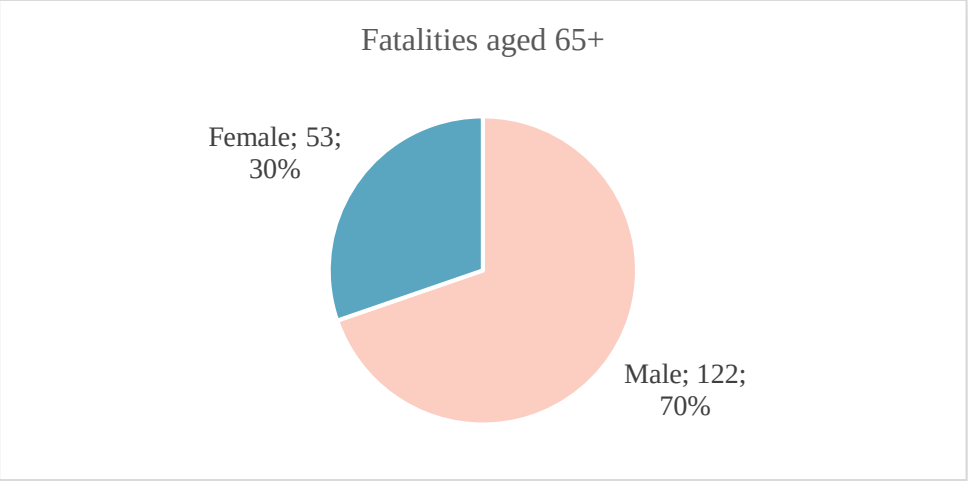


Figure 5-6 Distribution of fatalities in respect of persons aged 65+ by gender, 2021

In the age category 65+, male injured persons account for 56%, while female injured persons account for 44%, of the total number of injured persons in this age category in road accidents in the Republic of Serbia in 2021 (Figure 5-7).

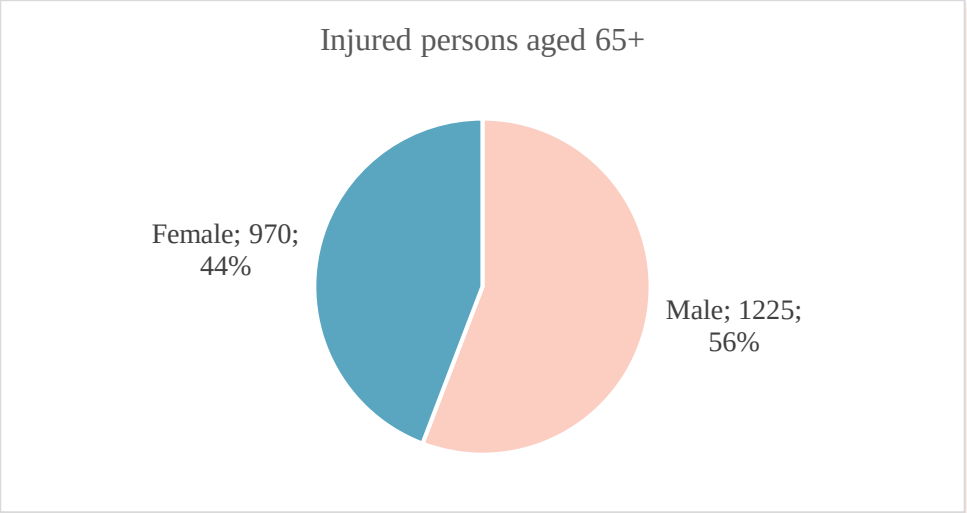


Figure 5-7 Distribution of injured persons aged 65+ by gender, 2021

By analysing the capacity of traffic participation of male fatalities aged 65+ in 2021, it can be noticed that 60% of males were killed as drivers, 32% as pedestrians, and 8% as passengers (Figure 5-8).

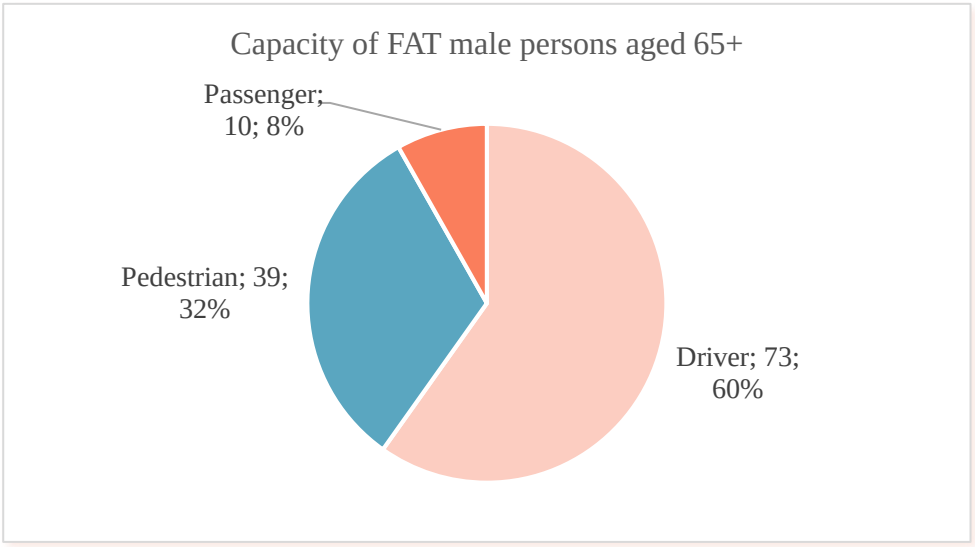


Figure 5-8 Distribution of male fatalities aged 65+, 2021

By analysing the capacity of traffic participation of female fatalities aged 65+ in 2021, it can be noticed that 72% of females were killed as pedestrians, 24% as passengers, and 4% as drivers (Figure 5-9).

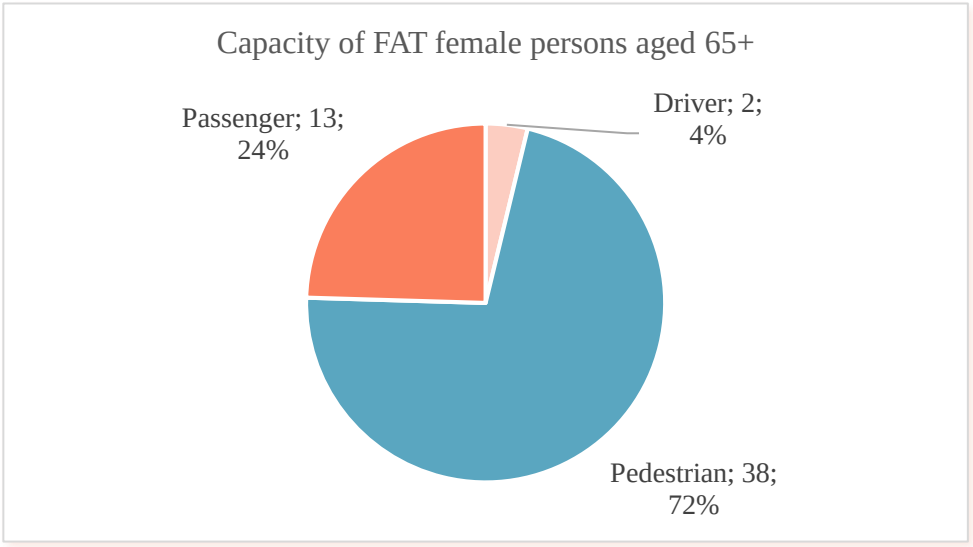


Figure 5-9 Distribution of female fatalities aged 65+, 2021

Table 5-5 shows the monthly distribution of fatalities, seriously injured, slightly injured, and totally injured persons and casualties aged 65+ in road accidents, in 2021.

Table 5-5 Monthly distribution of FAT, SeBI, SlBI, INJ and CAS in respect of persons aged 65+, 2021

MONTH	FAT	SeBI	SlBI	INJ	CAS
January	15	35	89	124	139
February	7	36	78	114	121
March	4	43	82	125	129
April	8	52	94	146	154
May	15	67	158	225	240
June	13	63	148	211	224
July	13	73	173	246	259
August	25	60	171	231	256
September	20	62	146	208	228
October	12	58	134	192	204
November	22	67	110	177	199
December	21	57	139	196	217
TOTAL	**175**	**673**	**1,522**	**2,195**	**2,370**

Observed by months, the highest number of fatalities in respect of persons aged 65+ had occurred in August (25), while fewest number of fatalities had occurred in March (4) (Figure 5-10).

The increased risk of injury in respect of persons aged 65+ has been recorded in the period from May to September, with the month of July standing out in particular (246). Fewest persons aged 65+ have been injured in February (114).

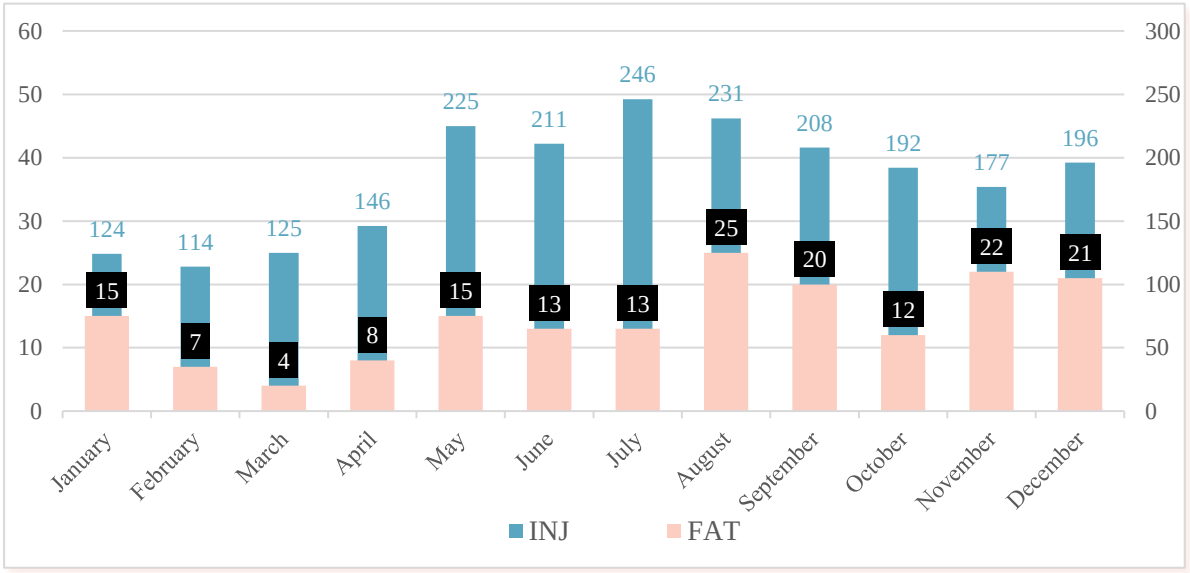


Figure 5-10 Monthly distribution of fatalities and injured persons aged 65+, 2021

Table 4-7 shows the distribution of fatalities, seriously injured, slightly injured, and totally injured persons and casualties aged 65+ in road accidents per days of the week, in 2021. Viewed by days of the week, the highest number of fatalities in respect of persons aged 65+ had occurred on Monday (32) and Wednesday and Friday (29 fatalities, respectively), while fewest fatalities have occurred on Sunday (13) (Table 5-6).

Table 5-6 Distribution of FAT, SeBI, SlBI, INJ and CAS in respect of persons aged 65+ per days of the week, 2021

DAY	FAT	SeBI	SlBI	INJ	CAS
Monday	32	90	242	332	364
Tuesday	25	101	218	319	344
Wednesday	29	100	217	317	346
Thursday	27	104	211	315	342
Friday	29	104	265	369	398
Saturday	20	93	198	291	311
Sunday	13	81	171	252	265
TOTAL	**175**	**673**	**1,522**	**2,195**	**2,370**

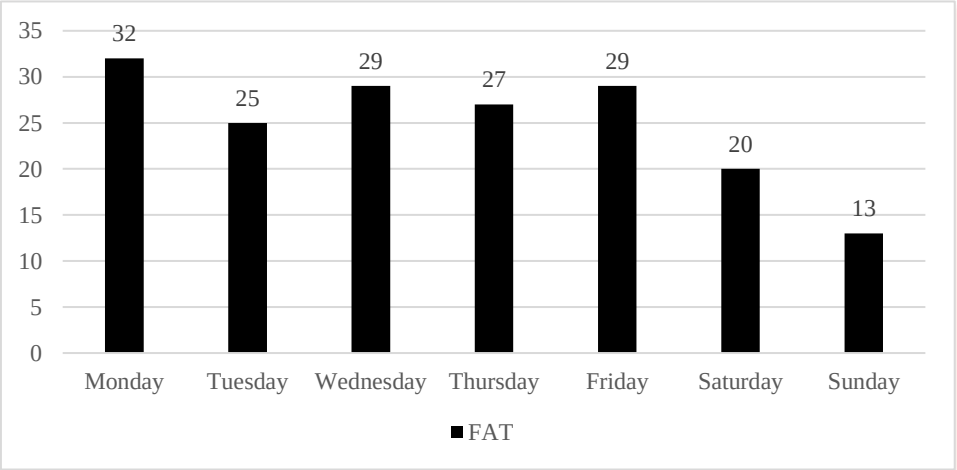


Figure 5-11 Distribution of fatalities in respect of persons aged 65+ per days of the week, 2021

The distribution of fatalities and injured drivers and passengers aged 65+, by hours of the day in 2021, is shown in Figure 5-12. Table 5-7, in addition, provides the data on seriously and slightly injured drivers and passengers aged 65+, as well as on the total number of casualties and injured drivers and passengers aged 65+, by hours of the day, in 2021.

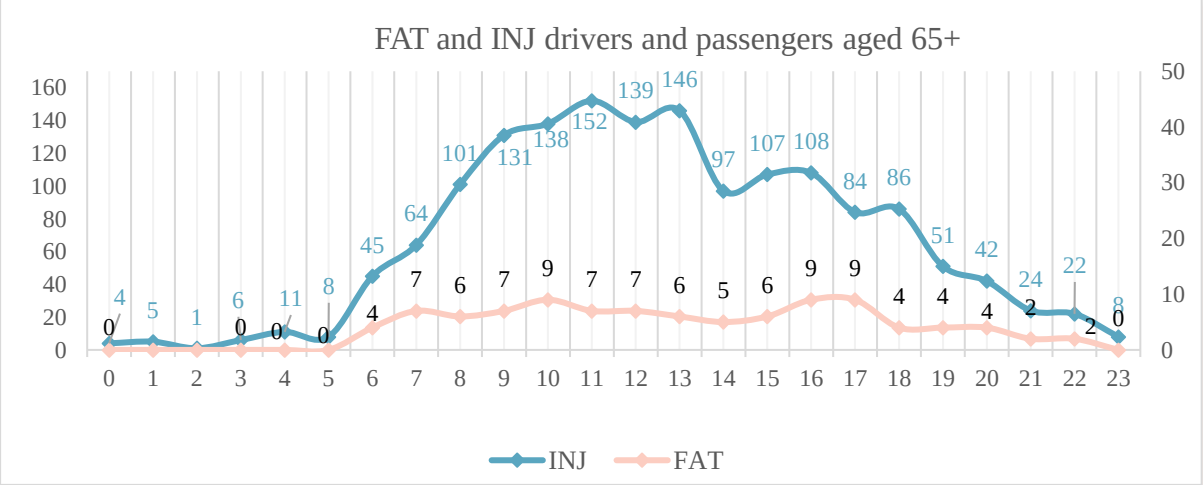


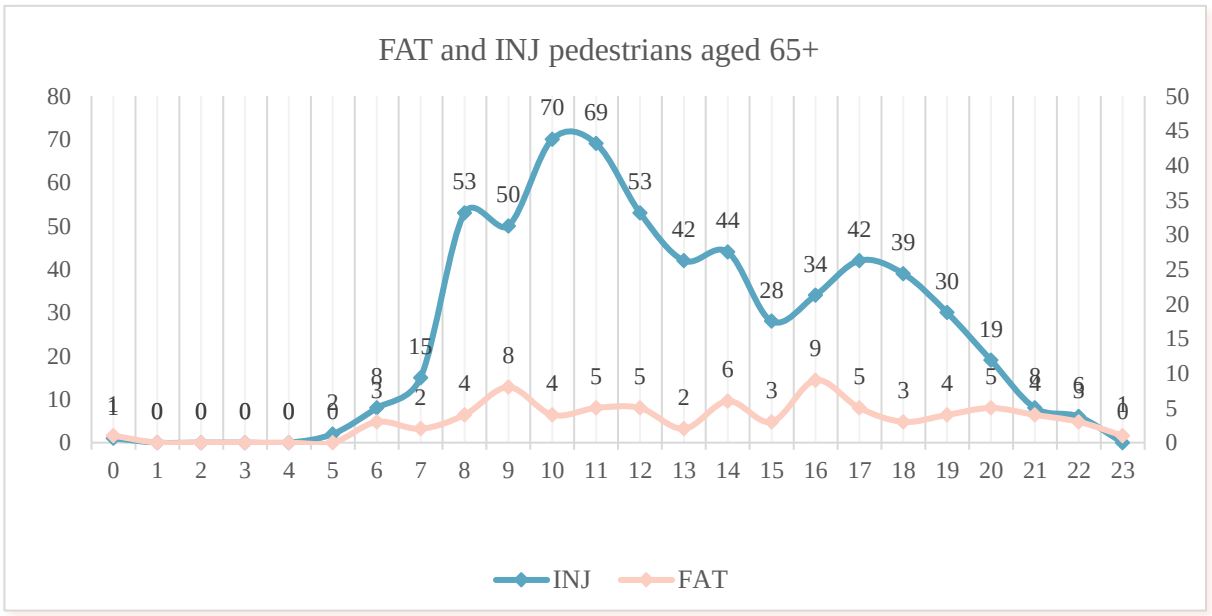
Figure 5-12 Hourly distribution of fatalities and injured drivers and passengers aged 65+, 2021

Table 5-7 Hourly distribution of FAT, SeBI, SlBI, INJ and CAS in respect of drivers and passengers aged 65+, 2021

HOUR RA	FAT	SeBI	SlBI	INJ	CAS
00:00-00:59	0	2	2	4	0
01:00-01:59	0	1	4	5	0
02:00-02:59	0	0	1	1	0
03:00-03:59	0	2	4	6	0
04:00-04:59	0	2	9	11	0
05:00-05:59	0	1	7	8	0
06:00-06:59	4	11	34	45	4
07:00-07:59	7	19	45	64	7
08:00-08:59	6	23	78	101	6
09:00-09:59	7	38	93	131	7
10:00-10:59	9	41	97	138	9
11:00-11:59	7	33	119	152	7
12:00-12:59	7	31	108	139	7
13:00-13:59	6	41	105	146	6
14:00-14:59	5	18	79	97	5
15:00-15:59	6	28	79	107	6
16:00-16:59	9	36	72	108	9
17:00-17:59	9	23	61	84	9
18:00-18:59	4	28	58	86	4
19:00-19:59	4	11	40	51	4
20:00-20:59	4	8	34	42	4
21:00-21:59	2	3	21	24	2
22:00-22:59	2	4	18	22	2
23:00-23:59	0	0	8	8	0
TOTAL	**98**	**404**	**1,176**	**1,580**	**98**

The highest number of fatalities, in respect of drivers and passengers from the age category 65+, had occurred during the daytime hours, i.e. in the period from 8 a.m. to 6 p.m. (80%). The highest number of injuries sustained by drivers and passengers from the age category 65+, had occurred in the period from 8 a.m. to 5 p.m. (71%).

The distribution of fatalities and injured pedestrians aged 65+, per hours of the day in 2021, is shown in Figure 5-13. Table 5-8, in addition, provides the data on seriously and slightly injured pedestrians aged 65+, as well as the data on the total number of pedestrian casualties aged 65+, per hours of the day, in 2021.



Graph 5-13 Hourly distribution of pedestrian fatalities and injured pedestrians aged 65+, 2021

Table 5-8 Hourly distribution of FAT, SeBI, SlBI, INJ and CAS in respect of pedestrians aged 65+,2021

HOUR RA	FAT	SeBI	SlBI	INJ	CAS
00:00-00:59	1	1	0	1	2
01:00-01:59	0	0	0	0	0
02:00-02:59	0	0	0	0	0
03:00-03:59	0	0	0	0	0
04:00-04:59	0	0	0	0	0
05:00-05:59	0	2	0	2	2
06:00-06:59	3	5	3	8	11
07:00-07:59	2	10	5	15	17
08:00-08:59	4	24	29	53	57
09:00-09:59	8	22	28	50	58
10:00-10:59	4	29	41	70	74
11:00-11:59	5	22	47	69	74
12:00-12:59	5	22	31	53	58
13:00-13:59	2	18	24	42	44
14:00-14:59	6	14	30	44	50
15:00-15:59	3	9	19	28	31
16:00-16:59	9	18	16	34	43
17:00-17:59	5	24	18	42	47
18:00-18:59	3	19	20	39	42
19:00-19:59	4	15	15	30	34
20:00-20:59	5	9	10	19	24
21:00-21:59	4	5	3	8	12
22:00-22:59	3	1	5	6	9
23:00-23:59	1	0	0	0	1
TOTAL	**77**	**269**	**344**	**613**	**690**

The highest number of fatalities, in respect of pedestrians from the age category 65+, had occurred at 9 a.m. and 4 p.m.. The highest number of injuries sustained by pedestrians from the age category 65+, had occurred in the period from 10 a.m. to 12 p.m.

In road accidents with fatalities, in which persons aged 65+ were involved as road users, the most commonly identified type group was *road accidents with pedestrians* (83) and *road accidents with at least two vehicles – without turning* (54) (Figure 5-14).

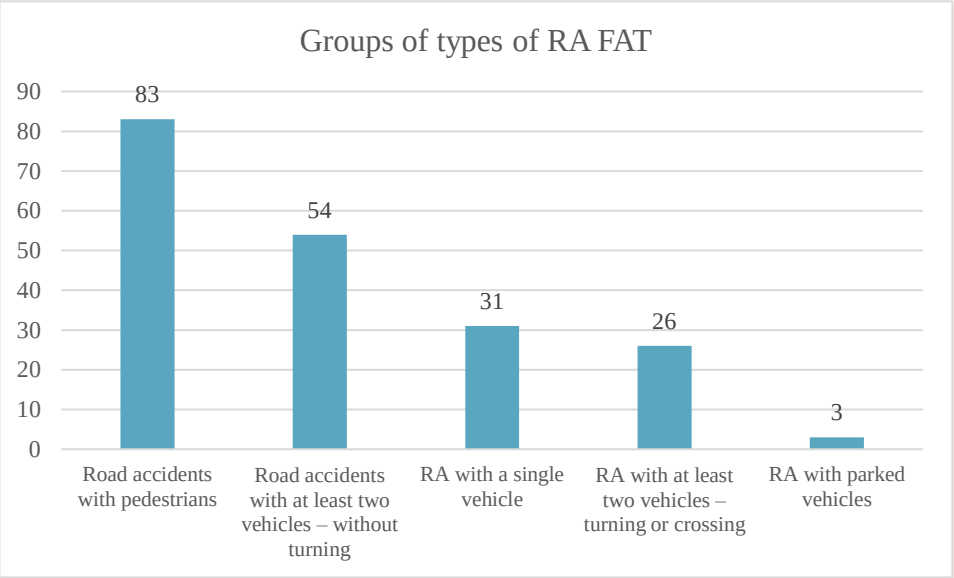
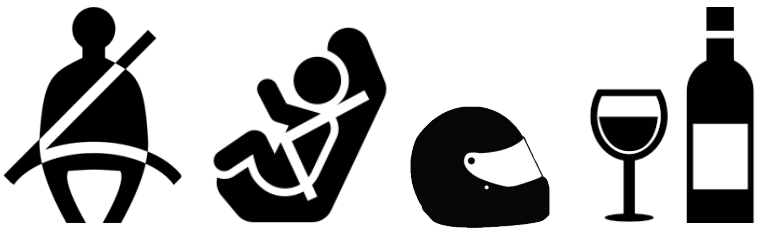


Figure 5-14 Distribution of the identified types of road accidents with fatalities, involving persons aged 65+ as road users, according to groups of RA types, 2021

Republic of Serbia
Road Traffic Safety Agency

Indicators concerning the behaviour of road users



Road Traffic Safety Agency
Republic of Serbia

6 Indicators concerning the behaviour of road users

The measurement and assessment of the level of road traffic safety is carried out by using direct, indirect, or a combination of direct and indirect indicators. In regards to direct indicators, the indicators which numerically represent road accidents and their consequences, which are presented in the previous part of the Statistical Report, are most often used.

Indirect indicators make it possible to assess the level of road traffic safety even before the occurrence of first road accident, i.e. without knowing the data on road accidents and their consequences.

The data on the values of road traffic safety indicators indicate to key issues and their scope, as well as to the responsibilities and obligations of certain institutions and organizations in charge of undertaking measures related to specific indicators. Positive changes in the value of indicators, from the aspect of road traffic safety, shall contribute to reducing the number of road accidents and their consequences.

In 2013, the Road Traffic Safety Agency had commenced with monitoring Road Safety Performance Indicators (RSPI) in respect of the Republic of Serbia. The research on indicators was carried out continuously in the period from 2013-2021. The research was conducted in each of the Police Administrations (PA) in the Republic of Serbia, after which such data was consolidated and indicator values were obtained for the entire territory of the Republic of Serbia. In 2018, as part of the project, a pilot project for the PA Kragujevac was created, and from that moment onwards the measurement was carried out for each LSU in the PA Kragujevac. The conclusion of the pilot project is that it is justified to measure the indicators for each LSU within the PA. In order to obtain more precise data for the territory of each individual Local Self-government Unit in 2019, the measurement of indicators was carried out at the level of LSUs for all PAs in the Republic of Serbia.

Table 6-1 shows the values of the most important Road Safety Performance Indicators related to the behaviour of road users (use of seat belts, child restraint systems, exceeding the permitted speed limit, protective helmets and driving under the influence of alcohol), in the period from 2013 to 2021, in respect of the Republic of Serbia. For all indicators, the limits of the indicator classes are shown, based on which the value of the indicator is classified into the appropriate class. For each indicator, five classes are defined, to which the following colours are associated: green, yellow, orange, red and black. Green colour indicates the best class for each indicator, while black colour indicates the worst class. By observing the data on the values of the indicators over the years, it can be noticed that there is an established positive trend for most of the indicators, but that it is necessary to invest additional efforts in order to influence the change in the behaviour of road users in relation to the values of the RSPIs.

The stagnation or decline in the value of some indicators in 2019 was recorded for the reason of their measurement at each LSU, and not at the level of PAs; therefore, the measurement sample was significantly increased.

Table 6-1 Values of RSPI and their classes in the Republic of Serbia, in the period 2013-2021

Title RSPI	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2017 (%)	2018 (%)	2019 (%)	2020 (%)	2021 (%)
Seat belts at the front seats (driver and passenger) **in PV**	68,1	70,3	73,0	75,1	75,7	82,7	84,3	84,3	84,5
Seat belts at the back seats in PV	3,1	4,0	7,4	10,1	11,6	12,3	19,1	20,6	19,6
Child restraint Systems (0-3 yrs)	32,0	35,9	44,3	40,2	48,2	59,9	61,5	62,1	69,1
Child restraint systems (4-12 yrs)	7,0	9,2	14,7	17,2	27,2	44,6	38,5	46,0	47,6
Exceeding the permitted speed limit in a settlement, PV	not measured	56,3	51,0	53,8	49,4	48,4	51,0	not measured	50,7
Exceeding the permitted speed limit in a settlement, FV	not measured	35,7	32,0	30,9	28,2	31,1	27,4	not measured	30,4
Exceeding the permitted speed limit in a settlement, BUS	not measured	40,3	34,7	31,5	29,8	30,6	25,1	not measured	33,0
Use of a protective helmet by MOT riders	93,7	91,5	89,3	90,6	88,8	94,6	87,6	90,1	90,9
Use of a protective helmet by MOP riders	84,2	72,4	73,9	80,2	69,6	84,6	67,9	69,7	58,3
% of drivers in the traffic under the influence of alcohol	0,95	not measured	0,75	0,71	0,53	0,65[8]	0,63	0,68	0,57

[8] In the period from 2013-2017, the limit of blood alcohol concentration was 0.3 mg/ml; since 2018, this limit was lowered to 0.2 mg/ml

Safety systems: safety belt, booster car seats and safety helmet	Class
95%≤ RSPI	1
90%≤ RSPI <95%	2
80%≤ RSPI <90%	3
70%≤ RSPI <80%	4
RSPI <70%	5

% of drivers who exceed the permitted speed limit	Class
0%≤ RSPI <5%	1
5%≤ RSPI <10%	2
10%≤RSPI<15%	3
15%≤RSPI<20%	4
20%≤RSPI	5

% of drivers in traffic who drive under the influence of alcohol	Class
RSPI < 0,05%	1
0,05% ≤ RSPI ≤ 0,15%	2
0,15% ≤ RSPI ≤ 0,25%	3
0,25% ≤ RSPI ≤ 0,35%	4
RSPI ≥ 0,35%	5

By comparative analysis of the results of the research on RSPIs by years, one can notice the trend/change in the value of each of the indicators which has been established over the years. In this way, it can be concluded whether there has been an improvement or deterioration in various segments of the behaviour of road users.

Table 6-2 shows, for each of the observed indicators, the general conclusion in respect of the trend established in the observed nine-year period, for the territory of the Republic of Serbia (in total for all roads).

Table 6-2 Established trend/direction of RSPI values in the Republic of Serbia, 2013-2021

RSPI name	Trend/direction of RSPI values
Percentage of use of seat belts on the front seats of passenger vehicles	growth trend
Percentage of use of seat belts on the back seats of passenger vehicles	growth trend
Percentage of use of child restraint systems for children up to 3 years of age	growth trend
Percentage of use of child restraint systems for children from 4 to 12 years of age	growth trend (except in 2019)
Percentage of passenger vehicles (PV) that have exceeded speed limit	downward trend (except in 2019)
Percentage of freight vehicles (FV) that have exceeded speed limit	downward trend (except in 2018)
Percentage of buses (BUS) that have exceeded speed limit	downward trend (except in 2018 and 2021)
Percentage of use of safety helmet by motorcyclists (MOT)	trend fluctuates
Percentage of use of safety helmet by moped riders (MOP)	trend fluctuates
Percentage of drivers in traffic driving under the influence of alcohol	downward trend (except in 2020)

Republic of Serbia
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CONCLUSION

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Republic of Serbia

7 Key results

Based on the analysis of road accidents and their consequences in the five-year period (from 2017 to 2021) and on the basis of a detailed analysis of road accidents and their consequences in 2021, the following indicators of the state of road traffic safety in the Republic of Serbia can be distinguished:

- ✓ In the period from 2017 to 2021, a total of 173,360 road accidents have occurred, of which 2,451 were road accidents with fatalities, while 66,887 were road accidents with injured persons.
- ✓ A stable downward trend in respect of the number of road accidents with fatalities was established in the observed period from 2017 to 2021. The highest number of road accidents with fatalities had occurred in 2017 (525), while the fewest number of road accidents had occurred in 2020 (459).
- ✓ In the period from 2017 to 2021, a total of 2,674 persons have been killed in road accidents in the Republic of Serbia, 16,474 persons have suffered serious injuries, while 83,280 persons have suffered slight injuries.
- ✓ In the last five years, a stable downward trend in the number of fatalities has been established, with the exception of 2021. The highest number of fatalities had occurred in 2017 (579), while the lowest number had occurred in 2020 (492).
- ✓ In the previous five years, drivers and passengers in passenger vehicles have accounted for the largest share of fatalities (45%), followed by pedestrians (26%), cyclists (9%) and motorized two-wheelers (9%). Therefore, vulnerable road users account for 43% of total fatalities in road accidents. Drivers and passengers on tractors account for 5%, drivers and passengers in freight vehicles account for 3%, and drivers and passengers in buses account for 1% of all fatalities.
- ✓ In 2021, there were 482 road accidents with fatalities, in which a total of 521 people have been killed. There were 13,273 road accidents with injured persons. A total of 3,347 persons have suffered serious bodily injuries, while 16,558 persons have suffered slight bodily injuries.
- ✓ Observed by capacity of traffic participation, the largest share in the number of fatalities in 2021 is attributed to drivers of motor vehicles (229; 44%); followed by pedestrians (148; 29%),
  passengers (94; 18%) and cyclists (48; 9%). The highest number of persons have suffered injuries as drivers of motor vehicles (9,396; 47%) and as passengers (6,570; 33%), followed by pedestrians (2,576; 13%) and cyclists (1,324; 7%).
- ✓ In 2021, the largest number of fatalities are from the age group 65+ (175), followed by the age groups 15-30 (101), 31-44 (79), 55-64 (78) and 45-54 (77). Two age groups stood out in respect of injured persons: young road users aged 15-30 (6,587) and the age group 31-44 (4,830).

- ✓ Most of the driver fatalities were from the age group 65+, followed by the age group 15-30. Most of the passenger fatalities were from the age group 15-30, while in terms of pedestrian fatalities, persons from the age group 65+ are the most represented.
- ✓ Among pedestrians, the most represented age group was 65+ (44%), which is also the most represented age group among cyclists (40%), among drivers and passengers on tractors (35%) and among drivers and passengers in buses (32%), viewed according to the weighted number of casualties.
- ✓ Male persons account for 78% of fatalities and 61% of injured persons in road accidents in 2021. Female persons account for 22% of fatalities and 39% of persons injured in road accidents.
- ✓ In the capacity of drivers, men account for 92% of fatalities and 78% of injured persons. In the capacity of passengers, women account for 43% of fatalities and 57% of injured persons. In the capacity of pedestrians, men account for 62% of fatalities and 40% of injured persons.
- ✓ In road accidents with fatalities, the majority were drivers who had their driver's license up to one year.
- ✓ In 2021, the fewest number of fatalities in road accidents had occurred in February (20), after which the number of fatalities had been climbing, reaching its maximum values in November (57) and December (60).
- ✓ The fewest number of persons were injured during the first four months of 2021. The fewest number of persons who have suffered injuries in road accidents had occurred in February. The highest number of persons who have suffered injuries in road accidents had occurred in the period from May to August (7,796 persons).
- ✓ Observed by days of the week, the fewest number of road accidents with fatalities had occurred on Tuesdays, and the highest on Saturdays.
- ✓ For driver and passenger fatalities during daytime, the period from 2 p.m. to 9 p.m. stands out. The majority of drivers and passengers have suffered injuries in the period between 12 p.m. to 7 p.m..
- ✓ When it comes to pedestrian fatalities, the period from 4 p.m. to 7 p.m. stands out. Most pedestrians were injured in the period between 11 a.m. and 3 p.m. and between 5 p.m. and 8 p.m.
- ✓ The most commonly identified type groups of road accident with fatalities in 2021 were *road accidents with pedestrians* (144), followed by *road accidents with a single vehicle* (136); and *road accidents with at least two vehicles – without turning* (129).
- ✓ The most commonly identified groups of influential factors of road accidents with fatalities in 2021 were *undertaking of reckless actions by the driver* (307, 64%), followed by *incorrect performance of traffic actions by the driver* (205, 43%).

- ✓ After 2011, a downward trend in respect of the number of children fatalities was established, which lasted until 2014. In the period from 2015-2018, the number of children fatalities had fluctuated, only for this number to reach 10 children fatalities again in 2019 (as in 2014). In 2021, there was a slight decrease in the number of children fatalities (11 children fatalities) compared to 2020.
- ✓ In 2021, children passengers have accounted for 45.5% of children fatalities, children pedestrians have accounted for 45.5%, while 9% of children fatalities were cyclists.
- ✓ Of a total of eleven children fatalities in road accidents in 2021, ten were boys and one was a girl. When it comes to injured children, boys make up 57% (757), while girls make up 43% (565), of the total number of injured children.
- ✓ After 2011, a relatively stable downward trend, regarding the number of fatalities in respect of young road users, has been established.
- ✓ Of the total number of fatalities in respect of young people, as many as 52% were drivers, 31% were passengers, and 17% were pedestrians. Injured young people make up 51% in their capacity as drivers, 40% as passengers, and 9% as pedestrians.
- ✓ Out of a total of 53 young driver fatalities, 30 were operating a passenger vehicle (58%), while 15 were riding a motorcycle (31%).
- ✓ The majority of fatalities, in respect of young people who were killed in road accidents, were 20 years old (12 people).
- ✓ Fatalities in respect of young men make up 83%, while fatalities in respect of young women make up 17%, of the total number of young people who have been killed in road accidents in the Republic of Serbia in 2021.
- ✓ Observed by months, the majority of young people have been killed in road accidents in the period from June to August. The fewest number of fatalities in respect of young people has occurred in March (3).
- ✓ Fatalities in respect of young drivers and passengers have mostly occurred in the evening, night and early morning hours. The highest number of fatalities, in respect of young people as drivers and passengers, had occurred in the period between 9 p.m. and 2 a.m.. The largest number of young people as drivers and passengers were injured in the period from 2 p.m. to 11 p.m., i.e. 55% of the total number of injured young people.
- ✓ In road accidents with fatalities, in which young people were involved as road users, the most commonly identified type group was *road accidents with a single vehicle* (44), followed by *road accidents with at least two vehicles – without turning* (24) and *RA with pedestrians* (16).
- ✓ A slight downward trend in the number of fatalities, in respect of persons aged 65+, has been established over the years. The highest number of fatalities in respect of persons aged 65+ had occurred in 2012 (187), while the fewest number of fatalities from the said age category had occurred in 2014 (130) and 2020 (138).

- ✓ Of the total number of fatalities in respect of persons aged 65+, 43% were drivers, 44% were pedestrians, and 13% were passengers. Injured persons aged 65+ account for 47% as drivers, 28% as pedestrians, and 25% as passengers, while two persons were not road users.
- ✓ Of the total number of fatalities in respect of persons aged 65+, 43% were drivers, 44% were pedestrians, and 13% were passengers. Injured persons aged 65+ account for 47% as drivers, 28% as pedestrians, and 25% as passengers, while two persons were not road users.
- ✓ Out of a total of 75 driver fatalities aged 65+, 34 were operating a passenger vehicle (45%), 23 were riding a bicycle (31%), 7 were operating a tractor (9%) and 4 were riding a moped (5%).
- ✓ Observed by months, the majority of fatalities, in respect of persons aged 65+, have occurred in August (25). Fewest fatalities in respect of persons aged 65+ have occurred in March (4).
- ✓ The highest number of fatalities, in respect of drivers and passengers from the age category 65+, had occurred in the period from 8 a.m. to 6 p.m. (80%). The highest number of injuries sustained by drivers and passengers from the age category 65+, had occurred in the period from 8 a.m. to 5 p.m. (71%).
- ✓ The highest number of fatalities, in respect of pedestrians from the age category 65+, had occurred at 9 a.m. and 4 p.m.. The highest number of injuries sustained by pedestrians from the age category 65+, had occurred in the period from 10 a.m. to 12 p.m..
- ✓ In road accidents with fatalities, in which persons aged 65+ were involved as road users, the most commonly identified type group was *road accidents with pedestrians* (83) and *road accidents with at least two vehicles – without turning* (54).

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