

State Of Road Safety on The Roads of Kazakhstan

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In the process of work, theoretical studies were carried out on foreign practices in compiling reports on the state of road safety on the roads of foreign countries and their associations . In addition, an analysis of the state of road safety on public roads in Kazakhstan was carried out, the main factors determining the current state of accidents and trends in their changes over the past period were identified. Economic losses from road accidents were determined in accordance with the current methodology.

As a result of the work, the structural elements of the annual report on the state of road safety were proposed and justified , as well as the main indicators characterizing the state of road safety on highways of republican significance in the Republic of Kazakhstan. Data on changes in indicators have been prepared . characterizing road safety on highways of republican significance in Kazakhstan, medical expenses, production losses, human losses, material damage, and administrative expenses caused by road accidents for the analyzed period were determined.

Figures 1.1-1.3 present data on the number of accidents, the number of deaths and injuries, respectively, on public roads for the period from 2010 to 2019 and on the republican roads of Kazakhstan over the past five years.

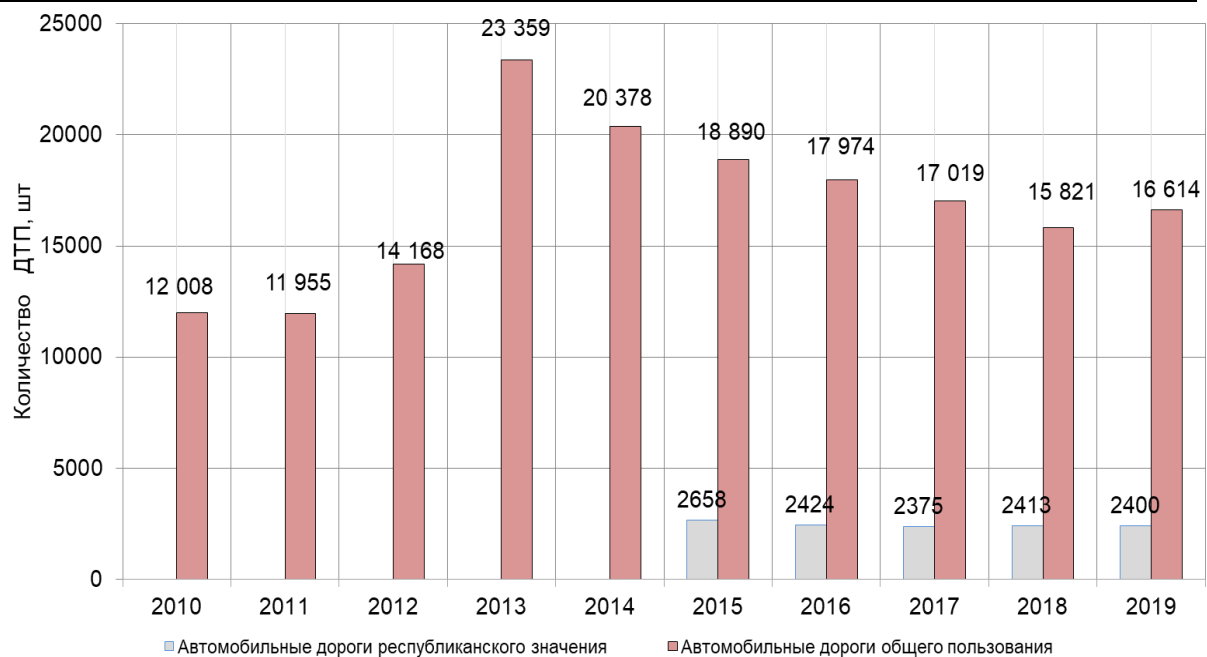


Figure 1.1 - Comparative data on the number of accidents on republican highways and public roads in Kazakhstan

The data in Figure 1.1 indicate that the overall accident rate is approaching a certain limit and this limit is higher than in developed countries. At the same time, the accident rate on the republican roads has already stabilized - in the last five years it has fluctuated around 2,400 accidents per year. The reduction in the total number of road accidents occurs mainly due to measures to ensure traffic safety on the road network of populated areas. This is a completely natural change when, following the surge in road accidents that occurred in 2013, caused by qualitative and quantitative changes in traffic flow and road users, it is adapted to accepted system parameters - infrastructure, principles of traffic management, legislative policy in the field of road safety, law enforcement measures, etc.

It is worth noting a positive trend that began in 2015 - a reduction in the number of deaths and injuries in road accidents on roads of republican significance. However, it should also be said that this trend is slowing down.

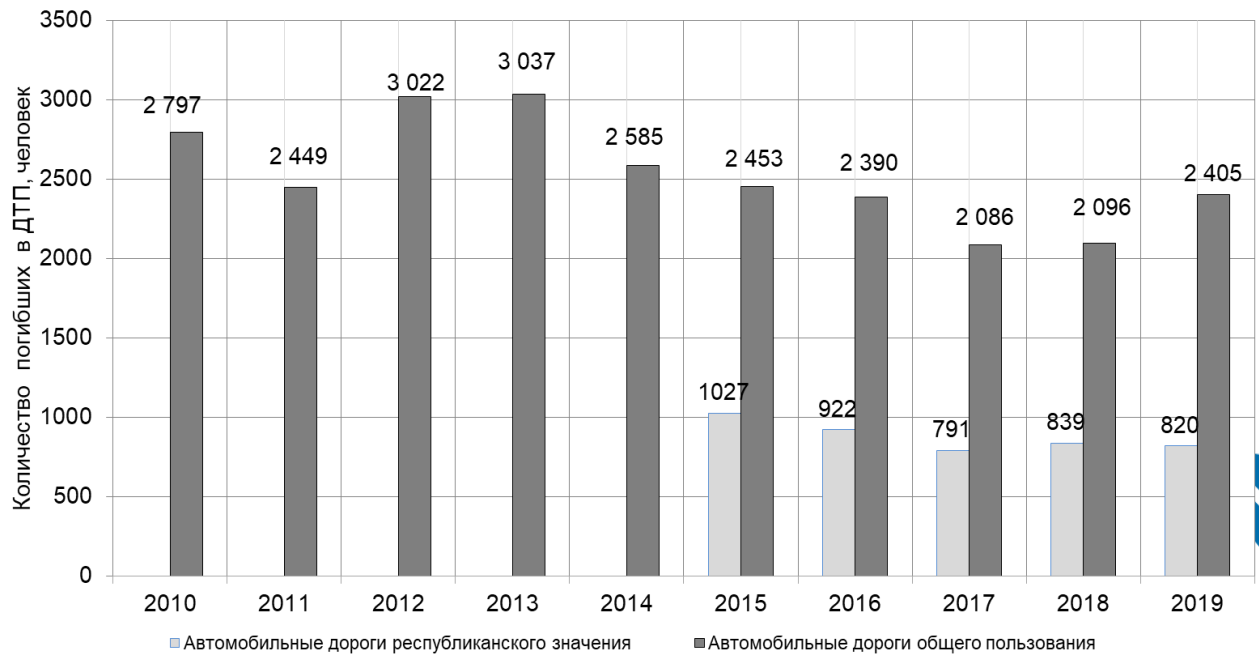


Figure 1.2 – Comparative data on the number of deaths in road accidents on republican roads and public roads in Kazakhstan

Thus, remaining within the framework of traditional measures related to engineering arrangements and principles of traffic organization, it will not be possible to significantly improve traffic safety in the Republic of Kazakhstan. We can say that engineering activities in the field of road safety in the accepted format have reached their limit.

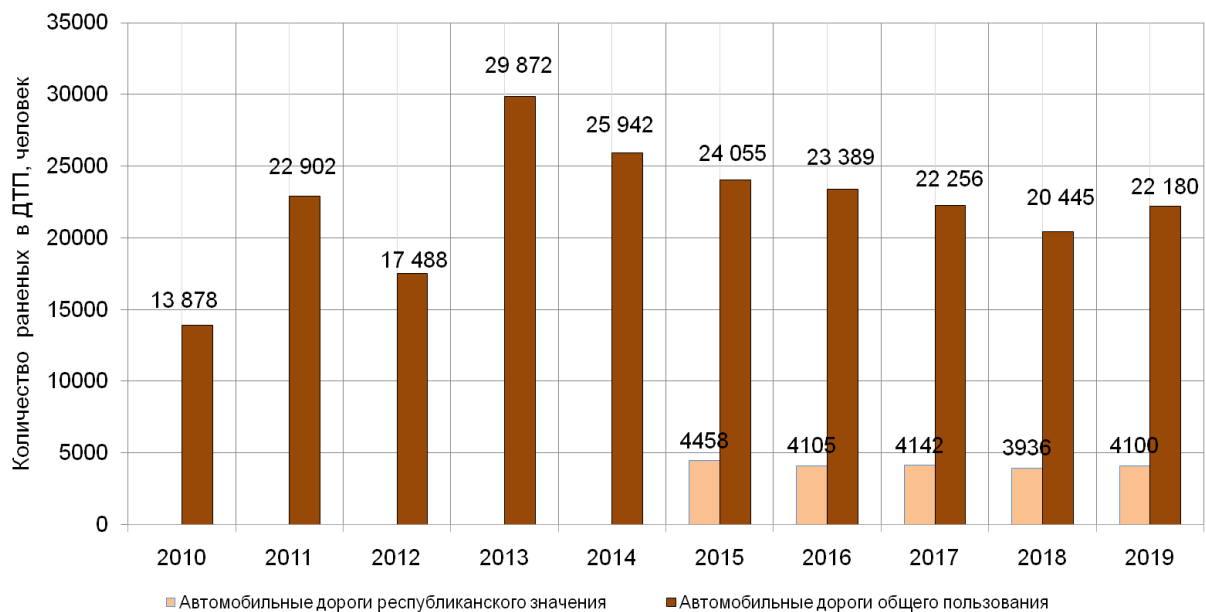


Figure 1.3 - Comparative data on the number of injured in road accidents on republican highways and public roads in Kazakhstan

If we consider trends in changes in accident rates through the prism of aggregated quality indicators - Figure 1.4-1.6, then the phenomena described above are even more obvious. Thus, the accident rate, which characterizes the number of accidents per 100 km of the road network for republican highways, has stabilized around the value of 9.85 accidents/100 km, while the number of fatal accidents is significantly higher on roads of republican significance, while the bulk of accidents with injuries occur on other roads - in particular on the road network of populated areas. This difference is explained by different speed regimes: republican roads allow high vehicle speeds, hence the mortality rate of road users is higher (Figure 1.7), despite the significant increase in the length of public roads and the road network.

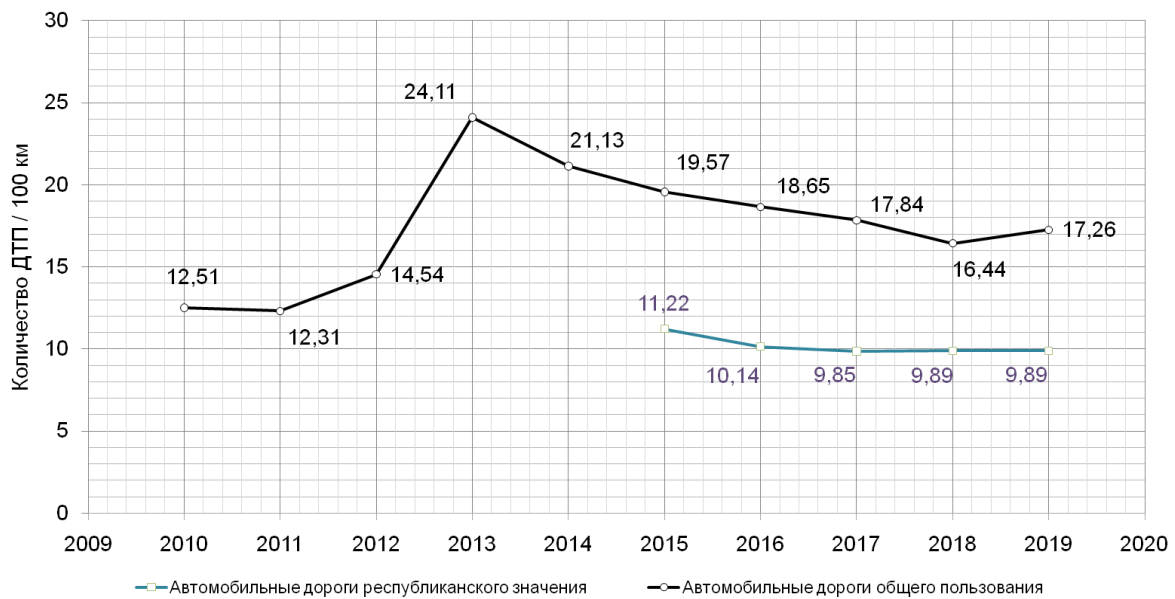


Figure 1.4 – Comparative data on accident rates on republican roads and public roads in Kazakhstan

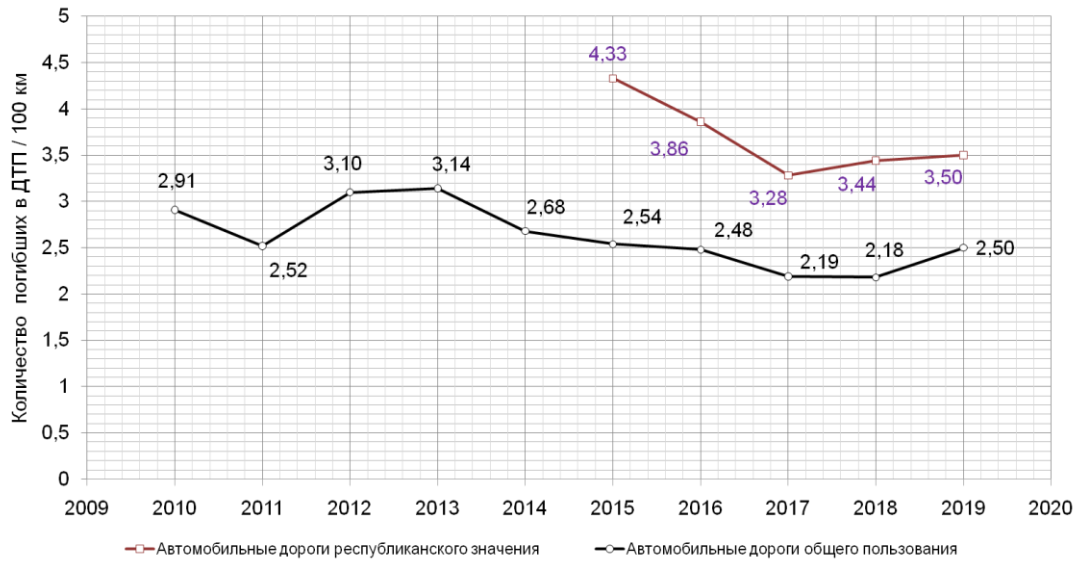


Figure 1.5 – Comparative data on accident rates on republican roads and public roads in Kazakhstan

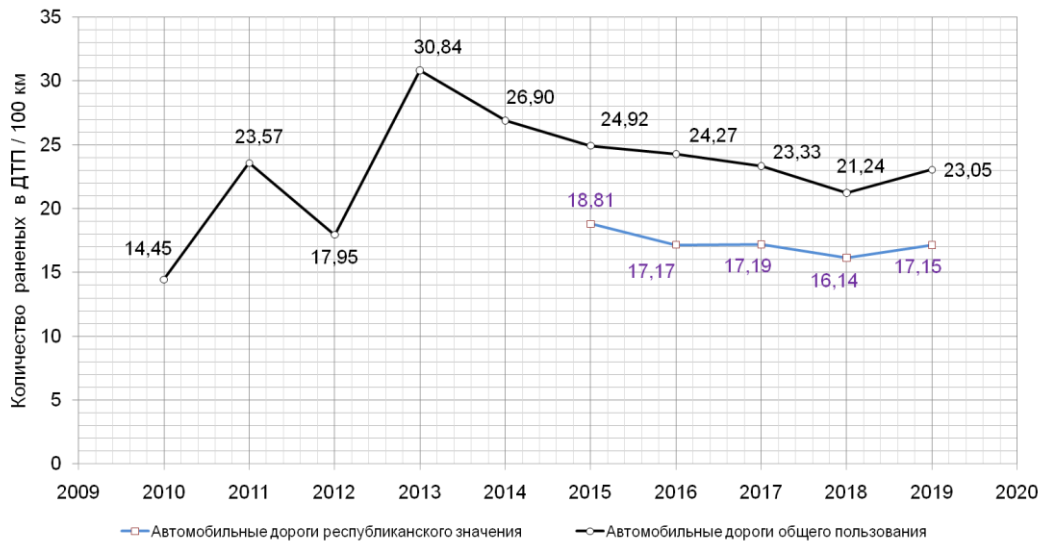


Figure 1.6 - Comparative data on accident rates on republican roads and public roads in Kazakhstan

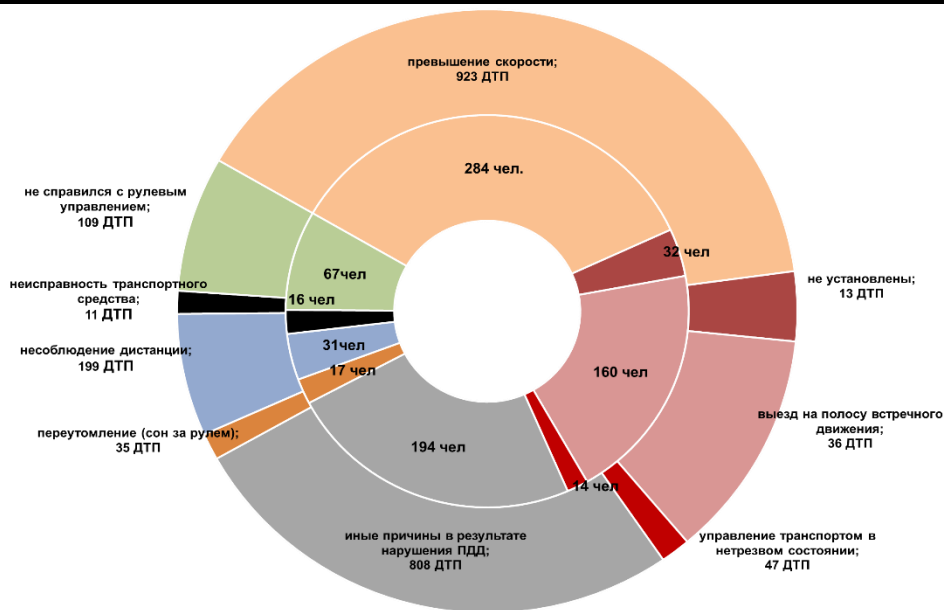


Figure 1.7 – Causes of road accidents

At the same time, it should also be noted that there is a stabilization of all the main indicators indicating the adaptation of road users to the existing road safety system. Thus, the results obtained make it possible to formulate the main indicators characterizing the state of road safety on highways of republican significance in Kazakhstan and to prepare the structural elements of such a report. In addition, the results of the work done demonstrate the main trends in changes in accident rates on roads of republican significance in Kazakhstan, and are the initial information for re-evaluating the current principles of ensuring road safety and forming new goals for the short and medium term.

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