

ASSESSMENT OF TRAFFIC SAFETY AND ROAD ACCIDENTS ON THE ROADS OF RUSSIA

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Abstract. The article addresses issues related to the analysis of road safety in Russia. The authors analyze reporting and statistical data on road accidents both for the country as a whole and for key issues. The main provisions and conclusions outlined in the article can serve as a basis for the development of effective programs to improve road safety in Russia.

Keywords: accident rate, safety, road traffic accident, statistics.

ОЦЕНКА БЕЗОПАСНОСТИ ДОРОЖНОГО ДВИЖЕНИЯ И АВАРИЙНОСТИ НА ДОРОГАХ РОССИИ

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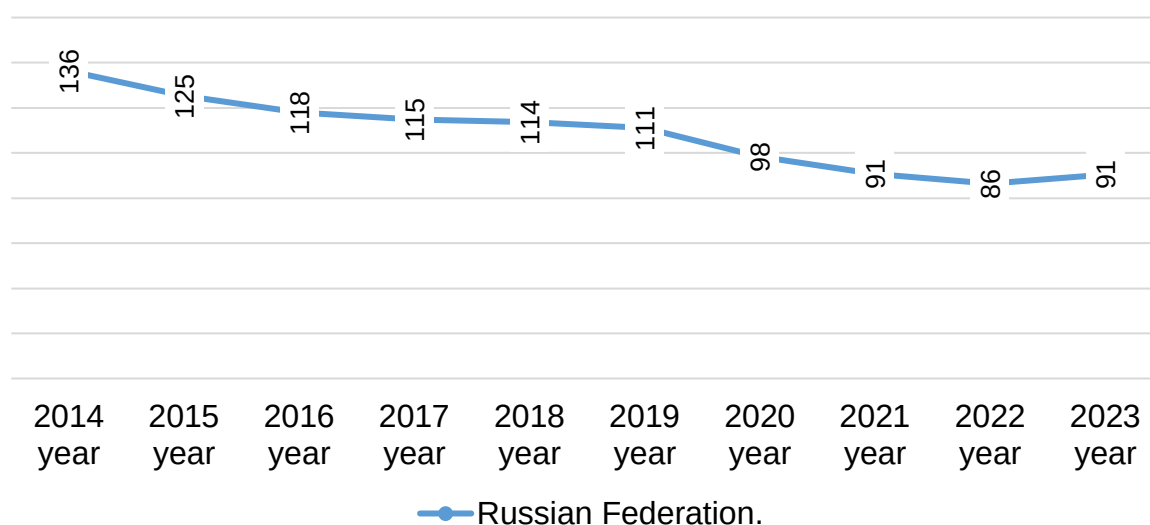
Аннотация. В статье рассматриваются вопросы, связанные с анализом безопасности дорожного движения в России. Авторы анализируют отчетность и статистические данные о дорожно-транспортных происшествиях как по стране в целом, так и по ключевым вопросам. Основные положения и выводы, изложенные в статье, могут послужить основой для разработки эффективных программ повышения безопасности дорожного движения в России.

Ключевые слова: аварийность, безопасность, дорожно-транспортные происшествия, статистика.

Road safety is assessed by considering annual accident rates, and the impact of these rates on the economy. Road accidents are analyzed in the aspect of statistical information.

The negative consequences of road accidents, in particular the enormous socio-economic damage annually raise questions about the need to improve road safety on the street and road network. Measures to improve road safety often provide temporary solutions and do not bring a radical and long-term result in solving the transportation problem. The emergence of measures to be taken in the field of transportation and traffic safety is possible, first of all, by detailed study and analysis of the problem, and then by eliminating the factors that cause it [1].

Today in Russia, 6491,2 million tons of cargo (Figure 1) and 15177,5 million people were transported by road transport in the last reporting period.



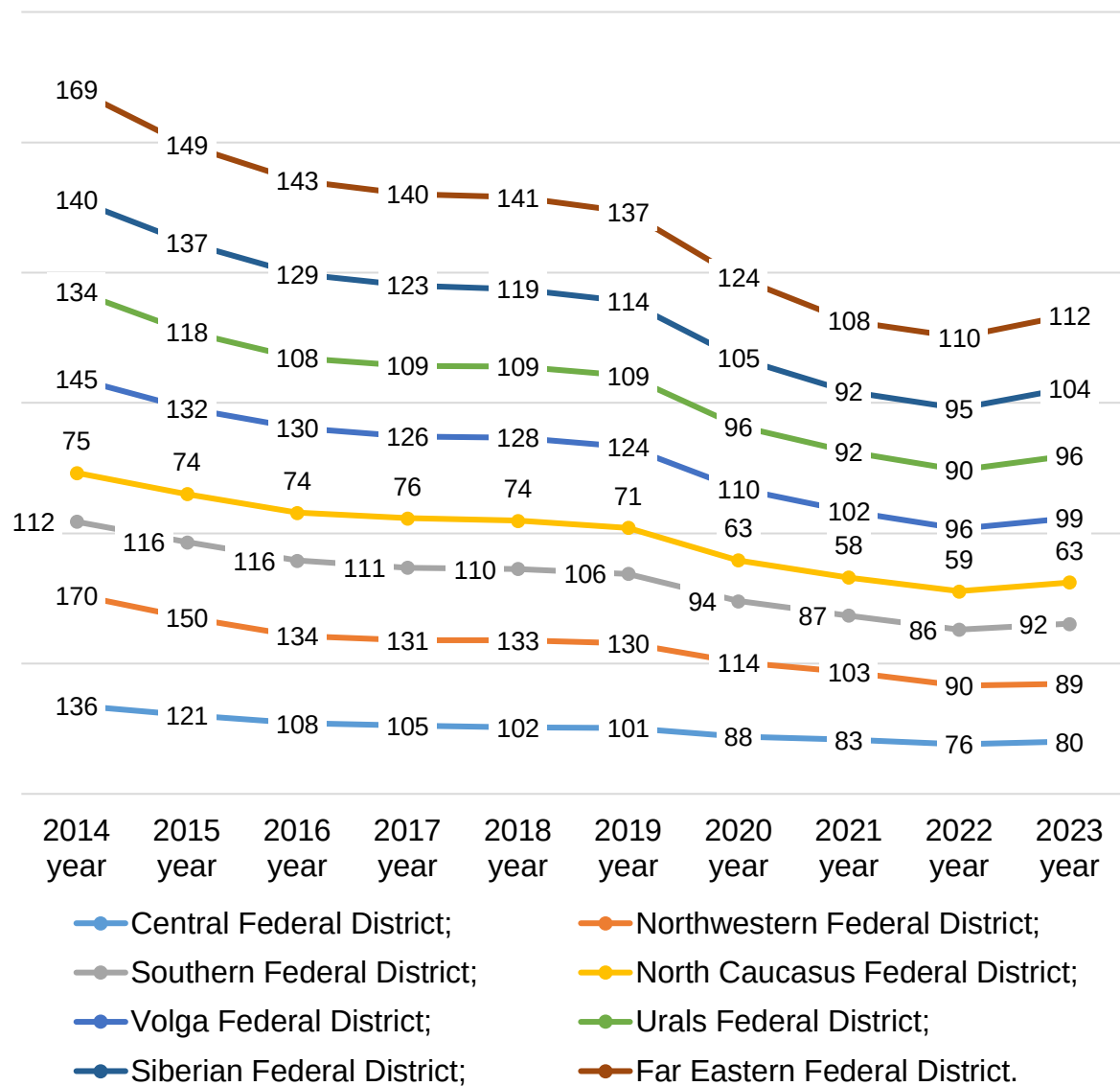


Figure 1 – Reporting and statistical indicators by entities and the country as a whole

These indicators are a clear example showing how unhealthy the external policies of sanctions, restrictions and economic crises are. The need for transportation is growing day by day, influenced by factors such as fluctuations in population (including direct users of transportation services) and socio-economic fluctuations. At the same time, the constant migration from rural areas to urban agglomerations increases the transportation problem day by day, especially in urban areas.

Changes in the above indicators inevitably lead to the persistence of the dynamics of road accidents. Information on road accidents for the last reporting period shows 15177,5 positions (per 100000 population, units).

Expressing crashes in numerical form alone can be misleading. For this reason, in addition to showing changes on a time period basis expression that can be presented as a ratio of crashes to other factors are more meaningful. In traffic engineering, crash rates are expressed in static quantities such as population, number of vehicles, total number of roads and so on, which are not directly related to vehicle use, as well as in quantities such as vehicle-km expressing the total distance traveled or vehicle-hours expressing the total duration of trips.

It is worth noting that the observed increase in the number of road accidents shows how imperfect Russia's transportation safety is. It is possible to assume that this situation is a consequence of uncontrolled and without infrastructure growth of urban agglomerations, the number of vehicles.

According to the information data, the amount of payouts under compulsory civil liability insurance in case of a road traffic accident: 400000 rubles - damage to the victim's vehicle or other property damaged in the collision; 500000 rubles - damage caused to the life and health of people: other drivers, passengers and other persons. Moreover, people who were riding in the car of the guilty person are also compensated for the damage. Of this money, 25,000 rubles goes to cover the cost of burying the deceased. The amount of compensation depends on the amount of damage and injuries sustained. At the same time, the maximum compensation for damage to health under the insurance is paid only in case of lethal outcome. Based on official data, the economic damage in the general aspect of accidents in road transport reaches hundreds of millions of rubles.

Federal Law № 196-FL dated 10.12.1995 «On Road Traffic Safety» initiated a new era of safety in Russia and became the main regulatory and legal source in the field of road traffic safety. This law has been in force since 1995 and to a certain extent has taken control of transportation safety [2].

Every road traffic crash is a complex event that has a causal relationship. The causal relationship is based on the system «Driver -- Vehicle – Road – Environment». And the main factors are characterized either in errors in decision making in driving, mechanical or electrical faults of the vehicle, the condition of the highway, and the influence of weather and others [1].

The human factor is a very complex and difficult to understand element because individual factors such as age, fatigue, physical disabilities, alcohol and drug use, and behavioral patterns in the context of psychological, socio-economic and cultural interactions must be taken into account.

It is necessary to take into account all technical characteristics of vehicles in motion. For example, there are many end-of-life vehicles on our roads that are not properly maintained and equipped. On the other hand, periodic technical inspections are not carried out as required.

Insufficient capacity and standards of existing roads, intersections and signalization, lack of adequate medians, faulty design and poor quality, and inadequate road policing systems are factors in road crashes. When analyzing crashes within the Driver - Vehicle - Road - Environment system, it should not be forgotten that these factors are also interrelated with each other. For example, a person driving a technically sound vehicle in good weather conditions on a well-designed and constructed highway is less likely to have an accident, while the risk of an accident increases when considering the same person with a technically inadequate vehicle on a poor road. Therefore, it is necessary to try to correct these three factors at the same time. In addition, most deaths and permanent disabilities resulting from crashes are caused by a lack of timely and appropriate medical intervention.

Eliminating such deficiencies or minimizing their impact on traffic unsafety is the solution in the first instance. In the long term, unplanned urbanization, uncontrolled growth and migration from rural to urban agglomerations must be prevented. In the light of the above, the recommendations can be summarized by the facts that the role of road safety authorities should be strengthened and the burden on transport should be reduced. Vehicles should be seriously monitored at regular intervals. It is necessary to organize training (advanced training or professional retraining) of all participants of the transport system. And first aid training will reduce the number of fatalities and permanent injuries. At the same time, fines for traffic violations should become a deterrent.

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