

Водночас треба провадити широку роз'яснювальну роботу з пішоходами й велосипедистами щодо застосування в темну пору доби на одязі світловідбивних елементів, а також більш вимогливо виконувати вимоги Правил дорожнього руху під час користування дорогою.

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UDC 656.08:311.174

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SEASONAL CHANGES IN ROAD AND TRANSPORT ACCIDENTS IN UKRAINE: STRUCTURAL DIFFERENCES

The indices and seasonal waves of indicators of road traffic accidents are analyzed based on statistical data from the Patrol Police Department of the National Police

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DOI (Article): [https://doi.org/10.36486/np.2022.4\(58\).14](https://doi.org/10.36486/np.2022.4(58).14)

Issue 4(58) 2022

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of Ukraine regarding the total number of accidents without victims and with victims.

It was found that the annual seasonal waves of accidents began with the improvement of road conditions at the beginning of the year and constantly grew until the middle of the second half of the year. Thus, the beginning of the seasonal wave of road accidents with victims was recorded earlier – since February, and the seasonal wave of road accidents without victims began in May. The minimum values of the index of annual seasonality of accidents with injuries occurred in February (69.2 %) and the maximum in September (121.5 %), while the minimum index of annual seasonality of accidents without injuries occurred in April (82.8 %), and the maximum in December (124.2 %).

Comparison of the indices of weekly seasonality of accidents with injuries with the indices of weekly seasonality of accidents without injuries reveals disagreements in the trends of accidents during the week, in addition to the fact that on Friday in both series there was a peak, respectively (109.7 %) and (116.1 %). In addition, the indices of weekly seasonality of accidents without casualties had more dynamic deviations during working days and weekends. The minimum values of the index of weekly seasonality of accidents with injuries were on Monday (95.9 %), and the minimum values of the index of weekly seasonality of accidents without injuries were on Sunday (72.1 %).

The beginning of the daily seasonal wave of accidents with victims and accidents without victims was at 4 am. At this hour, both time series had the lowest values of 25.7 % and 13.3 %, respectively. Since 8 o'clock in the morning the seasonality indexes exceeded the average daily values. One of the characteristic features of the daily seasonality of accidents without injuries was a significant range between the minimum indices of the dynamic series at night and the maximum values during the day, in contrast to the indices of daily seasonality of accidents with victims, smaller deviations from the average values. In both time series, the peak of the daily seasonal wave occurred at the end of the working day, at 17:00, for accidents with injuries (184.3 %) and accidents without injuries (176.5 %).

Based on the considered patterns of seasonal waves of road accidents with and without victims, their dependence on natural and social periods of time was found:

the period of the season of the year – the total duration of daylight hours, deterioration of the quality of the road surface due to its moisture or icing, an increase in the operating time of cars in the warm season and a decrease in the cold;

period of the week – the social component, through working days and days off, a change in labor productivity and the development of fatigue in people;

period of the day – a change in traffic intensity, natural light, for workers almost the same start and end of working hours, changes in labor productivity and the development of fatigue, physiological changes in humans.

Keywords: traffic, traffic accident, accident rate, seasonal wave.

Отримано 28.11.2022