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ORIGINAL PAPER

APPLICATION OF METHODS OF TWO-DIMENSIONAL DATA ANALYSIS BASED ON OBSERVATION DEPTH MEASURE IN A SAMPLE

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Abstract

In Poland, cycling is becoming increasingly popular as a fast form of transport and recreation. The aim of this study was to assess the density of bicycle paths and the percentage of road accidents involving bicycles as the responsible vehicle in voivodeships, using selected statistical methods based on observation depth measure in a sample. The methods used allowed for the ranking of voivodeships in terms of the values of the diagnostic features studied and the identification of voivodeships with the lowest or highest values of bicycle path density and the percentage of road accidents in which a bicycle was the vehicle responsible. Based on the analysis, it can be concluded that the highest density of bicycle paths in the years under study was recorded in the Pomorskie, Wielkopolskie, and Śląskie voivodeships, while the highest percentage of road accidents in which a bicycle was the perpetrator was recorded in the Małopolskie and Podkarpackie voivodeships. The lowest density of bicycle paths was recorded in the Warmińsko-Mazurskie voivodeship.

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