

This study aims to understand road safety in Slovakia by comparing datasets from the Statistical Office of the Slovak Republic. The focus is on identifying trends and patterns in traffic incidents across regions. The research explores the impact of a major legislative change in 2009, regional variations in traffic incidents, and the influence of railway crossing types.

Firstly, the study focused on the legislative change in 2009, and the Mann-Whitney U test confirmed that this change significantly influenced the trends in traffic accidents. The statistically significant differences between regions were confirmed using the Kruskal-Wallis test with the post-hoc Dunn's test. Due to the absence of a consistent demographic dataset, investigating the relationship between demographic factors and accident frequency was not feasible. The railway crossing type's impact on the accident rate was examined through correlation analysis and multiple linear regression, revealing a positive correlation with unsecured crossings.

Thanks to the fact that the work is well-written and that the argumentation is well-explained, the work is very convincing.

Questions & remarks:

1. In section 3.1 and Fig 2, there is a comparison of "before 2009" and "after 2009". Please specify how long the considered period was "before 2009" and "after 2009" and if both periods were of the same length. Is the "number of accidents, slightly injured" per year or the whole period?
2. In section 4, why is the threshold of the p-value set to 0.05? This threshold value makes sense for normally distributed data, which, as you said in section 3.1, is not the case for your data.
3. Section 5.2 mentions multiple diagnostic plots (Q-Q plot, residuals vs fitted) and their visual inspection. However, the plots are not included in the report. It would be helpful for the readers to include the diagnostic plots since the visual inspection is a part of your argumentation.

Little details:

1. There seems to be no context or reference for Fig 1.
2. Regarding Fig 2: the box plots in the image are in the order "after, before". If you are going to include this figure in your presentation, please consider swapping the boxes so they are in chronological order and that the decrease in number of accidents is more obvious.
3. Section 3.2, page 4, right under Table 3: there is a lost remark "P value adjustment method: Bonferroni". Was it supposed to be connected with the rest of the text (maybe the table caption), or was it just a forgotten comment?

Region of	Banská Bystrica	Bratislava	Košice	Nitra	Prešov	Trenčín	Trnava
Bratislava	1.000	-	-	-	-	-	-
Košice	0.038	1.000	-	-	-	-	-
Nitra	2×10^{-4}	4×10^{-4}	1.000	-	-	-	-
Prešov	0.001	0.016	1.000	1.000	-	-	-
Trenčín	0.001	0.011	1.000	1.000	1.000	-	-
Trnava	0.002	0.012	1.000	1.000	1.000	1.000	-
Žilina	2×10^{-4}	2×10^{-4}	0.046	0.007	0.022	0.067	0.014

Table 3: Pairwise comparisons using Dunn's test for dataset Caused drivers of non-motor vehicles

P value adjustment method: Bonferroni