Unexplained Spike: Investigating the 2022 Road Fatalities in Tasmania

V. Siale[1,*] and K. Somasundaraswaran[2]

[1]University of Southern Queensland, Toowoomba, Australia [2]University of Southern Queensland, Toowoomba, Austria

**Correspondence: u1056049@umail.usq.edu.au*

Abstract

In 2022, there were 51 road fatalities more than double the decade average of 21 an outcome that is both alarming and unacceptable. This research project examined the circumstances surrounding these fatalities to identify contributing factors and explore strategies to prevent such tragedies from recurring in the future. The literature review highlighted the increasing number of vehicles and road users as primary contributing factors to road incidents. Based on these findings, several predictive models were developed to better understand and anticipate risk patterns. However, vehicle and road user numbers in Tasmania did not significantly increase in 2022, suggesting that these factors alone cannot account for the sudden spike in road fatalities that year. Data from the U.S. Fatality Analysis Reporting System (FARS) revealed that lane departure crashes were the most common type of fatal incident. This finding aligns with existing literature, which identifies key contributing factors such as driver behaviour, excessive speed, road surface conditions, lighting, and horizontal road alignment. A similar analysis of crash data found that neither road defects nor the commonly cited contributing factors—such as speed, lighting, or road conditions—directly accounted for the 2022 fatalities. This suggests that driver behaviour may have played a more significant role despite the fact that most motorists involved were familiar with the crash locations. The underlying causes of this behavioural component, however, remain unclear. In addition, given the significant role of the Safe System approach in influencing fatality outcomes, safety audits were conducted at all crash sites. The findings revealed that several locations featured forgiving road environments, which may have mitigated the severity or likelihood of crashes. Interestingly, the majority of these sites were rated as having relatively high safety standards, suggesting that infrastructure alone may not fully account for the fatal outcomes observed. The research then explored unique events in 2022 that may have influenced driver performance. One such event was the implementation of compulsory COVID-19 vaccinations, which enabled the easing of public health restrictions. While there is no direct evidence linking vaccination to impaired driving, it is possible that broader pandemic-related stressors combined with increased mobility and a sense of familiarity with the road network may have contributed to risk-taking behaviours among motorists. These behavioural shifts could have played a role in the rise in road fatalities. Thus, the findings suggest that behavioural changes possibly influenced by post-pandemic conditions played a critical role, highlighting the need for deeper exploration of driver psychology and systemic resilience.

Keywords: Driver Behaviour, Lane Departure Crashes, Post-Pandemic Effects, Road Fatalities, Safe System Approach, Tasmania 2022 Spike