

Understanding the Safety Impacts of Imbalances in Truck Parking Supply and Demand

Authors : Rahil Saeedi

Abstract : The imbalance in truck parking supply and demand can create important safety issues for truck drivers and the public. Research has shown that breaks at specific intervals can increase drivers' alertness by reducing the monotony of the task. However, if fatigued truck drivers are unable to find a safe parking spot for rest, they may continue to drive or choose to park at remote and insecure areas or undesignated locations. All of these situations pose serious safety and security risks to truck drivers and other roadway users. This study uses 5-year truck crash data in Ohio to develop and test a framework for identifying crashes that happen as a result of imbalances in truck parking supply and demand. The societal impacts of these crashes are then interpreted as monetary values, calculated using the costs associated with various crash severity levels.

Keywords : truck parking, road safety, crash data, geofencing, driver fatigue, undesignated parking

Conference Title : ICTS 2022 : International Conference on Transportation and Safety

Conference Location : London, United Kingdom

Conference Dates : October 13-14, 2022