

Car Accident Severity

Problem Description and Background

Background

The largest city in Washington State, Seattle, also known as the Emerald City, is home to a massive tech industry, with Microsoft and Amazon headquarters in its metropolitan area. It has a total population of 3.4 million in the metro region as of 2020 (www.macrotrends.net). In Seattle, the total number of personal vehicles reached a new high of nearly 444,000 vehicles in 2016. Since 2010 (www.seattletimes.com), the vehicle population has more than doubled in one South Lake Union census tract. The rise in car ownership rates, because of a simple likelihood, will lead to higher numbers of road accidents. Around 1.35 million people die annually in road accidents worldwide, an average of 3,700 people lose their lives on the roads every day, and an additional 20-50 million suffer non-fatal injuries, frequently resulting in long-term disabilities.

Problem

Because of car accidents, the world as a whole suffers, including the USA. The United States National Highway Traffic Safety Administration estimates that in a single year, the economic and social damage incurred by automobile accidents will cost up to \$871 billion. According to WSDOT data from 2017, a car accident happens every 4 minutes and a person dies in Washington State every 20 hours due to a car crash, while fatal accidents increased from 508 in 2016 to 525 in 2017, resulting in 555 deaths. Based on a few variables, the project aims to predict how the magnitude of incidents can be minimised.

Stakeholders

The Seattle Public Development Authority, which works to improve these road factors, and the car drivers themselves, who can take measures to reduce the severity of accidents, may benefit from reducing the severity of accidents.