Self-reported behavior, perceptions, and attitudes of drivers regarding seat belt use: a descriptive study

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Abstract
Increasing seat belt usage among motor vehicle occupants is considered one of the most effective ways of reducing negative effects of motorization in terms of fatalities. Even though the effectiveness of seat belts is widely known and accepted, seat belt usage remains relatively low in the United States. In addition to types of seat belt laws and associated enforcement practices, there seem to be many human factors related to non-use of seat belts. Therefore, this study conducted road-user surveys with the intention of identifying human factor-related issues that are playing a role in relation to seat belt use. Perceptions, attitudes, understandings, stated compliance levels, potential motivators, etc. of road users were obtained through the survey in order to suggest more effective countermeasures to improve seat belt use. Based on identified critical areas, more focused education and training programs need to be developed. In addition, enforcement levels need to be increased, specifically in areas where the most benefit in terms of seat belt usage could be achieved. It was however, interesting to observe that even drivers themselves agree that stricter laws, higher fines, and other penalties are helpful in increasing the self-discipline needed to wear seat belts more frequently.

Keywords – seat belt use, seat belt laws, human factors, driver behavior, road user surveys

1. Introduction
Motor vehicle travel is the primary means of transportation in the United States, providing an unprecedented degree of mobility. However, traffic fatalities are one of the leading causes of death in the United States. In 2008, 37,261 people lost their lives in motor vehicle crashes, which converts to an average of 102 lives per day or one life every 12 minutes [9]. Even though the number of fatalities fell to record levels in 2010, the number stands at 32,788 which is still considerable [11]. Statistics also show that 86% of these fatalities involved vehicle occupants, while the remaining 14% involved pedestrians, bicyclists, and other non-occupants. Additionally, each year millions of unintentional injuries occur due to automobile crashes. While many factors might be contributing to these fatalities and injuries, increasing seat belt usage among motor vehicle occupants is undoubtedly considered as one of the most effective ways of reducing the toll.