



ISSN: 2277-9655

[Ahmad\* *et al.*, 5(12): December, 2016] Impact Factor: 4.116

IC™ Value: 3.00 CODEN: IJESS7

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[409]

# IJESRT

## INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH TECHNOLOGY

### COST-BASED ANALYSIS FOR HIGH SEVERITY LOCATIONS OF TRAFFIC ACCIDENTS IN JORDAN

**Hesham S. Ahmad\*, Maha D. Ayoush, Subhi M. Bazlamit**

\* Al-Zaytoonah University of Jordan, Tel: 0096264291511, Fax: 0096264291432, Web-site:

[www.zuj.edu.jo](http://www.zuj.edu.jo), P.O. Box: 130 Amman 11733 Jordan

DOI: 10.5281/zenodo.203803

#### ABSTRACT

Traffic accidents constitute a serious cause of death and injuries in the entire world. They are also considered as a major cause of financial and physical losses. This causes traffic accidents to have considerable threats and negative impacts on the entire society.

In the past few years, a large growth in the mobility of vehicles in Jordan has contributed to an increase in traffic congestion as well as in the number of traffic accidents. Although previous studies have indicated that risky behavioral characteristics of drivers is the main reason behind traffic accidents in Jordan, the number and severity of accidents can be mitigated and road safety can be improved through better design and engineering of road systems. This study aims at investigating and analyzing traffic areas in the Governorate of Madaba in Jordan that can be considered as having low level of safety and so causing major negative impact on people's health and emotions.

Data that shows severity, location and number of people and vehicles involved in each traffic accident in Madaba Governorate for the period from 2011 until 2013 was collected from the databases of the Public Security Department (PSD) in Jordan and analyzed.

Since the identification of accident location is a critical element in accidents' analysis, accidents were located on road maps. Sites with large number of accidents were precisely investigated and studied in terms of the severity of accidents, the expected economic loss and the problems causing the accidents in these sites.

This study will produce a number of practical solutions aim at improving the traffic safety and reducing the frequency and severity of traffic accidents and the associated economic and social costs in the governorate. This research will constitute a model for further studies that can be conducted in other areas in Jordan and in the world.

**KEYWORDS:** Traffic accidents, Traffic safety, Severity of accidents, Accident location, Economic cost