

The Spatial Variation of Road Accidents in Saudi Arabia, 1984 - 1993
(Geographical Analysis Toward Reducing Road Accidents)

A Project Report

Presented to the

Department of Geography

Western Illinois University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

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December, 1995

Abstract

Road accidents in Saudi Arabia are considered to be a national problem. This paper uses the rates of road accidents, injuries, and fatalities per 10,000 registered vehicles as a means of defining the spatial variation existent in Saudi Arabia. The data as issued by Public Administration of Traffic in Saudi Arabia focus on the period 1984 - 1993.

The purpose of this study is to determine and analyze the spatial variation of road accidents among the regions in Saudi Arabia. Also it is the goal to formulate policy recommendations to help reduce road accidents based on the geographical analysis of relevant statistics.

The results demonstrate that the incidence of road accidents is greater in urban than in rural areas, however, the fatality rate is greater in rural areas. The concentration of road accidents in rural areas is further impacted by the mountainous topography of a given region. Interestingly, this study demonstrates that regions with a smaller population and fewer number of vehicles have the higher rate of fatalities, whereas a region with a larger population and larger number of vehicles had the lower rate of fatalities. This unexpected outcome will be explained.

The results of the study found that the causes of road accidents are related to three convergent factors: the driver, the vehicle, and the road conditions. Reasons related to these factors will be discussed. Recommendations from the study, if adopted, could increase road safety in Saudi Arabia.