

Available online at www.sciencedirect.com



SAFETY SCIENCE

Safety Science 44 (2006) 785-795

www.elsevier.com/locate/ssci

## Experiences from dual-country drivers: Driving safely in China and the US

## Yueng-Hsiang Huang <sup>a,\*</sup>, Wei Zhang <sup>b</sup>, Matthias Roetting <sup>c</sup>, David Melton <sup>a</sup>

<sup>a</sup> Liberty Mutual Research Institute for Safety, Center for Safety Research, 71 Frankland Road, Hopkinton, MA 01748, USA

<sup>b</sup> Department of Industrial Engineering, Tsinghua University, Beijing 100084, China <sup>c</sup> Technical University Berlin, Department of Human-Machine Systems, Jebensstr. 1, 10623 Berlin, Germany

Received 29 December 2005; received in revised form 24 April 2006; accepted 10 May 2006

## Abstract

This study explored the international experience of driving in two countries from the perspectives of drivers. It highlighted the differences in driving experiences between China and the US from people who have driven in both countries. A qualitative research approach utilizing focus group discussions was conducted in China and the US. The pros and cons, strengths and weaknesses of the transportation systems in the two countries were discussed. Car accidents or near misses due to differences between the two countries were explored. Advice for people who want to drive in these two countries as foreign visitors was discussed. Results showed that there are strengths and weaknesses in both countries in their driving systems. Both countries could benefit from exploring the traffic and roadway system of the other.

© 2006 Elsevier Ltd. All rights reserved.

Keywords: Driving safety; Dual-country driver; Focus group

<sup>\*</sup> Corresponding author. Tel.: +1 508 497 0208; fax: +1 508 435 0482. *E-mail address:* yueng-hsiang.huang@libertymutual.com (Y.-H. Huang).

<sup>0925-7535/\$ -</sup> see front matter @ 2006 Elsevier Ltd. All rights reserved. doi:10.1016/j.ssci.2006.05.002

## 1. Introduction

When people travel and need to drive overseas, it is very likely that they drive the way they do in their own countries. However, driving situations (e.g., traffic rules, driving speed, road signs) and drivers' behavior may be quite different. Failure to adjust to the new driving environment may cause serious car accidents.

China is the largest developing country and has the largest population in the world of over 1.3 billion (World Bank, 2003). China also has the highest traffic fatality number of about 109,381 people in 2003 (CRTAS, 2003), which is about 20% of the total traffic fatalities in the whole world each year. On the other hand, the US is the largest developed country and has the greatest number of vehicles in the world.

If we compare the differences between the two countries (see Table 1), the lives lost from four-wheel vehicles and trucks in China were 62,737, and the deaths in the US were 41,821 in approximately the same time period (CRTAS, 2002; AUSTST, 2002). Although the number of fatalities per population for China was lower (China: US = 1:3), the fatalities per vehicle (China: US = 17.6:1) and per driver (China: US = 6.7:1) for China were much higher.

Driving in China and the US is obviously different. By exploring the differences between the two countries, we can further develop ways to improve the driving safety environment within the two countries and provide suggestions for people who want to drive in these two countries from overseas. This methodology and results could provide useful information for studying inter-country driving safety problems.

This study was the second phase of a research series on driving safety exploring the differences between China and the US. Zhang et al. (2006) reported the results of the initial phase, which involved focus groups and field observation exploring driver attitudes and perceived safe driver characteristics of Chinese and American drivers. In the first phase, a total of 44 experienced drivers (18 Chinese drivers and 26 American drivers) participated in a total of six focus groups. After conducting the focus groups, four types of driving behaviors were observed in China that provided further information. Results showed that the Chinese drivers concentrated more on driving skills and capabilities, whereas the US drivers concentrated more on practical safe driving guidelines. The purpose of the current study phase was to compare the differences in driving experiences between China and the US from people who have driven in both. This study explored the foreign country experience from the drivers' perspectives. A qualitative research approach utilizing focus group discussions was conducted in China and the US. Car accidents or near misses due to differences between the two countries were explored. The goal of this study was to provide advice for people who want to drive in these two countries as foreign visitors.

Table 1		
US/China	Basic	information

	China (CRTAS, 2002)	USA(AUSTST, 2002)
Population	1.245 billion	274.6 million
Number of vehicles (four or more wheels cars)	18.44 million	217.0 million
Number of drivers	42.61 million	190.6 million
Number of deaths due to these vehicles	62,737	41,821
Number of injuries due to these vehicles	342,379	3,189,000
Number of accidents (resulting in deaths or injuries)	540,046	2,107,000

Download English Version:

https://daneshyari.com/en/article/590388

Download Persian Version:

https://daneshyari.com/article/590388

Daneshyari.com