

13th COTA International Conference of Transportation Professionals (CICTP 2013)

Development Trends and Characteristics of Devastating Accidents in China

Jianjun Zhang ^{a,b,*}

^aResearch Institute of Highway, Ministry of Transport, No. 8 Road Xitucheng, Haidian District, Beijing, 100088, P. R. China

^bKey Laboratory for Road Safety Technology, Ministry of Transport, No. 8 Road Xitucheng, Haidian District, Beijing, 100088, P. R. China

Abstract

Currently, the prevention of devastating accidents (at least 3 fatalities in one accident) is still the focus of accidents prevention in China due to the serious consequence and the huge impact. Meanwhile, the prevention of devastating accidents that include at least 10 fatalities in one accident has been one of the most important tasks of road traffic safety. The study on the devastating accidents in China is relatively missing. The total situation, recent trends of the devastating accidents and characteristics of the devastating accidents are analyzed. Although the total devastating accidents were declined, serious accidents occurred more frequently and the consequences were more serious. The reasons of serious accidents are investigated. The increase of the accident risk and severity are main impact factors. Accidents with at least 10 fatalities in one accident occur sporadically, and it is unrealistic to completely avoid this kind of accidents. The ideas should be changed. Curbing all devastating accidents including the accidents with at least 10 fatalities in one accident should be the most important goal of road traffic safety at present. The macroscopic analysis and the in-depth analysis of devastating accident cases should be strengthened to further curb the devastating accidents.

© 2013 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Selection and peer-review under responsibility of Chinese Overseas Transportation Association (COTA).

Keywords: Devastating accident; traffic safety; large accident; in-depth study

1. Introduction

In China, the devastating accidents generally refers to the road accidents killed at least 3 people in one accident. Due to the serious consequence and the social impact, the prevention of the devastating accidents is always one of the road traffic safety works in China. Meanwhile, the prevention of the devastating accidents with at least 10 fatalities in one accident has been one of the most important tasks of the road traffic safety works.

* Corresponding author. Tel.: +86-010-82013867; fax: +86-010-62370567.

E-mail address: jj.zhang@rioh.cn

Currently, the more studies focus on the accidents with at least 10 fatalities in one accident. Due of the little number and the occasionality, the decline of the accidents with at least 10 fatalities in one accident have a little impact on the road traffic safety in China. On the other hand, the all devastating accidents including the accidents with at least 10 fatalities in one accident have more fatalities, and the decline of the devastating accidents will have a positive impact on the road traffic safety in China. However, the prevention of the devastating accidents still does not get enough attention, and the study on the devastating accidents is relatively missing.

2. Situation of the Devastating Accidents

With the decline of fatal accidents in recent years, the devastating accidents have declined, shown in Fig 1. Compared to 2005, the number of the devastating accidents and fatalities decreased by 37.68% and 34.03% respectively. Although there was variation, the proportion of the fatalities of the devastating accidents has not exceeded 10%, shown in Table 1. In 2011, 1,201 devastating accidents happened, killed 5,047 people, and the number and the fatalities of the devastating accidents accounted for 0.57% and 8.09% of the total of road accidents respectively.

The devastating accidents have dropped dramatically in recent years as mentioned above. Of which, most of the accidents killed 3 to 4 people in one accident, and part accidents killed 5 to 9 people in one accident, and the smaller part accidents killed at least 10 people in one accident, shown in Fig 2. This is consistent with the objective laws.

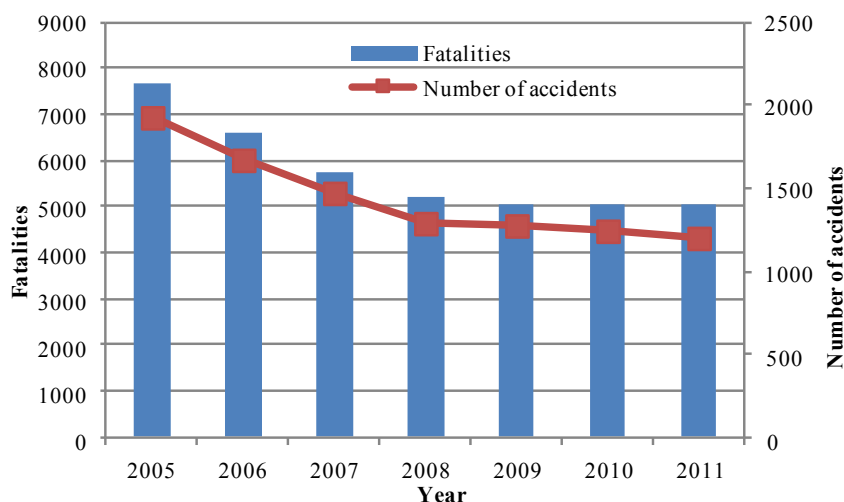


Fig. 1. Devastating accidents in China (2005-2011) (Source: Traffic Management Bureau, Ministry of Public Safety, China, 2006-2012)

Table 1. Proportion of the devastating accidents in China (Source: Traffic Management Bureau, Ministry of Public Safety, China, 2006-2012)

Year	2005	2006	2007	2008	2009	2010	2011
Proportion(%)	7.75	7.39	7.00	7.11	7.46	7.76	8.09

Download English Version:

<https://daneshyari.com/en/article/1119069>

Download Persian Version:

<https://daneshyari.com/article/1119069>

[Daneshyari.com](https://daneshyari.com)