

The H-GAC Traffic Safety Program 2004 Status Report September 1, 2004

Overview

The H-GAC traffic safety program was started in 2001 in response to serious traffic safety problems. The eight county region, by almost every indicator, has the worst safety record in the State of Texas and is among the worst in the country. H-GAC examines ‘serious crashes’ from information collected by the Accident Records Bureau of the Texas Department of Public Safety (DPS). The DPS definition of a serious crash is one involving a fatality, an injury or serious property damage where one or more vehicles was towed away. It does not include less serious property damage, or so-called ‘fender benders.’

Between 1999 and 2001 (the most current available data) there were 252,240 serious crashes in the eight county region. The region accounts for 26.4% of the total number of serious crashes in the State of Texas, but only 22% of the State’s population. In these crashes, 1,882 persons were killed and 281,914 persons were injured. These numbers represent 17.1% of all motor vehicle fatalities and 27.6% of all motor vehicle injuries in the State.

In terms of *serious crash risk* (serious crashes relative to 100 million vehicle miles traveled – VMT), the serious crash risk in the eight county region was 204 whereas the State serious crash risk was 149. No other region in Texas has a serious crash risk higher than the eight county H-GAC area.

The number of serious crashes has been increasing substantially between 1998 and 2001 (figure 1). During this time, the number of serious crashes increased by about 4,000 a year. This is even more dramatic when one considers that 2001 was an unusual year for the region. In June of 2001, Tropical Storm Allison hit the region and caused severe flooding. Travel in the region was reduced substantially and there was a 0.3% decrease in the number of motor vehicle crashes in June of 2001 compared to June of 2000. Further, after the events of September 11th, 2001, motor vehicle crashes declined by 0.5% in September 2001 compared to September 2000. Thus, the increase for the rest of 2001 was substantial.

Factors Contributing to Crashes

There are several factors that are most associated with motor vehicle crashes in the region (Table 1). These were classified by the reporting police officer at the crash scene. First, and foremost, is speeding which accounts for 39% of all crashes in the region. This is approximately three times higher than the national average. Speeding crashes are located throughout the region, but are slightly higher in the suburban counties. For example, speeding is involved in 43% of all crashes in Montgomery County

but only 38% in Harris County; similar results are seen for other suburban counties. More than half the speeding crashes occur on arterial and local streets.

A second major factor contributing to crashes is the failure to yield to another vehicle (20%), typically either making a left turn into traffic at an intersection or making a left turn across several lanes of traffic from a driveway. The third most significant factor is the failure to stop at a signal (11%), while the fourth is running a red light (8%). Finally, there is driving under the influence which was involved in 7% of crashes. Compared to national averages, the region has a disproportionate number of speeding crashes, failure to yield crashes, and red-light running crashes. This suggests a pattern of *aggressive driving* that is, unfortunately, all too common.

Figure 1:

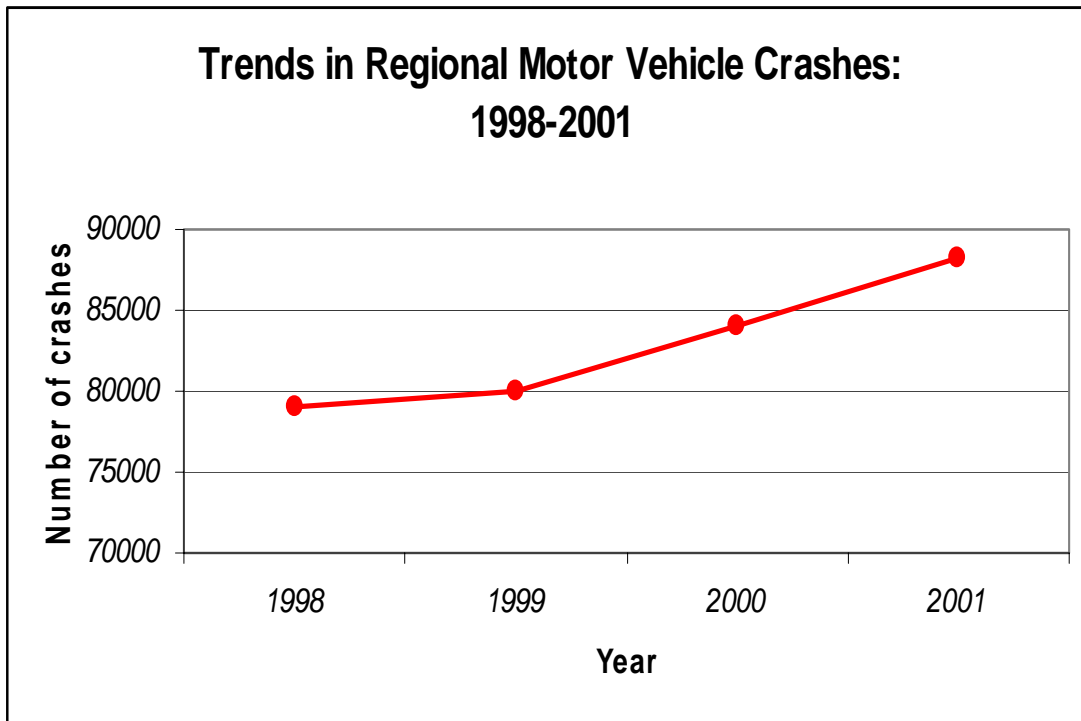


Table 1:
Factors Contributing to Regional Crashes: 1999-2001

<u>Attributed cause</u>	<u>% of crashes</u>
Speeding	39%
Failing to yield to another vehicle	20%
Failing to stop at a signal or stop sign	11%
Running a red light	8%
Driving under the influence	7%
Following too close	3%
Making an improper turn	2%

Another major contributing factor is teenage driving (table 2). For the region as a whole, teenage drivers (ages 16-19) are involved in 21% of all crashes. Since their share of the driving age population is 9%, their crash risk is double their share of the driving age population. This is particularly acute in some of the suburban counties where teenagers are involved in an even higher proportion of crashes (Fort Bend County – 29%; Brazoria County – 28%; Montgomery County – 28%; Galveston County - 27%; Liberty County – 25%; Chambers County – 23%; Waller County 20%; Harris County – 19%). In some of the more rural sections of the region, these proportions have approached 40%. In 2002, the State legislature initiated a graduated licensing procedure for teenagers whereby a driver under 18 had to have an adult, 21 years or older, accompany them. Hopefully, as data for 2003 and beyond become available, we will see a decline in these numbers. But, for now, we consider teenage drivers as a major risk group for which special attention is needed.

**Table 2:
Age Group Involved in Crashes: 1999-2001**

<u>Age group</u>	<u>% of crashes</u>
Teenagers (16-19)	21%
20-29	16%
30-39	13%
40-49	10%
50-59	6%
65 or older	8%

H-GAC Safety Activities

Given the seriousness of the problem, H-GAC has initiated a number of safety activities to improve the situation. During the past year, H-GAC has conducted the following activities.

Safety Monitoring

First, H-GAC monitors safety in the region with a crash information system. Every year, H-GAC obtains data from the Accident Records Bureau of DPS. Then, H-GAC geocodes the crash locations using our extensive geographic information systems (GIS) in order to examine crashes spatially as well analytically (figure 2). The crash information system is the basis for the annual safety report and all safety studies. As of now, there are four years worth of crash data (1998-2001). H-GAC is the only Metropolitan Planning Organization (MPO) in the State, and one of the few in the country, that has a GIS-based crash information system.

Safety Analyses

Second, H-GAC conducts safety analyses of particular roadways for cities, counties or TxDOT, as requested. To date, H-GAC has analyzed 15 specific corridors (US 59 W, SH 35, SH 288, SH 105, SH 99 – section G, FM 359, FM 518, FM 830, FM 1960, FM 2232, FM 2432, John F. Kennedy Blvd, Kirby Drive, Nichols Sawmill Road, Spring Steubner), five counties (Brazoria, Fort Bend, Galveston, Harris, Montgomery), four cities (Houston, Alvin, Conroe, Old River-Winfree), and two small areas (the Texas Medical Center and City Council District D in the City of Houston). In addition, H-GAC provides maps on request to its members.

H-GAC has also produced safety studies for particular types of crashes. An analysis of rail-highway grade crossing crashes from 1990 through June 2003 was conducted which identified a number of grade crossings that had many crashes. The report was used in the recent study on grade crossings in Harris County by the County and the Port of Houston Authority. In addition, H-GAC has produced a safety analysis on bicycle and pedestrian safety for the “Bicycle-Pedestrian District” study being conducted by the Community and Environment Planning Department.

Figure 2:

