

Hell on Houston's highways

Each year, more than 500 of us die in fatal car crashes. Most of the time it's because we speed, we drive drunk, we change lanes recklessly. And we forever change lives

**By YANG WANG and TERRI LANGFORD
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Resources

DRIVERS' TOP MISTAKES

- Failure to stay in lane
- Driving under the influence of alcohol, drugs
- Driving too fast
- Failure to obey traffic signs, control devices or officers
- Hit-and-run vehicle driver
- Failure to yield right of way
- Inattentive/careless (talking, eating, using cell phones, etc.)
- Over-correcting
- Driving on wrong side of road

TOP CRASH EVENTS RESULTING IN FATALITIES

- Collision on same roadway
- Pedestrian involved
- Overturn/rollover
- Hit tree
- Hit curb
- Hit concrete traffic barrier
- Drove into culvert
- Hit guardrail
- Hit parked motor vehicle
- Hit utility pole
- Hit other fixed object

CRASH TOLL BY THE NUMBERS

1,611 fatal accidents happened in Harris and adjacent counties from 2006 through 2008.
2,468 vehicles were involved
1,762 people were killed
1,000 or more others were injured
299 of those killed were pedestrians
1,088 were drivers
34 were cyclists
132 involved a hit-and-run
584 involved driving while drunk or high

SEARCHABLE DATABASE

[See where traffic fatalities happened in the Houston area](#)

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We drive deadly fast and deadly drunk. We change lanes without signaling, run red lights and ignore stop signs.

And each year, more than 500 of us die in fatal car crashes.

It's no surprise that Houston, which ranks first in population in Texas, also leads in traffic fatalities. But behind the numbers are the troubling facts about the split-second mistakes that kill and maim — and where they happen.

In Harris County, where nearly 4 million of us live, more than 83 million miles are traveled daily over state highways. Add 1.6 million people from the surrounding eight counties and the Houston area is one of the biggest traffic centers in the nation.

To get a sense of where traffic fatalities happen and why, the Houston Chronicle plotted three years of crash data for the Houston area from the federal Fatality Analysis Reporting System (FARS).

"You've got a lot of vehicles, a lot of people," said Carol Rawson, director of traffic operations for the Texas Department of Transportation. "It's just incredible to me. I'm always amazed about Houston."

According to data from 2006 through 2008, the most recent available, 1,762 people were killed in 1,611 accidents involving 2,468 vehicles in Harris and eight surrounding counties: Fort Bend, Galveston, Montgomery, Waller, Brazoria, Chambers, Wharton and Liberty.

Of those killed, 1,088 were drivers and most died along some of the busiest and largest highways and

intersections in the area, if not the nation.

Collisions on Interstate 45 alone claimed 137 lives over a three-year span.

A look at 'hot spots'

The Chronicle did not rank the fatality locations because the FARS data does not include precise information about traffic volume. Instead, the newspaper mapped the areas where the greatest concentration of fatalities happened to give readers a better look at fatality "hot spots" and what factors played a part in the deaths.

Our most common driver mistakes involve speeding, distracted driving, changing lanes and driving drunk or high — especially while navigating massive highway intersections like U.S. 59 and the 610 Loop or Interstate 45 just south of downtown, where more than a quarter of a million people travel daily.

The worst hours for fatal crashes? Roughly between 9 p.m. and 2 a.m.

Throughout the nine-county area, there were 132 deadly accidents involving hit-and-run drivers.

Most fatal crashes happen within Harris County limits, which is much of the area inside Beltway 8. They lessen somewhat in the suburbs.

The greatest concentrations for fatal accidents cluster around major Houston highway interchanges, where speeds and directions suddenly change and drivers must make split-second decisions.

"At a lot of the interchanges in this region, especially in urban areas, there's traffic congestion, so you have a lot of speed variances and some lanes going faster than others," said Tony Voigt, Houston-based research engineer for the Texas Transportation Institute (TTI). "You have a lot of weaving and movement that naturally occurs in those areas. ... It can make for a very difficult driver environment."

Some caught by surprise

And factor this in: Houston's interchanges vary widely in architecture, depending on when they were built.

More than 650 collisions happened as we traveled along state and federal highways.

"Highway design has gotten better, as they have learned more," said Bernie Fette, a senior research specialist with TTI.

For example, commuters from the suburbs, weaned on the more spaciousness and higher speeds of Beltway 8, can find themselves startled by the tight curve of the westbound 610 ramp from the northbound U.S. 59 lane. Drivers entering the ramp are relatively flying at about 60 mph when the posted speed drops to 30 mph. For those who haven't slowed down in time, at the peak of the overpass it can feel as if they're going 75.

"The North Loop has some restricted geometry," said Voigt of that westbound ramp. It's older, and engineers have had to modify that sharp curve with signage and other aids to do what they can to reduce problems. "Look at the barrier walls. If there's not a brilliant off-white color ... there's a number of hits to that wall."

But that doesn't mean we should worry less when approaching more modern interchanges.

Alcohol and drug intoxication play significant factors. In more than a third of the fatal crashes, intoxication was the major factor. A simple "failure to stay in lane" — either because the driver was impaired or distracted — was the leading major factor.

Engineering has limits

Heavy highway construction areas and potential blind spots also make navigation trickier at times.

Scott Johnson, 57, had just delivered dogs from his grooming business to their owners on March 19, 2007, when he was making his way home on Interstate 10. He took the Wilcrest Drive exit, just past Beltway 8, and died after his 2002 Ford van hit a concrete support for the highway before he made it to the frontage road.

"Someone who was (driving) behind him, said he wasn't speeding," Johnson's wife, Edna, said. "He could have turned his head to the right to see the traffic on the frontage road and because it curved, he didn't see the concrete."

Today, Johnson's 62-year-old widow says, there are barricades around the Beltway 8 support where her husband crashed.

"He was killed instantly," she said.

Engineering can only do so much, Fette says. The rest is up to us.

"At an interchange, there's a whole bunch going on," he said. "Your margin of error is extremely small. You have a lot of cars traveling fast. You're maneuvering, so the potential for conflict for vehicles is much, much greater."

yang.wang@chron.com
terri.langford@chron.com