

Executive Summary

When American motorists talk about transportation problems, they generally key in on traffic. Snarled highways, epic commutes, and gridlocked business and commercial districts mar our suburban existence, weighing heavily upon our elected leaders, our policy-makers, and our families. Yet there's a more costly problem to be addressed on America's roads: motor vehicle crashes. In 2006, traffic crashes killed 42,642 people in the United States – about 117 deaths per day, and nearly 5 every hour. Most Americans would be surprised to learn the societal costs associated with motor vehicle crashes significantly exceed the costs of congestion.

AAA commissioned this study to examine the costs of crashes to society. The study, along with recommendations for improvements, is designed to raise awareness of the importance of transportation investments, and provide policy-makers, departments of transportation, and the public with information on the magnitude of the safety problem.

■ Methodology

The AAA study compares the costs of crashes to the costs of congestion by calculating a per person cost for crashes and multiplying by the population figures in the same 85 urban areas used by the Texas Transportation Institute (TTI) in the annual *Urban Mobility Report*. The costs of crashes are based on the Federal Highway Administration's (FHWA) comprehensive costs for traffic fatalities and injuries which place a dollar value on 11 components.

The 11 comprehensive cost components include property damage; lost earnings; lost household production (non-market activities occurring in the home); medical costs; emergency services; travel delay; vocational rehabilitation; workplace costs; administrative; legal; and pain and lost quality of life. According to FHWA, in 2005 dollars, the per person cost of a fatality is \$3,246,192 and the cost for an injury is \$68,170. Congestion costs, as reported in the *Urban Mobility Report*, are based on delay estimates combined with value of time and fuel costs.

To ensure the accuracy of the study, results are not provided for Atlanta, Georgia, and for cities in Massachusetts and Texas. In the case of Atlanta only one of the two required comparison factors was available; Massachusetts was eliminated due to lack of good data; and Texas did not have recent data available during the course of this study.

■ Crash Costs Summary Results

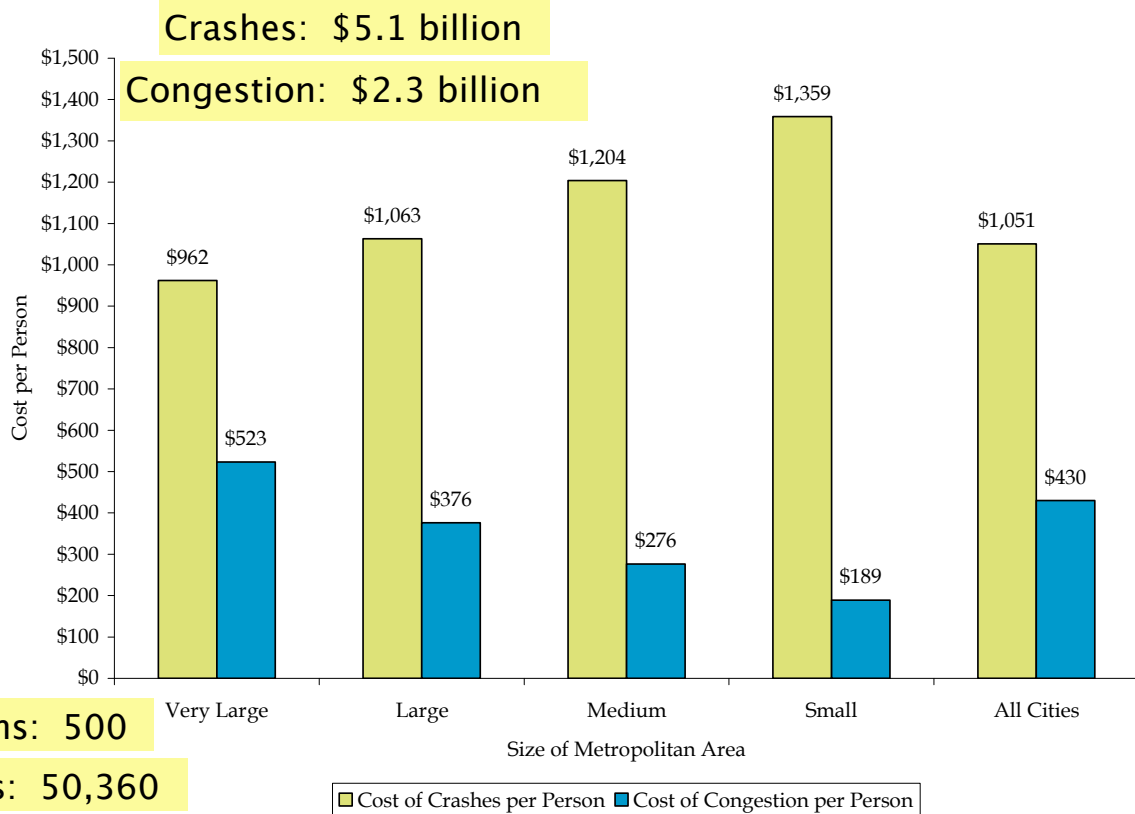
Figure ES.1 shows data from 2005. The yellow bar graph shows, in 2005 dollars, the total cost of fatal and injury crashes for very large metropolitan areas (population over 3 million); large urban areas (population of 1 million but less than 3 million); medium areas (over 500,000 and less than 1 million); and small areas (less than 500,000). The blue bar shows the costs of congestion as reported by TTI in their 2007 *Urban Mobility Report*.

(data pages: 39, 44)

Figure ES.1 Per Person Cost of Crashes and Congestion

Cost of Crashes includes Fatality and Injury Costs and excludes Property Damage Only (PDO) Crashes

DC metro area: '05 numbers (in yellow boxes)



1) Large metro areas have MASS TRANSIT, so fewer drivers/population. This UNDERSTATES the per person costs of crashes and congestion — ** these numbers should be per DRIVER.

2) In addition, in large metro areas where congestion slows speeds, there should be a higher percentage of PDO Property Damage Only crashes — that data was excluded here?

○ Both are significant because only large metro areas can actually make being a pedestrian and transit-rider INSTEAD of driver actually functional!

■ Key Findings

- In the urban areas studied, the cost of traffic crashes is nearly two and a half times the cost of congestion – \$164.2 billion for traffic crashes and \$67.6 billion for congestion.
- The crash costs include property damage; lost earnings; lost household production (non-market activities occurring in the home); medical costs; emergency services; travel delay; vocational rehabilitation; workplace costs; administrative; legal; and pain and lost quality of life. The economy and the environment also are impacted but those costs are not quantified in the study. According to FHWA, in 2005 dollars, the average cost of a fatality is \$3,246,192 and the average cost of an injury is \$68,170.
- Improving safety may improve congestion. Forty to 50 percent of all nonrecurring congestion is associated with traffic incidents.
- The cost of crashes on a per person basis decreases as the size of the metropolitan area increases. This is the inverse of the cost of congestion, which increases with an increase in the size of the metropolitan area.

Figure ES.2 shows the relationship between crash and congestion costs for very large, large, medium, and small urban areas along with the average for all cities in the study. For example, in the case of very large cities, for every dollar of congestion costs, the crash costs are \$1.84.

<http://www.aaanewsroom.net/Assets/Files/20083591910.CrashesVsCongestionFullReport2.28.08.pdf>