



# Traffic Safety Fact Sheet

## “HOW DO OFFICIALS ESTABLISH OUR SPEED LIMITS?”

Hundreds of studies conducted over several decades in all parts of the country clearly show that a large majority of drivers tend to operate their vehicles at speeds that are reasonable and proper, regardless of the posted speeds. This is the first, most critical factor in establishing realistic speed limits. Posted speed limits that are set higher or lower than dictated by roadway and traffic conditions are ignored by most motorists

The prime basis of what is considered proper speed for the normally careful and competent driver is the nationally recognized measure called the “85<sup>th</sup> percentile speed.” This is the speed at, or below which, 85 percent of the traffic is moving. Many studies show that posting signs at higher or lower limits does not significantly change the 85<sup>th</sup> percentile speed; it is the driving environment that mainly influences speed.

Studies show that the more drivers deviate from the 85<sup>th</sup> percentile speed, the more likely they are to become involved in accidents.

Realistic speed zones established on the basis of the 85<sup>th</sup> percentile speed guidelines are reported to have the following benefits:

- 1) Provide a factual scientific basis for determining speed limits that are otherwise arbitrarily set, often in response to emotional and political issues,
- 2) Invites public compliance by conforming to the behavior of the majority of motorists and provides a clear reminder to violators,
- 3) Gives law enforcement officials a good guide as to what is a reasonable and prudent speed and permits concentration of enforcement against real traffic violators,
- 4) Assists traffic courts by providing a realistic guide as to what constitutes a reasonable and prudent speed and reduces arbitrary enforcement and conviction tolerances,
- 5) Insures that speed zones satisfy the requirements and intent of state and/or local laws and ordinances,
- 6) Encourages motorists to drive a car at or near the same speed, resulting in smoother flow and a reduction in accident risk

Speed limits are established following studies and observations conducted jointly by police and traffic engineers. In addition to the 85<sup>th</sup> percentile speed, the following basic criteria are also used for speed zoning:

- Traffic crash history
- Traffic volumes and turning movements
- Roadside development (driveways, parking, sidewalks, schools, etc.),
- Design speed of the road, and
- Determination of hazards not readily apparent to “careful” drivers.

Realistic speed limits, should be set at no more than seven miles per hour above or below the 85<sup>th</sup> percentile speed. The likelihood of a traffic crash is significantly greater for motorists traveling slower or faster than the majority of traffic.