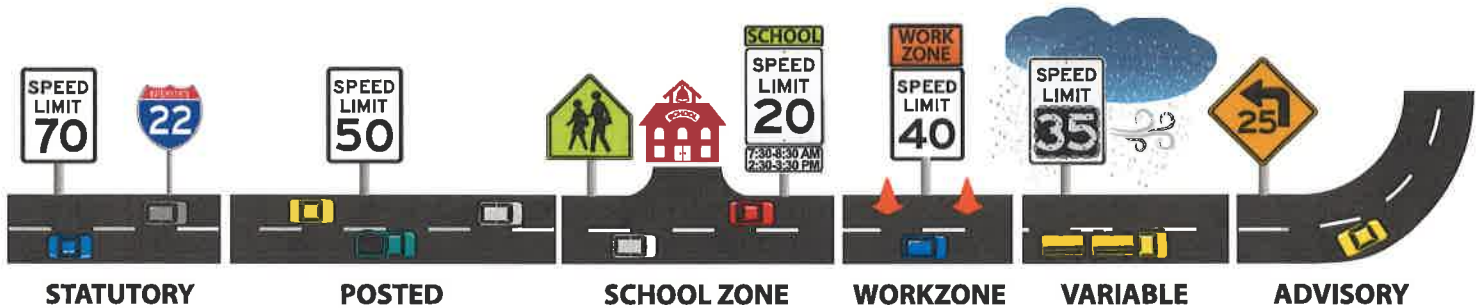


SPEED LIMIT Basics



U.S. Department of Transportation
Federal Highway Administration

Speed limits frame expectations for drivers and other roadway users. Properly set speed limits provide a safe, consistent, and reasonable speed to protect drivers, pedestrians, and bicyclists along the roadway. At the same time, speed limits can be a source of frustration and confusion; for example, not all drivers like to travel at the same speed, and some people may not understand why the speed limit changes on a particular road. In addition, community residents often have concerns that traffic is moving too fast through their neighborhoods. Understanding the engineering principles and processes used to set speed limits and learning the terminology used to describe them are the first steps in reducing drivers' frustration or confusion and encouraging compliance.



TYPES OF SPEED LIMITS

STATUTORY SPEED LIMITS

Statutory speed limits are established by State legislatures for specific types of roads (e.g., Interstates, rural highways, urban streets) and can vary from State to State. They are enforceable by law and are applicable even if the speed limit sign is not posted.

Examples of statutory speed limits include:

- 25 mph in residential or school districts,
- 55 mph on rural highways, and
- 70 mph on rural Interstate highways.

POSTED SPEED LIMIT

Posted speed limits (sometimes called regulatory speed limits) are those that are sign-posted along the road and are enforceable by law. A posted speed limit could be the same as the statutory speed set by the State legislature, or it could be established by a city, county, or State transportation agency as an adjustment to the statutory speed limit. Some cities and counties will establish a blanket speed limit for roads in their jurisdictions. Those limits are generally posted at the city limits or county lines. The posted speed limit can differ from the statutory speed limit; in these cases, the posted speed limit is determined using an engineering speed study and takes priority over the established statutory speed limit.

"SPECIAL CONDITIONS" SPEED LIMITS

School zone speed limits are used in specific locations during the hours when children are going to and from school. Most States use a school zone speed limit of 15 to 25 mph in urban and suburban areas.

Work zone speed limits are set as part of the work zone's traffic control plan, which is used to help facilitate safe and efficient movement of traffic through a work zone. Factors that influence work zone speed limits can include:

- The posted speed limit when the work zone is not present,
- The location of the work zone and workers in relation to traffic,
- The type of traffic control (e.g., cones, barrels, concrete barriers), and
- The complexity of the work zone (e.g., lane shifts, narrowed lanes).

Variable speed limits are displayed on changeable message signs (CMS) at locations where roadway conditions regularly require speeds to reduce more than 10 mph below the posted speed limit. These instances typically occur due to weather conditions, congestion, traffic incidents, and/or work zones.

Advisory speeds are a non-regulatory speed posted for a small portion or isolated section of a roadway (e.g., a sharp curve, an exit ramp) to inform a driver of a safe driving speed. They are set using an engineering speed study and in accordance with guidance in the *Manual on Uniform Traffic Control Devices (MUTCD)*.

What is included in an engineering speed study?

- Speeds of motorists in normal conditions
- Traffic volume
- Roadway type (e.g., interstate, freeway, city street)
- Roadway features (e.g., curves, hills, number of lanes)
- Roadway setting (e.g., urban, rural, residential, woodland, farmland)
- Number and spacing of driveways or intersections
- Sight distances
- Presence of on-street parking
- Pedestrian or bicyclist activity
- Crash history
- Pavement condition

ESTABLISHING SPEED LIMITS

State and local transportation agencies recommend and set appropriate speed limits by completing engineering speed studies and following the guidance presented in the [MUTCD](#). Practitioners may also use a supporting web-based tool called [USLIMITS2](#), which provides an objective second opinion and helps support speed-limit-setting decisions. At times, agencies may need to implement speed management countermeasures to achieve the desired speed for a particular roadway (e.g., in areas with high pedestrian and bicyclist activity). Review FHWA's *Speed Management Countermeasures: More than Just Speed Humps* for more information on speed management countermeasures.

SPEED CONCEPTS

Besides the types of speed limits, there are concepts relating to speed that are important to understand.

- Before a new road is built, engineers choose a **design speed** in order to guide their design decisions and prepare the plans.
- Once the road is built, engineers will evaluate the existing speeds by measuring the **operating speed**. They often do this by measuring the speed that 85 percent of drivers are travelling at or below, called **85th percentile speed**.
- Used extensively in the traffic engineering field, the **85th percentile speed** is based on the premise that the majority of drivers choose reasonable speeds for given road conditions and should be accommodated.

CORRECTING COMMON MISCONCEPTIONS

- The Federal Government does NOT set or enforce speed limits; this authority belongs to the State and local agencies that have jurisdiction over the road.
- The 85th percentile speed is not the only factor practitioners evaluate when determining an appropriate speed limit; they complete engineering speed studies and often utilize supporting tools like [USLIMITS2](#).
- Simply lowering the speed limit does not guarantee motorists will drive slower; speed management countermeasures may have to be implemented along the roadway.

SPEED SAFETY FACTS

- Drivers who exceed the posted speed limit or drive too fast for conditions are involved in nearly one-third of all fatal crashes.
- Only 13 percent of speeding-related fatalities occur on interstate highways.
- More than 40 percent of speeding drivers in fatal crashes were considered to be alcohol-impaired.



SOURCE: AAA Foundation for Traffic Safety, *Impact Speed and a Pedestrian's Risk of Severe Injury or Death*, September 2011.

FOR MORE INFORMATION



To learn more about speed management, visit [FHWA's Speed Management Safety web page](#).



For more information on speed management, check out FHWA's *Speed Management Countermeasures: More than Just Speed Humps* fact sheet.