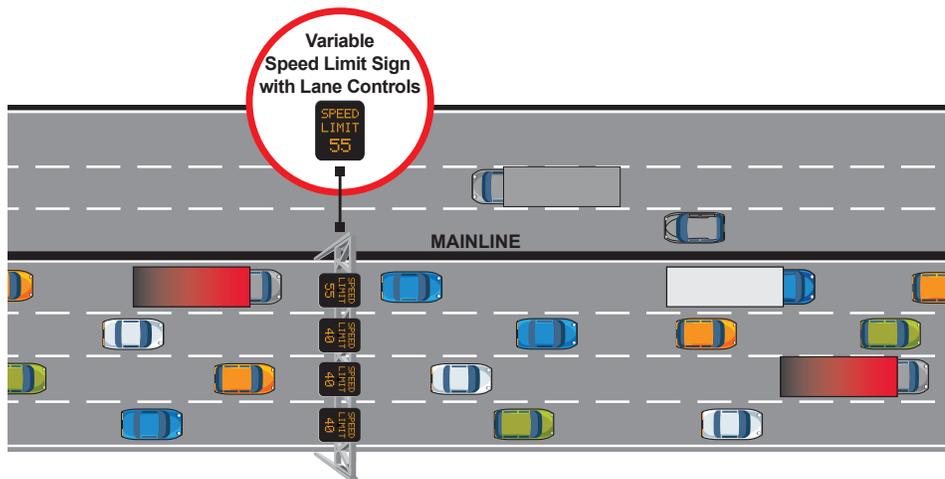




VARIABLE SPEED LIMITS



COST



TIME



MODERATE

IMPACT



WHO



STATE/
REGION

HURDLES



PUBLIC SUPPORT, LEGAL
AUTHORITY, AND OPERATIONS

SUCCESS STORIES



Texas

VSL systems have been piloted in Abilene, San Antonio, and Temple to **adjust speeds for both weather and congestion in an effort to make Texas highways safer and more reliable.**

England

In England, VSL systems have shown to:

- ▼ **Reduce injury crashes by 10%.**
- ▼ **Improve travel times and travel time reliability, reduce noise, and reduce emissions by 2% to 8%.**

changes the speed display ensures that changes take place before to stop-and-go traffic occurs. Also, the speed limit signs have to be visible to all vehicles.

More Information: tti.tamu.edu/policy/how-to-fix-congestion

Description

As speed limits are currently set for the maximum safe speed on roadways, variable speed limits (VSLs) use speed limit signs that change to slow drivers to avoid creating heavy traffic congestion. Sensors along the roadway detect when congestion or weather conditions are dangerous. They then automatically lower the speed limit in stages to slow traffic evenly and delay the onset of congestion.

Contrary to what one may think, slowing traffic down in heavy traffic actually increases the number of cars that can travel on a road. The slower speeds make drivers more comfortable driving closer together and keep stop-and-go conditions to a minimum.

Depending on the goal of the system, speed limits can be required or suggested. Changeable message signs can be used with this system to give drivers travel-time information or other details. VSLs are often used with lane use control and dynamic merge control.

Target Market

- Freeways or roads with frequent congestion.
- Areas prone to bad weather conditions.

How Will This Help?

- **Improves safety by slowing vehicles and reducing crashes** due to bad weather and congestion.
- **Delays or eliminates congestion** and allows traffic to flow smoothly and efficiently, improving trip reliability.
- **Decreases environmental issues** such as emissions, noise, and fuel consumption.

Implementation Issues

This technology has been successful in Europe but is relatively new to the United States. Public acceptance and understanding of the system are crucial to its success. Drivers must understand why the speed limit is being reduced. All drivers must also understand whether the new speed limit is suggested or required. A system that automatically

