

# Good Sign Symbols Aid Drivers

*An experiment: Legibility and Comprehension of Traffic Sign Symbols*

*Human factors are a major part of highway engineering and should always be taken into consideration -- remember, the idea is to make our roads safe for people*

In recent years, symbols have been used to improve the ability of traffic signs to communicate their messages. Numerous studies have concluded that symbolic signs are superior to alphabetic signs. However, less is known about the magnitude of this superiority in terms of legibility distance of traffic sign symbols.

A laboratory experiment was conducted to collect legibility and comprehension data for 22 symbol warning signs and 8 alphabetic warning signs.

**Results:** Legibility distance data were collected from 32 subjects ranging in age from 20 to 68 years old. The results showed that the legibility distance of symbols decreases with increasing driver age. Bold symbols of simple design provide the legibility distance for all age groups (see the sign chart on this page).

**Symbol Comprehension:** The comprehension data was collected for each of the 22 symbols. In general, the data indicated that symbol signs are well understood by the drivers. Overall, 95 percent of the responses were correct or substantially correct. Several symbols warrant further research: Pavement Ends, Added Lane, Worker, and Hill.

**Symbolic versus Alphabetic:** A comparison of the legibility distance for symbolic and alphabetic sign pairs showed that legibility distances for symbolic signs can be equal to that of alphabetic signs or more than four times greater depending on the message.

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# Pedestrian Crosswalks

*A real area for concern*

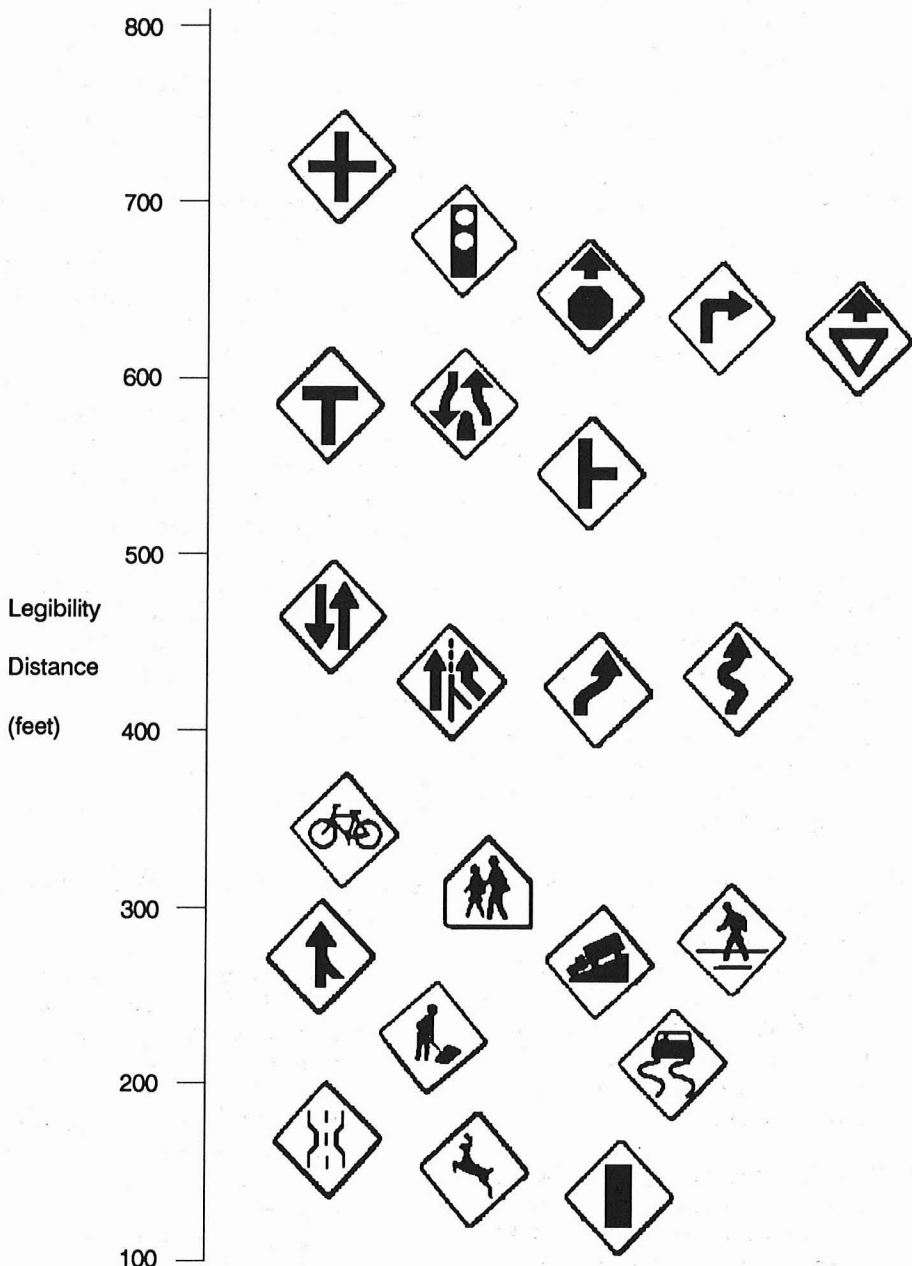
How safe are you in a crosswalk? Marked crosswalks are widely classified as "safety devices" and most jurisdictions give the pedestrian the right-of-way when within them.

Interesting, however, there is strong evidence that these very facts prompt many

pedestrians to feel overly secure when using a marked crosswalk - to the degree that they aggressively place themselves in a hazardous position with respect to vehicles in the mistaken belief that the motorists can and will stop in all cases, even when it may be impossible to do so. Also, it is not unusual for this type of aggressive behavior to cause rear-end collisions.

By contrast, a pedestrian using an unmarked crosswalk generally feels less secure, less certain that the motorist will

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Symbol Sign Legibility Distance