

US Department of Transportation: Pedestrian Safety

Lead Agency:

US Department of Transportation, Federal Highway Administration

Agency Mission:

FHWA is charged with the broad responsibility of ensuring that America's roads and highways continue to be the safest and most technologically up-to-date.

One of our Six Life Saving Strategies is to Reduce Roadway-Related Pedestrian Deaths, which account for 12% of all roadway fatalities and a disproportionate number of the deaths of youthful and elderly crash victims: We encourage a systematic approach to community safety, including comprehensive programs to increase awareness of pedestrian safety issues; to provide pedestrian safety training; to improve roadway designs to more safely accommodate pedestrian needs; and to emphasize the need for pedestrian safety planning by MPOs and other planning organizations.

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Partner Agency:

National Highway Traffic Safety Administration

General Description:

In 1998 the Federal Highway Administration published the first edition of the *Older Driver Highway Design Handbook*. The original guide provided practical information to transportation professionals about designing roadways and traffic signals to improve safety for older drivers. In 2001, FHWA released a revised edition and broadened the scope to include other road users, namely pedestrians. It is now called the *Highway Design Handbook for Older Drivers and Pedestrians*. The 2001 *Handbook* provided detailed design recommendations and provided literature reviews to show the research basis for these recommendations. For example, the *Handbook* provides recommendations for roadway signs to ensure that older drivers can see them from an appropriate distance. Although the *Handbook* itself is not a set of standards, many of the recommendations in it have subsequently been incorporated in roadway and traffic signal design standards. A third version of the *Handbook* is currently being developed. The *Handbook* has been and continues to be a popular and important resource for transportation professionals who are trying to ensure that our growing population of older adults will have safe transportation options. The *Handbook* helps us address important societal issues including roadway safety and independent living.

The FHWA also offers a 1-day training workshop to thoroughly review the recommendations and guidelines contained in the [Highway Design Handbook for Older Drivers and Pedestrians](#). Interactive methods are used to help participants fully understand the changes that occur with aging. It provides information and demonstrations of the effects of aging on vision, range of motion and cognition; goes over the information in the handbook; and provides hands-on exercises with real world case studies to allow participants to apply what they have learned,

Modifications to the roadway system are identified that can make it easier for older drivers and all drivers. Case studies are used during the workshop. The workshop is designed primarily for practicing highway and traffic engineers responsible for highway design and operations, and over 3,000 transportation professionals have attended the workshop since it began.

Demographic trends indicate that Americans are living longer. This is certainly good news, but the trends require that we examine how to ensure that Americans can maintain independence and quality of life in their senior years. Perhaps the key aspect of independence in our country pertains to transportation. In many communities independence is synonymous with being able to drive. As we grow older we experience age-related changes in our vision, hearing, and cognition and these changes can make it harder to safely walk or drive on our roadways. In 2006, older adults comprised about 14 percent of all traffic fatalities even though they represent only 12 percent of the population. Transportation researchers and practitioners are trying to ensure that older Americans can travel safely by using their knowledge of age-related ability changes to revise standards for roadways and traffic signs and signals. In 1998, the Federal Highway Administration published the first version of what is now called the *Highway Design Handbook for Older Drivers and Pedestrians*. The original *Handbook* and the more recent 2001 version have been a key resource for roadway designers and other transportation professionals. Because of the popularity of the previous *Handbooks*, it is currently being revised once again to incorporate new research findings. The *Handbook* has been the premier source of information for recommending design practices to accommodate older drivers and pedestrians. In addition, many of these recommendations have been incorporated into Federal transportation standards such as the *Manual on Uniform Traffic Control Devices*.

The *Handbook* is a synthesis of research pertaining to older road users. What is unique about it is how it takes a wide range of research findings and incorporates them into a single document in order to develop recommendations for roadway situations that pose increased risk for older adults. Some of these situations include intersections, work zones, and roadway curvature and passing zones. Based on the analysis of the research, the *Handbook* presents recommendations roadway design features (e.g., the recommended font size on roadway signs). One of the unique aspects of the *Handbook* is that for each recommendation, the authors examined how these recommendations compare or contrast for different standards that transportation professionals rely on for designing roads and traffic control devices (such as roadway signs). The intent is to unify these sometimes disparate standards.

The aim of the guide is to improve safety for older adults but it is likely that road users of all ages and abilities will benefit from recommendations in the *Handbook*. Because the *Handbook* will continue to be revised in the future, it can be updated as new research emerges. New recommendations can be developed and we will be able to examine roadway safety statistics to determine what challenges older adults still experience.