Transportation For America

Surface Transportation Policy Partnership

# DANGEROUS BY DESIGN

SOLVING THE EPIDEMIC OF PREVENTABLE PEDESTRIAN DEATHS (AND MAKING GREAT NEIGHBORHOODS)

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# About this report

This report is a joint effort of the Surface Transportation Policy Partnership and Transportation for America. It builds on the research and analysis of a number of national organizations and policy experts who are working at the intersection of transportation, public health and safety, social equity, and the environment. Becca Homa, Linda Bailey, Stephen Lee Davis, and David Goldberg provided invaluable assistance in the analysis, research, and editing of the report.

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STPP

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AARP

Smart Growth America

America Bikes

Complete the Streets

APHA American Public Health Association

America Walks

Safe Routes to School National Partnership

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# Executive Summary

In the last 15 years, more than 76,000 Americans have been killed while crossing or walking along a street in their community. Children, the elderly and ethnic minorities are disproportionately represented in this figure, but people of all ages and all walks of life have been struck down in the simple act of walking. These deaths typically are labeled "accidents," and attributed to error on the part of motorist or pedestrian. In fact, however, an overwhelming proportion share a similar factor: They occurred along roadways that were dangerous by design, streets that were engineered for speeding cars and made little or no provision for people on foot, in wheelchairs or on a bicycle.

During this same period, there has been a growing recognition that walking and bicycling – what many now refer to as "active transportation" – are critical to increasing levels of healthy exercise and reducing obesity and heart disease. At the same time, it has become increasingly clear that these clean, human-powered modes of transportation are an essential part of efforts to limit the negative impacts of traffic congestion, oil dependency and climate change. In recent years, community after community has begun to retrofit poorly designed roads to become complete streets, adding sidewalks and bicycle lanes, reducing crossing distances and installing trees and crosswalks to make walking and biking safer and more inviting. The resulting safer streets have saved the lives of both pedestrians and motorists even as they promote health by leading many residents to become more physically active.

As this report will show, there still is a long way to go to repair the damage done to communities in the past, even as we begin to shift policies and design philosophy to build streets that are safer for pedestrians and motorists alike. However, there are a growing number of excellent models to build on and thousands of communities eager to move forward. The forthcoming rewrite of the nation's transportation policy presents a once-in-a-generation opportunity to create safer streets that will be critical to keeping our neighborhoods livable, our population more fit and our nation less dependent on foriegn oil.

## The Pedestrian Danger Index

Researchers at the Surface Transportation Policy Partnership in the 1990s developed the Pedestrian Danger Index (PDI) in order to establish a level playing field for comparing metropolitan areas based on the danger to pedestrians. The PDI corrects for the fact that the cities where more people walk on a daily basis are likely to have a greater number of pedestrian fatalities, by computing the rate of pedestrian deaths relative to the amount of walking residents do on average. The PDI shows that the most dangerous places to walk are those that fail to make smart infrastructure investments that make roads safer for everyone.

The most dangerous metropolitan areas in the U.S. for walking in 2007-2008 were: Orlando, Tampa, Miami, Jacksonville, Memphis, Raleigh, Louisville, Houston, Birmingham and Atlanta. Orlando tops the list because of its high pedestrian fatality rate of 2.9 pedestrian deaths per 100,000 residents, despite a very low proportion

of residents walking to work, only 1.3 percent. In other words, the few people who do walk in Orlando face a relatively high risk of being killed by a vehicle.

This report also analyzes state and regional spending of federal transportation dollars on pedestrian safety, finding that many of the metropolitan areas in greatest need of improvement are spending the least amount on pedestrian safety projects. Nationwide, less than 1.5 percent of funds authorized under the federal transportation law, SAFETEA-LU, have been allocated for projects to improve the safety of walking and bicycling, even though pedestrians comprise 11.8 percent of all traffic deaths and trips made on foot account for almost 9 percent of total trips. SAFETEA-LU created a new safety program and changed regulations to make it easier to use what were once "highway funds" on a wider variety of transportation projects, including public transportation and pedestrian facilities.

At the state and local levels, no state spends more than 5 percent of federal transportation funds on sidewalks, crosswalks, traffic calming, speed humps, multi-use paths, or safety programs for pedestrians or cyclists. This is in spite of a more than 30 percent increase in total federal transportation dollars to states with the passage of SAFETEA-LU in 2005. The 52 largest metro areas averaged annual spending of federal funds on bicycle and pedestrian projects of just $1.39 per person. The average metro area spends 2.2 percent of their federal transportation funds on projects to improve conditions for walking and bicycling.

## More than half of deaths are on poorly designed arterials

Over the last several decades, most of the business of daily life has shifted from Main Streets to state highways that have grown wider and wider over time. These arterial roads, as they are called, have drawn shopping centers, drive-throughs, apartment complexes and office parks. However, the pressure to move as many cars through these areas as quickly as possible has led transportation departments to squeeze in as many lanes as they can, while designing out sidewalks, crosswalks and crossing signals, on-street parking, and even street trees in order to remove impediments to speeding traffic.

As a result, more than half of fatal vehicle crashes occurred on these wide, high capacity and high-speed thoroughfares. Though dangerous, these arterials are all but unavoidable because they are the trunk lines carrying most local traffic and supporting nearly all the commercial activity essential to daily life. These roads have an enormous impact on residential neighborhoods, as well: For example, a recent AARP poll of adults 50 years and older found that 40 percent reported inadequate sidewalks in their neighborhoods and nearly half of respondents reported that they could not safely cross the main roads close to their home.

## Most Dangerous US Cities for Walking (2007-08)

| | Metro Area | Danger Index |
|---|---|---|
| 1 | **Orlando-Kissimmee**, FL | 221.5 |
| 2 | **Tampa-St. Petersburg-Clearwater**, FL | 205.5 |
| 3 | **Miami-Fort Lauderdale-Pompano Beach**, FL | 181.2 |
| 4 | **Jacksonville**, FL | 157.4 |
| 5 | **Memphis**, TN-MS-AR | 137.7 |
| 6 | **Raleigh-Cary**, NC | 128.6 |
| 7 | **Louisville/Jefferson County**, KY-IN | 114.8 |
| 8 | **Houston-Sugar Land-Baytown**, TX | 112.4 |
| 9 | **Birmingham-Hoover**, AL | 110 |
| 10 | **Atlanta-Sandy Springs-Marietta**, GA | 108.3 |



# Preventing deaths and promoting health with safer design

Many communities have succeeded at making walking safer through investments in pedestrian infrastructure. More than 100 cities, regions, and states across the U.S. have adopted policies and design guidelines that prioritize walking and bicycling. These tools for change include creating walkable communities, traffic calming, road diets, Complete Streets policies and Safe Routes to School programs.

**Traffic calming and street design.** Traffic calming includes a host of engineering techniques used to physically alter road design for the purpose of slowing traffic and improving safety for bicyclists and pedestrians. Beyond simply installing sidewalks, these improvements enhance safety through a focus on intersections with features such as pedestrian refuge medians, better road geometry, and signals that give pedestrians a "head start" when crossing roads. Depending on the type of measure implemented and speed reductions achieved, traffic calming has reduced collisions by 20 to 70 percent.

**Complete streets.** Where traffic calming seeks to improve safety by reducing traffic speeds, Complete Streets policies ensure that future road projects consistently take into account the needs of all users, of all ages and abilities, particularly pedestrians and bicyclists. Complete Streets designs vary from place to place, but they might feature sidewalks, bicycle paths, comfortable bus stops, median islands, frequent crosswalks and pedestrian signals. Both the American Academy of Pediatrics and the Centers for Disease Control and Prevention recently endorsed the adoption of local and statewide Complete Streets policies as a strategy for improving safety and increasing physical activity among children and adults.

**Safe Routes to School programs.** Safe Routes to School programs take a comprehensive approach to improving safety around schools for children walking and bicycling. The program funds engineering upgrades like sidewalks and crosswalks, improved traffic enforcement and bicycle and pedestrian safety education. The intent is to address parental concerns about traffic dangers and get more children walking and bicycling to school, which improves their physical fitness and health. From a handful of pilot efforts across the country, Safe Routes to School has grown into a federally-funded program providing more than $600 million over five years for thousands of projects nationwide.

**Walkable neighborhoods.** Walkable communities are safe and inviting for walking and bicycling, while also featuring compact development and a variety of destinations, such as parks and public space and nearby schools, workplaces and other amenities like restaurants and retail facilities. The tools to increase community livability by improving walkability go beyond investing in pedestrian infrastructure, giving residents and visitors convenient places to walk.

## Now is the time for Congress to act

Congress is currently considering the goals and objectives for a federal transportation bill that will send transportation money to states and cities and guide their spending priorities. The continued high fatality rate shows a clear need for strong leadership and greater resources to end preventable pedestrian deaths and require more accountability from states on how those funds are spent.

**Adopt a National Complete Streets Policy.** Ensure that all federally funded road projects take into account the needs of all users of the transportation system, including pedestrians, bicyclists, and transit users as well as children, older adults and individuals with disabilities, are able to travel safely and conveniently on our streets.

**Expand the Safe Routes to School Program.** Expanding the Safe Routes to School program would allow more communities and schools across the country to address critical safety concerns and make it safer for students walking and bicycling to school and in their neighborhoods.

**Commit a Fair Share for Safety.** With pedestrians comprising 11.8 percent of all traffic fatalities, it is only fair to dedicate at least that proportion of Highway Safety Improvement Program (HSIP) funds to pedestrian projects.

**Hold states accountable.** Congress must hold states accountable to ensure that transportation funds are spent wisely, by ensuring that:

- New streets are built to be safe for pedestrians, bicyclists and motorists alike
- The most dangerous roads are retrofit for safety
- Federal safety dollars result in lives saved and a more active population

# Walking is Fundamental

Walking is the first and most fundamental form of transportation. Everybody is a pedestrian at some point in each day, even if it's just walking from the car to the office. Americans make about 9 percent of all trips on foot,[1] and 107 million American adults walk regularly to get to work, school, run errands, or visit friends.[2] Walking is a critical component of the transportation system, serving not only as a major mode of transportation in its own right, but also by providing connections between destinations and other modes.

Economic conditions and concerns about health and the environment mean more and more Americans are interested in increased options for getting around besides the automobile. Since 1995, public transportation use has grown at nearly triple the rate of population growth and almost twice as fast as the number of miles driven. Communities across the country are responding to this demand by planning for new rail lines, launching commuter bus and train services and expanding bus routes. Walking is a part of just about every trip taken on public transportation.

Furthermore, the growing popularity of town centers and Main Streets – even once automobile-oriented suburbs are building them – means that more Americans are living and working in

existing walkable communities. Young adults are 30 percent more likely to live within 3 miles of central business districts in 2008 than they were in 1980, and are thus more able to access jobs, educational opportunities, people and shops.[3] Whether or not Americans walk, and whether they are safe and comfortable when doing so, is a matter of growing urgency for our health, energy and climate, aging population and the livability of our cities.

## Walking Improves Health

Walking is a vital form of transportation, connecting people to a variety of transportation modes and providing options for getting around. At the same time, research shows that walking is fundamental to improving health, with a role in preventing obesity, some cancers, heart disease, diabetes and a host of other diseases.[4] More than two-thirds of U.S. adults are obese or overweight according to Centers for Disease Control and Prevention guidelines. Current estimates show

1 NHTS 2001. A trip is defined as travel from one address to another, with switches to different modes, and each stop along the way counted as separate trips.

2 FHWA. Travelers Opinion Survey 2005.

3 U.S. Census. July 1, 2008 Population Estimates.

4 U.S. Department of Health and Human Services. (2001). The Surgeon General's call to action to prevent and decrease overweight and obesity. Rockville, MD: Office of the Surgeon General, 2001.

that more than 33 percent of children and adolescents, approximately 25 million, are overweight or obese. Being overweight was not always the norm in the U.S. Since 1980, the prevalence of obesity among American adults doubled, while tripling for children.[5] These trends come with grave consequences: Americans who are obese or overweight are at an increased risk of developing heart disease, type 2 diabetes, some cancers and stroke.

Despite these health concerns, we have engineered the incidental exercise of walking out of most Americans' lives. The deterioration of the American diet and a sedentary lifestyle have contributed to the growing American waistline. But the way our streets, cities, towns, and suburbs are designed also deserves significant blame. A peer-reviewed national study examining the relationship between sprawl and the incidence of weight problems and obesity found that people living in counties marked by sprawl were more likely to weigh more and become obese.[6]

One in four of all transportation trips in the U.S. are one mile or less, and are the easiest to shift from driving to walking or bicycling.[7] Active transportation, such as walking, is a key component to combating our nation's obesity epidemic and chronic lack of physical activity. A long-term study funded by the National Institutes of Health found that people living in highly walkable neighborhoods averaged 35 to 45 minutes more physical activity per week than their counterparts in less walkable areas.[8] And a recently published study of land use and physical activity in eleven countries concluded: "Neighborhoods built to support physical activity have a strong potential to contribute to increased physical activity. Designing neighborhoods to support physical activity can now be defined as an international public health issue."[9]

Researchers have found that moderate exercise, such as walking or bicycling, contributes significantly to a healthy lifestyle. A one-mile trip is a twenty-minute walk, or two-thirds of the daily exercise regimen of 30 minutes recommended by

5 U.S. CDC. (2004) Physical Activity and the Health of Young People. U.S. Centers for Disease Control and Prevention. U.S. Obesity Trends 1985 – 2008. http://www.cdc.gov/obesity/data/trends.html

6 Frank, Lawrence, Andresen, Martin and Schmid, Tom (2004). Obesity Relationships With Community Design, Physical Activity, and Time Spent in Cars. American Journal of Preventive Medicine Vol 27. No 2. June, 2004, pp. 87-97.

7 Federal Highway Administration, National Household Travel Survey, 2001.

8 J. Sallis, Neighborhood Quality of Life Study, March 2009.

9 J. Sallis, et al. "Neighborhood Environments and Physical Activity Among Adults in 11 Countries," American Journal of Preventative Medicine. 2009; 36 (6): 484-490.

## Study: Pedestrian & Cycle Paths Increase Levels of Walking and Bicycling

One community has seen lots more people out walking and bicycling after making provisions for them. Construction of an almost three mile walking and bicycling path, in conjunction with construction of a major bridge project just outside Charleston, SC, have substantially increased levels of walking and bicycling in the area. Two-thirds of people who walk, run, or bike on the new bridge say they're exercising more since the opening of the pedestrian path. That figure was even higher — 85% — among African-Americans, indicating their enthusiastic adoption of the bike and pedestrian path as a place to exercise. And this is a step forward in a state where one in four adults is obese and three out of five adults are obese or overweight.

The Arthur Ravenel Bridge opened for traffic on July 15, 2005 and connects the Charleston peninsula with the town of Mt. Pleasant in South Carolina. Initial designs for the new bridge did not include provisions for pedestrians and cyclists. However, community efforts and a public campaign around the slogan "Can't Wait to Bike/Walk The New Bridge," as well as support from Charleston Mayor Joseph Riley successfully changed the project.

While the popularity of the path has been no secret and its success has been widely hailed by public officials, researchers conducted a study from January through July of 2007, taking on-site interviews with 393 users of the facility. Among the study's additional findings were that 10% of the participants indicated that they utilized the path in order to commute to work or conduct chores. Many indicated they used the path because it is safe, and because the scenery is beautiful.

The study was designed by and supervised by Deborah McCarthy, Associate Professor of Sociology at the College of Charleston, assisted by Yvonne Gilreath, Senior Planner at the Berkeley-Charleston-Dorchester Council of Governments.

*Source: News 2. "Ravenel Bridge encourages exercise" Published: March 26, 2009*

the U.S. Surgeon General. In fact, because people may be more apt to walk places than go to a gym, public health researchers are focusing on exercise as an integrated part of getting through the day. The CDC estimates that if 10 percent of adults began a regular walking program, $5.6 billion in national cost associated with heart disease costs could be saved.[10]

10 CDC 2003. Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity. Accessed at: http://www.cdc.gov/nccdphp/ pe_factsheets/pe_pa.htm

## Solutions are in Demand

Sidewalk and bicycle traffic concerns topped the 2009 "Hot Spot" list in Tippecanoe County, Ind. Each year officials with the county's Area Plan Commission gather input from residents to create a database of area concerns about traffic and transportation. The 2009 Hot Spot list includes numerous requests for new sidewalks and bike lanes. Pedestrian safety concerns also dominated, such as a request to ban "right turn on red" options at more campus intersections and traffic calming projects to slow speeds.

The list is shared with transportation and law enforcement officials with the state, county and cities with the hopes that efforts can be made to address the concerns.

*Source: JCOnline News. "Walking, Biking Safety Top Traffic Concerns. By Dorothy Schneider. October 22, 2009*

Just as shifting short trips to walking would help keep us healthy, it also would reduce greenhouse gas emissions and the air pollution that makes us sick. Cars and trucks are responsible for 81 percent of carbon monoxide emissions, 49 percent of nitrogen oxide emissions, and nearly one-third of carbon dioxide and other greenhouse gas emissions. These harmful pollutants from cars and trucks exacerbate asthma and cause respiratory illnesses and some cancers. Although individual cars are much cleaner today than they were in the 1970s, the staggering growth in miles driven has offset much of those gains. Moreover, cars and trucks burn millions of barrels of oil – a non-renewable energy source – every day, accounting for almost half of the nation's fossil fuel consumption.[11]

11 Environmental Protection Agency, "Greenhouse Gas Emissions from the U.S. Transportation Sector 1990 2003." March 2006.

## Walking Increases Transportation Options

American drivers spent 4.2 billion hours stuck in traffic congestion at a cost of $82.7 billion in 2007, according to the most recent study from the Texas Transportation Institute. But building new roads or widening existing ones is neither practical nor effective at reducing traffic congestion in the long run. As America's population concentrates ever more in growing metro areas, transportation planners are forced to figure out how to move more people, rather than cars. One obvious solution is to make more places where people can safely walk to their destinations or to public transportation. Another solution is to make it safer to shift short trips to walking or bicycling: As we noted earlier, one in four trips is one mile or less, but today only 21 percent of those short trips are made on foot. If even half of those short trips were made through walking, hundreds of millions of car trips could be avoided.

The recent economic recession and spike in gas prices prompted many Americans to lace up their sneakers in lieu of filling up their gas tanks. Making trips on foot and reducing the number of miles driven in a car has the potential to save families money. Americans spend, on average, 18 percent of their annual income on transportation. The average annual operating cost of a car is $8,220 and the AAA estimates that the cost of driving in 2009 is $0.54 per mile (for drivers traveling 15,000 miles per year).[12] Taking just one one-mile trip by foot instead of by car each day could save families almost $200 per year.

## People Want to Walk

Polls consistently show that Americans recognize the benefits of walking and would like to walk more than they do. One poll found that if given a choice between driving more and walking more, 55 percent of respondents would choose to walk more.[13] Seventy-one percent of Americans report that they would like to bicycle more and 53 percent favor increasing federal spending on bicycle lanes and paths.[14] Unfortunately, the lack of safe walking facilities and convenient destinations prevents most Americans from walking. In a poll conducted for AARP, 40 percent of adults age 50 and older reported inadequate sidewalks in their neighborhoods and nearly 50 percent reported that they could not cross main roads close to their home safely. At the same time, half of those who reported such problems said they would walk, bicycle, or take the bus more if these problems were fixed.[15] Indeed, a 2005 survey by the FHWA found that 85 percent of respondents believed their community would be better served by expanding sidewalk and bicycling infrastructure.[16]

Public ballot measures to increase funding for walking, bicycling and public transportation projects have enjoyed broad public support in recent elections. Voters in communities across the country recognize the benefits from increasing transportation options by providing safe and convenient opportunities to walk, bicycle, and use public transportation. In the 2008 election, voters across the country in 16 states approved 23 out of 32 state and local ballot initiatives related to walking, bicycling and public transportation, authorizing expenditures approximating $75 billion. In Los Angeles, voters approved a $40 billion measure to finance new and existing bus and rail lines, along with other transportation projects. Seattle-area voters approved $17.8 billion to expand commuter rail and express bus service and create a 55-mile light rail system, and in Honolulu, voters approved $3.7 billion for a commuter rail system. Safe walking and bicycling will be an integral part of making these and similar investments work.[17]

12 AAA. Your Driving Costs 2009. http://www.aaaexchange.com/Assets/Files/200948913570.DrivingCosts2009.pdf

13 Surface Transportation Policy Project. "Americans' Attitudes Toward Walking and Creating Better Walking Communities." 2003.

14 Royal, D., and D. MillerSteiger, 2008, National Survey of Bicyclist and Pedestrian Attitudes and Behavior, National Highway Traffic Safety Administration. Belden Russonello & Stewart. "Americans' Attitudes Toward Biking." Survey. April 2003

15 Laura Skufca. Is the Cost of Gas Leading Americans to Use Alternative Transportation? AARP Knowledge Management. August 2008.

16 FHWA TOP survey.

17 Center for Transportation Excellence. November 2008 Election Results. Press Release. November 5, 2008.

# The Most Dangerous Cities for Walking

The Pedestrian Danger Index (PDI) is a tool used to assess the relative risks of walking in cities. The PDI consists of two metrics, each specific to a given metro area: (1) the average pedestrian fatality rate per 100,000 residents over a two-year period; and, (2) the percentage of residents who commute to work by foot.[18] One would expect a high number of pedestrian fatalities in places where lots of people are on foot. Using the PDI, we can identify the truly dangerous places – those with a high number of pedestrian fatalities despite low walking rates.

There are 360 metropolitan statistical areas in the United States, ranging in size from just over 50,000 residents to 19 million residents. We limit our discussion in this report to the 52 metropolitan areas with a population greater than 1 million in 2008; however, the PDI for all 360 metropolitan areas is included in an appendix to this report.

FORMULA

$$\text{Pedestrian Danger Index (PDI)} = \frac{\text{(Total 2007-2008 pedestrian fatalities/population) x 100,000}}{\text{Percentage of commuters walking to work}}$$

The most dangerous places for walking in 2007-2008 were: Orlando, Tampa, Miami, Jacksonville, Memphis, Raleigh, Louisville, Houston, Birmingham, and Atlanta. Orlando tops the list because of its high pedestrian fatality rate of 2.9 pedestrian deaths per 100,000 residents despite only 1.3 percent of residents walking to work. In other words, the few people who do walk in Orlando face a relatively high risk of being killed in a traffic crash.

The list of the most dangerous metro areas for walking is striking in its uniformity. Nine of the ten metro areas are in the South, and the top four are in Florida. These areas are dominated by lower density and automobile-oriented development patterns, which include high-speed urban arterials that are particularly hazardous for walking. A national FHWA survey affirms these results, finding that respondents in the South rate pedestrian safety far lower than their counterparts in the rest of the country.[19]

18 The number of walkers acts as a measure of exposure to the risk of being killed as a pedestrian. It is derived from the 2000 Decennial Census Journey-to-Work data on the share of workers walking to work. The Census Journey-to-Work data is limited in that it provides information only on the mode people choose most often and for the greatest distance to travel to and from work. A better measure of exposure would include all types of trips (including to the store, to school, to the subway, etc.), as well as trips taken by the non-usual mode for an individual. Unfortunately a nationwide source of that data at the metro area level is not available.

19 FHWA TOP survey.

## Table 1. The Most Dangerous Metro Areas for Pedestrians (over 1 million residents)

| | Metro Area | Avg. Annual Pedestrian Deaths Per 100,000 (2007-2008) | Percent of Workers Walking to Work (2000) | Pedestrian Danger Index |
|---|---|---|---|---|
| 1 | Orlando-Kissimmee, FL | 2.86 | 1.30% | **221.5** |
| 2 | Tampa-St. Petersburg-Clearwater, FL | 3.52 | 1.70% | **205.5** |
| 3 | Miami-Fort Lauderdale-Pompano Beach, FL | 3.04 | 1.70% | **181.2** |
| 4 | Jacksonville, FL | 2.61 | 1.70% | **157.4** |
| 5 | Memphis, TN-MS-AR | 1.83 | 1.30% | **137.7** |
| 6 | Raleigh-Cary, NC | 2.02 | 1.60% | **128.6** |
| 7 | Louisville/Jefferson County, KY-IN | 1.93 | 1.70% | **114.8** |
| 8 | Houston-Sugar Land-Baytown, TX | 1.81 | 1.60% | **112.4** |
| 9 | Birmingham-Hoover, AL | 1.3 | 1.20% | **110** |
| 10 | Atlanta-Sandy Springs-Marietta, GA | 1.37 | 1.30% | **108.3** |
| 11 | Las Vegas-Paradise, NV | 2.46 | 2.30% | **105.6** |
| 12 | Charlotte-Gastonia-Concord, NC-SC | 1.29 | 1.20% | **103.9** |
| 13 | Dallas-Fort Worth-Arlington, TX | 1.47 | 1.50% | **99.3** |
| 14 | Detroit-Warren-Livonia, MI | 1.41 | 1.40% | **98.5** |
| 15 | New Orleans-Metairie-Kenner, LA | 2.69 | 2.70% | **98.4** |
| 16 | Phoenix-Mesa-Scottsdale, AZ | 2.02 | 2.10% | **97** |
| 17 | Oklahoma City, OK | 1.59 | 1.70% | **95.3** |
| 18 | Riverside-San Bernardino-Ontario, CA | 1.94 | 2.20% | **89.5** |
| 19 | Austin-Round Rock, TX | 1.76 | 2.10% | **84.8** |
| 20 | Kansas City, MO-KS | 1.18 | 1.40% | **84.6** |
| 21 | St. Louis, MO-IL | 1.28 | 1.70% | **76.9** |
| 22 | Sacramento--Arden-Arcade--Roseville, CA | 1.64 | 2.20% | **75.9** |
| 23 | Denver-Aurora, CO | 1.59 | 2.10% | **75.6** |
| 24 | Richmond, VA | 1.35 | 1.80% | **74.5** |
| 25 | Tucson, AZ | 1.88 | 2.60% | **72.8** |
| 26 | San Jose-Sunnyvale-Santa Clara, CA | 1.3 | 1.80% | **71.9** |
| 27 | Los Angeles-Long Beach-Santa Ana, CA | 1.91 | 2.70% | **70.8** |
| 28 | Nashville-Davidson--Murfreesboro--Franklin, TN | 1.04 | 1.50% | **70.2** |
| 29 | Baltimore-Towson, MD | 1.82 | 2.90% | **61.9** |
| 30 | San Antonio, TX | 1.39 | 2.40% | **58.9** |
| 31 | Indianapolis-Carmel, IN | 1 | 1.70% | **58.6** |
| 32 | Washington-Arlington-Alexandria, DC-VA-MD-WV | 1.75 | 3.00% | **57.2** |
| 33 | San Diego-Carlsbad-San Marcos, CA | 1.89 | 3.40% | **55.7** |
| 34 | Salt Lake City, UT | 1.04 | 2.10% | **50.2** |
| 35 | Columbus, OH | 1.16 | 2.30% | **49.4** |

| | Metro Area | Avg. Annual Pedestrian Deaths Per 100,000 (2007-2008) | Percent of Workers Walking to Work (2000) | Pedestrian Danger Index |
|---|---|---|---|---|
| 36 | Buffalo-Niagara Falls, NY | 1.33 | 2.70% | **49.3** |
| 37 | Milwaukee-Waukesha-West Allis, WI | 1.39 | 2.90% | **48.6** |
| 38 | Philadelphia-Camden-Wilmington, PA-NJ-DE-MD | 1.72 | 3.90% | **44.3** |
| 39 | Virginia Beach-Norfolk-Newport News, VA-NC | 1.18 | 2.70% | **44.1** |
| 40 | San Francisco-Oakland-Fremont, CA | 1.6 | 3.90% | **40.9** |
| 41 | Chicago-Naperville-Joliet, IL-IN-WI | 1.23 | 3.10% | **39.3** |
| 42 | Providence-New Bedford-Fall River, RI-MA | 1.25 | 3.30% | **38.4** |
| 43 | Cleveland-Elyria-Mentor, OH | 0.81 | 2.20% | **37.1** |
| 44 | Portland-Vancouver-Beaverton, OR-WA | 1.07 | 2.90% | **36.4** |
| 45 | Hartford-West Hartford-East Hartford, CT | 0.88 | 2.50% | **35.3** |
| 46 | Cincinnati-Middletown, OH-KY-IN | 0.77 | 2.30% | **33.5** |
| 47 | Rochester, NY | 1.11 | 3.50% | **31.6** |
| 48 | Seattle-Tacoma-Bellevue, WA | 0.98 | 3.10% | **31.1** |
| 49 | Pittsburgh, PA | 1.04 | 3.60% | **29.1** |
| 50 | New York-Northern New Jersey-Long Island, NY-NJ-PA | 1.67 | 6.00% | **28.1** |
| 51 | Boston-Cambridge-Quincy, MA-NH | 1.07 | 4.60% | **23.2** |
| 52 | Minneapolis-St. Paul-Bloomington, MN-WI | 0.54 | 2.40% | **22.3** |

Table 1 ranks the largest metro areas (those with at least 1 million residents as of 2008) according to their Pedestrian Danger Index for 2007-2008. The safest places for walking are those with a lower PDI. These metros tend to be older northeastern or northern states, or places with a generally compact development pattern. Metros such as Seattle, Wash.; Portland, Ore.; and Minneapolis-St. Paul, Minn., are investing to build a well-developed network of sidewalks and crosswalks and have many people walking and bicycling.

The PDI was developed to allow a fair comparison of metro areas according to their risk to pedestrians, relative to how much an ordinary person walks in that metro area. However, in some communities, even those not rated as the most "dangerous" according to the PDI, pedestrian deaths represent an unusually high portion of all traffic deaths. Table 2 lists the metro areas with the highest percentage of pedestrian deaths, not controlling for the number of walkers.

Pedestrians make up a very high percentage of all traffic deaths in New York. The metropolitan area, with an average 316 annual pedestrian

Table 2. Metro areas with the highest share of pedestrian fatalities (over 1 million residents)

| | Metropolitan Area | Number of Pedestrian Fatalities (2007) | Number of Pedestrian Fatalities (2008) | Percent of Workers Walking to Work (2000) | Traffic Deaths that Were Pedestrian |
|---|---|---|---|---|---|
| 1 | New York-Northern New Jersey-Long Island, NY-NJ-PA | 316 | 317 | 6.0% | **31.1%** |
| 2 | San Francisco-Oakland-Fremont, CA | 64 | 72 | 3.9% | **27.7%** |
| 3 | Los Angeles-Long Beach-Santa Ana, CA | 247 | 244 | 2.7% | **26.9%** |
| 4 | Miami-Fort Lauderdale-Pompano Beach, FL | 178 | 151 | 1.7% | **22.5%** |
| 5 | Tampa-St. Petersburg-Clearwater, FL | 98 | 94 | 1.7% | **22.4%** |
| 6 | San Jose-Sunnyvale-Santa Clara, CA | 24 | 23 | 1.8% | **22.2%** |
| 7 | Milwaukee-Waukesha-West Allis, WI | 25 | 18 | 2.9% | **22.1%** |
| 8 | Washington-Arlington-Alexandria, DC-VA-MD-WV | 106 | 80 | 3.0% | **21.4%** |
| 9 | Denver-Aurora, CO | 41 | 38 | 2.1% | **20.4%** |
| 10 | San Diego-Carlsbad-San Marcos, CA | 50 | 63 | 3.4% | **20.4%** |

deaths in 2007 and 2008, has the highest absolute number of pedestrian deaths of any metropolitan area in the U.S. Further, the percent of traffic deaths that were pedestrians in New York is nearly three times the national average. In com-

## Is Florida Particularly Dangerous?

Five of the six most dangerous metro areas for walking are in Florida, known as a haven for retirees. Is there a connection? An analysis of the pedestrian fatality statistics reveals that the portion of elderly people dying as pedestrians in Florida is not out of line with the national average. Seventeen percent of pedestrian deaths in Florida in the years studied were older Americans (70 years and older), the same as the national average of 17 percent. Almost half of the states had rates higher than Florida's. In fact, over one-quarter of all pedestrian deaths in North Dakota, Hawaii, Vermont, Maine, West Virginia and Massachusetts were elderly.


This is a typical example of a high-speed, high-traffic arterial road. Though it does contain a sidewalk, it's a narrow sidewalk with frequent curb cuts for turning cars and little room for error.

munities with such a high portion of pedestrian deaths, pedestrian safety merits proportional public safety attention.

However, with by far the highest portion of commuters walking to work of any large metropolitan area, the relative risk to pedestrians in the New York metro area is the fourth lowest in the country. Perhaps more troubling are the metro areas with both a high portion of pedestrian traffic deaths and a low percentage of residents walking to work – Miami-Fort Lauderdale-Pompano Beach, Tampa-St. Petersburg-Clearwater and San Jose-Sunnyvale-Santa Clara. These are places where pedestrians are truly at risk of being killed while walking, a risk that is captured by the PDI and reflected in that ranking.

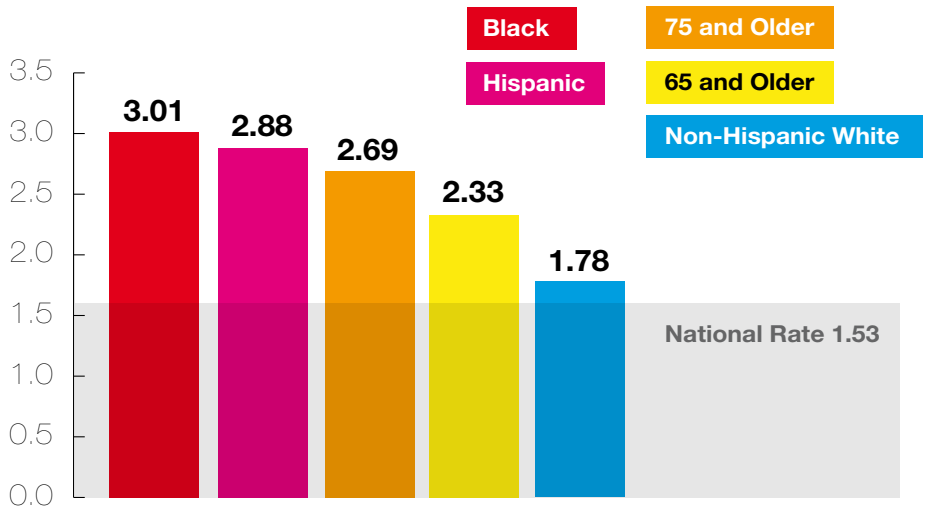
# Dangers to Pedestrians with Few Options

Given the benefits that walking provides, from improving public health to reducing the costs of congestion, it remains all too dangerous in many parts of the country. According to the most recent data from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS), more than 9,000 pedestrians were killed in collisions with cars and trucks in 2007 and 2008, and 70,000 more suffered injuries in 2008 alone.

On a per-mile basis, walking in unsafe conditions is ten times as dangerous as driving.[20] Further, at least one-third of people cannot or choose not to drive and, for most of them, walking is their primary method for getting around. This group includes children and young adolescents, older Americans who no longer drive, Americans with

20 Drivers (plus passengers, motorcyclists) represent 31,979 fatalities/2,926,000,000,000 miles driven = 1.09 fatalities per 100 million miles traveled, while pedestrians: 4,501 fatalities/39,429,394,000 miles walked = 11.4 fatalities per 100 million miles traveled. Miles walked was calculated by taking the total number of trips walked (35.3 billion, according to the 2001 NHTS) and splitting it out according to avg trip distance from the NHTSA National Survey of Pedestrian and Bicyclist Attitudes and Behaviors from 2002. According to that survey, the average walk trip distance is about 1.1 miles.

Pedestrian Fatality Rate per 100,000 Persons



disabilities that prevent them from driving, racial and ethnic minorities, lower income Americans and a growing number of Americans seeking to avoid the high (and rising) cost of owning and maintaining a car.

## Racial and Ethnic Minorities

Hispanic and African American residents, on average, drive less and walk more than other groups. African Americans walk for 50 percent more trips than whites, and the Hispanic walking rate is close to 40 percent higher. While whites made only 8.6 percent of trips on foot in 2001, African Americans made 12.6 percent of trips on foot, and Hispanics made 11.8 percent of trips on foot.[21]

Pedestrian fatality statistics show that ethnic and racial minorities tend to be disproportionately represented in the numbers. Data on race and ethnicity for pedestrian deaths from NHTSA's FARS database is incomplete (for the years 2007 and 2008, records for more than 26 percent of pedestrian fatalities did not record race data, and more than 27 percent of entries did not record ethnicity data), but previous analysis suggests stark disparities.

A Centers for Disease Control analysis of 2001 NHTSA data found that Hispanics suffer a pedestrian death rate of 2.88 per 100,000 people, a rate 62 percent higher than the 1.78 rate for non-Hispanic whites. The same report found death rates for African Americans were even higher, at 3.01 per 100,000 persons, a rate almost 70 percent higher than for non-Hispanic whites.[22]

### Table 3. Highest Average Annual Fatalities per 100,000 People 65 and Older

| | State | Fatalities per 100,000 People 65 And Older (2007-2008) |
|---|---|---|
| 1 | Hawaii | 6.97 |
| 2 | California | 3.91 |
| 3 | New York | 3.73 |
| 4 | Rhode Island | 3.40 |
| 5 | New Hampshire | 3.28 |
| 6 | Nevada | 3.28 |
| 7 | Florida | 3.21 |
| 8 | Massachusetts | 3.18 |
| 9 | Idaho | 3.08 |
| 10 | New Jersey | 3.06 |
| | National Average | 2.33 |

## Older Americans

Older Americans are two-thirds more likely to be killed while walking than those under 65 years of age. In 2007 and 2008, 1,706 pedestrians aged 65 years or older were killed in traffic crashes. Older pedestrians represent 18 percent of all pedestrian fatalities though that age cohort comprised only 13 percent of the total population in 2008.1 The oldest pedestrians (75 years and older) suffered from pedestrian fatality rates of 2.69 per 100,000 people, a rate nearly twice the national average for

21 2001 National Household Travel Survey.

22 Knoblauch, R. L., Seifert, R. F., Murphy, N. B. "The Pedestrian and Bicyclist Highway Safety Problem As It Relates to the Hispanic Population in the United States." FHWA: December, 2004.

## Case Study: Child Struck at Unsafe Intersection

Altamesa Walker led her four young children across a major five-lane thoroughfare in suburban Atlanta early morning on November 17. The family had missed its bus and was attempting to reach the bus stop on the opposite side in hopes of catching an alternate route. There was no crosswalk between the two bus stops, and both are located several hundred feet from the nearest intersection with crosswalks. They stopped midway across the road, in a turning lane they hoped would offer the protection of a (nonexistent) median. Resuming their crossing, and assuming safety, Walker's four-year-old daughter was fatally struck by a car.

*Source: The Atlanta Journal-Constitution*

those under 65 years of age. States with the highest number of pedestrian fatalities per 100,000 people aged 65 and older are Hawaii, followed by California and New York.

The higher fatality rate for older pedestrians can probably be attributed to several factors: 1) older pedestrians have a higher risk of death than young people given the same severity of injury; 2) older pedestrians are more likely to have perceptual, sensory and cognitive impairments that decrease their ability to avoid oncoming traffic; and, 3) existing pedestrian infrastructure, such as the duration of crosswalk signals, ignores the needs of older walkers. Recognizing that pedestrian safety is a critical issue for their members, AARP has endorsed Complete Streets policies that take older pedestrians into account. The AARP is also encouraging states to implement the Federal Highway Administration's roadway engineering guidelines for older drivers and pedestrians. Over the coming decades, the number of older Americans aged 65 and up is expected to increase from 12 percent in 2005, to 18 percent in 2025, requiring new approaches that reflect the challenges that frequently affect people's mobility as they age.

Older Americans have much to gain when walking is safe. Many older American who cannot or choose not to drive become stranded in their homes and rely on others for transportation, or are unable to travel as they would like. While Americans aged 65 and over make only 6 percent of their trips by walking or bicycling, older adults in other countries make substantially larger shares of similar trips by walking and bicycling – 44-48 percent in Germany and 50-55 percent in the Netherlands – illustrating that age does not need to be a barrier when people feel safe.[23]

23 John Pucher and Lewis Dijkstra. Making Walking and Cycling Safer: Lessons from Europe. Transportation Quarterly, Vol. 54, No. 3, Summer 2000.

## Young Children

Pedestrian injury is the third leading cause of death by unintentional injury for children 15 and younger, according to CDC mortality data. More than 700 children 15 years and younger were killed as pedestrians in 2007 and 2008. Designing communities that create safe, convenient and fun opportunities for children to bicycle and walk will help keep children safe. Safe Routes to School is a federally funded program that seeks to increase the number of children walking and bicycling to schools by constructing new bike lanes, pathways and sidewalks, as well as by launching Safe Routes to School safety education, promotion and enforcement campaigns in K-8 schools.

Increasing the number of young children that can safely walk and bike to school will also help them become more physically active. Obesity is one of the most pressing public health threats facing children and families today. Current estimates show that more than 33 percent of children and adolescents, approximately 25 million kids, are overweight or obese. Walking and bicycling to school can help – elementary and middle school-age boys and girls who walk to and from school are more physically active overall than those who travel to school by car or bus. For example, a study of 1,596 middle school-age girls in six states found that those who reported walking before and after school had 13.7 more minutes of total physical activity than those who did not report doing so.[24] And, children who walk or bicycle to school have better cardiovascular fitness than do children who do not actively commute to school.[25]

Neighborhoods and communities that are designed for walking and bicycling can make a big difference in encouraging all Americans, regardless of age, race, and ability to incorporate much needed exercise into their daily routines. A 2002 CDC survey found that about 40 percent of kids do not walk or bike to school because of traffic dangers perceived by their parents.[26] This translates to roughly 20 million US children missing the chance to keep off excess pounds due to policies that fail to invest in making walking and bicycling safer and more convenient.

24 Saksvig BI, Catellier DJ, Pfeiffer K, et al. "Travel by Walking Before and After School and Physical Activity Among Adolescent Girls." Archives of Pediatrics and Adolescent Medicine, 161(2):153–158, 2007.

25 Davison, Kirsten K., Werder, Jessica L. and Lawson, Catherine T. "Children's Active Commuting to School: Current Knowledge and Future Directions." Preventing Chronic Disease. 5.3 (2008): A100.

26 http://www.walkbikenashville.org/Documents/Cdc.htm

# Transportation Spending Shortchanges Pedestrians

Despite the danger of walking in many metro areas, most state departments of transportation have not made walking a budget priority, and have failed to take advantage of increased federal funding available to address pedestrian safety. The 1991 passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) increased state government's flexibility to spend federal transportation dollars on projects that made bicycling and walking safer and more convenient. ISTEA and subsequent bills also created funding programs specifically geared toward increasing and improving transportation choices, including walking. Those reforms were broadened and deepened with the subsequent reauthorizations of ISTEA, first in 1998 with the Transportation Equity Act for the 21st Century (TEA-21), and most recently as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005.

We analyzed state spending of federal funds authorized by SAFETEA-LU (FY2005-FY2008), comparing state commitments of federal funds to pedestrian safety. Spending of federal funds does not account for all investments into pedestrian safety. Many communities have been investing in sidewalks and other facilities for decades, or have dedicated more local funds (and state funds) to this purpose. However it does indicate the level of commitment transportation agencies have made toward creating safer pedestrian environments, particularly on the arterial roads that are most dangerous and likely to have been substantially federally funded over the years.

## Metro Area Investment of Federal Funds

Within metro areas, where most walking takes place, federal funds spent on these vital transportation needs comes to just pennies per person. In the most recent period, the 52 largest metro areas (over one million in population) averaged annual spending of federal funds on bicycle and pedestrian projects of just $1.39 per person. The average metro area spends 2.2 percent of their federal transportation funds on projects to improve conditions for walking and bicycling.

Still, across the country, metropolitan areas are showing a vast improvement over spending on pedestrian infrastructure than during TEA-21, when the average was just $0.82 per person. In metro areas, decisions on how to spend federal dollars are made by both state departments of transportation and by metropolitan planning organizations (MPOs), which coordinate funding requests from the cities and counties within their borders. A small portion of federal funds is directly controlled by the MPOs, but those bodies also have varying degrees of influence on state department of transportation spending priorities within MPO boundaries.

## Table 4. Large Metro Areas Ranked by Highest Federal Spending on Pedestrian Safety per Person (over one million residents)

| Spending Rank | Metro Area | Portion of All Traffic Deaths that were Pedestrians | Average Yearly Federal Funds Spent on Bike/ Ped per Person |
|---|---|---|---|
| 1 | Providence-New Bedford-Fall River, RI-MA | 17.5% | **$4.01** |
| 2 | Nashville-Davidson--Murfreesboro--Franklin, TN | 7.0% | **$3.82** |
| 3 | Seattle-Tacoma-Bellevue, WA | 16.7% | **$3.28** |
| 4 | Rochester, NY | 14.4% | **$3.06** |
| 5 | Hartford-West Hartford-East Hartford, CT | 12.1% | **$2.77** |
| 6 | Minneapolis-St. Paul-Bloomington, MN-WI | 8.1% | **$2.61** |
| 7 | Tucson, AZ | 13.9% | **$2.52** |
| 8 | San Jose-Sunnyvale-Santa Clara, CA | 22.2% | **$2.45** |
| 8 | Louisville/Jefferson County, KY-IN | 14.2% | **$2.39** |
| 10 | Atlanta-Sandy Springs-Marietta, GA | 11.6% | **$2.39** |
| 11 | Jacksonville, FL | 14.6% | **$2.25** |
| 12 | Portland-Vancouver-Beaverton, OR-WA | 15.6% | **$1.98** |
| 13 | Sacramento--Arden-Arcade--Roseville, CA | 17.2% | **$1.95** |
| 14 | Tampa-St. Petersburg-Clearwater, FL | 22.4% | **$1.86** |
| 15 | Indianapolis-Carmel, IN | 9.2% | **$1.85** |
| 16 | Kansas City, MO-KS | 10.7% | **$1.70** |
| 17 | Salt Lake City, UT | 14.3% | **$1.66** |
| 18 | San Antonio, TX | 13.5% | **$1.65** |
| 19 | San Francisco-Oakland-Fremont, CA | 27.7% | **$1.52** |
| 20 | Phoenix-Mesa-Scottsdale, AZ | 17.2% | **$1.50** |
| 21 | Pittsburgh, PA | 10.0% | **$1.46** |
| 22 | St. Louis, MO-IL | 10.9% | **$1.29** |
| 23 | Philadelphia-Camden-Wilmington, PA-NJ-DE-MD | 19.8% | **$1.24** |
| 24 | Columbus, OH | 12.2% | **$1.24** |
| 25 | Washington-Arlington-Alexandria, DC-VA-MD-WV | 21.4% | **$1.19** |
| 26 | Cleveland-Elyria-Mentor, OH | 10.9% | **$1.17** |
| 27 | Birmingham-Hoover, AL | 7.0% | **$1.12** |
| 28 | Boston-Cambridge-Quincy, MA-NH | 20.3% | **$1.11** |
| 29 | San Diego-Carlsbad-San Marcos, CA | 20.4% | **$1.03** |
| 30 | Raleigh-Cary, NC | 16.7% | **$0.95** |
| 31 | Cincinnati-Middletown, OH-KY-IN | 8.5% | **$0.94** |
| 32 | Orlando-Kissimmee, FL | 17.4% | **$0.87** |

| Spending Rank | Metro Area | Portion of All Traffic Deaths that were Pedestrians | Average Yearly Federal Funds Spent on Bike/ Ped per Person |
|---|---|---|---|
| 33 | New Orleans-Metairie-Kenner, LA | 18.6% | **$0.85** |
| 34 | Milwaukee-Waukesha-West Allis, WI | 22.1% | **$0.83** |
| 34 | Oklahoma City, OK | 11.9% | **$0.77** |
| 36 | Chicago-Naperville-Joliet, IL-IN-WI | 18.4% | **$0.75** |
| 37 | Houston-Sugar Land-Baytown, TX | 17.4% | **$0.73** |
| 38 | Detroit-Warren-Livonia, MI | 19.5% | **$0.73** |
| 39 | Riverside-San Bernardino-Ontario, CA | 13.0% | **$0.72** |
| 40 | Charlotte-Gastonia-Concord, NC-SC | 11.0% | **$0.71** |
| 41 | Miami-Fort Lauderdale-Pompano Beach, FL | 22.5% | **$0.65** |
| 42 | Denver-Aurora, CO | 20.4% | **$0.65** |
| 43 | New York-Northern New Jersey-Long Island, NY-NJ-PA | 31.1% | **$0.61** |
| 44 | Dallas-Fort Worth-Arlington, TX | 15.7% | **$0.60** |
| 45 | Baltimore-Towson, MD | 19.7% | **$0.59** |
| 46 | Memphis, TN-MS-AR | 11.4% | **$0.58** |
| 47 | Buffalo-Niagara Falls, NY | 19.4% | **$0.52** |
| 48 | Los Angeles-Long Beach-Santa Ana, CA | 26.9% | **$0.45** |
| 49 | Las Vegas-Paradise, NV | 20.3% | **$0.37** |
| 50 | Virginia Beach-Norfolk-Newport News, VA-NC | 12.4% | **$0.22** |
| 51 | Austin-Round Rock, TX | 15.0% | **$0.16** |
| 52 | Richmond, VA | 9.2% | **$0.15** |

A few metro areas have demonstrated a greater commitment by dedicating a larger portion of federal funds on pedestrian and bicycle facilities. Providence, R.I., and Nashville, Tenn., spend an average of $4.01 and $3.82 on bicycle and pedestrian projects per person. In contrast, the Richmond, Va., and the Austin, Texas, metro areas rank the lowest in terms of pedestrian spending, dedicating just 15 cents and 16 cents per person, respectively, to improving walking conditions in their areas.

## National Trends and State Investments on Pedestrians

Nationally, less than 1.5 percent of federal transportation funds have been spent on pedestrians and bicyclists under SAFETEA-LU, even though pedestrians comprise 11.5 percent of all traffic deaths and trips made on foot account for almost 9 percent of all trips. This 1.5 percent of federal spending, about $441 million per year, includes both pedestrian safety funding, and funding for pedestrian and bicycling facilities such as crosswalks, sidewalks, traffic-calming projects, pedes-

## Table 5. State Pedestrian Fatalities and Federal Spending on Walking and Biking

| | State | Portion of all Traffic Deaths that were Pedestrians (2007-2008) | Percent of Total Federal Funding Spent on Pedestrian & Bicycle Projects (2005-2008) | Spending per Capita under SAFETEA-LU (2005-2008) |
|---|---|---|---|---|
| 1 | Alaska | 11.6% | 2.2% | **$9.47** |
| 2 | Vermont | 3.6% | 4.2% | **$9.05** |
| 3 | Rhode Island | 19.4% | 4.3% | **$6.12** |
| 4 | Wyoming | 2.9% | 1.5% | **$5.32** |
| 5 | Montana | 5.1% | 1.8% | **$5.26** |
| 6 | New Hampshire | 8.2% | 3.7% | **$4.01** |
| 7 | Iowa | 4.7% | 3.1% | **$3.92** |
| 8 | Delaware | 16.0% | 3.2% | **$3.90** |
| 8 | North Dakota | 5.6% | 1.0% | **$3.32** |
| 10 | Hawaii | 20.0% | 2.8% | **$2.96** |
| 11 | New Mexico | 11.7% | 2.0% | **$2.96** |
| 12 | Washington | 11.6% | 3.3% | **$2.76** |
| 13 | Minnesota | 6.6% | 2.2% | **$2.58** |
| 14 | Tennessee | 6.0% | 2.4% | **$2.37** |
| 15 | Kentucky | 6.7% | 2.1% | **$2.23** |
| 16 | Pennsylvania | 10.0% | 2.1% | **$2.22** |
| 17 | Mississippi | 6.5% | 1.0% | **$2.21** |
| 18 | Arizona | 14.1% | 2.6% | **$2.16** |
| 19 | Idaho | 5.8% | 1.5% | **$2.14** |
| 20 | South Dakota | 6.0% | 0.8% | **$2.09** |
| 21 | Kansas | 4.9% | 1.7% | **$2.07** |
| 22 | Alabama | 6.6% | 1.4% | **$1.80** |
| 23 | Missouri | 7.3% | 1.4% | **$1.78** |
| 24 | Georgia | 9.7% | 1.7% | **$1.78** |
| 25 | Indiana | 7.0% | 1.7% | **$1.76** |
| 26 | Connecticut | 12.6% | 1.7% | **$1.67** |
| 27 | Maine | 6.5% | 1.4% | **$1.51** |
| 28 | West Virginia | 4.9% | 0.7% | **$1.46** |
| 29 | Michigan | 12.2% | 1.6% | **$1.44** |
| 30 | Wisconsin | 8.3% | 1.6% | **$1.43** |
| 31 | Utah | 11.5% | 1.7% | **$1.42** |
| 32 | Florida | 16.9% | 1.5% | **$1.40** |
| 33 | Oregon | 11.6% | 1.5% | **$1.28** |
| 34 | Ohio | 8.6% | 1.3% | **$1.23** |
| 34 | North Carolina | 10.9% | 1.3% | **$1.19** |
| 36 | Arkansas | 7.4% | 0.9% | **$1.16** |

| | State | Portion of all Traffic Deaths that were Pedestrians (2007-2008) | Percent of Total Federal Funding Spent on Pedestrian & Bicycle Projects (2005-2008) | Spending per Capita under SAFETEA-LU (2005-2008) |
|---|---|---|---|---|
| 37 | Colorado | 9.7% | 1.2% | **$1.13** |
| 38 | Louisiana | 11.4% | 0.8% | **$1.13** |
| 39 | California | 17.7% | 1.5% | **$1.09** |
| 40 | Massachusetts | 17.7% | 1.2% | **$1.03** |
| 41 | Texas | 12.2% | 1.0% | **$0.99** |
| 42 | Nebraska | 2.8% | 0.8% | **$0.98** |
| 43 | Nevada | 16.2% | 1.0% | **$0.93** |
| 44 | New York | 22.5% | 1.0% | **$0.73** |
| 45 | Oklahoma | 7.8% | 0.4% | **$0.61** |
| 46 | Illinois | 13.6% | 0.8% | **$0.61** |
| 47 | South Carolina | 10.4% | 0.4% | **$0.48** |
| 48 | New Jersey | 22.1% | 0.5% | **$0.47** |
| 49 | Maryland | 19.4% | 0.6% | **$0.45** |
| 50 | Virginia | 8.9% | 0.3% | **$0.22** |
| | **United States** | **11.8%** | **1.5%** | **$1.46** |

trian signals, paths and speed humps.[27] Table 5 shows how each state has performed in using its federal funds on these projects.

Nationwide, the average annual amount of federal funds spent on pedestrian and bicycling facilities is just $1.46 per person, an increase over past spending levels. The 2005 SAFETEA-LU law authorized a significant increase in overall federal transportation dollars (available for highways, public transportation, and bicycling and walking projects) flowing to the states, which also increased the levels of funds available for pedestrians and bicyclists.

In addition, states are not taking advantage of the federal funds specifically available for improving bicycling and walking facilities. A principle feature of ISTEA, TEA-21 and SAFETEA-LU is that they allow states to "flex" (or transfer) highway funds to public transportation, and to prioritize resources for pedestrian or bicycling projects. ISTEA also created the Transportation Enhancements (TE) program, which reserves 10 percent of a state's Surface Transportation Program (STP) funds (overall, less than two cents of every federal transportation dollar) for projects such as bike paths, trails, sidewalks and other activities.[28] More recently, under SAFETEA-LU, Congress established the Safe Routes to Schools

27 It is important to note that not all funding for pedestrian facilities or safety programs comes from the federal government. Local and state governments also provide significant funding for transportation projects, including those for pedestrians. Unfortunately, this data is not readily available.

28 See the National Transportation Enhancements Clearinghouse for more information about the twelve activities that qualify for Transportation Enhancements funds, <www.enhancements.org>

## The Highway Safety Improvement Program

With a name like "SAFETEA-LU," the most recent federal transportation program has made traffic safety a priority. Congress boosted the stature of safety initiatives by pulling safety spending out of the Surface Transportation Program funding category, and making it a core funding program by itself. It also doubled funding levels in that program. This new Highway Safety Improvement Program (HSIP) requires states to create safety plans and analyze safety data in order to prioritize funding commitments. The law is clear that pedestrian and bicyclist safety are a priority and eligible for this federal funding.

Unfortunately, few states see it that way, and all but a tiny fraction of the HSIP funding goes to traditional automobile-oriented safety projects located on roads and bridges. Out of the $5.1 billion available under the HSIP from 2006 through 2009, very little has been spent on pedestrian or bicyclist facilities or safety programs. A handful of states have made pedestrians and bicyclists a priority for HSIP funding. Virginia, for example, pre-designates 10 percent of its HSIP funding for pedestrian and bicycle projects.

program, which provides states $612 million over five years to improve safety around schools for children walking and bicycling. These changes helped increase spending of federal funds on sidewalks, crosswalks, bicycle paths and trails from just $691 million under ISTEA to nearly $1.8 billion under SAFETEA-LU.

Unfortunately, most states have not fully utilized these funds, obligating (i.e., actually spending) only 80.4 percent of the nearly $9.4 billion made available through the Transportation Enhancements program since 1992, and only 35 percent of the Safe Routes to Schools program since 2005. This leaves federal funds, which could be dedicated to improving pedestrian and bicyclist safety, effectively unspent. This is not for lack of local need or interest in such projects, by and large, but rather a reflection of state DOT's priorities. Some states have made greater efforts to spend these available funds, but most have failed to take full advantage of Transportation Enhancements and Safe Routes to Schools program resources. Worse still, the large amount of unspent funds in those programs make them a prime target for meeting federal rescission requirements, in which states are required to give back unspent funds to the federal government to balance revenues with spending. In FY 2008 alone, states returned over $98.5 million in TE funds to the federal government through rescissions, equivalent to a 12 percent reduction in the 2008 apportionment of TE funds.[29]

29 National Transportation Enhancements Clearinghouse, "Transportation Enhancements: A Summary of Nationwide Spending as of FY2008." May 2009.

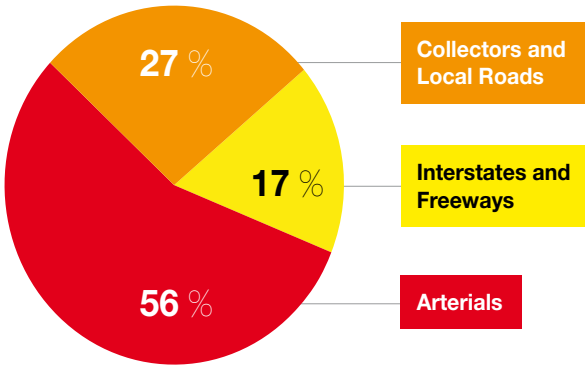
# Streets Designed for Traffic, Not for Pedestrians

Rather than investing in projects to improve pedestrian safety, many state and local governments continue to build roads that are dangerous for people on foot or bicycle. In the past 50 years, we have built a transportation system almost singularly focused on high-speed automobile traffic, at the expense of community livability and the safety of people. Designing streets that are safer for pedestrians requires a transportation system that is focused on moving all people.

## Engineering Wide Roads

Our analysis of NHTSA's Fatality Analysis Reporting System (FARS) database reveals that most pedestrians are killed on the wider, higher capacity and higher speed roads called arterials.

### Pedestrian Fatalities in Urban Areas by Road Type (2007-2008)




These roads are called arterials because they connect major destinations within an urban or rural area. More than 50 percent of the 9,091 pedestrians killed (for whom roadway classification data was recorded) in 2007 and 2008 died on principal or minor arterials. One-third of pedestrian deaths occurred on smaller collector and local roads, while 16 percent of deadly crashes were on interstates or freeways.

In urban areas, the dangers of walking along or crossing arterials are even more starkly apparent. More than 56 percent of the 6,367 pedestrian deaths in urban areas (for whom road type data was collected) occurred on arterial roads.

These roads, typically designed with four or more lanes and high travel speeds, have been shown to encourage distracted driving habits. In fact, a study of street widths and injury collisions

## Case Study: Veteran fatally struck, DPW Calls Pedestrians Secondary Concern to Moving Cars

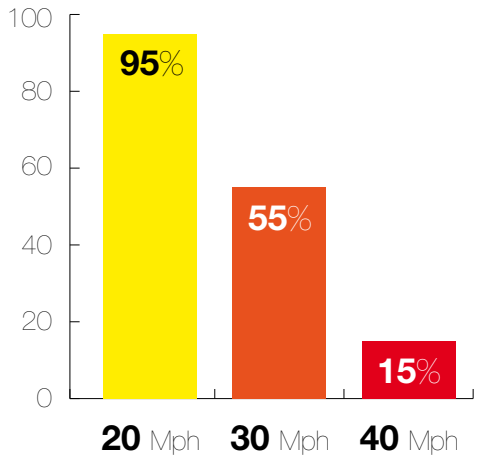
Among the pedestrians killed in Baton Rouge, La., in 2008 was Army veteran and Eagle Scout Patrick Thomas, who did not drive. While trying to cross six lanes of traffic on foot, he was fatally struck by a car. A 2008 audit of the city-parish's Department of Public Works specifically recommended the adoption of a Complete Streets policy, but the Public Works Director responded that accommodation of bicyclists and pedestrians was too costly and a secondary concern to moving cars.

*Source: The Baton Rouge Advocate.*

found that risk of injury from crashes increases exponentially once street widths exceed 24 feet, because of increased vehicle speed.[30] Drivers respond to modern highway engineering by driving faster and less cautiously.

30 Swift, Painter and Goldstein, 2006.

### Pedestrian Survival Rate by Vehicle Speed




## Designing for Fast Travel Speed

Vehicle speed presents the greatest threat to pedestrians. A pedestrian struck by a car or truck traveling at 20 miles per hour has a 95 percent chance of surviving the collision. That drops to 55 percent when the vehicle is traveling at 30 mph. At 40 mph, the chance of a pedestrian surviving a collision drops to just 15 percent.[31] At higher vehicle speeds, a collision is not only more deadly, but far more likely. Even without the distractions of cell phones and PDAs, a driver needs nearly 200 feet to stop a vehicle moving at just 30 mph.

Confirming the risk of vehicle speed, our analysis of NHTSA's Fatality Analysis Reporting System (FARS) database shows that more than

31 Federal Highway Administration (2002). Pedestrian Facilities Users Guide: Providing Safety and Mobility. <http://drusilla.hsrc.unc.edu/cms/downloads/PedFacility_UserGuide2002.pdf

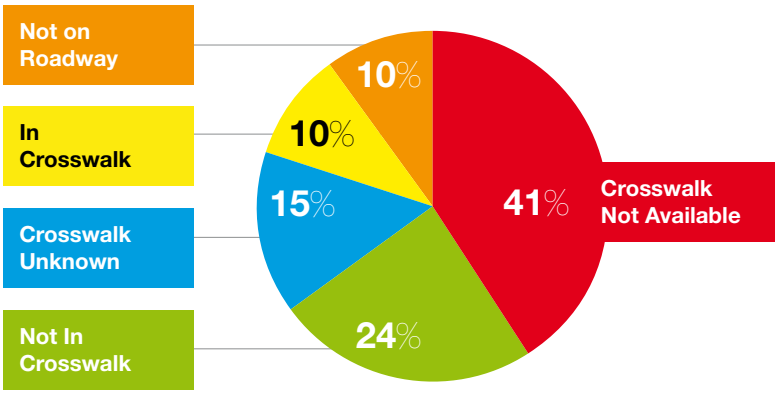
## 82-Year-Old Woman Ticketed for Crossing Street Too Slowly

On 15 February 2006, 82-year-old Mayvis Coyle was ticketed by a Los Angeles police officer for "obstructing the flow of traffic." Her infraction? Walking too slowly. While the arresting officer said he couldn't comment on the ticket, he was quoted as saying "Right now, pedestrian accidents are above normal. We're looking out for pedestrians – people who think they have carte blanche in crossing the street." Ms. Coyle was slapped with a $114 ticket for no other crime than not walking fast enough.

*Source: Los Angeles Daily News*

60 percent of pedestrian fatalities occurred on roads with speed limits of 40 mph or greater. In contrast, only 1 percent of the 8,659 pedestrian deaths for which roadway speed limit was known occurred on roads with a speed limit of 20 mph or lower.

### Pedestrian Fatalities by Crosswalk Availability (2007-2008)




## Insufficient Pedestrian Infrastructure

Too many arterial roads, even in urban areas, are simply not built with pedestrians in mind, and often lack sidewalks altogether. Even neighborhoods that do provide sidewalks often lack crosswalks or have crosswalks that are spaced too far apart to be convenient for pedestrians. Again, the AARP poll sheds light on how widespread this

problem is: nearly half of respondents reported that they could not safely cross the main roads close to their home.[32]

Another survey of more than 1,000 transportation planners and engineers found that nearly two-thirds do not yet consider the needs of older Americans in their multimodal transportation planning.[33]

All too often, the consequences of this lack of basic infrastructure are fatal, as shown in the stories in this report. We analyzed the FARS data to determine the potential influence of poor pedestrian facilities on deaths. Of the 9,168 pedestrian fatalities for which the location of the collision is known, more than 40 percent were killed where no crosswalk was available. Another 15 percent were killed where crosswalk availability was not known. Nearly one-quarter of pedestrian deaths were recorded outside an available crosswalk. And just 10 percent of pedestrian fatalities occurred inside a crosswalk. These data point to at least one common problem of dangerous streets – there simply are not enough safe places to walk or cross the street.

No national database of pedestrian infrastructure exists, but some states are attempting to inventory their sidewalks, bicycle paths and crossing signals. New Jersey is a national leader in this effort, with an online database and map detailing pedestrian and bicycling infrastructure along every stretch of the state's 6,800 miles of county-maintained roads. The state also launched a five-year, $74 million program in 2006 to reduce pedestrian risks throughout New Jersey by combining infrastructure improvements with enforcement and educational strategies. Even in New Jersey less than one-third of the county road mileage has a paved sidewalk or walkway. Recognizing that conditions vary in rural, suburban and urban areas, a key element of the initiative is the Pedestrian Safety Corridor program, which targets selected corridors with a history of pedestrian safety problems for investigation and improvement.

32 AARP Public Policy Institute. Planning Complete Streets for an Aging America, 2009.

33 AARP Public Policy Institute. Planning Complete Streets for an Aging America, 2009.

# The Solution: Smart Investment and Smart Design

The safest metro areas are already making smart investments to make roads safer and more inviting for pedestrians. Tools from policy guidelines to engineering adjustments are available, with plenty of on-the-ground examples to work from. All that is required is the courage to depart from business-as-usual highway planning that focuses on vehicles, not people. These techniques include traffic calming, road diets, roundabouts, sidewalks and crosswalks and prioritized investments in pedestrian safety projects such as Safe Routes to School and Complete Streets.

As the analysis above shows, the absence of basic pedestrian infrastructure such as sidewalks and crosswalks is a leading cause of the pedestrian fatality epidemic. Fortunately, once communities begin to invest in this infrastructure, deaths and injuries begin to fall.

## Creating Walkable Communities

Walkability indicates a safe and inviting pedestrian environment, and walkable communities are those that provide residents and visitors with safe transportation choices and improved quality of life. Walkability goes beyond just improving the pedestrian infrastructure and gives residents and visitors convenient and accessible places to walk. Walkable communities typically feature a mix of land-uses — such as homes, shops, and schools — that are close to each other. These neighborhoods provide sidewalks, crosswalks, and bike lanes that create safe passage for walkers and bikers, and they offer convenient, well-designed parking that encourages people to park and walk to their destination.

Logically, one would expect more people to walk in more walkable places. Since 1991, Portland, Ore., has seen bicycling increase at a rate of at least 10 percent every year, with modest investments in bicycle infrastructure. So far, Portland's bikeway network cost $57 million, and over the next decades the city plans to invest another $100 million to reach a bicycle mode share of 20 percent or more.[34] Similarly, between 2001 and 2004, the Seattle Department of Transportation undertook a project to implement safer and more walkable neighborhoods in its southeastern quarter, a largely low-income community. After extending curbs, creating on-street parallel parking, installing landscaping and repairing sidewalks — to support neighborhood revitalization and resident participation – traffic slowed on the street by an average of 12 miles per hour and residents are able to walk safely.[35]

A comprehensive scan of the literature on the built environment and traffic safety shows conclusively that urban areas are safer for motorists as well as pedestrians. Roads in urban areas that are

34 Rails to Trails Conservancy. Cost Effectiveness of Bicycling as a Greenhouse Gas Reduction Measure in Portland

35 Pedestrian and Bicycle Information Center (PBIC) Case Study. Institute of Transport Engineers Pedestrian Project Awards Application. Seattle Department of Transportation. http://www.ite.org/awards/pedproject/ppa093.pdf

walkable and feature narrow lanes, street trees, short block lengths and minimum building setbacks require drivers to slow down and pay closer attention.[36]

## Reducing Speeds through Better Road Design

One of the most effective ways to improve local pedestrian safety is through traffic calming. At the most basic level, traffic calming uses engineering techniques to force drivers to slow down and pay greater attention to their surroundings. The Institute of Traffic Engineers (ITE) defines traffic calming as "changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and/or cut-through volumes, in the interest of street safety, livability, and other public purposes." Traffic-calming techniques range from the installation of speed humps to the complete re-engineering of roadways, all with the goal of reducing traffic speeds. Vehicle speed presents the greatest threat to pedestrians.

Traffic calming originated in Europe in the 1960s and has become increasingly popular in the U.S. as the safety benefits have become clear. An analysis of 43 international studies found that traffic-calming solutions reduced collisions by 8 to 100 percent.[37] Other studies find crash reductions of between 20 and 70 percent, depending on the type of traffic-calming measure implemented.[38] Children, in particular benefit from traffic-calming measures. A recent study published in the American Journal of Public Health found that children who live near a speed hump are half as likely to be injured in a vehicle collision as those who do not.[39]

Designing streets for slower speeds through traffic calming is far more effective over the long-term than traditional speed enforcement. An experiment in Washington State in which rigorous traffic enforcement was conducted on one street, while another nearby street was "traffic calmed," found that enforcement temporarily reduced speeds by 4 mph, but that traffic calming permanently reduced speeds from an average of 44 mph to less than 30 mph.[40]

The speed reductions achieved through traffic calming have measurable safety benefits. A detailed meta-analysis – or survey – of 33 studies found that area-wide traffic-calming programs reduce injury accidents by about 15 percent, with the largest reduction on residential streets (25 percent), and somewhat smaller reductions on main roads (10 percent).[41] Specific calming strategies, such as designing narrower roads with fewer

36 R. Ewing and E. Dumbaugh. "The Built Environment and Traffic Safety: A Review of Empirical Evidence." Journal of Planning Literature. V. 23, N. 4. May 2009.

37 E. Geddes et al., Safety Benefits of Traffic Calming, Insurance Corporation of British Columbia.

38 Pucher, J. & Dijkstra, L. (2003) "Promoting safe walking and cycling to improve public health: lessons from the Netherlands and Germany." American Journal of Public Health, 93, 1509-1516.

39 J.M. Tester, R.W. Rutherford, Z. Wald, M.W. Rutherford. "A Matched Case-Control Study Evaluating the Effectiveness of Speed Humps in Reducing Child Pedestrian Injuries." American Journal of Public Health, April 2004, pages 646-650

40 Local Government Commission Center for Livable Communities, Dan Burden author, Street Guidelines for Healthy Neighborhoods, pps 25-26, January 2002.

41 Rune Elvik (2001), "Area-Wide Urban Traffic Calming Schemes: A Meta-Analysis of Safety Effects," Accident Analysis and Prevention, Vol. 33 (www.elsevier.com/locate/aap), pp. 327-336.

# St. Petersburg's Pedestrian Safety Success

The City of St. Petersburg, Fla., part of the Tampa Bay metro area, has been ranked as one of the worst areas in the nation for pedestrian safety in the Surface Transportation Policy Partnership's "Mean Streets" report since its inception in 1996. In 1998 and 2002, the Tampa Bay MSA was second in the nation in per capita deaths or injuries to pedestrians, and in 2000 ranked worst in the nation. Responding to this alarming statistic, and to interest from residents in improving the livability and walkability of the community, St. Petersburg completed the "Vision 2020" planning process, and the CityTrails Bicycle and Pedestrian Master Plan was developed and adopted in 2003. Since adoption, this city has achieved remarkable results:

**Trails and Bike Facilities** - Developed 83 new miles of bicycle facilities, doubled the number of bicycle parking spaces downtown to more than 200 and added more than 100 spaces at bus stops.

**Sidewalks** - Added 13 miles of sidewalk on major roadways and reduced the time to repair sidewalks, from 30 months to 30 days.

**Crosswalk Safety** – The first community in the nation to install the Enhancer, a rapid-flashing rectangular beacon at marked crosswalks, and has installed 32 at un-signalized crosswalks to date. These devices improved driver-yielding compliance, from the current base rate of less then 3 percent, to an average of more than 83 percent.

**Education and Enforcement** - Distributed more than 2,000 helmets to city cyclists and developed a pedestrian rodeo program, the first in the State of Florida that has been used successfully to educate younger children in safe pedestrian skills. The St. Petersburg Police Department established special enforcement details to target motorists who failed to yield to pedestrians in crosswalks.

As a result of the CityTrails Master Plan improvements and crosswalk safety enhancements, pedestrian crashes have been reduced by more than 50 percent since the high of 143 crashes in 2000, to 70 crashes per year in 2008. The number of severe injuries has also benn reduced from a high of 60 to 18 the last two years in a row.

## The Oakland Pedestrian Safety Project

The Oakland Pedestrian Safety Project was formed to reduce the high number of child pedestrian deaths. The project resulted in the installation of speed humps. Over a five-year period Oakland installed more than 1,600 speed humps in residential neighborhoods. A study in the American Journal of Public Health concluded that the speed humps were associated with a 50 to 60 percent reduction in the odds of injury or death among child pedestrians.

*Source: A Matched Case–Control Study Evaluating the Effectiveness of Speed Humps in Reducing Child Pedestrian Injuries.*



traffic lanes,[42] landscaping in the center median of urban arterials,[43] and raised center medians (which give pedestrians a safe refuge when they are halfway across the road) are associated with significantly lower crash risk to pedestrians.[44]

Beyond traffic calming, other design innovations are improving safety in traffic flow, particularly road diets and modern roundabouts. "Road diets" have proven particularly effective in reducing collisions on arterial roads located in urban areas. Urban arterial roads are often the most dangerous type of roadway for pedestrians, since they usually feature four lanes of high-speed traffic. In most cases, road diets turn a four-lane road with modest traffic levels into a two-lane road with a middle turning lane, two bicycle lanes, and on-street parking or wider sidewalks. Slower traffic speeds, coupled with a diversity of transportation modes, have been shown to improve safety by reducing crashes and reducing speeds. Because they reduce the number of travel lanes, and remove turning vehicles from the flow of traffic, road diets can significantly reduce both pedestrian and motorist collisions. Peer-reviewed studies have found that road diets reduce collisions by between 25 percent[45] and 44 percent.[46]

Concerted efforts to fix arterial roads in urban areas can reduce pedestrian death and injury, by ensuring that sidewalks, crosswalks, and bicycle lanes are installed when roads are repaired or

42 Charles V. Zegeer, Richard Stewart, Forrest Council and Timothy R. Neuman (1994), "Accident Relationships of Roadway Width on Low-Volume Roads," Transportation Research Record 1445 (www.trb.org), pp. 160-168.

43 Jeonghun Mok, Harlow C. Landphair and Jody R. Naderi (2003), Comparison of Safety Performance of Urban Streets Before and After Landscaping Improvements, Urban Street Symposium, TRB

44 Per E. Gårder (2004), "The Impact of Speed and Other Variables on Pedestrian Safety in Maine," Accident Analysis & Prevention, Volume 36, Issue 4 . July 2004, pp. 533-542.a

45 M. D. Pawlovich, W. Li. A. Carriquiry. T. Welch. "Iowa's Experience with 'Road Diet' Measures: Impacts on Crash Frequencies and Crash Rates Assessed Following a Bayesian Approach" TRB 2005.

46 T. J. Gates, D. A. Noyce, V. Talada, L. Hill. "The Safety and Operational Effects of 'Road Diets,'" Transportation Research Board Annual Meeting 2007. Paper No. 07-1918

## Vancouver Residents Applaud Road Conversion

In Vancouver, Wash., a road diet converted the four-lane, undivided Fourth Plain Boulevard into a street with two through lanes, a center turn lane, and two bicycle lanes. Curb ramps and other improvements to sidewalks were also made as part of the project. The number of overall collisions on the road segment dropped 52 percent after the conversion, and the number of pedestrian crashes dropped from two per year to zero. The community responded enthusiastically to the road diet in a livability survey taken after it was completed. Sixty-seven percent said they would recommend similar treatments on other roads in Vancouver.

*Source: Road Diet Handbook: Setting Trends for Livable Streets*

resurfaced. Many places are also paying more attention to intersection improvements, with techniques such as pedestrian refuge islands, traffic signals that can be activated by pedestrians and pedestrian signals that give walkers a head start over cars. Another method to improve pedestrian safety is to change the geometric design of the road to provide better sight distance for automobiles and using access control to reduce the number of driveways that increase conflicts with pedestrians.

Modern roundabouts have long been common in Europe but only recently gained ground in the U.S. as a strategy for reducing collisions and improving traffic flow. The Insurance Institute for Highway Safety (IIHS) found that roundabouts reduce injury crashes by 75 percent over the stop sign or signal-controlled intersection they replace.[47] And they do so without sacrificing traffic flow – conversions from stop signs to roundabouts actually reduced overall vehicle delays by 13 to 23 percent.[48] Indeed, the Federal Highway Administration considers traffic calming a key element to congestion relief as part of the Congestion Mitigation and Air Quality program (CMAQ).

## Adopting Complete Streets Policies

A movement to "complete the streets" is gaining momentum in communities across the country, as cities, regions, and states adopt policies to ensure that all future road projects take into account the needs of all users, especially pedestrians, bicyclists and public transportation users of all ages and abilities. In this way, communities begin to systematically end the practice of building roads only for cars. Complete Streets designs vary from place to place, but they might include features

47 IIHS. "Above: all drivers must stop, Left: traffic flows through." Status Report vol. 36, n. 7, July 28, 2001.

48 R. A. Retting, G. Luttrell, E. R. Russell. "Public Opinion and Traffic Flow Impacts of Newly Installed Modern Roundabouts in the United States," ITE Journal. September 2002.

such as sidewalks, bicycle paths, comfortable bus stops, median islands, frequent crosswalks and pedestrian signals.

As of the writing of this report, more than 100 communities and states across the country have adopted Complete Streets policies directing transportation planners and engineers to consistently design and operate the entire roadway with all users in mind – including bicyclists, public transportation vehicles and riders and pedestrians of all ages and abilities. States from Massachusetts to Hawaii, as well as counties and local governments, have passed similar legislation.

Both the Centers for Disease Control and Prevention and the American Academy of Pediatrics have endorsed using Complete Streets policies as a tool for increasing physical activity, reducing the prevalence of obesity and lowering traffic injuries and deaths.[49] [50]

Further, AARP has endorsed Complete Streets as one of its three transportation policy priorities, recognizing the potential to positively affect health, safety and quality of life for older Americans. In May 2009, AARP released a report with specific design recommendations to make streets safer for an aging population. The report also recommended that the Federal Highway Administration update its Highway Design Handbook for Older Drivers and Pedestrians to incorporate current best practices for pedestrian safety.

## Expanding Safe Routes to School Programs

Safe Routes to School programs take a comprehensive approach to improving safety around schools for children walking and bicycling through engineering upgrades like sidewalks and crosswalks, improved traffic enforcement and bicycle and pedestrian safety education. The intent is to address concerns from parents about traffic dangers and to get more children walking and bicycling to school, which improves their physical fitness and health. The first programs began in the late 1990s in places as diverse as the Bronx in New York City and Marin County, Calif.

49 Centers for Disease Control and Prevention. Recommended Community Strategies and Measurements to Prevent Obesity in the United States. MMWR 2009:58(No. RR-7)20:21.

50 Committee on Environmental Health. "Policy Statement: The Built Environment: Designing Communities to Promote Physical Activity in Children" Pediatrics Vol. 123 No. 6 June 2009, pp. 1591-1598 (doi:10.1542/peds.2009-0750); JAMA complete streets reference

## Complete Streets Policy

A Complete Streets Policy adopted by Hennepin County, Minn., in June 2009 reads "Hennepin County will enhance safety, mobility, accessibility and convenience for all corridor users, including pedestrians, bicyclists, transit riders, motorists, commercial and emergency vehicles and for people of all ages and abilities by planning, designing, operating, and maintaining a network of Complete Streets."

Marin County's program emerged as a national model. That program puts in place incentives to encourage participation from students and parents. The county also utilizes crossing guards to improve safety, pushes increased enforcement of traffic laws and sustained improvements of sidewalks and bicycle paths. As much as one-quarter of local traffic had been attributed to the school rush, so Marin County officials saw the program as a way to reduce traffic congestion as well. Over a period of less than two years, the program increased walking rates by 64 percent and bicycling rates by 114 percent.[51]

The passage of the 2005 SAFETEA-LU bill gave Safe Routes to School programs a dedicated federal funding source. The law provides $612 million in funding over five years, distributed to each state by federal formula, for programs that encourage bicycling and walking to school through improved infrastructure, increased enforcement and educational programs. Communities are using this funding to construct new bike lanes, pathways and sidewalks, as well as to launch Safe Routes to School education, promotion and enforcement campaigns in K-8 schools.

51 Staunton C, Hubsmith D, Kallins W. Promoting safe walking and biking to school: the Marin County success story. American Journal of Public Health. 2003 September; 93(9):1431-1434.

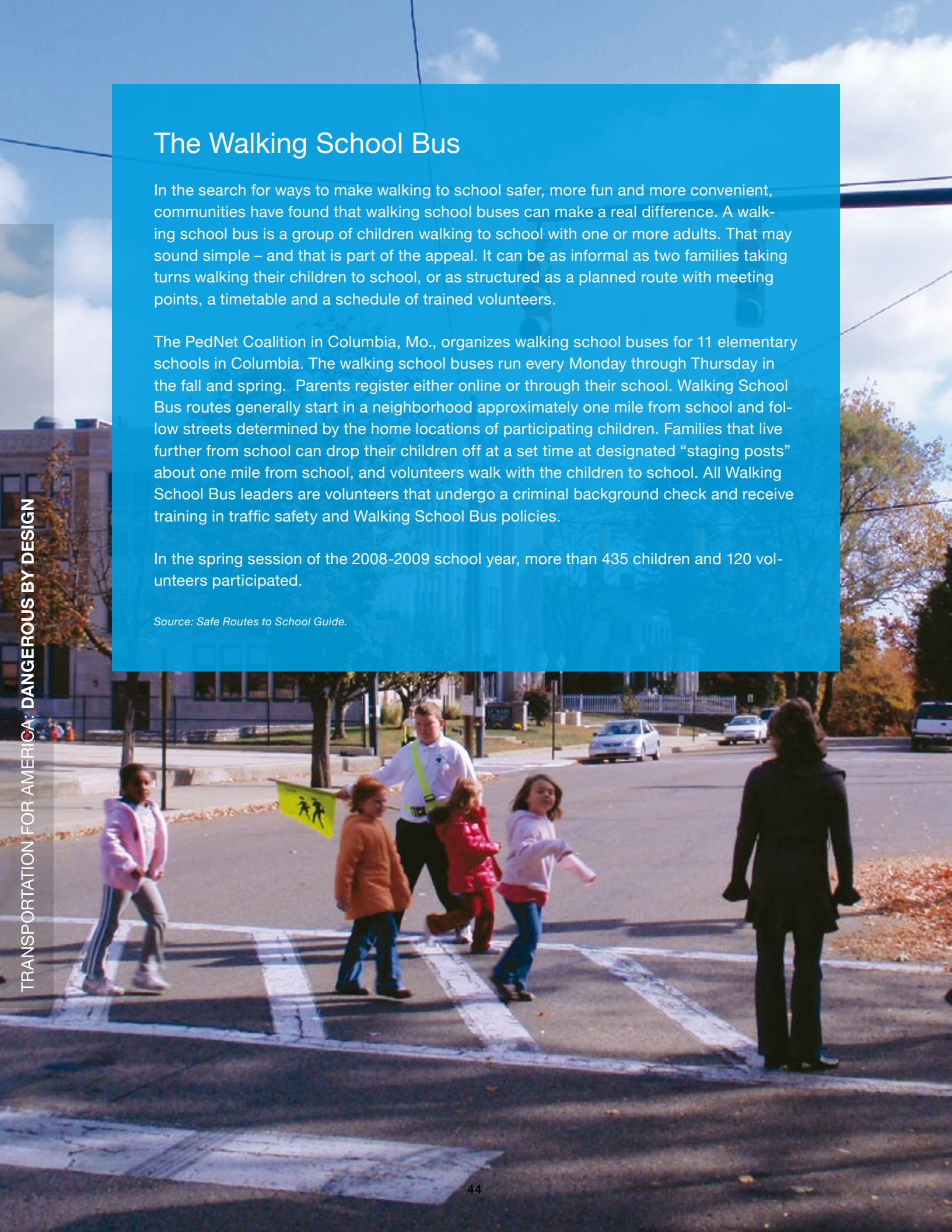
## The Walking School Bus

In the search for ways to make walking to school safer, more fun and more convenient, communities have found that walking school buses can make a real difference. A walking school bus is a group of children walking to school with one or more adults. That may sound simple – and that is part of the appeal. It can be as informal as two families taking turns walking their children to school, or as structured as a planned route with meeting points, a timetable and a schedule of trained volunteers.

The PedNet Coalition in Columbia, Mo., organizes walking school buses for 11 elementary schools in Columbia. The walking school buses run every Monday through Thursday in the fall and spring.  Parents register either online or through their school. Walking School Bus routes generally start in a neighborhood approximately one mile from school and follow streets determined by the home locations of participating children. Families that live further from school can drop their children off at a set time at designated "staging posts" about one mile from school, and volunteers walk with the children to school. All Walking School Bus leaders are volunteers that undergo a criminal background check and receive training in traffic safety and Walking School Bus policies.

In the spring session of the 2008-2009 school year, more than 435 children and 120 volunteers participated.

*Source: Safe Routes to School Guide.*



# Cost-Effectiveness of Safe Streets

Transportation is the second largest expense for American households, costing more than food, clothing, health care, and even housing in some metro areas.[52] Even before the recent increase in gasoline prices, Americans spent an average of 18 cents of every dollar on transportation, with the poorest fifth of families spending more than double that figure.[53] These transportation expenses can be reduced if local infrastructure encourages active transportation and improves safety, which reduces the costs of healthcare and congestion and increases reinvestment in communities.

## Controlling Health Care Costs

The money saved in preventing pedestrian injuries and fatalities more than offsets the costs of improving the nation's walking infrastructure. The National Safety Council estimates the comprehensive cost, including both the economic costs and the costs associated with the loss of quality of life, for each traffic death at $4.1 million. And the comprehensive cost for a single non-incapacitating injury is estimated at $53,000.[54] Multiplying those figures by the 4,501 pedestrians killed in 2008 and the 70,000 pedestrians injured equates to a cost of $22 billion in just a single year.

Reducing fatalities and injuries by just 10 percent would save the nation more than $2 billion annually, a sum that is about four times the amount of federal funds currently spent on bicycle and pedestrian projects. Further, experts estimate that more than a quarter of America's health care costs are related to obesity. The sharp rise in obesity has accounted for 20 to 30 percent of the rise in health care spending since 1979.[55] The incidental physical activity generated from walking would save Americans billions annually in health care costs. Simply increasing bicycling and walking from 10 percent of trips to 13 percent could lead to fuel savings of around 3.8 billion gallons a year. This is equivalent to having 19 million more hybrid cars on the road.[56]

## Reducing Driving Costs

According to the Federal Highway Administration, 25 percent of the traffic congestion experienced by drivers nationwide is caused by traffic crashes. In some urban areas, incidents bear an even greater responsibility for traffic congestion. The latest comprehensive study of urban travel delay from the Texas Transportation Institute calculated that Americans waste 4.2 billion hours stuck in traffic annually, at a cost, in lost wages and extra fuel consumed, of $87.2 billion. If one-quarter of that time lost and congestion cost

52 Center for Neighborhood Technology. Housing and Transportation Affordability Index. http://htaindex.cnt.org/

53 Friedman, David et al. "Drilling in Detroit: Tapping Automaker Ingenuity to Build Safe and Efficient Automobiles," Union of Concerned Scientists, June 2001, p.15, Table 4.

54 National Safety Council. Estimating the Costs of Unintentional Injuries, 2007

55 RWJF, F as in Fat Report

56 Environmental Protection Agency, "Greenhouse Gas Emissions from the US Transportation Sector 1990 2003." March 2006.

result from traffic collisions, then crashes are responsible for more than 1 billion hours of travel delay at a cost of nearly $22 billion.[57]

Making it easy, safe and inviting to walk takes cars off the road and improves flow and congestion for everyone. Recent analysis from the traffic technology firm INRIX shows that a relatively small reduction in the number of miles traveled can result in big reductions in traffic congestion. According to the INRIX analysis, "99 of the top 100 most populated cities in the U.S. experienced decreases in traffic congestion levels in 2008 as compared to the prior year." The average three percent drop in miles driven in 2008 netted a 30 percent reduction in metropolitan travel times.[58]

The report also found that overall, "99 of the top 100 most populated cities in the U.S. experienced decreases in traffic congestion levels in 2008 as compared to the prior year." Small reductions in how much we drive each year, by walking, bicycling, and taking public transportation have a much larger impact on congestion, saving everyone time and money.

## Sparking Neighborhood Reinvestment

Vibrant streets and attractive public spaces are hallmarks of healthy communities. Across the country, strip malls and big box stores are being shuttered as the nation reels from the worst

57 Inrix. 2008 National Traffic Scorecard.

58 Inrix. 2008 National Traffic Scorecard.

economic recession since the Great Depression. We have learned from this economic downturn that the most resilient local economies are those that feature lively downtowns and village centers – places with a variety of shops, services, and restaurants – reflecting the varied interests of community residents.

A movement has emerged to convert deadly arterials and lifeless strip malls into urban centers. Developers recognize that those types of land uses can command a higher purchase price. Residential properties benefit as well. A recent CEOs for Cities report found that "homes located in more walkable neighborhoods — those with a mix of common daily shopping and social destinations within a short distance — command a price premium over otherwise similar homes in less walkable areas. Houses with above average walkability command a premium of about $4,000 to $34,000 over houses with just average levels of walkability in the typical metropolitan areas studied."[59] Similarly, an analysis of office, retail, apartment and industrial properties found higher values for more walkable properties.[60]

Making places more walkable not only improves their safety and encourages physical activity, but it also helps restore local tax bases and boosts local economies.



59 J. Cortright. "Walking the Walk: How Walkability Raises Housing Values in U.S. Cities." CEOs for Cities. August 2009.

60 Pivo, G. and Fisher, J. "Effects of Walkability on Property Values and Investment Returns" Working paper. August 2009.

# Conclusion

Congress is currently considering the goals and objectives for a federal transportation bill that will guide the funding priorities for states and cities. Now more than ever, there is a clear need for strong leadership, greater resources for pedestrian safety and more accountability from states on how those funds are spent. The Surface Transportation Authorization Act introduced by House Transportation and Infrastructure Committee Chairman James Oberstar in June increases the level of investment in walking and bicycling, as well as adopting a Complete Streets provision. These are necessary steps that demonstrate federal leadership to improve pedestrian safety in communities nationwide.

As this report has shown, there is strong evidence that greater resources need to be dedicated for projects and programs that promote and improve pedestrian safety. Streets designed for speed and not for people in communities across the U.S. lead to these preventable pedestrian deaths. Now, we must call on Congress to change transportation funding and policy to make roads that are safe for everyone.

## National Complete Streets Policy

Complete Streets legislation was introduced by Senator Tom Harkin and Congresswoman Doris Matsui in March 2009 and was included in the Surface Transportation Authorization Act (STAA) introduced by House Transportation and Infrastructure Committee Chairman James Oberstar. The bills will ensure that all users of the transportation system, including pedestrians, bicyclists and public transportation users as well as children, older adults, and individuals with disabilities, are able to travel safely and conveniently on our streets.

## Safe Routes to School

At its current funding level of $612 million from FY2005-FY2009, the federal Safe Routes to School program is oversubscribed. An estimated 7.5 percent of schools around the country will receive a Safe Routes to School grant to address a portion of the needed safety improvements around the school. Expanding the Safe Routes to School program would allow more communities and schools across the country to address critical safety concerns and make it safer for students walking and bicycling to school and in their neighborhoods. In addition, allowing high schools to apply for Safe Routes to School funding would help ensure that new teenage drivers have greater awareness of pedestrian and bicycle safety and have safe and healthy alternatives to driving to school.

## Fair Share for Safety

Spending on safety should be proportional to the percentage of pedestrian and bicyclist traffic fatalities. With pedestrians comprising 11.8 percent of all traffic fatalities, we should dedicate at least this amount of Highway Safety Improvement Program (HSIP) funding to improve conditions for walking and bicycling.

## Accountability Measures

Congress must demand accountability from state governments to ensure transportation safety funds are spent wisely on streets that are dangerous for walking and bicycling. At a minimum, Congress and state governments should adopt measures to improve pedestrian safety and create livable communities, including increased walking, bicycling, and public transportation usage. Accountability measures need to quantify reductions in traffic crashes, increase the share of major highways and regional transit fleets and facilities in good condition, increase bicycling and pedestrian infrastructure, and increase the number of essential destinations (work and non-work) accessible within 30 minutes by public transportation, or 15 minutes by walking, for low-income, senior and disabled populations.

# Appendix A. Methodology

The National Highway Traffic Safety Administration (NHTSA) collects data on every traffic fatality (pedestrian or otherwise) occurring on U.S. roadways. To determine how many pedestrians were killed in a given year and county, we queried NHTSA's Fatality Analysis Reporting System (FARS) for pedestrians who suffered fatal injuries. We then aggregated the county-level data to the state and Metropolitan Statistical Area (MSA) for 360 metro areas. Dividing this figure by the appropriate population estimate from the U.S. Census Bureau, and multiplying by 100,000 gave us a yearly fatality rate per 100,000 persons. (See the U.S. Census Bureau for definitions of MSA, www.census.gov/population/www/metroareas/metrodef.html

The National Highway Traffic Safety Administration (NHTSA) collects data on every traffic fatality (pedestrian or otherwise) occurring on U.S. roadways. To determine how many pedestrians were killed in a given year and county, we queried NHTSA's Fatality Analysis Reporting System (FARS) for pedestrians (and "other pedestrians") who suffered fatal injuries. We then aggregated the county-level data to the state and Metropolitan Statistical Area (MSA) for 360 metro areas. Dividing this figure by the appropriate population estimate from the U.S. Census Bureau, and multiplying by 100,000 gave us a yearly fatality rate per 100,000 persons. (See the U.S. Census Bureau for definitions of MSA, www.census.gov/population/www/metroareas/metrodef.html)

We utilized the "Pedestrian Danger Index" to allow for a truer comparison of metro areas that takes into account the exposure that pedestrians face in a given metro area. We calculated the Pedestrian Danger Index by dividing the average yearly fatality rate for a metro area by the percentage of commuters walking to work in that metro area.

The PDI calculation looks like this:

$$\frac{\text{Average ((2007 total pedestrian fatalities/population)*100,000), (2008 total pedestrian fatalities/population)*100,000))}}{\text{Percentage of commuters walking to work}}$$

Our exposure measure, the percentage of commuters walking to work, is provided by the U.S. Census Bureau's 2000 Decennial Census. The ongoing American Community Survey was deemed too unreliable to use (margins of error can be as high as 30 percent or more). The Census Bureau's journey-to-work data only captures the trips to work made on foot, excluding trips made on foot to school, to the corner grocery, or to visit friends. Further, respondents to the Census question may select only one mode. So if they walk to the train station or bus stop, and then ride public transit the rest of the way to work, they will likely choose bus or train, rather than walking as their primary mode of transportation to work.

Finally, we calculated spending figures from the Federal Highway Administration's Fiscal Management Information System (FMIS) – a massive

database containing details on all transportation projects that were obligated federal funds. For the purposes of this report, we queried the database for projects with an improvement type related specifically to bicycle and pedestrian programs and facilities (the FMIS database lumps together bicycle and pedestrian projects). The county-level data was then aggregated to the metro area or state level. Dividing this figure by the 2008 population estimate from the U.S. Census Bureau gives us the amount spent on pedestrian projects per capita.

The percentage of federal funds spent on pedestrian projects was determined by dividing this amount derived above for each state by the total federal funds spent in that state (including FHWA funds transferred to FTA for public transportation projects and excluding funds spent on planning and engineering). At the national level, we compared this number to the percent of trips taken by foot, from the 2001 Nationwide Household Travel Survey.

# Appendix B. Further Reading

- **Pedestrian and Bicycle Information Center**
  http://www.walkinginfo.org and
  http://www.pedbikeinfo.org
- **National Center for Bicycling and Walking**
  http://www.bikewalk.org
- **AARP Public Policy Institute**
  http://www.aarp.org/research/ppi/liv-com/
- **America WALKs**
  http://www.americawalks.org
- **Active Living Network**
  http://www.activeliving.org/
- **Federal Highway Administration Bicycle and Pedestrian Program**
  http://www.fhwa.dot.gov/environment/bikeped
- **Federal Highway Administration Pedestrian and Bicycle Safety Research**
  http://www.tfhrc.gov/safety/pedbike/
- **Federal Highway Administration's Design Guidance for Accommodating Bicycle and Pedestrian Travel**
  http://www.fhwa.dot.gov/environment/bikeped/Design.htm
- **Federal Highway Administration's Traffic Calming Page**
  http://www.fhwa.dot.gov/environment/tcalm
- **National Highway Traffic Safety Administration's Pedestrian Safety Programs**
  http://www.nhtsa.dot.gov/people/injury/pedbimot/ped
- **National Center for Safe Routes to School**
  http://www.saferoutesinfo.org

# Appendix C. Metro Area Pedestrian Safety Rankings within States

The Pedestrian Danger Index (PDI) is a measure of the relative risk of walking, adjusted for exposure. It is calculated by dividing the average pedestrian fatality rate (2007-2008), by the percentage of residents walking to work (2000). Metropolitan areas are organized within each state from the safest to the least safe places according to their PDI for 2007-2008; the safest places for walking are those with lower PDI.



## Alaska

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Anchorage | 57.1 | 11 | 15.50% | $7.75 | 2.70% | 364,701 |
| 2 | Fairbanks | 24.6 | 2 | 8.70% | $3.46 | 4.20% | 97,970 |

## Alabama

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Mobile | 305.7 | 31 | 16.70% | $1.09 | 1.30% | 406,309 |
| 2 | Huntsville | 159.9 | 16 | 13.60% | $1.86 | 1.30% | 395,645 |
| 3 | Montgomery | 156.8 | 15 | 9.10% | $2.95 | 1.30% | 365,924 |
| 4 | Birmingham-Hoover | 110 | 29 | 7.00% | $1.12 | 1.20% | 1,117,608 |
| 5 | Decatur | 104.8 | 3 | 5.00% | $1.64 | 1.00% | 150,125 |
| 6 | Florence-Muscle Shoals | 82.3 | 3 | 7.10% | $4.09 | 1.30% | 143,791 |
| 7 | Tuscaloosa | 78.6 | 7 | 5.90% | $0.00 | 2.20% | 206,765 |
| 8 | Anniston-Oxford | 76.6 | 2 | 4.30% | $0.00 | 1.20% | 113,419 |
| 9 | Dothan | 74.2 | 2 | 3.40% | $0.86 | 1.00% | 140,961 |
| 10 | Columbus | 41.7 | 12 | 12.00% | $0.57 | 5.10% | 287,653 |
| 11 | Auburn-Opelika | 39.9 | 2 | 4.30% | $0.62 | 1.90% | 133,010 |
| 12 | Gadsden | 0 | 0 | 0.00% | $3.27 | 0.90% | 208,460 |

# Arkansas

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Pine Bluff | 289.9 | 8 | 15.70% | $0.61 | 1.40% | 100,647 |
| 2 | Little Rock-North Little Rock-Conway | 173.6 | 30 | 12.70% | $1.10 | 1.30% | 675,069 |
| 3 | Memphis | 137.7 | 47 | 11.40% | $0.58 | 1.30% | 1,285,732 |
| 4 | Hot Springs | 85.4 | 4 | 8.20% | $0.89 | 2.40% | 97,465 |
| 5 | TexarkanaAR | 77.6 | 3 | 5.80% | $0.66 | 1.40% | 135,509 |
| 6 | Jonesboro | 69.3 | 3 | 5.50% | $0.79 | 1.90% | 117,361 |
| 7 | Fort Smith | 63.2 | 5 | 4.50% | $0.23 | 1.40% | 290,977 |
| 8 | Fayetteville-Springdale-Rogers | 39 | 8 | 6.20% | $0.53 | 2.30% | 443,976 |

# Arizona

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Lake Havasu City-Kingman | 125.4 | 12 | 11.00% | $0.00 | 2.40% | 196,281 |
| 2 | Phoenix-Mesa-Scottsdale | 97 | 171 | 17.20% | $1.50 | 2.10% | 4,281,899 |
| 3 | Tucson | 72.8 | 37 | 13.90% | $2.52 | 2.60% | 1,012,018 |
| 4 | Yuma | 72.4 | 12 | 21.10% | $1.05 | 4.30% | 194,322 |
| 5 | Flagstaff | 51.5 | 10 | 9.30% | $8.17 | 7.60% | 128,558 |
| 6 | Prescott | 27.5 | 4 | 4.00% | $0.60 | 3.40% | 215,503 |

# California

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Bakersfield | 128 | 39 | 14.40% | $1.21 | 1.90% | 800,458 |
| 2 | Stockton | 112.4 | 35 | 17.90% | $0.11 | 2.30% | 672,388 |
| 3 | Redding | 99.3 | 8 | 17.40% | $3.88 | 2.20% | 180,214 |
| 4 | Fresno | 92.8 | 40 | 13.50% | $0.87 | 2.40% | 909,153 |
| 5 | Riverside-San Bernardino-Ontario | 89.5 | 159 | 13.00% | $0.72 | 2.20% | 4,115,871 |
| 6 | Visalia-Porterville | 86.6 | 18 | 10.40% | $4.73 | 2.50% | 426,276 |
| 7 | Vallejo-Fairfield | 84.5 | 11 | 12.80% | $1.83 | 1.60% | 407,515 |
| 8 | Sacramento--Arden-Arcade--Roseville | 75.9 | 69 | 17.20% | $1.95 | 2.20% | 2,109,832 |
| 9 | Chico | 73.5 | 11 | 15.90% | $1.20 | 3.40% | 220,337 |
| 10 | San Jose-Sunnyvale-Santa Clara | 71.9 | 47 | 22.20% | $2.45 | 1.80% | 1,819,198 |
| 11 | Los Angeles-Long Beach-Santa Ana | 70.8 | 491 | 26.90% | $0.45 | 2.70% | 12,872,808 |
| 12 | Madera | 70.6 | 5 | 6.00% | $0.42 | 2.40% | 148,333 |
| 13 | Merced | 68.8 | 10 | 9.80% | $0.68 | 3.00% | 246,117 |
| 14 | El Centro | 58.2 | 7 | 8.00% | $1.53 | 3.70% | 163,972 |
| 15 | Yuba City | 57.9 | 4 | 7.70% | $0.49 | 2.10% | 165,274 |
| 16 | San Diego-Carlsbad-San Marcos | 55.7 | 113 | 20.40% | $1.03 | 3.40% | 3,001,072 |
| 17 | Modesto | 53.2 | 13 | 9.60% | $1.05 | 2.40% | 510,694 |
| 18 | Hanford-Corcoran | 50.3 | 5 | 7.20% | $0.00 | 3.30% | 149,518 |
| 19 | Oxnard-Thousand Oaks-Ventura | 48.3 | 16 | 10.70% | $0.83 | 2.10% | 797,740 |
| 20 | Salinas | 48 | 15 | 15.50% | $2.13 | 3.80% | 408,238 |
| 21 | San Francisco-Oakland-Fremont | 40.9 | 136 | 27.70% | $1.52 | 3.90% | 4,274,531 |
| 22 | Santa Barbara-Santa Maria-Goleta | 40.4 | 13 | 14.80% | $1.11 | 4.00% | 405,396 |
| 23 | Santa Cruz-Watsonville | 31.2 | 7 | 12.30% | $0.87 | 4.40% | 253,137 |
| 24 | Napa | 27.2 | 3 | 9.10% | $0.42 | 4.10% | 133,433 |
| 25 | Santa Rosa-Petaluma | 24.4 | 7 | 7.80% | $1.76 | 3.10% | 466,741 |
| 26 | San Luis Obispo-Paso Robles | 15.4 | 3 | 3.80% | $3.67 | 3.70% | 265,297 |

## Colorado

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Denver-Aurora | 75.6 | 79 | 20.40% | $0.65 | 2.10% | 2,506,626 |
| 2 | Grand Junction | 38.2 | 3 | 7.00% | $1.33 | 2.80% | 143,171 |
| 3 | Pueblo | 34.1 | 2 | 4.10% | $1.08 | 1.90% | 156,737 |
| 4 | Greeley | 21.4 | 3 | 3.30% | $0.41 | 2.90% | 249,775 |
| 5 | Boulder | 16.7 | 4 | 10.50% | $3.55 | 4.10% | 293,161 |
| 6 | Fort Collins-Loveland | 12.6 | 2 | 3.90% | $1.73 | 2.70% | 292,825 |
| 7 | Colorado Springs | 6.7 | 3 | 3.40% | $0.69 | 3.70% | 617,714 |

## Connecticut

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Bridgeport-Stamford-Norwalk | 36.6 | 15 | 15.60% | $0.07 | 2.30% | 895,030 |
| 2 | Hartford-West Hartford-East Hartford | 35.3 | 21 | 12.10% | $2.77 | 2.50% | 1,190,512 |
| 3 | New Haven-Milford | 35.3 | 19 | 12.70% | $1.55 | 3.20% | 846,101 |
| 4 | Norwich-New London | 29.6 | 6 | 10.90% | $1.71 | 3.80% | 264,519 |

# District of Columbia

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Washington-Arlington-Alexandria | 57.2 | 186 | 21.40% | $1.19 | 3.00% | 5,358,130 |

# Delaware

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Dover | 86 | 6 | 12.20% | $0.89 | 2.30% | 155,415 |
| 2 | Philadelphia-Camden-Wilmington | 44.3 | 201 | 19.80% | $1.24 | 3.90% | 5,838,471 |

# Florida

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Punta Gorda | 398.2 | 9 | 16.70% | $0.53 | 0.70% | 150,060 |
| 2 | Sebastian-Vero Beach | 293.1 | 10 | 20.40% | $0.07 | 1.30% | 132,315 |
| 3 | Ocala | 236.6 | 22 | 14.50% | $0.08 | 1.40% | 329,628 |
| 4 | Panama City-Lynn Haven | 222.5 | 12 | 21.10% | $4.90 | 1.60% | 163,946 |
| 5 | Orlando-Kissimmee | 221.5 | 117 | 17.40% | $0.87 | 1.30% | 2,054,574 |
| 6 | Lakeland-Winter Haven | 220.7 | 36 | 15.10% | $2.55 | 1.40% | 580,594 |
| 7 | Tampa-St. Petersburg-Clearwater | 205.5 | 192 | 22.40% | $1.86 | 1.70% | 2,733,761 |
| 8 | Palm Bay-Melbourne-Titusville | 201.8 | 28 | 15.60% | $0.37 | 1.30% | 536,521 |
| 9 | Cape Coral-Fort Myers | 183.3 | 32 | 17.50% | $1.12 | 1.50% | 593,136 |
| 10 | Palm Coast | 183 | 4 | 8.50% | $0.00 | 1.20% | 91,247 |
| 11 | Miami-Fort Lauderdale-Pompano Beach | 181.2 | 329 | 22.50% | $0.65 | 1.70% | 5,414,772 |
| 12 | Jacksonville | 157.4 | 68 | 14.60% | $2.25 | 1.70% | 1,313,228 |
| 13 | Port St. Lucie | 150.8 | 14 | 10.60% | $0.78 | 1.20% | 403,768 |
| 14 | Deltona-Daytona Beach-Ormond Beach | 147.7 | 28 | 13.00% | $1.20 | 1.90% | 498,036 |
| 15 | Bradenton-Sarasota-Venice | 126.3 | 27 | 12.60% | $0.00 | 1.60% | 687,823 |
| 16 | Tallahassee | 109.4 | 14 | 11.60% | $0.94 | 1.80% | 357,259 |
| 17 | Naples-Marco Island | 105.4 | 12 | 13.60% | $2.87 | 1.80% | 315,258 |
| 18 | Fort Walton Beach-Crestview-Destin | 74.1 | 4 | 7.80% | $2.44 | 1.50% | 179,693 |
| 19 | Pensacola-Ferry Pass-Brent | 58.3 | 24 | 14.40% | $0.85 | 4.50% | 452,992 |
| 20 | Gainesville | 55.5 | 9 | 7.80% | $2.18 | 3.10% | 258,555 |

# Georgia

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Macon | 398.9 | 22 | 20.60% | $0.00 | 1.20% | 230,777 |
| 2 | Brunswick | 260.1 | 9 | 15.00% | $0.29 | 1.70% | 102,850 |
| 3 | Rome | 221.3 | 6 | 16.70% | $0.00 | 1.40% | 95,980 |
| 4 | Albany | 118.2 | 7 | 13.70% | $0.00 | 1.80% | 164,919 |
| 5 | Atlanta-Sandy Springs-Marietta | 108.3 | 146 | 11.60% | $2.39 | 1.30% | 5,376,285 |
| 6 | Dalton | 88.2 | 3 | 5.80% | $0.00 | 1.30% | 134,139 |
| 7 | Savannah | 83 | 13 | 12.50% | $0.00 | 2.40% | 334,353 |
| 8 | Chattanooga | 78.6 | 12 | 7.20% | $1.67 | 1.50% | 518,441 |
| 9 | Augusta-Richmond County | 68.1 | 19 | 8.50% | $1.46 | 2.60% | 534,218 |
| 10 | Warner Robins | 66 | 2 | 8.70% | $0.75 | 1.20% | 133,161 |
| 11 | Gainesville | 63.9 | 3 | 5.80% | $1.52 | 1.30% | 184,814 |
| 12 | Athens-Clarke County | 51.7 | 6 | 10.50% | $0.21 | 3.10% | 189,264 |
| 13 | Columbus | 41.7 | 12 | 12.00% | $0.57 | 5.10% | 287,653 |
| 14 | Valdosta | 32.2 | 2 | 4.20% | $0.37 | 2.30% | 133,348 |
| 15 | Hinesville-Fort Stewart | 24.4 | 2 | 6.70% | $0.00 | 5.80% | 69,943 |

# Hawaii

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Honolulu | 34.6 | 35 | 31.80% | $0.47 | 5.60% | 905,034 |

## Iowa

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Des Moines-West Des Moines | 38.9 | 9 | 9.40% | $10.62 | 2.10% | 556,230 |
| 2 | Omaha-Council Bluffs | 34.5 | 11 | 7.60% | $0.00 | 1.90% | 837,925 |
| 3 | Sioux City | 24.9 | 2 | 5.30% | $1.87 | 2.80% | 143,157 |
| 4 | Davenport-Moline-Rock Island | 17.6 | 3 | 4.80% | $2.31 | 2.30% | 377,626 |
| 5 | Waterloo-Cedar Falls | 13.3 | 2 | 6.10% | $3.58 | 4.60% | 164,220 |
| 6 | Dubuque | 11.2 | 1 | 6.30% | $1.02 | 4.80% | 92,724 |
| 7 | Cedar Rapids | 7.2 | 1 | 2.40% | $0.95 | 2.70% | 255,452 |
| 8 | Ames | 6.1 | 1 | 8.30% | $3.82 | 9.60% | 86,754 |
| 9 | Iowa City | 0 | 0 | 0.00% | $1.70 | 9.10% | 99,033 |

## Idaho

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Boise City-Nampa | 36.8 | 10 | 9.10% | $1.23 | 2.30% | 599,753 |
| 2 | Idaho Falls | 19.8 | 1 | 4.00% | $0.96 | 2.10% | 122,995 |
| 3 | Pocatello | 19.3 | 1 | 5.90% | $6.21 | 3.00% | 88,495 |
| 4 | Logan | 17.2 | 2 | 12.50% | $0.38 | 4.70% | 125,070 |
| 5 | Coeur d'Alene | 0 | 0 | 0.00% | $0.47 | 2.20% | 54,867 |
| 6 | Lewiston | 0 | 0 | 0.00% | $3.82 | 3.00% | 73,129 |

# Illinois

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Rockford | 93.2 | 9 | 13.40% | $0.00 | 1.40% | 354,394 |
| 2 | Springfield | 93 | 8 | 17.00% | $0.66 | 2.10% | 207,389 |
| 3 | Danville | 92.2 | 3 | 12.00% | $0.04 | 2.00% | 80,680 |
| 4 | Decatur | 88.2 | 4 | 19.00% | $2.19 | 2.10% | 108,328 |
| 5 | St. Louis | 76.9 | 72 | 10.90% | $1.29 | 1.70% | 2,816,710 |
| 6 | Peoria | 53.8 | 9 | 11.50% | $0.35 | 2.20% | 372,487 |
| 7 | Kankakee-Bradley | 51.4 | 3 | 9.10% | $0.00 | 2.60% | 112,524 |
| 8 | Chicago-Naperville-Joliet | 39.3 | 235 | 18.40% | $0.75 | 3.10% | 9,569,624 |
| 9 | Davenport-Moline-Rock Island | 17.6 | 3 | 4.80% | $2.31 | 2.30% | 377,626 |
| 10 | Bloomington-Normal | 17.4 | 3 | 9.10% | $0.42 | 5.20% | 165,298 |
| 11 | Champaign-Urbana | 14.5 | 5 | 10.00% | $0.24 | 7.80% | 224,191 |

# Indiana

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Louisville/Jefferson County | 114.8 | 48 | 14.20% | $2.39 | 1.70% | 1,244,696 |
| 2 | Elkhart-Goshen | 64.4 | 5 | 6.70% | $0.00 | 2.00% | 199,137 |
| 3 | Indianapolis-Carmel | 58.6 | 34 | 9.20% | $1.85 | 1.70% | 1,715,459 |
| 4 | Fort Wayne | 54.5 | 7 | 9.30% | $2.56 | 1.60% | 411,154 |
| 5 | Michigan City-La Porte | 45.4 | 2 | 4.20% | $0.32 | 2.00% | 110,888 |
| 6 | Evansville | 40.9 | 6 | 6.40% | $2.94 | 2.10% | 350,261 |
| 7 | Chicago-Naperville-Joliet | 39.3 | 235 | 18.40% | $0.75 | 3.10% | 9,569,624 |
| 8 | Terre Haute | 38 | 4 | 6.30% | $0.00 | 3.10% | 170,233 |
| 9 | Cincinnati-Middletown | 33.5 | 33 | 8.50% | $0.94 | 2.30% | 2,155,137 |
| 10 | Anderson | 32.9 | 2 | 6.50% | $0.02 | 2.30% | 131,501 |
| 11 | South Bend-Mishawaka | 30.7 | 7 | 11.10% | $2.78 | 3.60% | 316,865 |
| 12 | Lafayette | 25.9 | 6 | 11.50% | $1.08 | 6.00% | 192,870 |
| 13 | Muncie | 18.2 | 2 | 5.90% | $3.67 | 4.80% | 114,685 |
| 14 | Bloomington | 12.2 | 3 | 6.50% | $3.50 | 6.70% | 183,944 |
| 15 | Columbus | 0 | 0 | 0.00% | $0.72 | 1.10% | 137,475 |
| 16 | Kokomo | 0 | 0 | 0.00% | $2.81 | 1.50% | 75,360 |

# Kansas

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Kansas City | 84.6 | 47 | 10.70% | $1.70 | 1.40% | 2,002,047 |
| 2 | Wichita | 72.4 | 14 | 10.60% | $2.64 | 1.60% | 603,716 |
| 3 | Topeka | 44 | 3 | 5.70% | $3.70 | 1.50% | 229,619 |
| 4 | St. Joseph | 41.4 | 2 | 4.90% | $3.93 | 1.90% | 126,359 |
| 5 | Lawrence | 6.5 | 1 | 5.30% | $0.00 | 6.70% | 114,748 |

## Kentucky

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Louisville/Jefferson County | 114.8 | 48 | 14.20% | $2.39 | 1.70% | 1,244,696 |
| 2 | Owensboro | 60.5 | 2 | 6.70% | $25.11 | 1.50% | 112,762 |
| 3 | Huntington-Ashland | 59.9 | 9 | 8.80% | $0.48 | 2.60% | 284,234 |
| 4 | Lexington-Fayette | 44.6 | 14 | 11.00% | $1.89 | 3.50% | 453,424 |
| 5 | Evansville | 40.9 | 6 | 6.40% | $2.94 | 2.10% | 350,261 |
| 6 | Bowling Green | 39 | 3 | 7.30% | $2.12 | 3.30% | 117,947 |
| 7 | Cincinnati-Middletown | 33.5 | 33 | 8.50% | $0.94 | 2.30% | 2,155,137 |
| 8 | Clarksville | 16.4 | 3 | 4.00% | $2.02 | 3.50% | 261,220 |
| 9 | Elizabethtown | 0 | 0 | 0.00% | $0.99 | 2.90% | 112,268 |

## Louisiana

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Lafayette | 265.6 | 20 | 19.00% | $0.26 | 1.50% | 259,073 |
| 2 | Monroe | 176 | 8 | 13.30% | $1.32 | 1.30% | 172,743 |
| 3 | Houma-Bayou Cane-Thibodaux | 169.8 | 13 | 10.40% | $0.90 | 1.90% | 201,148 |
| 4 | Lake Charles | 133.7 | 8 | 7.90% | $0.80 | 1.60% | 192,856 |
| 5 | Shreveport-Bossier City | 129.1 | 15 | 10.30% | $0.25 | 1.50% | 389,533 |
| 6 | New Orleans-Metairie-Kenner | 98.4 | 58 | 18.60% | $0.85 | 2.70% | 1,134,029 |
| 7 | Alexandria | 93.8 | 6 | 10.90% | $1.65 | 2.10% | 153,105 |
| 8 | Baton Rouge | 92.6 | 28 | 8.30% | $0.53 | 2.00% | 774,327 |

## Massachusetts

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Providence-New Bedford-Fall River | 38.4 | 40 | 17.50% | $4.01 | 3.30% | 1,596,611 |
| 2 | Barnstable Town | 34.2 | 4 | 8.50% | $4.56 | 2.60% | 221,049 |
| 3 | Worcester | 29.8 | 14 | 11.50% | $0.42 | 3.00% | 783,806 |
| 4 | Springfield | 24.1 | 16 | 16.80% | $3.98 | 4.80% | 687,558 |
| 5 | Boston-Cambridge-Quincy | 23.2 | 96 | 20.30% | $1.11 | 4.60% | 4,522,858 |
| 6 | Pittsfield | 21.8 | 3 | 13.00% | $0.00 | 5.30% | 129,395 |

## Maryland

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Baltimore-Towson | 61.9 | 97 | 19.70% | $0.59 | 2.90% | 2,667,117 |
| 2 | Salisbury | 60 | 4 | 11.80% | $0.00 | 2.80% | 120,165 |
| 3 | Washington-Arlington-Alexandria | 57.2 | 186 | 21.40% | $1.19 | 3.00% | 5,358,130 |
| 4 | Hagerstown-Martinsburg | 48.6 | 5 | 5.70% | $0.64 | 2.00% | 263,753 |
| 5 | Philadelphia-Camden-Wilmington | 44.3 | 201 | 19.80% | $1.24 | 3.90% | 5,838,471 |
| 6 | Cumberland | 0 | 0 | 0.00% | $0.00 | 3.80% | 103,303 |

# Maine

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Bangor | 44.3 | 6 | 17.10% | $0.87 | 4.60% | 148,651 |
| 2 | Lewiston-Auburn | 35 | 3 | 15.80% | $1.59 | 4.00% | 106,877 |
| 3 | Portland-South Portland-Biddeford | 8 | 3 | 2.80% | $1.28 | 3.70% | 514,065 |

# Michigan

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Flint | 168.9 | 18 | 17.80% | $0.68 | 1.20% | 428,790 |
| 2 | Monroe | 159.4 | 5 | 10.00% | $0.00 | 1.00% | 152,949 |
| 3 | Saginaw-Saginaw Township North | 156 | 10 | 18.90% | $1.98 | 1.60% | 200,745 |
| 4 | Detroit-Warren-Livonia | 98.5 | 125 | 19.50% | $0.73 | 1.40% | 4,425,110 |
| 5 | Battle Creek | 67.4 | 5 | 12.20% | $2.44 | 2.70% | 135,861 |
| 6 | Muskegon-Norton Shores | 60.9 | 3 | 6.80% | $2.52 | 1.40% | 174,344 |
| 7 | Kalamazoo-Portage | 46.1 | 8 | 8.30% | $1.16 | 2.70% | 323,713 |
| 8 | Grand Rapids-Wyoming | 44.3 | 14 | 8.10% | $1.61 | 2.00% | 776,833 |
| 9 | Niles-Benton Harbor | 43.7 | 4 | 8.00% | $1.32 | 2.90% | 159,481 |
| 10 | Holland-Grand Haven | 37.3 | 5 | 11.60% | $1.14 | 2.60% | 260,364 |
| 11 | Lansing-East Lansing | 33.3 | 12 | 14.30% | $1.35 | 4.00% | 454,035 |
| 12 | Jackson | 32.9 | 2 | 4.90% | $1.50 | 1.90% | 160,180 |
| 13 | South Bend-Mishawaka | 30.7 | 7 | 11.10% | $2.78 | 3.60% | 316,865 |
| 14 | Bay City | 28.2 | 1 | 6.30% | $0.00 | 1.60% | 107,495 |
| 15 | Ann Arbor | 7.8 | 4 | 6.70% | $2.73 | 7.40% | 347,376 |

# Minnesota

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | La Crosse | 23.3 | 3 | 27.30% | $1.93 | 4.90% | 131,872 |
| 2 | Minneapolis-St. Paul-Bloomington | 22.3 | 35 | 8.10% | $2.61 | 2.40% | 3,229,878 |
| 3 | Fargo | 21.7 | 4 | 18.20% | $1.64 | 4.70% | 195,685 |
| 4 | Rochester | 13.9 | 2 | 6.70% | $0.39 | 3.90% | 182,924 |
| 5 | Grand Forks | 10.8 | 1 | 4.20% | $2.73 | 4.80% | 97,279 |
| 6 | St. Cloud | 5.5 | 1 | 3.40% | $2.74 | 4.80% | 186,954 |
| 7 | Duluth | 4.4 | 1 | 1.60% | $1.58 | 4.10% | 274,571 |

# Missouri

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Kansas City | 84.6 | 47 | 10.70% | $1.70 | 1.40% | 2,002,047 |
| 2 | St. Louis | 76.9 | 72 | 10.90% | $1.29 | 1.70% | 2,816,710 |
| 3 | St. Joseph | 41.4 | 2 | 4.90% | $3.93 | 1.90% | 126,359 |
| 4 | Fayetteville-Springdale-Rogers | 39 | 8 | 6.20% | $0.53 | 2.30% | 443,976 |
| 5 | Springfield | 37.1 | 7 | 6.60% | $2.48 | 2.20% | 426,144 |
| 6 | Jefferson City | 34.6 | 2 | 4.40% | $3.76 | 2.00% | 146,363 |
| 7 | Joplin | 28.7 | 2 | 2.70% | $4.44 | 2.00% | 172,933 |
| 8 | Columbia | 12.8 | 2 | 3.80% | $5.10 | 4.80% | 164,283 |

# Mississippi

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Pascagoula | 194.3 | 6 | 8.00% | $1.36 | 1.00% | 153,100 |
| 2 | Jackson | 155.7 | 25 | 10.00% | $1.94 | 1.50% | 537,285 |
| 3 | Memphis | 137.7 | 47 | 11.40% | $0.58 | 1.30% | 1,285,732 |
| 4 | Gulfport-Biloxi | 59.6 | 11 | 8.60% | $3.29 | 3.90% | 234,625 |
| 5 | Hattiesburg | 42.4 | 3 | 3.60% | $7.20 | 2.60% | 140,781 |

# Montana

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Billings | 23.6 | 2 | 4.80% | $5.65 | 2.80% | 152,005 |
| 2 | Missoula | 17.1 | 2 | 4.70% | $10.67 | 5.50% | 107,320 |
| 3 | Great Falls | 0 | 0 | 0.00% | $8.45 | 3.30% | 128,775 |

# North Carolina

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Rocky Mount | 201.8 | 7 | 10.00% | $0.95 | 1.20% | 146,356 |
| 2 | Wilmington | 161.4 | 18 | 13.20% | $0.20 | 1.60% | 347,012 |
| 3 | Burlington | 153.3 | 6 | 19.40% | $0.00 | 1.30% | 148,053 |
| 4 | Greenville | 142.4 | 11 | 16.70% | $0.75 | 2.20% | 176,758 |
| 5 | Raleigh-Cary | 128.6 | 43 | 16.70% | $0.95 | 1.60% | 1,088,765 |
| 6 | Hickory-Lenoir-Morganton | 114.7 | 9 | 7.40% | $0.38 | 1.10% | 363,036 |
| 7 | Charlotte-Gastonia-Concord | 103.9 | 43 | 11.00% | $0.71 | 1.20% | 1,701,799 |
| 8 | Goldsboro | 88.3 | 4 | 8.50% | $0.00 | 2.00% | 113,671 |
| 9 | Asheville | 84.1 | 12 | 11.70% | $2.36 | 1.80% | 408,436 |
| 10 | Winston-Salem | 78 | 12 | 9.50% | $4.55 | 1.70% | 468,124 |
| 11 | Greensboro-High Point | 66.8 | 15 | 6.60% | $0.40 | 1.60% | 705,684 |
| 12 | Fayetteville | 58.2 | 16 | 13.90% | $1.14 | 3.90% | 356,105 |
| 13 | Durham | 54.2 | 19 | 15.40% | $1.80 | 3.60% | 489,762 |
| 14 | Virginia Beach-Norfolk-Newport News | 44.1 | 39 | 12.40% | $0.22 | 2.70% | 1,658,292 |
| 15 | Jacksonville | 32.2 | 11 | 17.70% | $1.42 | 10.40% | 165,938 |

# North Dakota

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Fargo | 21.7 | 4 | 18.20% | $1.64 | 4.70% | 195,685 |
| 2 | Bismarck | 17.2 | 1 | 5.00% | $5.93 | 2.80% | 104,944 |
| 3 | Grand Forks | 10.8 | 1 | 4.20% | $2.73 | 4.80% | 97,279 |

## Nebraska

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Omaha-Council Bluffs | 34.5 | 11 | 7.60% | $0.00 | 1.90% | 837,925 |
| 2 | Sioux City | 24.9 | 2 | 5.30% | $1.87 | 2.80% | 143,157 |
| 3 | Lincoln | 4.9 | 1 | 2.10% | $1.79 | 3.50% | 295,486 |

## New Hampshire

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Manchester-Nashua | 35.2 | 6 | 11.30% | $3.09 | 2.10% | 402,042 |
| 2 | Boston-Cambridge-Quincy | 23.2 | 96 | 20.30% | $1.11 | 4.60% | 4,522,858 |

## New Jersey

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Atlantic City-Hammonton | 71.5 | 17 | 19.80% | $0.58 | 4.40% | 270,681 |
| 2 | Philadelphia-Camden-Wilmington | 44.3 | 201 | 19.80% | $1.24 | 3.90% | 5,838,471 |
| 3 | Vineland-Millville-Bridgeton | 30.9 | 2 | 4.40% | $0.39 | 2.10% | 156,830 |
| 4 | New York-Northern New Jersey-Long Island | 28.1 | 633 | 31.10% | $0.61 | 6.00% | 19,006,798 |
| 5 | Allentown-Bethlehem-Easton | 24.6 | 14 | 8.40% | $1.84 | 3.50% | 808,210 |
| 6 | Trenton-Ewing | 24.3 | 8 | 16.30% | $0.53 | 4.50% | 364,883 |
| 7 | Ocean City | 12 | 1 | 3.10% | $0.00 | 4.30% | 95,838 |

# New Mexico

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Farmington | 175.9 | 8 | 11.40% | $7.00 | 1.90% | 122,500 |
| 2 | Albuquerque | 101.5 | 40 | 20.00% | $1.80 | 2.30% | 845,913 |
| 3 | Santa Fe | 45 | 4 | 12.10% | $5.13 | 3.10% | 143,937 |
| 4 | Las Cruces | 20.1 | 2 | 5.40% | $0.74 | 2.50% | 201,603 |

# Nevada

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Las Vegas-Paradise | 105.6 | 91 | 20.30% | $0.37 | 2.30% | 1,865,746 |
| 2 | Reno-Sparks | 64.5 | 17 | 21.80% | $1.10 | 3.20% | 414,784 |
| 3 | Carson City | 0 | 0 | 0.00% | $1.45 | 2.70% | 82,026 |

# New York

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Buffalo-Niagara Falls | 49.3 | 30 | 19.40% | $0.52 | 2.70% | 1,124,309 |
| 2 | Binghamton | 42.1 | 8 | 25.00% | $1.04 | 3.90% | 245,189 |
| 3 | Utica-Rome | 37.2 | 9 | 16.10% | $0.00 | 4.10% | 293,790 |
| 4 | Rochester | 31.6 | 23 | 14.40% | $3.06 | 3.50% | 1,034,090 |
| 5 | Kingston | 29.2 | 4 | 6.80% | $0.28 | 3.80% | 181,670 |
| 6 | New York-Northern New Jersey-Long Island | 28.1 | 633 | 31.10% | $0.61 | 6.00% | 19,006,798 |
| 7 | Syracuse | 26.3 | 14 | 12.40% | $0.85 | 4.10% | 643,794 |
| 8 | Poughkeepsie-Newburgh-Middletown | 23.9 | 13 | 10.00% | $0.47 | 4.00% | 672,525 |
| 9 | Albany-Schenectady-Troy | 18.7 | 12 | 10.10% | $0.54 | 3.80% | 853,919 |
| 10 | Elmira | 14 | 1 | 7.70% | $0.00 | 4.10% | 87,813 |
| 11 | Ithaca | 5.9 | 2 | 12.50% | $0.45 | 16.80% | 101,136 |
| 12 | Glens Falls | 0 | 0 | 0.00% | $0.34 | 3.50% | 149,437 |

# Ohio

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Springfield | 98.8 | 6 | 12.00% | $0.54 | 2.20% | 139,859 |
| 2 | Youngstown-Warren-Boardman | 84.2 | 17 | 12.10% | $2.72 | 1.80% | 565,947 |
| 3 | Mansfield | 69.1 | 3 | 10.00% | $0.20 | 1.70% | 124,999 |
| 4 | Toledo | 61.2 | 19 | 11.10% | $1.06 | 2.40% | 649,104 |
| 5 | Huntington-Ashland | 59.9 | 9 | 8.80% | $0.48 | 2.60% | 284,234 |
| 6 | Akron | 50.6 | 14 | 11.90% | $1.96 | 2.00% | 698,553 |
| 7 | Canton-Massillon | 50.5 | 8 | 11.60% | $0.66 | 1.90% | 407,653 |
| 8 | Columbus | 49.4 | 41 | 12.20% | $1.24 | 2.30% | 1,773,120 |
| 9 | Cleveland-Elyria-Mentor | 37.1 | 34 | 10.90% | $1.17 | 2.20% | 2,088,291 |
| 10 | Cincinnati-Middletown | 33.5 | 33 | 8.50% | $0.94 | 2.30% | 2,155,137 |
| 11 | Dayton | 33 | 13 | 8.10% | $1.74 | 2.40% | 836,544 |
| 12 | Wheeling | 19.2 | 2 | 5.30% | $2.76 | 3.60% | 144,847 |
| 13 | Lima | 0 | 0 | 0.00% | $3.93 | 2.20% | 99,304 |
| 14 | Sandusky | 0 | 0 | 0.00% | $0.78 | 1.50% | 60,395 |
| 15 | Parkersburg-Marietta-Vienna | 0 | 0 | 0.00% | $0.76 | 2.50% | 77,062 |
| 16 | Weirton-Steubenville | 0 | 0 | 0.00% | $0.03 | 3.30% | 232,930 |

# Oklahoma

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Tulsa | 130.4 | 40 | 14.00% | $0.20 | 1.70% | 916,079 |
| 2 | Oklahoma City | 95.3 | 38 | 11.90% | $0.77 | 1.70% | 1,206,142 |
| 3 | Fort Smith | 63.2 | 5 | 4.50% | $0.23 | 1.40% | 290,977 |
| 4 | Lawton | 18.3 | 3 | 7.90% | $1.83 | 7.30% | 111,772 |

## Oregon

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Medford | 56 | 8 | 19.50% | $0.71 | 3.60% | 201,138 |
| 2 | Salem | 48.6 | 12 | 15.20% | $1.92 | 3.20% | 391,680 |
| 3 | Portland-Vancouver-Beaverton | 36.4 | 47 | 15.60% | $1.98 | 2.90% | 2,207,462 |
| 4 | Eugene-Springfield | 31.3 | 9 | 11.80% | $1.44 | 4.20% | 346,560 |
| 5 | Bend | 28.6 | 2 | 6.50% | $0.80 | 2.30% | 158,456 |
| 6 | Corvallis | 7.9 | 1 | 5.90% | $1.33 | 7.70% | 81,859 |

## Pennsylvania

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Youngstown-Warren-Boardman | 84.2 | 17 | 12.10% | $2.72 | 1.80% | 565,947 |
| 2 | Philadelphia-Camden-Wilmington | 44.3 | 201 | 19.80% | $1.24 | 3.90% | 5,838,471 |
| 3 | Altoona | 43.6 | 4 | 16.00% | $4.16 | 3.70% | 125,174 |
| 4 | Scranton--Wilkes-Barre | 42.7 | 16 | 11.30% | $3.71 | 3.40% | 549,150 |
| 5 | Harrisburg-Carlisle | 41.2 | 16 | 10.50% | $2.80 | 3.70% | 531,108 |
| 6 | Reading | 37.6 | 11 | 9.80% | $0.97 | 3.60% | 403,595 |
| 7 | Lebanon | 36.9 | 3 | 7.30% | $3.23 | 3.20% | 128,934 |
| 8 | York-Hanover | 32.8 | 6 | 5.60% | $1.68 | 2.20% | 424,583 |
| 9 | Pittsburgh | 29.1 | 49 | 10.00% | $1.46 | 3.60% | 2,351,192 |
| 10 | New York-Northern New Jersey-Long Island | 28.1 | 633 | 31.10% | $0.61 | 6.00% | 19,006,798 |
| 11 | Lancaster | 27.6 | 12 | 9.20% | $1.11 | 4.40% | 502,370 |
| 12 | Allentown-Bethlehem-Easton | 24.6 | 14 | 8.40% | $1.84 | 3.50% | 808,210 |
| 13 | Williamsport | 21.6 | 2 | 6.10% | $2.39 | 4.00% | 116,670 |
| 14 | Johnstown | 9.9 | 1 | 2.90% | $5.36 | 3.50% | 144,319 |
| 15 | Erie | 8.4 | 2 | 3.00% | $5.11 | 4.30% | 279,175 |
| 16 | State College | 2.8 | 1 | 2.60% | $1.21 | 12.40% | 144,779 |

## Rhode Island

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Providence-New Bedford-Fall River | 38.4 | 40 | 17.50% | $4.01 | 3.30% | 1,596,611 |

## South Carolina

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Sumter | 328.8 | 8 | 17.00% | $0.00 | 1.20% | 104,148 |
| 2 | Myrtle Beach-North Myrtle Beach-Conway | 250.8 | 22 | 16.20% | $0.58 | 1.70% | 257,380 |
| 3 | Spartanburg | 197.2 | 15 | 14.70% | $0.25 | 1.40% | 280,738 |
| 4 | Florence | 184.4 | 13 | 11.20% | $0.57 | 1.80% | 199,831 |
| 5 | Anderson | 176.3 | 9 | 12.00% | $0.00 | 1.40% | 182,825 |
| 6 | Charlotte-Gastonia-Concord | 103.9 | 43 | 11.00% | $0.71 | 1.20% | 1,701,799 |
| 7 | Greenville-Mauldin-Easley | 94.2 | 27 | 11.70% | $0.00 | 2.30% | 624,715 |
| 8 | Charleston-North Charleston-Summerville | 83.8 | 37 | 15.40% | $0.19 | 3.50% | 644,506 |
| 9 | Augusta-Richmond County | 68.1 | 19 | 8.50% | $1.46 | 2.60% | 534,218 |
| 10 | Columbia | 35.7 | 17 | 6.20% | $2.03 | 3.30% | 728,063 |

## South Dakota

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Rapid City | 69.7 | 4 | 9.30% | $0.00 | 2.40% | 122,522 |
| 2 | Sioux City | 24.9 | 2 | 5.30% | $1.87 | 2.80% | 143,157 |
| 3 | Sioux Falls | 0 | 0 | 0.00% | $0.18 | 2.50% | 105,168 |

## Tennessee

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Memphis | 137.7 | 47 | 11.40% | $0.58 | 1.30% | 1,285,732 |
| 2 | Johnson City | 117.3 | 7 | 11.10% | $0.88 | 1.50% | 195,849 |
| 3 | Chattanooga | 78.6 | 12 | 7.20% | $1.67 | 1.50% | 518,441 |
| 4 | Nashville-Davidson--Murfreesboro--Franklin | 70.2 | 32 | 7.00% | $3.82 | 1.50% | 1,550,733 |
| 5 | Kingsport-Bristol-Bristol | 54.7 | 4 | 4.60% | $4.23 | 1.20% | 304,689 |
| 6 | Knoxville | 54.5 | 14 | 6.50% | $4.48 | 1.90% | 691,152 |
| 7 | Jackson | 47.1 | 2 | 3.70% | $1.05 | 1.90% | 112,685 |
| 8 | Cleveland | 31.8 | 1 | 2.70% | $1.17 | 1.40% | 112,143 |
| 9 | Morristown | 23.6 | 1 | 1.70% | $0.31 | 1.60% | 135,914 |
| 10 | Clarksville | 16.4 | 3 | 4.00% | $2.02 | 3.50% | 261,220 |

# Texas

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Beaumont-Port Arthur | 280.1 | 28 | 14.70% | $0.72 | 1.30% | 378,255 |
| 2 | Odessa | 250.5 | 9 | 16.70% | $0.07 | 1.40% | 131,941 |
| 3 | Amarillo | 171.3 | 11 | 14.50% | $0.74 | 1.30% | 243,838 |
| 4 | Waco | 163.7 | 17 | 24.60% | $2.76 | 2.30% | 230,213 |
| 5 | Midland | 156.1 | 4 | 7.80% | $6.56 | 1.00% | 129,494 |
| 6 | Laredo | 154.6 | 15 | 29.40% | $0.00 | 2.10% | 236,941 |
| 7 | Longview | 147.1 | 8 | 5.50% | $3.54 | 1.30% | 204,746 |
| 8 | Tyler | 138 | 6 | 7.40% | $1.78 | 1.10% | 201,277 |
| 9 | Sherman-Denison | 114.5 | 5 | 7.50% | $0.00 | 1.80% | 118,804 |
| 10 | Houston-Sugar Land-Baytown | 112.4 | 206 | 17.40% | $0.73 | 1.60% | 5,728,143 |
| 11 | Dallas-Fort Worth-Arlington | 99.3 | 183 | 15.70% | $0.60 | 1.50% | 6,300,006 |
| 12 | El Paso | 93 | 30 | 26.50% | $0.06 | 2.20% | 742,062 |
| 13 | Lubbock | 92.9 | 9 | 14.10% | $0.17 | 1.80% | 270,610 |
| 14 | McAllen-Edinburg-Mission | 88.6 | 24 | 16.40% | $0.00 | 1.90% | 726,604 |
| 15 | Austin-Round Rock | 84.8 | 57 | 15.00% | $0.16 | 2.10% | 1,652,602 |
| 16 | Corpus Christi | 73.2 | 13 | 16.50% | $0.00 | 2.10% | 415,376 |
| 17 | Brownsville-Harlingen | 65.9 | 12 | 16.40% | $0.39 | 2.30% | 392,736 |
| 18 | San Antonio | 58.9 | 56 | 13.50% | $1.65 | 2.40% | 2,031,445 |
| 19 | San Angelo | 45.4 | 4 | 16.70% | $0.00 | 4.10% | 109,563 |
| 20 | Killeen-Temple-Fort Hood | 41.4 | 14 | 14.90% | $3.01 | 4.50% | 378,935 |
| 21 | College Station-Bryan | 40.7 | 5 | 5.30% | $0.72 | 3.00% | 207,425 |
| 22 | Abilene | 40.5 | 3 | 4.20% | $0.00 | 2.30% | 159,521 |
| 23 | Victoria | 27.5 | 1 | 2.80% | $0.82 | 1.60% | 114,313 |
| 24 | Wichita Falls | 25.4 | 5 | 8.80% | $0.00 | 6.70% | 147,328 |

# Utah

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Ogden-Clearfield | 101.1 | 16 | 21.30% | $0.65 | 1.50% | 531,488 |
| 2 | Salt Lake City | 50.2 | 23 | 14.30% | $1.66 | 2.10% | 1,115,692 |
| 3 | Provo-Orem | 30.8 | 16 | 20.30% | $1.14 | 4.90% | 540,820 |
| 4 | Logan | 17.2 | 2 | 12.50% | $0.38 | 4.70% | 125,070 |
| 5 | St. George | 15.8 | 1 | 2.50% | $0.30 | 2.40% | 137,589 |

# Virginia

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Danville | 169.7 | 4 | 8.90% | $0.00 | 1.10% | 105,783 |
| 2 | Richmond | 74.5 | 33 | 9.20% | $0.15 | 1.80% | 1,225,626 |
| 3 | Roanoke | 66.1 | 7 | 8.50% | $0.75 | 1.80% | 298,108 |
| 4 | Washington-Arlington-Alexandria | 57.2 | 186 | 21.40% | $1.19 | 3.00% | 5,358,130 |
| 5 | Kingsport-Bristol-Bristol | 54.7 | 4 | 4.60% | $4.23 | 1.20% | 304,689 |
| 6 | Virginia Beach-Norfolk-Newport News | 44.1 | 39 | 12.40% | $0.22 | 2.70% | 1,658,292 |
| 7 | Lynchburg | 33.4 | 4 | 5.30% | $0.24 | 2.40% | 245,809 |
| 8 | Blacksburg-Christiansburg-Radford | 27.7 | 4 | 10.80% | $0.57 | 4.60% | 158,328 |
| 9 | Winchester | 16.7 | 1 | 3.60% | $0.00 | 2.50% | 122,369 |
| 10 | Charlottesville | 15.3 | 3 | 4.30% | $0.00 | 5.10% | 194,391 |
| 11 | Harrisonburg | 8.9 | 1 | 4.00% | $0.29 | 4.80% | 118,409 |

## Vermont

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Burlington-South Burlington | 0 | 0 | 0.00% | $8.69 | 5.80% | 160,678 |

## Washington

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Yakima | 80.7 | 10 | 15.20% | $1.12 | 2.60% | 234,564 |
| 2 | Kennewick-Pasco-Richland | 51.2 | 4 | 12.10% | $1.18 | 1.70% | 235,841 |
| 3 | Bellingham | 37.1 | 6 | 16.20% | $2.29 | 4.10% | 196,529 |
| 4 | Portland-Vancouver-Beaverton | 36.4 | 47 | 15.60% | $1.98 | 2.90% | 2,207,462 |
| 5 | Seattle-Tacoma-Bellevue | 31.1 | 65 | 16.70% | $3.28 | 3.10% | 3,344,813 |
| 6 | Mount Vernon-Anacortes | 28.4 | 2 | 6.70% | $0.00 | 3.00% | 118,000 |
| 7 | Bremerton-Silverdale | 22.3 | 4 | 10.30% | $0.45 | 3.80% | 239,769 |
| 8 | Wenatchee | 22 | 2 | 8.70% | $4.25 | 4.20% | 108,193 |
| 9 | Longview | 21.9 | 1 | 4.50% | $0.61 | 2.30% | 101,254 |
| 10 | Spokane | 19.4 | 5 | 9.10% | $1.30 | 2.80% | 462,677 |
| 11 | Olympia | 15 | 2 | 4.30% | $1.85 | 2.80% | 245,181 |
| 12 | Lewiston | 0 | 0 | 0.00% | $3.82 | 3.00% | 73,129 |

# Wisconsin

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Racine | 90 | 7 | 17.90% | $1.53 | 2.00% | 199,510 |
| 2 | Milwaukee-Waukesha-West Allis | 48.6 | 43 | 22.10% | $0.83 | 2.90% | 1,549,308 |
| 3 | Chicago-Naperville-Joliet | 39.3 | 235 | 18.40% | $0.75 | 3.10% | 9,569,624 |
| 4 | Sheboygan | 34.8 | 3 | 12.50% | $5.82 | 3.80% | 114,561 |
| 5 | Wausau | 29.1 | 2 | 4.80% | $8.98 | 2.60% | 130,962 |
| 6 | Green Bay | 28.6 | 5 | 8.30% | $0.00 | 2.90% | 302,935 |
| 7 | Oshkosh-Neenah | 28.1 | 3 | 10.70% | $2.07 | 3.30% | 162,111 |
| 8 | Fond du Lac | 27.1 | 2 | 7.10% | $0.87 | 3.70% | 99,453 |
| 9 | La Crosse | 23.3 | 3 | 27.30% | $1.93 | 4.90% | 131,872 |
| 10 | Minneapolis-St. Paul-Bloomington | 22.3 | 35 | 8.10% | $2.61 | 2.40% | 3,229,878 |
| 11 | Eau Claire | 13.5 | 2 | 5.00% | $2.49 | 4.70% | 158,742 |
| 12 | Janesville | 11.6 | 1 | 2.00% | $1.54 | 2.70% | 160,213 |
| 13 | Madison | 7.8 | 5 | 3.80% | $3.18 | 5.80% | 561,505 |
| 14 | Appleton | 6.9 | 1 | 2.60% | $0.44 | 3.30% | 219,720 |
| 15 | Duluth | 4.4 | 1 | 1.60% | $1.58 | 4.10% | 274,571 |

## West Virginia

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Charleston | 94.8 | 13 | 10.40% | $0.35 | 2.30% | 303,944 |
| 2 | Huntington-Ashland | 59.9 | 9 | 8.80% | $0.48 | 2.60% | 284,234 |
| 3 | Washington-Arlington-Alexandria | 57.2 | 186 | 21.40% | $1.19 | 3.00% | 5,358,130 |
| 4 | Hagerstown-Martinsburg | 48.6 | 5 | 5.70% | $0.64 | 2.00% | 263,753 |
| 5 | Morgantown | 22.8 | 3 | 5.30% | $0.77 | 5.60% | 118,506 |
| 6 | Wheeling | 19.2 | 2 | 5.30% | $2.76 | 3.60% | 144,847 |
| 7 | Winchester | 16.7 | 1 | 3.60% | $0.00 | 2.50% | 122,369 |
| 8 | Parkersburg-Marietta-Vienna | 0 | 0 | 0.00% | $0.76 | 2.50% | 77,062 |
| 9 | Weirton-Steubenville | 0 | 0 | 0.00% | $0.03 | 3.30% | 232,930 |
| 10 | Cumberland | 0 | 0 | 0.00% | $0.00 | 3.80% | 103,303 |

## Wyoming

| Safety Rank Within State | Metro Area | Pedestrian Danger Index | Total Pedestrian Fatalities (2007-2008) | % of Total Traffic Deaths That Were Pedestrians | Avg. Yr. Fed $ Spent Per Person | % of Workers Walking to Work | 2008 Population |
|---|---|---|---|---|---|---|---|
| 1 | Cheyenne | 26.3 | 1 | 10.00% | $3.17 | 2.20% | 87,542 |
| 2 | Casper | 0 | 0 | 0.00% | $4.46 | 1.40% | 122,054 |

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SOLVING THE EPIDEMIC OF PREVENTABLE PEDESTRIAN DEATHS (AND MAKING GREAT NEIGHBORHOODS)