

n the middle of a four-lane roadway in one of Miami's poorest neighborhoods, Carl Jones stood over a solid double yellow line as he waited to cross one morning in 2012. Just before a car traveling west could pass, another vehicle heading in the opposite direction hit Jones, sending the homeless man airborne. Police found him more than a hundred feet away; he died at a hospital shortly thereafter. The driver never stopped.

Cars frequently dart down the three eastbound lanes of that stretch of Miami's NW 79th Street. About half of the neighborhood's residents live below the poverty line, and many of them must walk to and from work, or to the store. That often makes for a deadly combination. Over a five-year period beginning in 2008, four pedestrians were struck and killed in the same block between N Miami Avenue and NE First Avenue. "Practically every day," says a clerk at the Victory Foodmart across the street, "you hear horns beeping and tires screeching."

Miami's 79th Street is an especially dangerous thruway. But it exemplifies a troubling reality of urban areas across the country: Pedestrian deaths are much more common in low-income areas than in better-off parts of a city. Overall, the number of pedestrians killed nationwide has ticked up in recent years, even as vehicular traffic fatalities declined.

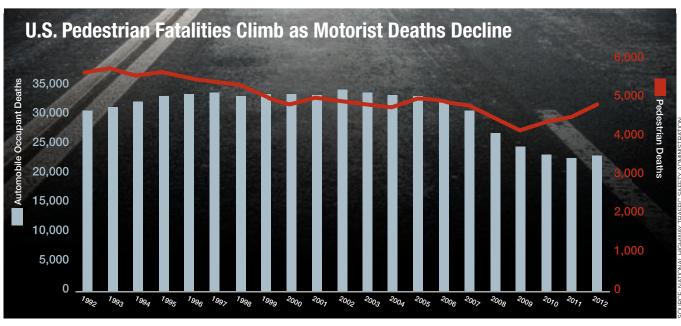
No published national data assess income or poverty status of those killed in traffic accidents. But according to a Governing analysis of accident locations for the more than 22,000 pedestrians killed nationwide between 2008 and 2012, poorer neighborhoods have disproportionately higher rates of pedestrian deaths. In the nation's metro areas, the bottom third of Census tracts, in terms of per capita income, recorded pedestrian fatality rates twice that of higher income tracts. The same holds true when you look at tracts by poverty rate. Metro-area Census tracts with relatively low poverty (those below the national rate of 15 percent) registered 5.3 deaths per 100,000 residents over the five-year period, while in high-poverty areas (those where more than a quarter of the population lives in poverty), the rate was 12.1.

In cities across America, pedestrian safety efforts have gained traction in recent years as officials have sought to make cities more walkable. Such efforts include ambitious goals for eliminating pedestrian deaths completely, as well as plans to wholly remake streets. But while select areas, typically downtowns and business districts, are often targeted for improvements, it's the less visible lower-income neighborhoods where pedestrians are dying at the highest rates. It's not just an inner-city problem—at least, not for long. As more low-income residents are priced out of downtowns, and as poverty continues to rise in less pedestrianfriendly suburban communities, higher pedestrian death tolls could follow.

"Many [poorer] areas have been neglected from a transportation standpoint," says Scott Bricker, director of the nonprofit America Walks. "We need to devote much more energy on providing safe transportation options for everyone. Walking is a basic human right."

A range of factors converge to make Miami one of the nation's most dangerous cities for pedestrians. For one, Miami and other Sun Belt cities, with wide streets designed primarily to move automobiles quickly, have higher pedestrian fatality rates in general. On top of that, Miami's large immigrant population includes many newer arrivals who may not be accustomed to the norms of walking or driving the streets of a large American city. And addressing pedestrian deaths—especially when they're mostly confined to lower-income areas—isn't always a priority. Miami City Commission Chairman Marc Sarnoff, who has pushed to make the city more walkable, acknowledges there hasn't been much public dialogue addressing pedestrian safety in the city's poorer neighborhoods. Instead, it's trumped by other issues. "Everybody's concern is not so much the cars," Sarnoff says. "It's more the gun violence."

Miami-Dade County's low-income Census tracts recorded 16.5 pedestrian deaths per 100,000 people, compared with a rate of 8.9 for the rest of Miami-Dade. But that kind of gap persists even in places that are relatively safe for pedestrians. Cook County,



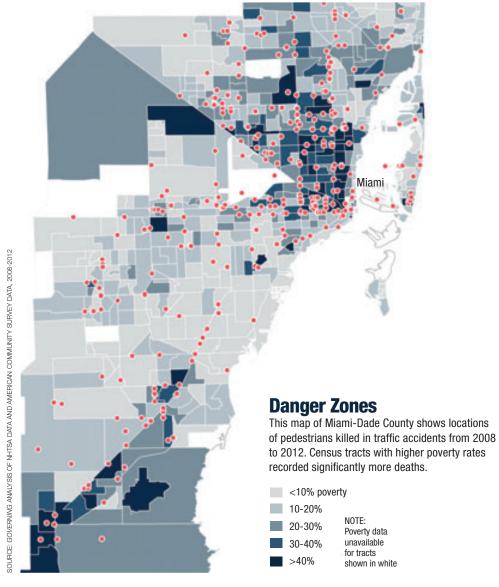
Ill., for instance, has one of the country's lower fatality rates for people walking on the street. But even there, the lowestincome Census tracts recorded pedestrian deaths at a rate of 8.2 per 100,000 residents over the five-year period, versus 4.9 per 100,000 in Cook County's middle- and high-income communities. Nationwide, such gaps are most evident in the lowestincome neighborhoods; in most cities, pedestrian death rates for middle-income Census tracts differed only slightly from wealthier communities.

Poverty does not cause pedestrian deaths, of course. But many aspects of low-income neighborhoods make those streets particularly prone to pedestrian accidents. Most notably, their residents are at greater risk since they are more likely to be out walking. Census data showed greater shares of commuters walk or take public transportation to work in lower-income tracts. Poorer communities also develop differently. Historically, many could not fend off construction of highways and major arterial roadways the way wealthier communities did. "Low-income neighborhoods either do not have the political clout or are not galvanized to do it," says Joshua Schank, who heads the Eno Center for Transportation. "You don't see highways running through the Upper East Side of Manhattan." Consequently, heavily trafficked arterial roadways with higher speed limits may run right through these poorer neighborhoods. It

is along those routes where many pedestrians are hit, with slightly more than half (52 percent) of deaths occurring on arterial streets for the five years reviewed.

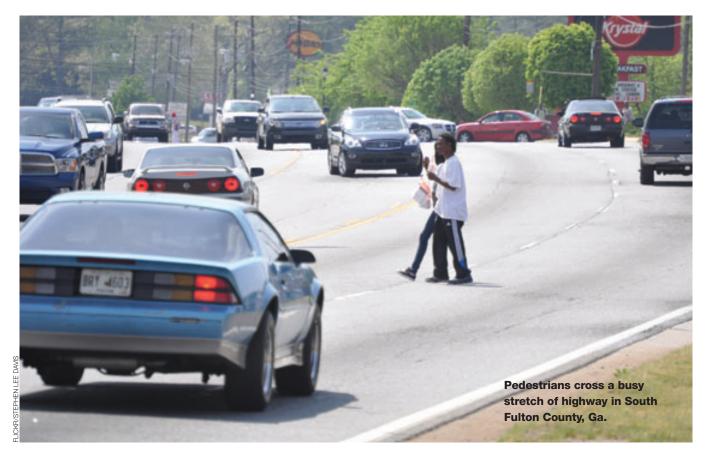
Similarly, pedestrian-friendly infrastructure remains far less prevalent throughout much of the nation's poorer communities. "For a lot of pedestrian improvements, the best bang for your buck will be in these low-income areas," Schank says. Bridging the Gap, a program of the Robert Wood Johnson Foundation, conducted field research assessing a sample of street segments in 154 communities in 2010. In high-income areas, 89 percent of streets had sidewalks, while only 49 percent did in low-income areas. Marked crosswalks were found in 13 percent of high-income areas, compared to just 7 percent of streets in low-income communities. The study found similar disparities for street lighting and traffic

Another challenge is funding. Part of the way localities target spending for infrastructure improvements depends on the lens from which they view the issue. If officials' primary aim is supporting economic development, they'll typically direct funds to



commercial districts. In Miami, for example, officials have proposed a pedestrian promenade along a few blocks of Biscayne Boulevard. Commissioners also recently approved a "pedestrian priority zone" plan to widen sidewalks, lower speed limits and make other improvements. Those plans are good for some pedestrians, but they won't address Miami's larger problem: Both initiatives are limited to the city's downtown.

rookhaven, Ga., is a well-to-do suburb on the northeast perimeter of Atlanta. It's one of the newest cities in the state, incorporated in December 2012. Many of Brookhaven's residents are educated and well-off, but parts of the city have undergone a demographic transformation in recent years. Over the past two decades, the city's southernmost neighborhood saw an influx of lower-income residents, particularly Hispanics. Many live in apartment complexes along Buford Highway, a thoroughfare that ranks among the nation's deadliest. Federal data indicates 13 pedestrians were killed along an approx-



imately two-mile stretch of the highway, just south of Clairmont Road, between 2008 and 2012. For years, it has exhibited all the hallmarks of a deadly corridor. With seven lanes of traffic and a 45 mph speed limit, motorists don't slow down. Much of the highway is dimly lit and doesn't have sidewalks.

A similar scenario is playing out elsewhere. Nationwide, the population living in poverty soared 64 percent in suburban areas from 2000-2011, more than double the growth rate in cities, according to the Brookings Institution. As a result, suburbs are welcoming more residents that their streets are least designed for.

Pedestrian deaths aren't just an urban concern. They are increasingly a suburban one.

Although pedestrians are frequently found at fault in accidents, it's the poor suburban street design that's often conducive to dangerous behavior, says David Goldberg with Transportation for America, which advocates infrastructure investments. Crossings in suburbs are often far apart, leading some people to put themselves at risk and walk across unmarked areas between intersections. Indeed, the vast majority of pedestrian fatalities do not occur at intersections. Faster-moving cars along suburban

streets are another crucial factor. About nine out of 10 pedestrians survive crashes with vehicles traveling at 20 mph, while nearly all suffer fatal injuries when hit by cars traveling 40 mph. "Some of the demographic changes in the older suburbs have taken a lot of places by surprise," Goldberg says. "And they haven't really been ready to deal with the impact."

In Brookhaven, at least, that's slowly beginning to change. The state Department of Transportation has embarked on an \$11.5 million pedestrian improvement project, which includes building sidewalks along the entire length of the highway, adding lighting and installing raised concrete medians. Soon, pedestrians will be able to activate new crossing signals mid-block without walking to the next intersection. A task force of local officials has floated other ideas, including dropping "highway" from the roadway's name to entice drivers to slow down.

Brookhaven Police Chief Gary Yandura says much of the area's problems stem from intoxicated drivers and pedestrians leaving bars and liquor stores lining the corridor. In late June, a Hispanic man was killed and another suffered injuries in an accident after police say they left a nearby nightclub. To educate the community about the dangers of drinking, police have begun meeting with apartment complex managers and the local Latin American Association. (In Brookhaven, as in much of the rest of the country, pedestrian deaths disproportionately affect minority communities. A Centers for Disease Control and Prevention report published last year found fatality rates for black and Hispanic pedestrians are about twice that of whites. Adults age 75 and older also face higher risks.)

Poor and in Harm's Way

Governing analyzed pedestrian fatalities occurring within metro-area Census tracts from 2008-2012. (Census tracts are small subdivisions similar to neighborhoods.) More than 22,000 pedestrians died as a result of accidents on U.S. roadways during that five-year span. The Governing analysis found that a disproportionate number of these fatalities occurred in low-income and high-poverty communities. See expanded data for all counties at governing.com/pedestrians.

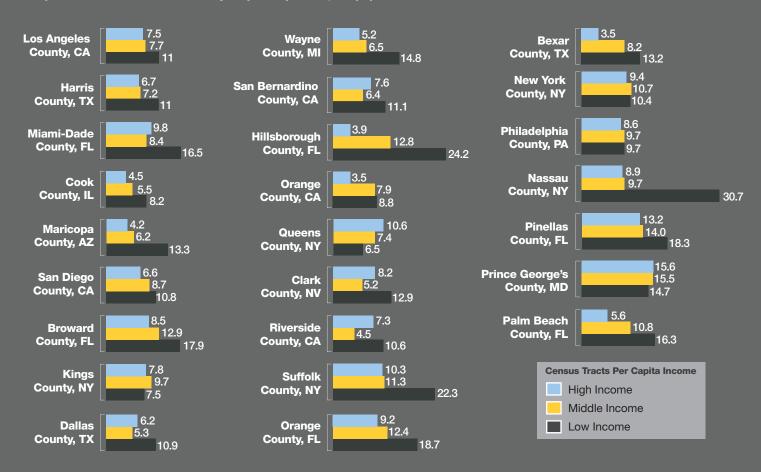
Total U.S. Pedestrian Deaths

Census Tract Per Capita Income	2008-2012 Deaths Per 100k People		
Low Income (Less than \$21,559)	10.4		
Middle Income (\$21,559 - \$31,355)	6.5		
High Income (\$31,356+)	5.0		

Census Tract Poverty Rate	2008-2012 Deaths Per 100k People
≤5%	3.8
>5-10%	5.5
>10-15%	7.0
>15-20%	8.3
>20-25%	9.9
>25-30%	11.2
>30%	12.6

Trouble Spots

Pedestrian fatality rates were found to generally be much higher for poorer Census tracts within the same counties. Rates for pedestrians killed over the five-year period per 100,000 population are listed below for counties with the most deaths:



Methodology Governing compiled data on all pedestrian fatalities in the National Highway Traffic Safety Administration's Fatality Analysis Reporting System. The number of pedestrians killed within each Census tract's boundaries was computed using accidents' reported location coordinates. About 300 records (less than 2 percent of all fatalities) did not list coordinates and were excluded from the analysis. Economic estimates for tracts were obtained from the U.S. Census Bureau's 2008-2012 American Community Survey. Census tracts were divided into three per-capita income categories, with an equal number of tracts for each tertile. A separate poverty category measures the percentage of the total population whose income is below the poverty level. Pedestrian death rates were computed for all Census tracts within metropolitan statistical areas, or about 60,000 total.

Where Pedestrians Were Killed

Fatal accidents occurring between 2008 and 2012 varied according to location and type of road.

Route Type	Deaths	% of Total Deaths
County Road	2,609	11.8
Local Frontage Road	160	0.7
Interstate	2,208	10
Municipality Local Street	6,336	28.8
State Highway	5,293	24
Township Local Street	1,193	5.4
U.S. Highway	3,444	15.6
Other/Unknown	782	3.6

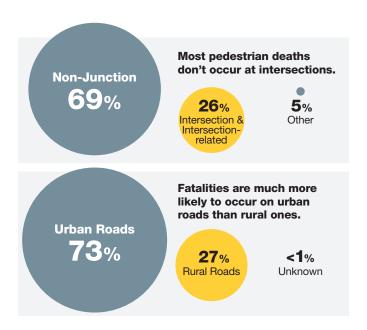
SOURCE: GOVERNING ANALYSIS OF NHTSA DATA

Some larger cities have begun confronting these fatalities head on. In New York, where more pedestrians are killed than any other U.S. city, Mayor Bill de Blasio this spring announced an ambitious Vision Zero initiative aimed at curbing fatalities. Vision Zero, which helped sharply reduce pedestrian deaths where it was first introduced in Sweden, places the safety burden on system design rather than individuals. In June, de Blasio signed a package of bills pushing down speed limits, toughening penalties for reckless drivers and expanding traffic data collection.

Other cities including San Francisco and the District of Columbia have set similar goals of eliminating pedestrian deaths. Elsewhere, police have honed in on certain problem intersections: In Novato, Calif., for example, police conduct decoy operations targeting motorists who ignore traffic laws at accident-prone crosswalks. A plainclothes officer attempts to cross the street and if a driver fails to yield or is caught speeding, a cop farther up the road pulls him or her over. Still, the degree to which cities employ comprehensive approaches to reduce pedestrian-related collisions over the long term remains inconsistent. "Some places, like Los Angeles, Chicago or New York, are really trying to prioritize pedestrian safety," Eno Transportation's Schank says, "but there are other places where it's a foreign concept."

While all regions have their share of challenges, perhaps nowhere faces an uphill battle quite like Florida. For years, the state has posted the nation's highest per capita pedestrian death rates. Billy Hattaway, the state's roadway design engineer up until 2002, tried throughout the 1980s and '90s to convince Florida's transportation leaders to implement pedestrian-friendly infrastructure. But he says he could never get support for his ideas. Frustrated, he left for consulting work, implementing his ideas in other states. "It floored me that we were not doing more to deal with this safety problem as a country," he says.

When the department began ramping up its pedestrian safety efforts in 2011, it recruited Hattaway to come back as its point person and a district secretary. Florida has since hired dedicated staff in each transportation district for pedestrian and bicycle safety, developed its first statewide pedestrian plan, and held training



sessions for more than 800 engineers and planners throughout the state

For Hattaway, shifting the state's roadway design culture is critical. "We're going from moving cars to moving people," he says. This includes employing a data-driven approach, incorporating appropriate design based on the context, such as wider sidewalks for downtown streets. Hattaway is also pushing for

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more modern roundabouts, which require cars to yield on entry. They're currently a rare sight in Florida, with only nine on the entire state roadway system. Changes are slowly beginning to take shape in some communities. One proposal in the planning stages would divert heavy traffic running through Immokalee, an agricultural hub with a high poverty rate, so the main corridor can be remade into a more pedestrian-friendly environment.

In the end, addressing pedestrian fatalities will require a combination of improving infrastructure and educating both drivers and pedestrians about the dangers of the road. Safety advocates see parallels to drivers' changing attitudes about wearing seat belts. Only a small fraction of motorists buckled up as recently as the 1980s. But after a series of campaigns and stricter laws, seat belts eventually gained widespread acceptance. "We don't want to see it take us 20 years to change behavior," Hattaway says, "but it's going to take time."

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More data at governing.com/pedestrians