



Nov. 9, 2009

How safe are Lee County Streets for pedestrians?

A Look at Lee County in the national context of “Dangerous by Design” report

In 2007-2008, 1,047 pedestrians were killed on Florida roads, making Florida the most dangerous state for pedestrians—three times more dangerous than the national average. Unfortunately, Lee County is even more dangerous than the statewide average.

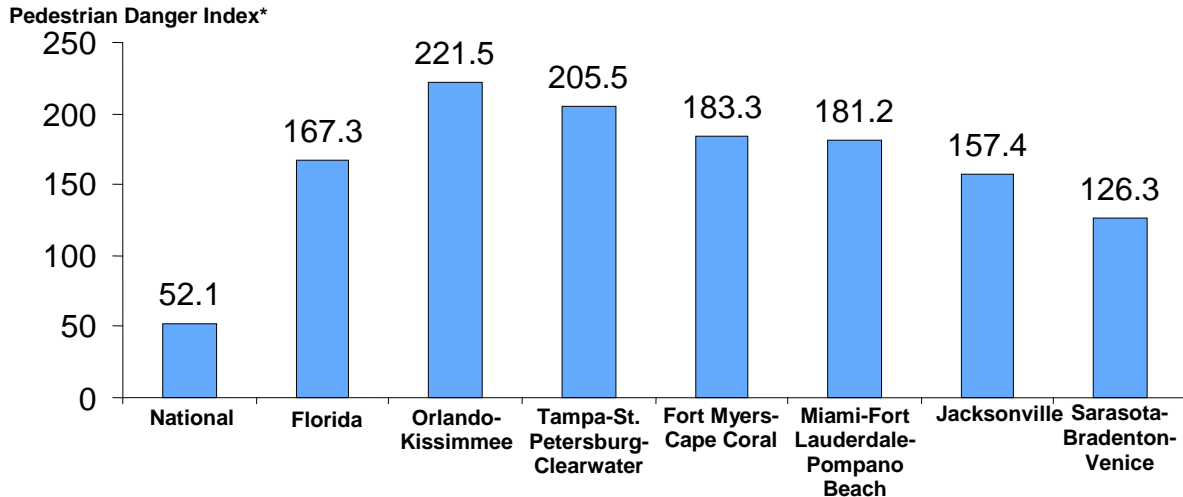
BikeWalkLee has analyzed Lee County in the national context, using the national report, "Dangerous by Design" report, its database, and methodologies. According to the national report, only eight other states have any metro areas with a danger index as high as Florida's average. Of the most populous states, California and New York have no metro areas that are as dangerous as Florida's average.

The Cape Coral-Fort Myers metro area, which includes all of Lee County, has a higher Pedestrian Danger Index (PDI) than Florida statewide. In fact, Lee County is more dangerous than all the metro areas in 42 other states, including the most populous states (and D.C.). Lee County ranks 23rd out of the 360 metro areas in the nation when it comes to being hazardous for walkers. Over the past two years, 32 Lee County residents have died and another 422 were injured while crossing the street, walking to school, going to a bus stop, or strolling to the grocery store. *

The national report highlights the rankings of the 52 major metro areas (over 1 million residents). Of the top 10 most dangerous large metro areas, four are in Florida — and Lee County's PDI is higher than every metro area on this list except Orlando-Kissimmee, FL, and Tampa-St. Petersburg-Clearwater, FL. (See Table 1, p. 18 of “Dangerous by Design”.)

**Source of injury data is Florida Highway Safety & Motor Vehicles “Traffic Crash Statistics Report 2008.” Source of fatality data is from “Dangerous by Design,” which uses Fatality Analysis Reporting System (FARS). Unless otherwise noted, the source of data for this analysis comes from “Dangerous by Design.”*

The risk of walking in selected Florida metro areas



*The pedestrian danger index 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).

How Lee County stacks up against other metro areas its size

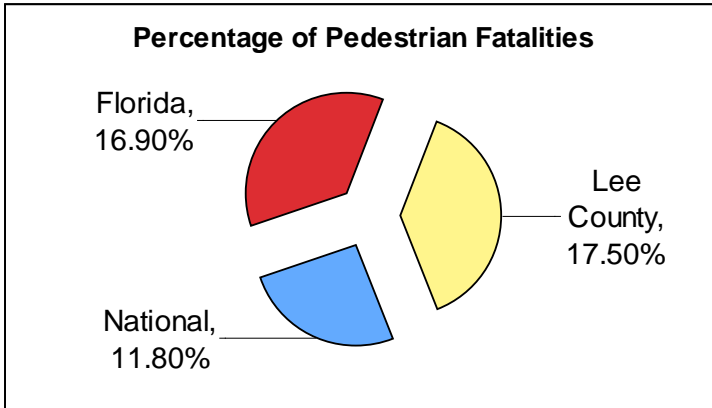
Looking at metro areas with populations similar to Lee County’s size (400,000-700,000 residents), only three other metro areas in the nation are more dangerous for pedestrians than Lee County, and two of those three are in Florida:

Only three comparable-sized metro areas in the nation are more dangerous than Lee County

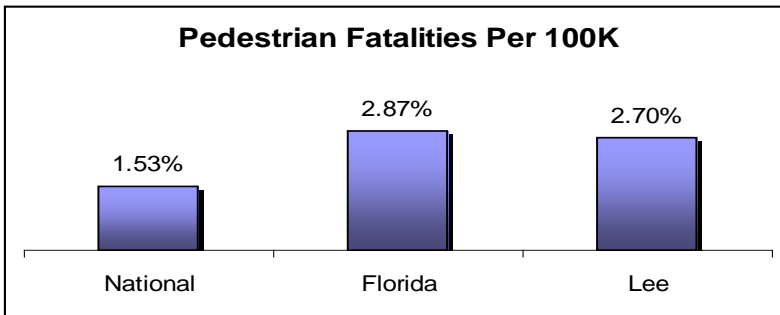
Metro Area	State	Population	PDI
Mobile, AL	AL	406,309	305.7
Lakeland-Winter Park	FL	508,594	220.7
Palm Bay - Melbourne - Titusville, FL	FL	536,521	201.8
Cape Coral- Fort Myers, FL	FL	593,136	183.3

The report looks at various ways to measure the dangers for pedestrians in metro areas, and by each measure, Lee County fares poorly:

Percent of all traffic deaths that were pedestrians 2007-2008

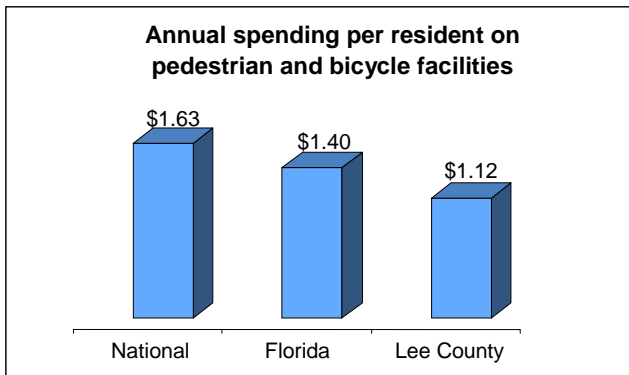


Pedestrian fatalities per 100,000 people (2007-2008)



Lee County spends only \$1.12 per resident annually in federal dollars on pedestrian (and bicycle) facilities and safety — less per resident than either the national or Florida average.

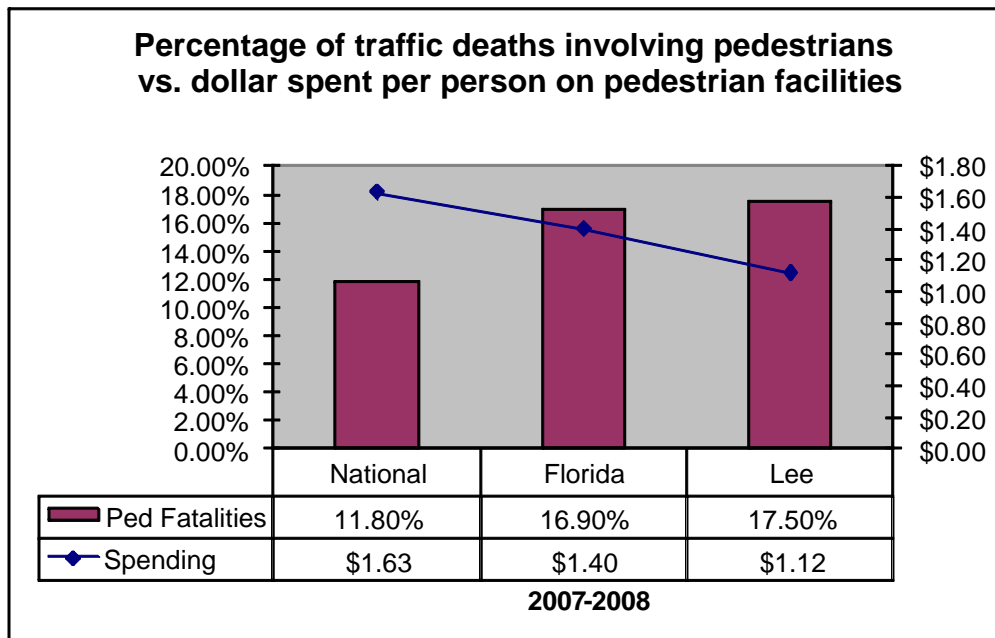
Lee's safety investments are lacking



At the national level and in Florida, approximately 1.5% of the federal transportation funds are allocated to projects to improve the safety of walking and bicycling, even though pedestrians and bicyclists comprise 13.6% (11.8% pedestrians/ 1.8% bicyclists) of all traffic deaths nationally, and 21.7% in Florida (16.9% pedestrians/ 4.8% bicyclists). * That works out to be \$1.63 per person nationally and just \$1.41 per person in Florida.

In Lee County, the disconnect is even worse. While 23% (17.5% pedestrians/ 5.5% bicyclists)* of all traffic fatalities in Lee County were pedestrians and cyclists in 2007-2008, the per-person expenditure on pedestrian and bicycling facilities and safety was only \$1.12. So, while Lee County’s share of all traffic deaths that were pedestrians and bicyclists was almost 70% higher than the national average, Lee’s spending to address these safety problems was 32% lower than the national average.

As the national report indicates, there is a relationship between the danger level for pedestrians and the dollars spent per person on pedestrian safety. Investments to make our streets safer for walkers and cyclists matter. If one of our national goals is to reduce traffic fatalities, it is logical to assume the investments to reach that goal would be made in some direct relationship to who is getting killed on our roads. Currently, the focus is almost exclusively on making the roads safer for drivers, not the non-motorists sharing the roadways that this study shows are disproportionately at risk of being killed.



*Source: National Highway Traffic Safety Administration 2007-2008 data.

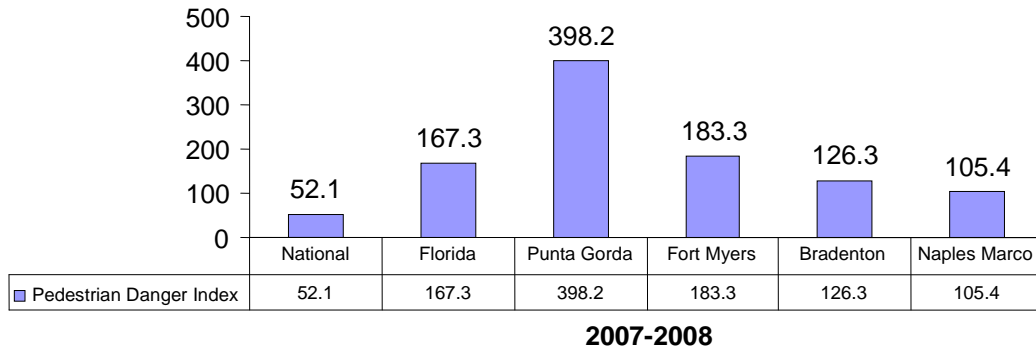
A look at Lee County in the context of Southwest Florida

Lee County leads the other three metro areas in Southwest Florida on the percent of all traffic deaths that are pedestrians, at 17.5%. However, on all other measures, Punta Gorda is more dangerous for pedestrians, with the second highest PDI in the nation. Sarasota-Bradenton has the lowest average spending per person in Southwest Florida on pedestrian facilities and safety. Naples-Marco is the safest metro area for pedestrians in Southwest Florida, with a PDI of 105.4; however, it is still double the national average of 52.1.

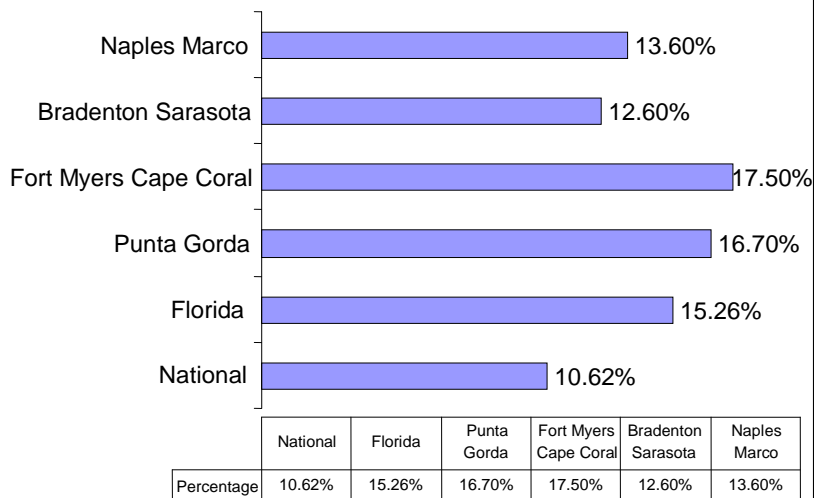
Southwest Florida Metro Areas							
<u>Metro area</u>	<u>PDI</u>	<u>Pedestrian fatalities</u>	<u>% of pedestrian fatalities per 100K*</u>	<u>% of total traffic deaths that were peds</u>	<u>Average spending per person</u>	<u>% walk to work (2000)</u>	<u>2008 population</u>
National	52.1	11623	1.53%	10.62%	\$1.63	2.86%	381,471,417
Florida	167.3	1047	2.87%	15.26%	\$1.41	1.64%	16,988,611
Punta Gorda	398.2	9	3.00%	16.70%	\$0.53	0.70%	150,060
Fort Myers /Cape Coral	183.3	32	2.70%	17.50%	\$1.12	1.50%	593,136
Bradenton /Sarasota	126.3	27	1.96%	12.60%	\$0.00	1.60%	687,823
Naples/Marco	105.4	12	1.90%	13.60%	\$2.87	1.80%	315,258

**Calculated using 2008 population number and number pedestrian fatalities data on this table.*

Southwest Florida metro areas Pedestrian Danger Index



Southwest Florida metro areas percentage of traffic deaths that are pedestrians



Lee County is more dangerous for walkers than reported

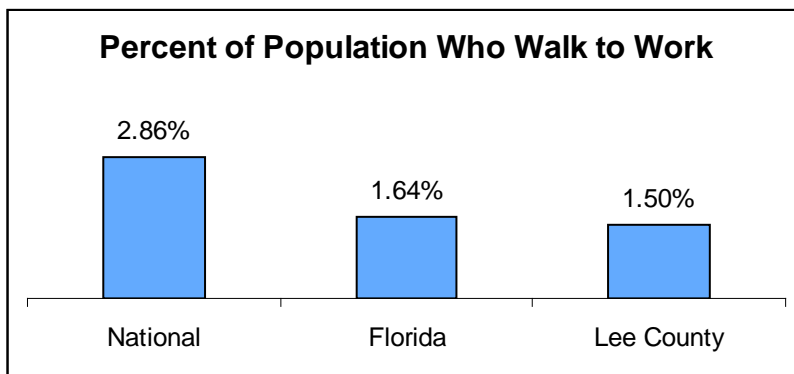
While the national report uses 2000 decennial Census data, it is important to look at the more recent American Community Survey (ACS) data for Lee County walking trends. While the national and Florida walking to work rates remained basically unchanged between 2000 and 2008, the percentage of Lee County workers walking to work has declined substantially from the 2000 level of 1.5%, and has been hovering between 1.0 and 0.8% since 2005, with the latest 2008 data at 0.8%.* (A similar decline was also seen in other Southwest Florida counties during the same period.)

Thus, Lee County's danger index (PDI) as reported in "Dangerous by Design" understates the danger for pedestrians in our community since it assumes that many more people are actually walking to work than we know is the case, given the 2008 ACS report.

Fewer residents walk in Lee County and other Florida metro areas

The PDI is a measure of pedestrian fatalities that reflects exposure to walking. Walking's share of all trips is more than three times larger than walking's share of commuter travel. According to "Dangerous by Design," 2.85% of Americans walk to work, while they take about 9% of all trips by foot. The decennial Census data on "modes of commuting to work" is the only data on walking that goes down to the metro-area level, so it has been used in this series of STTP "Mean Streets" reports since the 1990s as the measure for comparing relative walking in each metro area.

Using 2000 Census data, Lee County's walk to work rate is about half the national rate.



**Source: U.S. Census Bureau, 2008 American Community Survey, Lee County, FL*

Why the decline in walking in Lee County?

While Lee County has had lower walking rates than either Florida or the nation since the 1990 Census, the county's relative performance has declined more sharply.

Percent walking to work between 1990 and 2008*

	1990	2000	2008	% decline
	1990	2000	(ACS)	1990-2008
U.S.	3.9%	2.9%	2.8%	-28%
Florida	2.5%	1.7%	1.5%	-40%
Lee Co.	2.0%	1.5%	0.8%	-60%

The upcoming 2010 Census could show even further declines in the Lee County's walking-to-work rate. Using the national ratio of 1:3 between walking to work and all trips by foot, Lee County residents walk as their mode of transportation three times less than the national average. What this means is that the few people who do walk in Lee County face a relatively high risk of being killed by traffic.

Estimated percent of all trips made by foot in Lee County: 1990-2008

Lee County estimated				
% trips	1990	2000	2008 (ACS)	% decline 1990-2008
by foot	6.0%	4.5%	2.4%	-60%

Lee County's shrinking share of trips by foot may be attributed to the decline in safe, convenient and inviting places to walk, a lack of investment in safe pedestrian facilities, and to the increasing number of residents living in places where walking is more dangerous. Many Lee County residents live in sprawling suburban areas, characterized by wide arterial streets with fast-moving traffic, few sidewalks or crosswalks, and stores, shops and offices accessible only by car. While one might speculate that the recent drop in Lee County's rate reflects the economic downturn and high unemployment rate in Lee County, the county's walking to work rate was also 0.8% in 2005, during the boom years.

A recent survey of Florida residents found only 25% felt it was safe to walk along or to cross their nearest U.S. or state road. **

*Source: 1990 and 2000 numbers from decennial Census; 2008 numbers from the Census American Community Survey (ACS).

**Source: Center for Urban Transportation Research, 2005, prepared for Florida Department of Transportation.

Impacts for Lee County of the decline in walking

There are broader consequences for the Lee County community as a result of the decline in walking by our citizens.

- 1) Thirty percent of Americans do not drive, citing reasons of economics, age, disability and choice. For these people, being able to safely and easily walk, bike or take transit is essential. Many of the 30% non-driving citizens are elderly, and Lee County has a higher than average population over the age of 65 (22% vs. 17% national and Florida average)*
- 2) Half of all non-drivers age 65 and over stay home on a given day because they lack transportation.* This means that an increasing number of Lee County's senior citizens are experiencing a loss of their independence and quality of life.**
- 3) There are serious consequences for Lee County residents' weight and health as a result of the decline in walking. The federal Centers for Disease Control (CDC) reports that 66% of Americans are now overweight or obese. According to the Lee Memorial Health System, 64% of adults and 32% of children in Lee County are overweight or obese.† Walking and biking are critical to increasing levels of healthy exercise and reducing obesity and heart disease in our community.
- 4) Many of the trips that Lee County residents take by car rather than walking are trips that could easily be walked if roadways were safer. Nationally, one in 4 trips is 1 mile or less, yet most of these trips are made by car.
- 5) As the "Dangerous by Design" report points out, human-powered modes of transportation are an essential part of efforts to limit the negative impacts of traffic congestion, oil dependency and climate change. The Cape Coral-Fort Myers metro area's carbon footprint is among the highest of the 100 largest metro areas, with the largest source of coming from automobile use. Only five metro areas in the nation have worse per capita carbon emissions caused by automobiles than Lee County.††

Pedestrian injuries are also important measures of danger

"Dangerous by Design" focuses only on pedestrian fatalities; however, this is just the tip of the iceberg. For every pedestrian fatality, there are 13 pedestrians injured.

***Source:** U.S. Census Quick Facts, 2007.

****Source:** Surface Transportation Policy Partnership. "Aging Americans: Stranded without Options," 2004.

†**Source:** Lee Memorial Health System (LMHS)'s 2007 Community Health Assessment.

††**Source:** Brookings Institute Report, 2008 — "Shrinking the Carbon Footprint of Metropolitan America."

Lee County pedestrians: 2007-2008*

**32 fatalities vs. 422 injuries
= ratio: 1:13**

Lee County is dangerous for cyclists, too!

While this report deals with pedestrian safety, data shows that Lee County is also a very dangerous place for cyclists, with 5.5% of all traffic fatalities being cyclists in 2007-2008 — more than triple the national rate of 1.8%. Again, fatalities represent only a small portion of the problem. For every cyclist killed, 19 more are injured.

Lee County cyclists: 2007-2008*

**10 fatalities vs. 190 injuries
= ratio: 1:19**

The costs of pedestrian injuries and fatalities

As reported in “Dangerous by Design”, 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 comprehensive cost for a single non-incapacitated injury is estimated at \$53,000.** Applying these per person costs to Lee County’s 2007-2008 pedestrian and bicyclist fatalities and injuries, these crashes are costing our community over \$100 million a year.

Cost to Lee County community of pedestrian and bicyclist fatalities and injuries (2007-08)

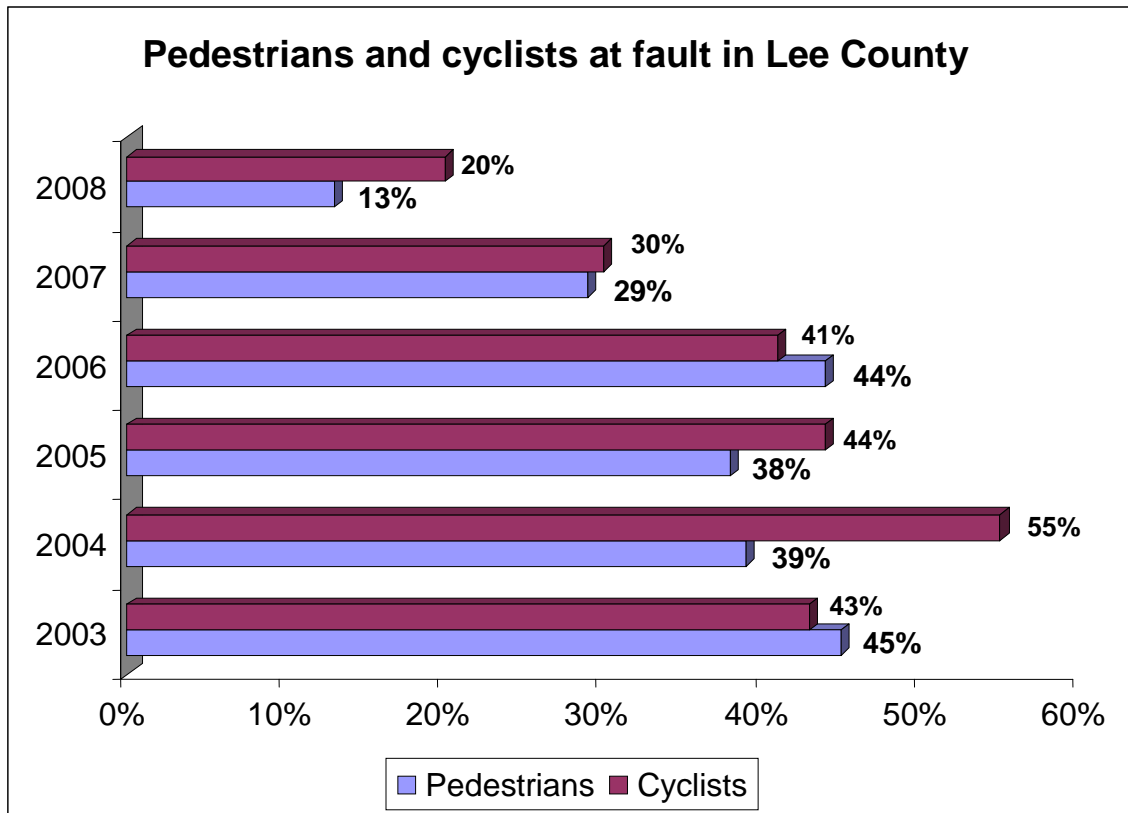
**Fatalities: 42 x \$4.1 million = \$172.2 million
Injuries: 612 x \$53,000 = \$32.4 million
Total cost: \$204.6 million**

Given these figures, it's reasonable to say that the money saved by preventing pedestrian and bicyclist injuries and fatalities would more than offset any costs of improving Lee County’s walking and biking infrastructure — which often can be done for a minimal cost if pedestrian and bicyclists needs are included as part of the initial planning rather than added on after the fact.

*Source: Injury data from FLHSV: Traffic Crash Statistics report 2008 and fatalities data from “Dangerous by Design” (FARS).

Who is at fault in pedestrian crashes?

In addition to the national and state official databases on fatalities and injuries, Lee County Department of Transportation (DOT) maintains crash data that provides some additional insights into where and why the crashes are occurring. The Lee DOT database records who is at fault (driver or walker/cyclist) in the crash. It's interesting to look at this data and the trends. The great majority of crashes with pedestrians and cyclists are the fault of the driver, with more drivers at fault in recent years than in the past.*



*Source of Lee County crash data: Lee County DOT, Traffic Section's Crash reporting system.

Although crash reporting systems attribute error on the part of motorist or pedestrian/cyclist, "Dangerous by Design" points out that an overwhelming proportion of these crashes 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 pedestrians or cyclists or people in wheelchairs.**

**Source: "Dangerous by Design," p. 45

What are the most dangerous Lee County roads and intersections for pedestrians?

Attached is a set of Lee DOT's crash maps (2005 to May 2009) with separate maps for pedestrians and cyclists. These maps provide a good indication of the "hot spot" areas in the county where the most crashes occur.

"Dangerous by Design" analyzed the national fatality data (NHSTA), showing that half of pedestrian deaths are on arterial roads. Although this data is not broken down to the local level, it is apparent from looking at these Lee County maps that many of Lee's crashes occur on arterial roads. Here's a look at three of the most dangerous ones:

- 1) Palm Beach Blvd (State Road 80) is well known as Lee County's most dangerous roadway for pedestrians. In the most urban area of State Road 80, from downtown Fort Myers out to just east of Interstate 75, many lives have been lost over the years since it was widened to include a unrestricted left-turn lane (a road design that's often dubbed a "suicide lane"). The middle lane has since been replaced with medians and pedestrian refuge areas, but its designation as an intra-state highway linking Florida's east and west coasts means speed limits will remain too high for how it functions in urban areas where businesses and housing areas dominate.
- 2) Cape Coral's primary north-south road, Del Prado Boulevard, has the distinction of routinely having the most crashes between motor vehicles and pedestrians (and sidewalk-using bicyclists) than any other road in Lee County. The reason? Most motorists fail to make legal stops from the many side streets, and instead encroach into the crosswalks. Fatalities rarely result from these collisions, but injuries are common. Although a wide curb lane exists on Del Prado, most motorists and cyclist have no idea that it's intended to be a shared-use lane, thereby sending most cyclists onto the sidewalk where they perceive it to be safer.
- 3) U.S. 41 has many personalities and many flaws. Although a side path exists along a majority of this major north-south route, it's designed first and foremost for the rapid movement of motor vehicles. On this highway that also serves as a major business corridor, pedestrians are often considered obstacles to efficient movement of cars and trucks since the activation of pedestrian signals throws the traffic signal timing out of synchronization. Much of U.S. 41 in North Fort Myers is without a side path, as is the case in the last stretch of four-lane highway in Estero, creating an even more risky situation for pedestrians in those areas.

What roadways are the safest for pedestrians, and why?

There are also areas in Lee County where measures have been taken to make them safer for pedestrians. Here are a two good examples and how these improvements happened:

- 1) Winkler Ave between U.S. 41 and Metro Parkway is probably Lee's only complete street. When it was widened more than a decade ago, the city of Fort Myers made the decision to do it right. Located next to the Edison Mall, it allows all users safe, efficient access to businesses and housing in what can also be considered a mixed-use neighborhood.
- 2) Lee County officials worked closely with the Captiva community after Hurricane Charley in 2004 to rebuild the roadway to accommodate cyclists and walkers by including a "safety shoulder" on the entire length of Captiva Drive, which was completed in 2008. This new shoulder has made it safer for all users — cyclists, walkers, drivers, wheelchair users, families and senior citizens — to travel from Sanibel to the tip of Captiva without being in a car. On any day, you can see many non-motorists using this facility, making Captiva a more walkable/bikeable community.

Some steps have been taken by Lee County to improve pedestrian safety

BikeWalkLee has been urging Lee County government agencies and elected officials to take action to make our roads and streets safer for pedestrians, cyclists, transit users, as well as motorists. Over the past year, our elected officials have begun to act.

- 1) The local Metropolitan Planning Organization (MPO — an intergovernmental traffic planning agency for Lee County) unanimously adopted Resolution 09-05 on Aug. 21, 2009, which requests Florida Department of Transportation and local agencies to accommodate all users in the design, construction, and operation of all roadway projects. Planning for the sidewalks and other safety features at the front-end of road design projects should begin to address the fact that many of our roads have been built without any accommodations for walkers (and cyclists and transit users).
- 2) The Lee MPO voted to devote a greater share of federal stimulus transportation project funds to pedestrian and bike projects. More than 10% of the stimulus transportation funds received to date is going to bike/pedestrian projects (including a shared-use path along the Metro Extension road project), and three more Cape Coral sidewalks will be funded with reallocated stimulus funds. Because so many roads were built without sidewalks, there is a huge backlog of these projects , some 36 of these projects are on the MPO stimulus priority list.
- 3) In addition, Lee County Commissioners approved other funding for new sidewalks this year: the Homestead Road sidewalk will be built as part of Lee County's \$3 million Energy Efficiency and Conservation Block Grant program. In addition, the county commission approved funding this year for the long-delayed Slater Road sidewalk.

- 4) On June 17, Lee County's Smart Growth Committee recommended a Complete Streets resolution to the county commissioners for approval. This is a policy statement that county roadways should be planned, designed and operated to provide safe access for all users. The commission accepted this resolution at its Aug. 3 Management and Planning meeting, and a vote on adoption of this resolution is scheduled for the Nov. 10 county commission meeting.
- 5) In September 2008, the MPO initiated a request for the development of a countywide comprehensive Bicycle and Pedestrian Master Plan, with the goal of providing a safe accessible and connected bicycle/pedestrian system throughout the county. The development of this plan is set to get underway next month. When completed, this plan will serve as a blueprint for improvements on the arterial and collector roads throughout the county, and ensure that connectivity and consistency is provided across the system countywide.
- 6) The MPO submitted a forward-thinking Transportation Investment Generating Economic Recovery (TIGER) grant application in September 2009 to the federal Department of Transportation as part of a national competition. The grant application proposes to upgrade the county's rail infrastructure, with planned long-term outcomes of improving accessibility and transportation services to non-motorists, improving connectivity and safety of the multimodal transportation system, and promoting more walkable and livable communities. If funded, this could be a centerpiece of a safer and more pedestrian-friendly Lee County.
- 7) The Lee County Health Department is currently developing a grant application (due Dec. 1), in collaboration with many community partners — from the health community, injury prevention, safety experts, Florida Gulf Coast University, the county Smart Growth Committee, BikeWalkLee, and other community partners — for the American Recovery and Reinvestment Act (ARRA) Prevention and Wellness Funding national grant competition. The Centers for Disease Control (CDC) is sponsoring this grant, which can focus on promoting healthy/livable communities. These grants will fund community-based prevention and wellness strategies that support measurable health outcomes to reduce chronic disease rate. Complete streets strategies and promoting policies that support walking and biking will be a part of the county's proposed strategy.

What more can be done in Lee County to reverse the trend of dangerous streets?

The most important next step is for Lee County commissioners to adopt the Complete Streets resolution on its Nov. 10, 2009, agenda. By setting a clear policy statement that all county road projects are to be designed to accommodate all users, and that walking, bicycling and transit accommodations are to be a routine part of every phase and component of county activities. The resolution provides a framework to guide the work of county agencies, with mechanisms for implementation, transparency and accountability.

Complete streets policies challenge the concept that the primary use of our public streets is to move more cars and trucks faster. Instead, it says our streets are the meeting spaces of our communities, for

all to use. These policies are a paradigm shift for transportation agencies that will require a broad assessment of the needs of all road users to achieve a balanced multi-modal transportation outcome.

Adopting complete streets policies is one of the key recommendations of the “Dangerous by Design” report, since complete streets are safer streets and save lives of pedestrians, cyclists and motorists, as well as to help promote healthy lifestyles. The national report provides numerous solutions for communities to consider in addressing the epidemic of pedestrian fatalities. These potential solutions are backed up by research and data that demonstrate their effectiveness in reducing crashes and fatalities, along with examples of communities that have effectively used these tools to reduce pedestrian deaths.

The following are specific actions BikeWalkLee urges Lee County officials and agencies to consider to make Lees streets safer for all users:

Ensure that Lee's streets take into account all users:

- 1) Support Lee County commission's Nov. 10 vote to adopt a "Complete Streets" resolution.
- 2) Encourage intergovernmental coordination in street design.
- 3) Promote community designs that emphasize alternative transportation options.
- 4) Incorporate Complete Streets principles into road designs and upgrades.

Fix problem areas:

- 1) Look at what caused pedestrian and bicyclist fatalities discussed here, and what could have been done to avoid them.
- 2) Look at what information we're lacking to make better safety decisions based on this analysis, and how could it be better gathered.
- 3) Look at funding options to make crucial bike and pedestrian roadway improvements.
- 4) Provide more transparency and accountability in regular reporting and analysis of indicator data and recommendations for action.

Focus on public education for all road-user groups:

- 1) **Pedestrians/bicyclists:** Learn how to walk/bike safer, how to walk/bike defensively in high-traffic areas and how existing laws affect your actions.
- 2) **Drivers:** Learn how to be more aware of pedestrians and their safety, and how to avoid unsafe distractions while driving.
- 3) **Officials:** Learn how to create a more walkable and bikeable community, and why that is important
- 4) **Media:** Take a role in educating the public, and shine a spotlight on problems and solutions.

Enhance enforcement of existing laws

- 1) Well-publicized strategic enforcement of existing laws on pedestrian and cyclist safety by the Lee County Sheriff's Office and local law enforcement agencies is often the best way to educate the public about the rules and to promote voluntary compliance.

Put safe walking and biking into a broader context

1. Encourage biking and walking as a transportation alternative as appropriate
2. Recognize the public health benefits of enhanced bike/walk facilities and use.
3. Encourage the Lee County School District to promote walking and biking to school.
4. Recognize the economic benefits of better bike/walk facilities for tourism, economic development and "smart growth" policies



What is BikeWalkLee?

BikeWalkLee is a community coalition raising public awareness and advocating for complete streets in Lee County — streets that are designed, built, operated and maintained for safe and convenient travel for all users: pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

We envision a Lee County that is a complete streets model community whose integrated and safe cycling and walking network inspires people of all ages, income groups, and fitness levels to cycle and walk for transportation and recreation. Public transportation is available and accessible to citizens and visitors in Lee County. Our active transportation focus contributes to the economic health of the community, the physical health of its residents, the environmental health of the region, and the quality of life for individuals and families in our community.

BikeWalkLee encourages other organizations and individuals to become part of this community coalition working to complete Lee County's streets and improve the livability of our community.

This BikeWalkLee report can be found on
www.BikeWalkLee.org and www.Eco-Voice.org.

The complete “Dangerous by Design” report can be found on
<http://t4america.org/resources/dangerousbydesign/>
