Ten Questions with Pam Fischer
Pam Fischer candidly shares some of the challenges and opportunities she has experienced this past year serving as Director of the New Jersey Division of Highway Traffic Safety and informs readers how they can help make our state's roadways safer for all users.
More Details

Guiding the Way: Bicycle Signal Heads
The use of bicycle signal heads at intersections can help reduce bicycle/automobile accidents. Typically placed at intersections with high volumes of bicycle traffic and with dedicated bike lanes or paths, the signal heads look similar to...
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Takin' it to the Streets: Creating Complete Streets
While residents of New Jersey can often be overheard complaining about state roadway conditions for drivers, the additional hazards present for bicyclists and pedestrians have been historically overlooked. More Details

Safety First: Walking and Bicycling at Night
Taking an evening stroll or bike ride is a great way to relax, exercise, or just to get from point A to point B. Unfortunately, in some locations, NJ streets have become a bit more tough to navigate and we should all take care when we go for a walk or ride at night. More Details
Welcome to the third issue of New Jersey Walks and Bikes, a newsletter for anyone interested in bicycle and pedestrian issues. In this issue, we bring you a variety of interesting stories, including “Ten Questions With Pam Fischer”, director of the New Jersey Division of Highway Traffic Safety (NJDHTS). In this informative piece, you will learn more about the Division’s goals and interesting work with regard to bicycle and pedestrian issues. The “Takin’ it to the Streets: Creating Complete Streets” article details policies aimed at ensuring that roadways are designed for all users and that the needs of bicyclists and pedestrians are taken into account.

This edition of New Jersey Walks and Bikes also highlights information and new approaches directed at keeping our bicyclists safer. For example, the article “Safety First: Walking and Bicycling at Night,” illustrates the importance of taking enhanced safety measures when biking at night and details tips for improving your safety odds when doing so. In “Guiding the Way: Bicycle Signal Heads”, the use of signal heads to help reduce bicycle/automobile accidents at intersections and real world examples of their implementation are discussed. Finally, the “News in Brief” section highlights a profile of Medford Township’s Bicycle Master Plan and supporting ordinance; details how New Jersey’s Transportation Management Associations (TMAs) are helping bicyclists and pedestrians; and reports on a new guide to the New Jersey portion of the East Coast Greenway.

I hope you enjoy our third issue of New Jersey Walks and Bikes and I invite your feedback. If you have a story idea you would like to share for a future issue, please fill out our survey which you can find at the top of the home page. As always, thank you for your interest and support in making New Jersey a safe walkable and bikeable state!

—Sheree Davis
NJ Department of Transportation Bicycle and Pedestrian Program Coordinator
Ten Questions with Pam Fischer

Introduction
The New Jersey Division of Highway Traffic Safety (NJDHTS), one of nine divisions in the Department of Law & Public Safety, utilizes federal funding for traffic safety programs focused on education, enforcement, and engineering. The prime mission of the NJDHTS is to reduce fatalities, injuries and property damage on the roads of New Jersey resulting from traffic crashes.

Pam Fischer was appointed NJDHTS Director by Governor Jon S. Corzine in February 2007. Previously, Ms. Fischer worked as Vice President of Public Affairs for the AAA New Jersey Automobile Club and has a long record of working as an advocate on traffic safety issues. Ms. Fischer has served since 2003 as a member of the NJ Motor Vehicle Commission board; she is a long-time member of the NJ Bicycle and Pedestrian Advisory Council and, more recently, has served on the NJ Walks and Bikes newsletter editorial board.

Question 1:
Your one-year anniversary as Director of NJDHTS has recently passed, congratulations Pam. Tell us, how important are pedestrian and bicycle safety issues to you as division director, to Attorney General Anne Milgram and to Governor Corzine?

Response:
While “highway” is in our name, the division is about more than motorists. And we recognize that whether you drive or use mass transit to traverse the state, at some point during the course of the day, you travel on foot – so everyone is a pedestrian. That's why pedestrian and bicycle safety are key elements of our 2008 Highway Safety Plan, which includes approximately $1 million in funding for education and enforcement initiatives. In addition, pedestrian and bicycle safety programs are also funded through police traffic services and community traffic safety program grants, which account for approximately $2.1 million more.

This directly supports the governor’s five-year, $78 million pedestrian safety program, which has the full support of the attorney general, the Department of Law and Public Safety and the division. It is the largest state initiative of its kind in the nation and to which all of the partners are committed.

Question 2:
What are some of the challenges you have faced as Director with regard to the Division’s bicycle and pedestrian work thus far and how have you worked to surmount those challenges?

Response:
I always look at the glass as half full, so I don’t see challenges, I see opportunities. Having the support of...
the governor and the attorney general, not just for our pedestrian and bike safety initiatives, but traffic safety in general, is huge. If we’re going to improve safety for pedestrians and bicyclists, we have to focus on all roadway users. That means getting motorists to slow down and observe the rules of the road, particularly when it comes to pedestrians. At the same time, pedestrians and bicyclists must remember to observe basic traffic safety rules—cross at intersections, ride with traffic, etc.—so they’re not creating hazards. It’s about getting everyone to recognize that we must share the road. And there’s the rub—we live in a state where everyone is quick to point the finger at the other guy or gal and say he or she is the problem. If we’re going to improve safety on our roadways, each of us must take responsibility for our actions and change our behavior.

Question 3:
We have heard you say that the division can accomplish more by working closely with other state divisions, departments and organizations. Specifically, who have you worked with to assure greater and sustained collaboration and to what end?

Response:
The Division is the “state’s” traffic safety agency, so we must assume the leadership role in reducing crashes and injuries, and saving lives. But we can’t do it alone. We must work with our “natural” partners from the National Highway Traffic Safety Administration (NHTSA), the New Jersey Department of Transportation (NJDOT) and the NJ Motor Vehicle Commission (NJMVC), to state and local police agencies, and traffic safety and transportation organizations to ensure that we’re using all available resources as effectively as possible. In addition, we need to bring those organizations that haven’t traditionally focused on traffic safety, such as large and small businesses and chambers of commerce and schools, into the fold, so that we’re attacking the problem from as many fronts as possible.

Having said that, I must specifically point to the outstanding relationship the division has with NJDOT and NJMVC, as well as state and local law enforcement agencies and Community Traffic Safety Programs or CTSPs. Together, we’re studying the data, particularly when it comes to pedestrians, and taking the “4-E” approach to improving safety: Engineering, Enforcement, Education and Encouragement.

The good news is that fatal crashes involving pedestrians are down this year over last. I believe that we can definitely point to these partnerships, sparked by the governor’s pedestrian safety initiative, as the reason for the
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downturn.

**Question 4:**
Key elements of the division’s 2008 Highway Safety Plan are targeted specifically to pedestrian and bicycle safety, with funding available to you for education and enforcement efforts. That said, what are some of the division’s pedestrian and bicycle safety program emphasis areas? Could you update us on some of the division’s current initiatives that focus on those emphasis areas?

**Response:**
First, I think it’s important to point out that the division’s plan is data-driven and that organizations seeking a grant under the plan must demonstrate a need for funding based on data analysis. Clearly, pedestrian safety is a priority area for the division when you consider that of the 718* people killed in motor vehicle crashes in New Jersey in 2007, 144*, or 20 percent, were pedestrians. Knowing this, the division is placing emphasis on initiatives that have a direct impact on reducing crashes involving cars and pedestrians.

In Newark, for example, the Division has provided $25,000 in matching funds to the University of Medicine and Dentistry of New Jersey (UMDNJ) for its “WalkSafe” pilot project to educate school-age children about safe walking practices. UMDNJ identified a clear need for the program through data analysis of emergency room visits involving children. The pilot, which is modeled after a highly successful program in Miami, Florida, will be carefully monitored to assess what impact the training (delivered in the classroom, in the field and reinforced at home), has on reducing trauma involving children.

The division is encouraging communities to focus their pedestrian safety educational efforts on the most vulnerable populations—children, senior citizens and immigrants—and to engage bicyclists of all ages in the importance of wearing helmets and adhering to safe riding practices. In addition, we’re funding enforcement initiatives that target motorists and pedestrians who clearly violate state law and pose a safety risk.

**Question 5:**
With specific regard to enforcement efforts, the division is collaborating with partners including the Alan M. Voorhees Transportation Center (VTC) at Rutgers University, NJDOT and the New Jersey Police Traffic Officers Association to pilot pedestrian enforcement workshops. The first session of this pilot initiative was held on June 13, 2007 in New Brunswick and was profiled in the last issue of the NJ Walks and Bikes newsletter. Basically, this program is a “train-the-trainer” style initiative, targeted to law enforcement/police departments and focuses on...
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encouraging driver yielding behavior.

What are your thoughts on the role these pedestrian enforcement workshops may have on increasing driver yielding behavior and what are some next steps related to the workshops?

Response:
I'm extremely excited about this initiative, which has been successful in other states, because it takes a multidisciplinary, community-based approach to the problem. Not only does it involve enforcement, but engineering, education and the judicial system as well. When you bring all of these disciplines together, you can effect behavioral change, which is absolutely essential for improving safety.

Since the initial training was conducted, several police departments have conducted pedestrian enforcement programs with modest success. The division, in conjunction with our partners, is working with these departments to assess what did and didn’t work, and will incorporate this information into several train-the-trainer sessions that will be conducted this spring.

My hope is that by the end of 2008, we'll have police departments throughout the state utilizing the program and that we can tap into the recently established Pedestrian Safety Enforcement and Education Fund, which the division administers, to help pay for these initiatives.

Question 6
Another role of the NJDHTS as it relates to bicycle and pedestrian safety involves assisting where appropriate on various legislative initiatives. In the last session of the legislature, the Assembly Transportation, Public Works and Independent Authorities Committee approved a series of changes to clarify and strengthen New Jersey’s laws governing the respective duties between motorists and pedestrians.

What is the status of this bill Pam and why is the division supportive of its goals? Are there other legislative initiatives concerning pedestrian and bicycle safety the division is involved with?

Response:
Since the bill, which would change or clarify a variety of aspects of New Jersey’s 50-year old statute (including a provision that would change the duty of a motorist from “Motorists must yield to pedestrians in the crosswalk” to “No driver of a vehicle shall fail to stop and remain stopped for a pedestrian crossing a roadway at a crosswalk...”), was approved by the Assembly Transportation Committee last fall, representatives from the Voorhees Transportation Center met with the governor’s Highway Traffic Safety Policy Advisory Council (HTSPAC) to
engage them in the legislative initiative. HTSPAC members responded enthusiastically to the need for change and offered VTC a number of suggestions to further strengthen and clarify the bill. As of today, VTC continues to work on the bill with the goal of putting forth the best public policy that will result in improved safety for pedestrians and motorists. The plan is to reintroduce and ultimately pass the bill in the 2008-2009 legislative session.

**Question 7:** Pam, we know you are a longtime member of the governor’s HTSPAC. As Director of NJDHTS, what are your thoughts about the value of HTSPAC as a forum for cross-disciplinary review of pedestrian and bicycle safety issues?

**Response:** HTSPAC, as illustrated in my response to the previous question, is playing a pivotal role in helping to shape legislation that, if approved by the legislature, can improve pedestrian safety in New Jersey. HTSPAC’s membership is well-suited for this because its members represent key traffic safety agencies and organizations in the public and private sector. Collectively, HTSPAC carries a huge amount of clout that can and should be leveraged to effect positive change.

**Question 8:** What areas of research on pedestrian and bicycle safety issues do you think need to be explored further?

**Response:** I’m particularly excited about the WalkSafe pilot project in Newark I discussed earlier because it has a strong research component. If the pilot is successful, and this will be determined through the work of UMDNJ’s research team, we will have a new program that can be used in schools across the state. I’d like to see similar work done in developing a bicycle safety curriculum that goes beyond the traditional bike “rodeo” concept.

I also believe research must be done to better understand the behavior of roadway users. The division has partnered with Rutgers Center for Advanced Infrastructure and Transportation, the Transportation Safety Resource Center (TSRC) and NJDOT to study causation factors related to pedestrian crashes in New Jersey. Through this research we hope to better understand why crashes are occurring and what can be done—through the 4 E’s—to prevent them.

In addition to this, I’d like to see researchers delve more deeply into why we behave the way we do behind the wheel and, hand-in-hand with that, what are the most effective methods for producing a change in behavior. For example, the public
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Sign to remind motorists and bicyclists alike to stop for pedestrians.

A youth bicyclist is instructed on signaling to make a left turn.

Photo Credits: VTC

health sector has done a tremendous job convincing people not to smoke and the number of individuals who do so is declining daily. What can we learn from this model that can be applied to traffic safety and should we be treating traffic safety injuries and fatalities as a public health crisis?

**Response:** The best way you can help is by looking inward. By that, I mean conducting a personal assessment of what you’re doing when you’re using the roadway system. As a pedestrian, are you always crossing at the corner and obeying the signals, or do you take the shortest route, thereby putting yourself and others at risk? When you ride your bike, do you wear a helmet? When you’re behind the wheel, are you doing everything you can to be safe, from wearing your seat belt and obeying the posted speed limit to never driving impaired, drowsy or distracted?

**Question 9:** What direction would you like to see NJDHTS go in the upcoming year with regard to bicycle and pedestrian issues? Are there any upcoming projects in the NJDHTS pipeline we should look out for relating to bicycle and pedestrian safety?

**Response:** The division will continue to support the governor’s five-year initiative, which is having a positive impact. Additionally, I believe that the projects I cited earlier—WalkSafe, pedestrian enforcement training—hold great promise for improving safety. The division will also continue to work closely with DOT and the TRSC to engage the traffic safety community in understanding the importance of data analysis so that we’re using our resources to address the most critical problems.

**Question 10:** Finally Pam, how can readers of this piece and the larger community help to advance the division’s work with regard to bicycle and pedestrian issues? In short, how can we help you?

**Response:** The best way you can help is by looking inward. By that, I mean conducting a personal assessment of what you’re doing when you’re using the roadway system. As a pedestrian, are you always crossing at the corner and obeying the signals, or do you take the shortest route, thereby putting yourself and others at risk? When you ride your bike, do you wear a helmet? When you’re behind the wheel, are you doing everything you can to be safe, from wearing your seat belt and obeying the posted speed limit to never driving impaired, drowsy or distracted?

The bottom line is that safety starts with each of us. Until you change your behavior, you’re just part of the problem.

**Conclusion**

Thank you so much Pam for taking the time to answer our questions today and for giving readers a great overview of the work the NJDHTS is doing for New Jersey communities so that all users of the state’s roadways—pedestrians, bicyclists, motorists and passengers—can have a safer experience.

To contact the NJDHTS to learn more about their programs:
- Call: 800-422-3750
- Go online: www.njsaferoads.com
- Write: 140 E. Front Street, P.O. Box 048, Trenton, NJ 08625
Guiding the Way: Bicycle Signal Heads

The use of bicycle signal heads at intersections can help reduce bicycle/automobile accidents. Typically placed at intersections with high volumes of bicycle traffic and with dedicated bike lanes or paths, the signal heads look similar to standard traffic signals, but display the outline of a bicycle in each color phase instead of the standard ball or arrow shape. Bicycle signal heads regulate the movement of bicyclists during a particular traffic signal phase. Key factors when considering the use of the signals is bicycle crash history and observations of conflicts between bicyclists and motorists.

Bicycle Signal Heads in Europe
Bicycle signal heads have been commonly used for a number of years in Europe, particularly Denmark, Germany and the Netherlands. In Europe, bike signal heads are often used at intersections where right-turning motorists must cross the path of a bicycle lane or cycle track (a segregated or separated bike lane). In these cases, the bicycle signal head provides either an exclusive phase for cyclists or lead time to allow cyclists to enter an intersection before automobile traffic, thereby establishing their presence to motorists before the latter can enter the intersection.

Bicycle Signal Heads in the United States
California
In contrast to Europe, bicycle signal heads have seen limited use thus far in the United States. The city of Davis, California is commonly cited as the first U.S. community to use bicycle signal heads, because it was the first to obtain state approval for their use. Davis installed bicycle signal heads at “T” intersections where cyclists had access to a bicycle path at the top of the “T.” Cyclists are given an exclusive phase that stops all motor vehicle traffic to allow cyclists to cross the through street with no conflicts.

It is valuable to note that the process allowing the use of bicycle signal heads in California was lengthy. The legislature had to amend the California Vehicle Code to permit the use of the specialized devices, and the state’s Manual on Uniform Traffic Control Devices was revised to incorporate standards for bicycle signal heads. Since the state acted, other communities in California have followed Davis’ lead by installing bicycle signal heads.

New York City
While Davis often gets the credit for first using bicycle signal heads in the United States, New York City began utilizing the traffic devices in the mid-1980s. In fact, a bicycle signal head has been in continuous operation since that time in Herald Square at the intersection of West 33rd Street and the Avenue of the Americas, where a bicycle lane is located on the left side.
Guiding the Way: Bicycle Signal Heads

of the Avenue of the Americas. This signal head helps reduce conflicts for cyclists traveling north on Sixth Avenue from vehicles turning left onto 33rd Street across the bicycle lane.

More recently, New York City has installed bicycle signal heads on the Ninth Avenue bikeway and at locations on the Hudson River Greenway bike path, where the path intersects cross streets and driveways. The New York City Department of Transportation is reviewing its design standards for bicycle signal head applications and hopes to employ more in the future.

At this time, there are no known bicycle signal heads in use in New Jersey. As they are not currently approved in the Manual on Uniform Traffic Control Devices, any community in New Jersey that would like to use bike signal heads would have to request permission from the Federal Highway Administration (FHWA) through NJDOT for experimental status. However, due to their safety value, bicyclists and others in the state should continue to advocate for their implementation.

For more detailed information on bicycle signal heads, please access the following resources:

San Francisco Bay Area Metropolitan Transportation Commission:
http://www.mtc.ca.gov/planning/bicycles pedestrians/tools/bikeSignals/index.htm

The City of Davis Comprehensive Bicycle Plan (2006):


FHWA Course on Bicycle and Pedestrian Transportation, Lesson 23 - European Approaches to Bicycle and Pedestrian Facility Design:
While residents of New Jersey can often be overheard complaining about state roadway conditions for drivers, the additional hazards present for bicyclists and pedestrians have been historically overlooked. This is attributable in large part to the fact that the street environment in our communities tends to be oriented towards automobiles, often resulting in unsafe conditions for other users.

New Jersey and many other states are now seeking to change their street environments, making them safer for non-auto traffic. One national organization leading the call for change is Complete the Streets, a non-profit advocacy coalition based in Washington D.C., which is challenging some of the transportation policies that have been long dominant in the U.S.

Changing American Roadways for All Users
Complete the Streets is a diverse body of stakeholders that includes planning, health, and transportation advocates seeking better bicycling and walking conditions on America’s roadways. According to Barbara McCann, director of the Complete the Streets Coalition, “The benefit of a complete streets policy is it makes [bicycle and pedestrian accommodations] part of everyday transportation planning practice, taking into account the needs of everyone that will be using that right-of-way.”

Complete streets policies are an attempt to ensure rights-of-way will be safe and accessible for all users. The elderly are among the most needy of road users. According to the 2004 report, Aging Americans: Stranded Without Options, some 21 percent of U.S. senior citizens do not drive. The importance of accommodating the elderly will continue to increase as the U.S. Census Bureau predicts the number of elderly will grow 80 percent by 2025.

The policies are meant to change the way transportation agencies design roadways, which in many instances ignore non-motorists. To achieve that goal, transportation agencies must change how they define the term “road users.” The Complete the Streets coalition defines users as “pedestrians, bicyclists, transit vehicles and users, and motorists, of all ages and abilities.” Accepting that streets are the domain of all users will require public agencies to re-examine and alter their procedures and design manuals, retrain planners and engineers, and develop new ways to rate the ability of roads to accommodate all users. Among the other benefits of complete streets policies cited by McCann is the construction of complete pedestrian networks. Incomplete sidewalk networks are one of the major reasons people choose not to walk.
Traffic-calming in Haddonfield brings more focus to pedestrians.

With a lack of sidewalks, the focus of this street is clearly on the automobile.

No bicycle accommodations along Route 38 in Cherry Hill.

Photo Credits: NJDOT, VTC

The American Association of Retired Persons, the American Planning Association, The League of American Bicyclists, and the Institute of Transportation Engineers are just a few of the organizations that routinely fund and support the coalition’s work. Stephanie Potts of Complete the Streets said the coalition promotes its policy goals “mostly by leveraging our coalition and connecting them with activists on the ground to advance local level and state-wide campaigns.” Potts says the coalition is currently focusing on supporting communities that have enacted complete streets policies to help them begin construction.

McCann contends that concerns raised by some opponents that complete streets will increase roadway construction costs are a myth. She said that the higher costs result from fixing streets that were constructed improperly at the beginning. While improving poorly designed streets is certainly welcome, McCann said, the coalition focuses on promoting new complete streets. “Complete street(s) policy is about changing standards from here on out, about changing practice as things move forward, not about immediately retrofitting streets everywhere,” she said.

Complete Streets Policies Around the Nation
Several states and cities have developed complete streets policies; some of the most notable include Charlotte, North Carolina; Chicago; Colorado Springs; San Diego; and West Palm Beach, Florida.

Charlotte adopted a complete streets policy that has drastically altered the way local transportation professionals go about daily business. According to McCann, Charlotte transportation officials used the complete streets model unofficially for several years until it was officially approved this past fall. The city developed a unique six-step planning process which improves its ability to accommodate all street users. (See Table A). Now, pedestrians and bicyclists are included in the planning process from the inception of a given project.

On the state level, the Illinois legislature recently enacted a complete streets policy into law. Driving this development was the tragic death of a teenager who was attempting to bicycle across an auto-dominated bridge with no alternate accommodations. The state has since altered the bridge, Illinois’ new complete streets policy is meant to establish bicyclists and pedestrians as recognized road users in all future projects to prevent similar accidents from occurring.

Complete streets policies have had an effect on the federal level. In 2000, the Complete the Streets
coalition provided policy guidance to the USDOT in its preparation of a design guide for the accommodation of pedestrian and bicycle travel. The coalition is now working with Congress to introduce legislation that would ensure that federal transportation dollars would be used to promote complete streets.

**Complete Streets and New Jersey**

NJDOT policy regarding alternative roadway users is to “achieve full institutionalization of bicycle and pedestrian concerns throughout the Department.” Encompassed in this 1999 administrative directive is the mission to “establish methods for addressing bike and pedestrian concerns,” to establish and maintain a multi-modal transportation infrastructure that accommodates bicycle and pedestrian travel, to create 2,000 miles of bicycle accommodations by the year 2010, and “improve access and safety for pedestrians.”

Sheree Davis, the NJDOT’s bicycle and pedestrian program coordinator, said the current administration has made bicycle and pedestrian safety a top priority. "Over the years, our strong policy and funding programs to municipalities have helped to build an ever-growing network for alternative users,” she said.

Davis explained that the department’s current policy is very close to a complete streets policy, and authorizes her office to review all projects to ensure that all modes can realistically be accommodated. “New Jersey is a very dense state and the roadway network is nearly built out,” she said. “In some areas, it is very hard to retrofit roadways for bicyclists and pedestrians because of pre-existing development.”

To improve the department’s ability to prioritize need, several new tools are being developed. According to Davis, the new models “are going to pull together master plan data, crash data, and sidewalk inventories to create a management system to help us prioritize projects. Where we need sidewalks, we will be able to prioritize the projects.” Davis said that the needs of alternative users increasingly are being considered in projects such as bridge repairs, where the NJDOT has the opportunity to retrofit for biking and walking accommodations.

For more information on this topic, please see the following:

- **Complete the Streets Coalition**
  [http://www.completthestreets.org](http://www.completthestreets.org)

- **Aging Americans: Stranded Without Options (April 2004)**
Taking an evening stroll or bike ride is a great way to relax, exercise, or just to get from point A to point B. Unfortunately, in some locations, New Jersey streets have become a bit more tough to navigate and we should all take care when we go for a walk or ride at night. In fact, statistically it has been demonstrated that it is much more dangerous to walk or bike at night, as both pedestrians and cyclists are more likely to be involved in a crash once the sun goes down.

The Statistics
National Highway Traffic and Safety Administration statistics from 2003-2005 have shown a fairly steady rate of pedestrian and cyclist injuries and fatalities between the hours of 6:00 pm and 6:00 am. Specifically:
- 49.5 percent of all bicyclist fatalities and 33 percent of all bicyclist injuries happen between these hours
- For pedestrians, 62.4 percent of fatalities and 40.7 percent of all injuries occur during this time
- On weekends, these numbers grow even larger for pedestrians; on Saturdays and Sundays, 82.6 percent of fatalities and 65.9 percent of injuries occur between 6:00 pm and 6:00 am.
- Of the 378 pedestrian fatalities that occurred in New Jersey during 2001-2003, 61 percent occurred in “conditions of darkness.”

Such statistics illustrate the risks at night, with visibility being the most apparent difference between day and night conditions on the road.

Although we don’t know the proportion of day vs. night trips, it is generally conceded that the preponderance of bicycle and pedestrian trips take place during the day, making these statistics even more alarming. It is evident that additional efforts should be undertaken to tackle nighttime safety.

Street Lighting
According to the 2005 Alan M. Voorhees Transportation Center (VTC) report, Pedestrian Lighting in New Jersey, 174 of the 231 pedestrian fatalities in New Jersey that happened at night between 2001-2003 (or 75 percent) occurred in locations with the presence of street lighting. (Note: This statistic excludes unknown conditions and periods of dusk and dawn when lights may or may not have been on due to changing light conditions.) Interestingly, while lighting seems to be present at many accident scenes, it does not seem to eliminate the hazard to pedestrians. This seeming incongruity stems from the fact that most street lighting standards are designed to address the needs of adjoining land uses and the roadway and its vehicular traffic, rather than the needs and safety of bicycle and pedestrian traffic.

The VTC report also found that there
is no state manual, standards, or design guide that comprehensively addresses pedestrian lighting needs.

While there is some technical guidance on providing lighting for pedestrians in the context of street crossings and motor vehicle traffic, this information is fragmented, making it difficult to assimilate and apply. As a result, pedestrian lighting in New Jersey is more a by-product of lighting on roadways and private properties.

The VTC report found that physical improvements to improve pedestrian safety typically have been limited to facilities such as sidewalks, barrier curbing, and traffic-calming infrastructure; the VTC report recommends that lighting also be considered. In fact, the VTC report recommends that pedestrian lighting should become a mandatory part of roadway design and that the importance of pedestrian lighting issues should be promoted as a key pedestrian safety measure.

**Improving Your Safety Odds**

While it may never be possible to make walking and bicycling as safe at night as during the day, there are a number of steps individuals can take to reduce the risks of an accident for themselves and their loved ones.

*If You Walk at Night:*

- Be extra vigilant while walking in any street environment at night
- Never assume that a driver will be able to see you, even in well-lit areas, or that a driver will see and stop for you, even when you have the right of way
- Be extra cautious while crossing any street and make the effort to cross at well-lit crosswalks and signalized intersections
- Be vigilant when crossing multi-lane highways where a large portion of fatal pedestrian accidents occur. If you must walk along a highway, stay as far away from the travel lanes as possible
- Walk facing traffic whenever possible during the night or day so you can see oncoming cars and make evasive maneuvers if needed. Walking facing traffic is essential on roads with no sidewalks, but is also recommended on roadways where adequate sidewalks are available
- When jogging or walking at night, take extra precautions, such as:
  - Wear a reflective vest
  - Use exercise gear with reflective piping and panels, particularly running shoes, or reflective wrist and ankle bands
  - Use red Light Emitting Diode (LED) lights similar to those cyclists use for tail lights, or wear vests or other clothing articles that include LED lights
  - Carry a lit flashlight so you will be more easily seen by drivers and to provide a light source when needed
If You Bike at Night:
There are both safety and legal considerations when riding a bike at night:

- **Know the law** – Under NJ law (N.J.S.A. 39:4-10), a red light must be mounted on the rear of the bike, a white light on the front, and both lights must be visible at a minimum of 500 feet.
- **Use adequate lighting** – Basic battery-operated LED light sets can be found at prices beginning at $16-$25, with advanced lighting systems costing considerably more. The extra cost of higher end systems is primarily for a more powerful headlight, with the most advanced systems as bright as a motorcycle headlight. In well-lit locations, however, the more basic LED systems usually suffice, because it is more critical to be seen by drivers than producing enough light to see the road surface. When deciding on bicycle lights, purchase the best and most effective lights that you can afford to suit your safety needs and travel environment.
- **Use reflectors** – Equip your bicycle with reflectors. It is suggested that you use a red rear mounted reflector in conjunction with the head and tail lights mandate under New Jersey Law (N.J.S.A. 39:4-10). The U.S. Consumer Product Safety Commission (CPSC) has required that all new bicycles, at the point of sale, be installed with a complete complement of reflectors. This includes a white or clear reflector in the front, a red one on the rear, amber pedal reflectors and reflectors on the wheels. Wheels can have either clear/white reflectors on both, or an amber reflector on the front and a red reflector on the rear. Tires with reflective sidewalls can also be an effective way to fulfill the CPSC requirements.

It must be emphasized that the CPSC reflector requirement for new bicycles does not meet the minimum requirements for legal nighttime riding in New Jersey. However, the CPSC requirements are effective at augmenting the state requirements, most notably the wheel reflectors that greatly increase the recognition of bicycles by motorists from the sides, an angle not well-illuminated by either tail lights or headlights.

For more information on walking and biking at night, refer to following resources:

**N.J.S.A.39:4-10. Lights and reflectors on bicycles**
http://www.njleg.state.nj.us/

**Consumer Product Safety Commission** (Requirements for Bicycles: Provision §1512.16)
http://a257.g.akamaitech.net/7/257/2422/1

**New Jersey Division of Law and Public Safety: Pedestrians**
http://www.nj.gov/oag/hts/pedestrian.html
Transportation Management Associations: A Resource for all New Jerseyans

What is a TMA?
New Jersey bicyclists, pedestrians, and commuter motorists are often unaware of the variety of resources available to help them make informed transportation choices. Transportation Management Associations (TMAs) are one such resource. TMAs are regional non-profit organizations that collaborate with area employers, consumers and government to address local transportation problems and to increase awareness of commute alternatives to driving alone. Many of their work activities involve promoting walking and biking. One of the more valuable services that many TMAs offer is an emergency ride home program, which guarantees participating commuters a ride home in the event of an emergency.

Eight TMAs currently operate in New Jersey, all of which receive support from the state Department of Transportation, NJ TRANSIT, and member organizations. They are: Hudson TMA, Cross County Connection, Hunterdon Area Rural Transit (HART), Keep Middlesex Moving, Meadowlink, TransOptions, Greater Mercer TMA, and Ridewise.

What Can a TMA Do For You?
What exactly can your local TMA do for you? If you bike to work, TMAs such as Hudson TMA and HART can help you maintain your bike and offer tune-ups. Tara Shepherd, executive director of HART, which serves Hunterdon County, said that commuters who bike to work at least two days per week in her region qualify for $25 vouchers for maintenance at local bike shops. Cross County Connection and Greater Mercer TMA have developed similar rewards programs for bicyclists that provide discounts at participating local merchants. Other services that TMAs offer for bicyclists include route planning, interactive bike trail maps, bike locker coordination, and safety tips.

TMAs also sponsor walk- and bike-to-work weeks and have stepped up efforts with the private and public sectors to create safer roadway conditions for New Jersey pedestrians and bicyclists.

To learn more about the TMA in your area and the various programs it may offer, refer to the table located on page 2.
## NJ TMA Resource Summary

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<th>TMA</th>
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East Coast Greenway
The New Jersey Department of Transportation, in partnership with the East Coast Greenway (ECG) Alliance, has published a guide to the New Jersey portion of the ECG. Intended to be an urban, multi-use equivalent to the Appalachian Trail, the ECG is a 3,000-mile trail system linking 25 major cities from Maine to Florida. The guide offers a 78-mile route from Trenton to Jersey City and passes through towns such as Princeton and New Brunswick.

The guide is laid out using a series of maps that detail both on- and off-road routes, as well as connecting trails, and the approximate locations of the planned future route of the ECG. The maps also include the locations of transportation services like train stations and ferry terminals, parks and cultural amenities, as well as services like bike shops, lodging and groceries. Each map section has its own cue sheet to aid navigation both northbound and southbound and for both on- and off-road route options. Finally, a rail connection option using PATH is provided for the difficult-to-navigate section of the ECG between Newark and Jersey City.

Measuring 5¾- by-10½ inches and printed on durable, waterproof vinyl paper, the ECG Guide is spiral bound and intended to withstand abuse that comes with outdoor use.

For more information on the East Coast Greenway, visit www.greenway.org. To obtain a printed and bound copy of the guide, contact bikeped@dot.state.nj.us, or write to Bicycle/Pedestrian Advocate, New Jersey Department of Transportation, PO Box 600, 1035 Parkway Avenue, Trenton, NJ 08625. The guide is also available to download from NJDOT’s website at www.njcommuter.com. Click on the Biking in New Jersey section of the website and look for the Free Information tab in the left toolbar to order the guide.
Medford Township: A Profile

Background

Towns that have identified improvements to encourage bicycling and walking, but struggle to find funding for them, should consider Medford Township’s experience when looking for ideas and inspiration. Over the past 10 years, this Burlington County township of just over 22,000 residents has implemented an extensive bicycle plan, building new bicycle facilities and adopting a land development ordinance that provides for the funding of bicycle and pedestrian projects.

Creating a Bicycle Network Plan

Medford’s improvements have been made with support and guidance from residents gained at public meetings, as well as through a 20-member volunteer bicycle committee that worked with the township council in planning new facilities and links to existing networks. After the bicycle committee developed recommendations, the township turned to the New Jersey Department of Transportation’s (NJDOT) Local Bicycle and Pedestrian Planning Assistance (LPA) program for assistance.

Working with a consultant provided by NJDOT through the LPA program, Medford’s planning administrator and engineer developed a “Bicycle Network Plan.” Completed in 2002, the plan features recommended pedestrian and bicycle facilities, area maps, potential funding sources, and cost estimates for project implementation. The plan mapped out general recommendations for intersection improvements, such as bicycle lanes, sidewalks and crosswalks, and issued specific recommendations for each intersection included in the study.

More than 70 residents attended a public meeting to discuss the plan before it was approved and incorporated into the township’s master plan. Medford then applied for federal funding and won a $300,000 grant. Because the grant could not cover the full cost of the bicycle network, the township worked with NJDOT to divide the improvements into two phases.

Having completed property agreements for the first phase of the plan, the township expects to begin construction within the next six months. The improvements will include striping for bicycle lanes, creating zebra-style crosswalks, constructing sidewalk connections to existing facilities, and installing signs to alert drivers to yield or share the road.

Developing a Dedicated Fund

Medford created a dedicated fund through a land development ordinance which requires developers either to provide bicycle and pedestrian facilities in new projects or contribute to the fund. The dedicated...
fund finances projects included in the township’s bicycle network, such as bike lanes or paths, striping, and signage. Developers who opt to provide infrastructure directly are required to work with the township’s planning department to reach agreement on the bicycle and pedestrian improvements that will be included in any given development.

Fees paid into the dedicated fund can be used for bicycle and pedestrian projects throughout the township, rather than limited to the contributing developer’s property. This gives Medford the flexibility to address priority needs and fill critical gaps in the bicycle and pedestrian network, rather than develop potentially fragmented facilities. Because of the ordinance, Medford now has an efficient process to assess proposed bicycle and pedestrian projects, as well as the resources to undertake planning and construction.

Approximately $100,000 has been paid into the fund to date, financing the construction of about two miles of facilities, according to Medford Recreation Director Beth Richmond. One of those projects included striping bike lanes along Dixontown Lane, connecting a major township thoroughfare to the high school. Another benefit of the fund is that it can be used to provide a “local match” in grant requests, allowing Medford to leverage additional state and federal funding for projects.

Conclusion
Medford offers one of New Jersey’s best examples of a municipal initiative to provide a bicycle master plan and supporting ordinance, resulting in a common vision for a community bicycle network, an engaged public, and the provision of a dedicated funding source. Richmond said the community’s support for the bicycle plan “has been great,” noting that the township even received $25,000 from the estate of a former resident to help build a bike path along a major road. The experience in Medford is an example of how involving residents in the planning process and providing dedicated funding can improve bicycling and walking conditions.

For more information:
Medford’s bicycle network plan can be downloaded from the township’s website at:  
http://www.medfordtownship.com/recreation.php
If 10% of the nation’s car commuters switched to bicycles our annual fuel bill for imported oil would drop by more than $1 billion.

Bicycling to work would save the average car commuter 400 gallons of gasoline a year. Using a bike just to get to the bus or rail station would save 150 gallons.

Building a downtown parking structure can cost $30,000 per car space; a bike locker costs $200. Put another way, eighteen bicycles can park in the space used by one car.

In traffic, thirty bicycles can move through the highway area devoured by one car. They emit no pollutants, use no fuel, cause no traffic jams.

The preceding four facts can be found at: http://www.chattbike.com/bikechat/didyouknow.htm

Did you know that if you drove an SUV and lived 5 miles from work, you would save $346.32 a year by biking to work one day a week?

The preceding fact can be found at: http://www.bayareabikes.org/btwd/index.php
Editorial Board

Sheree Davis, Coordinator, NJ Department of Transportation, Office of Bicycle & Pedestrian Programs

Pam Fischer, Director, NJ Division of Highway Traffic Safety

Gary Poedubicky, Deputy Director, NJ Division of Highway Traffic Safety

Eileen Swan, Executive Director, NJ Highlands Council, former Executive Director, NJ Office of Smart Growth

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Debra Kingsland, NJ Department of Transportation, Office of Bicycle and Pedestrian Programs

Martin Robins, Senior Policy Fellow and founding Director of the Alan M. Voorhees Transportation Center, Rutgers, The State University of New Jersey

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- Andrew Besold
- Andrea Lubin
- Sean Meehan
- Brian Staples
- Ranjit Walia