

Software takes a hard look at traffic fatalities

November 24 2009, By Karen Rouse

Bergen County Police and a Hackensack, N.J., drug treatment center are among a growing number of agencies using a software program to identify dangerous intersections, spot teen driving trends and reduce accident fatalities.

Plan4Safety, a crash analysis program developed at Rutgers University and funded by \$650,000 in federal grants, gives public safety professionals access to more than 300,000 accident records from 2003 to 2008. The innovative program won an award this month from the Federal Highway Safety Administration.

Each record holds up to 144 pieces of data gathered at a crash scene, such as driver age and gender, the number of vehicle occupants, location and the number of fatalities. Users can filter the data to produce the information they need, said Carissa Sestito, outreach coordinator for the program developed at Rutgers' [Transportation Safety](#) Resource Center.

"Let's say you're a police officer and you want to know how many crashes happen involving alcohol at a certain time at a certain location," she said. "It will return only the crashes that fit that criteria."

For example, police can filter the data to show only those crashes that occurred on Route 46 in Lodi, N.J., during the summer, between 5 p.m. and 7 p.m. They can see how many of those were off-road crashes, or involved senior citizens.

"There are many, many possibilities," Sestito said. Without the [software](#), breaking down such data is a more tedious task that often involves a lot of paperwork, she said. "You're not wasting so much manpower and time."

Plan4Safety was developed over four years with a grant from the state Department of Transportation and the Federal Highway Safety Administration, said New Jersey Department of Transportation spokesman Joe Dee. Access is free to public safety professionals, but they must get approval for a user account.

Sestito said the program pulls data from every crash reported in the state and inputs it into the Plan4Safety system. She said the program has more than 400 users.

They include:

- The North Jersey Transportation Planning Authority, which oversees federal transportation spending in 13 North Jersey counties, has used Plan4Safety to identify high priority crash locations eligible for local and rural road grant programs, and to examine crash histories at certain locations, said spokesman David Behrend.
- The Brain Injury Association of New Jersey features a Plan4Safety interactive map on its teen Web site, njteendriver.com, that allows visitors to plot data from teen crashes that occurred in New Jersey between 2005 and 2007. For example, they can look at how many involved just girls at a certain time of day.
- The state police announced last summer they would use Plan4Safety as their primary tool for finding high-crash areas. Upcoming projects include a look at truck crashes in work zones, said Lt. Harry McNally.

- The Center for Alcohol and Drug Resources in Hackensack just started using Plan4Safety to identify locations in Bergen County where accidents involving drugs or alcohol were highest among young adults.

"We're in the very beginning of trying to look at 18- to 25-year-olds to reduce the consequences of alcohol and drug use," said Faye Egan, project manager.

Rather than developing programs at random locations, the data will show where the need is greatest, she said. "What we're trying to do is narrow our focus in terms of where in the county we may want to put our efforts."

Police Chief August "Chip" Greiner, deputy director of the office of [highway safety](#) at the Bergen County Police Department said the software sounded too good to be true when he approached the institute for data a month ago.

He asked for the most dangerous spots in Bergen County for teen drivers and for pedestrians, and where alcohol-related crashes were most frequent. "Within two weeks of me asking, I got back a printout like you wouldn't believe," he said.

He said he learned that:

- Route 17 near Route 4 was the hot spot for teen driving accidents with 73 crashes in 2008.
- Route 4 near the Hackensack River -- between Fairleigh Dickinson University and the Shops at Riverside, had 68 teen crashes last year.
- The worst spot for pedestrians last year was Grand Avenue on the border of Ridgefield and Fairview.

Greiner said the data made sense because Grand Avenue has heavy pedestrian foot traffic and many day laborers who are Spanish-speaking, one of the groups at the highest risk for getting struck while walking, according to state officials.

Greiner said his department could address that area with billboards in English and Spanish, as well as bus signs and police enforcement.

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