Tech Note #27

DID YOU KNOW THAT BAYSTATE ROADS IS YOUR LTAP CENTER ?

What is LTAP?

There are 57 LTAP centers, one in each state and Puerto Rico, and regional centers serving American Indian tribal governments. Located at universities or state highway agencies, LTAP centers work in partnership with state departments of transportation and FHWA. Support for the centers comes from the federal LTAP funds, state departments of transportation, the Bureau of Indian Affairs (BIA), universities, local agencies, and finances designated by state legislation. The program is directed by the Federal Highway of Administration's Office of Professional Development.

Help us spread the word about LTAP's benefits. Tell others how Baystate Roads has assisted your city or town

Who is served by LTAP?

Across the country, 38,000 local agencies--small and large cities, rural and urban counties, and tribal governments--maintain nearly three billion miles of roads and some 29,000 bridges. LTAP's mission is to help these agencies tap into new technology, information, and training so they can operate more efficiently and safely.

LTAP is a direct, hands-on method for moving innovative transportation technologies out of the lab, off the shelf, and into the hands of the people who maintain our local streets and roads:

* public works director
* city and county engineers
* local highway safety officers
* transportation planners
* street/road maintenance superintendents /staff
* skilled roadway laborers

LTAP was envisioned to serve local governments, but its services transcend agency boundaries. State DOTs, municipal planning organizations (MPOs), regional planning agencies (RPAs), and private consultants to local agencies also rely on LTAP resources.

Why is LTAP Needed?

The days are long gone when local agencies can solve their transportation problems merely by paving more miles of road. Today's city, county, and tribal governments juggle a multitude of increasingly complex challenges:

*enhancing roadway and work zone safety
*ensuring traveler mobility in all kinds of weather and road work
*providing safe and convenient facilities for pedestrians and bicyclists
*managing increased congestion without building more roads
*training a new workforce to replace a retiring one
*targeting training to an increasingly integrated transportation workforce
*complying with environmental laws and regulations like new storm water regulations
*managing administrative issues

Training is the Heart of LTAP

According to city, county, and tribal agencies, significant training is needed in these areas:

* safety
* work zone traffic control
* winter maintenance, including snow and ice control
* signs and signals, including *Manual on Uniform Traffic Control Devices* (MUTCD) training
* paved and unpaved road maintenance
* planning and design
* materials,equipment, environment
* information management, including geographic information systems (GIS) applications
* asset and pavement management systems
* innovative finance and state wide planning

LTAP serves these and other training needs through workshops, road shows, demonstrations, computer training, distance learning, conference seminars, and courses in the field and classroom.

LTAP centers provide more than 5,000 training events to over 135,000 participants annually. That's aproximately 20 training events serving over 500 participants per day!

Reaching Customers: Targeting Services

LTAP faces a major challenge: Due to limited resources, LTAP currently reaches only one-third of its target audience. Two main reasons are:

1. Many potential customers are unaware of LTAP.
2. Many local transportation workers cannot afford to travel far or be away for an extended time for training.

With additional resources, LTAP can promote its services to a wider audience and deliver more customized, responsive training such as on-site workshops and distance learning.

Another challenge awaits LTAP. It is projected that nearly half of the current transportation workforce may retire by year 2010. At the same time, our roadways are becoming more and more congested and the traveling public expects smooth, safe, and delay-free travel at all times.

LTAP can be a significant part of the solution by training new and current workers and assisting them in delivering a safe and efficient transportation system. LTAP is a reliable source for transportation information, training, and technical assistance--to local agencies, tribal governments, state DOTs, and many other customers.

Through innovative partnerships, customized delivery mechanisms, and additional support, LTAP can rise to meet the needs and opportunities that await.

How has LTAP helped you? Please email your LTAP experience to: ahmadjia@ecs.umass.edu

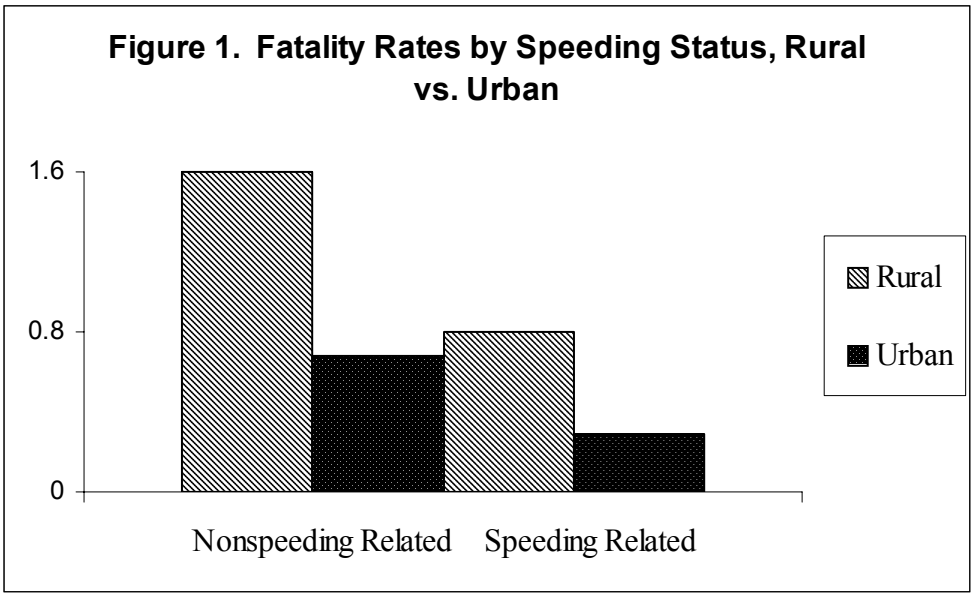
Speeding in Rural Areas

Census data continue to show America is an increasingly urban society. More of us now live in cities, planned communities, and suburban areas than in rural areas. Not suprisingly, we travel more on urban roads than on rural roads (1,627,705 million vehicle miles [M VMT] are driven annually in urban areas, compared with 1,063,630 M VMT in rural areas). However, in 1999, 60% of all U.S. motor vehicle fatalities and 64% of all speeding-related fatalities occurred on rural roads. Speeding--driving too fast for conditions or exceeding the legal speed limit--is a problem on all roadways nationwide. But, on the less-forgiving rural roadways, speeding takes a deadly toll.

Fatal Consequences of Speed on Rural Roads

As seen in Figure 1., fatality rates on rural roads are much higher than fatality rates on urban roads. The difference is more pronounced for speeding-related rates than for non-speeding-related rates. The reasons for the dramatic difference in fatality rates on rural and urban roadways reflect several factors related to crashes on rural roads. First, rural roads have a higher incidence of severe crashes, including run-off-road and rollover crashes. Second, rough terrain, less vehicle traffic, longer intervals between a crash and time of discovery, and lower level of available trauma care tend to make the injury outcomes for rural travelers more severe.

Figure 1. Fatality Rates by Speeding Status, Rural vs. Urban



Fatality Statistics Vary According to Roadway Type

Across both rural and urban areas of the U.S., very few speeding-related fatalities occur on the Interstates--the roadways with the highest posted speed limits. Rural Interstates, in particular, usually have the highest speed limits of any roadway in a State. Almost 1 in 4 speeding-related fatalities occurs on local roads, in both urban and rural areas. Yet rural areas differ from urban areas in speed-related statistics.

Frequency

Figures 2 and 3 show the distributions of speed-related fatalities by road class for rural versus urban areas. For example, in urban areas, crashes on arterials account for more than half of all speed-related fatalities. In rural areas, fatalities on arterials account for less than a third of all speed-related fatalities. This finding undoubtedly reflects differences in the number of miles of arterial roads in urban areas versus rural areas. We can normalize or adjust for these differences by comparing fatality rates per 100M VMT as shown in Figures 4 and 5.

Figure 2. Rural Distribution of Speeding-Related Fatalities by Highway Class.

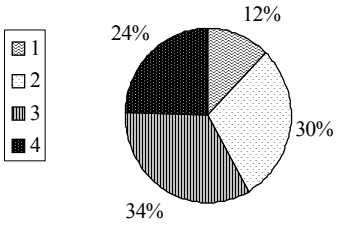
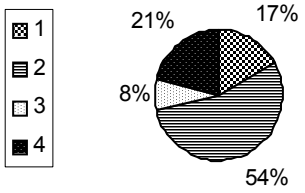


Figure 3. Urban Distribution of Speeding-Related Fatalities by Highway Class.

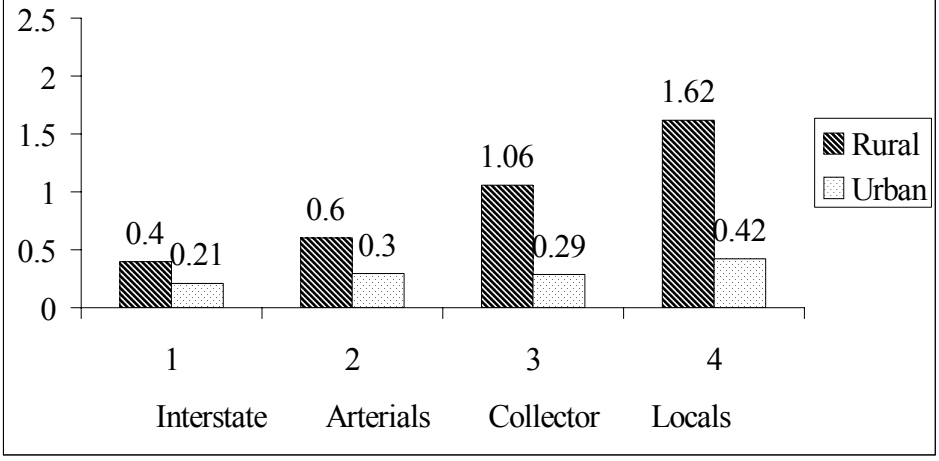


Rates

Collectors and locals have the highest rates and show the greatest differences between rural and urban rates. In rural areas, crashes on collectors account for one-third of speeding-related fatalities and have a speeding-related fatality rate of 1.06. By contrast, urban-area collectors account for only 8% of speed-related fatalities and have a speeding-related fatality rate of 0.29.

The fatality rates for speeding-related crashes in rural areas increase progressively as the road function class lowers(see Figure 4). This is in contrast to the nonspeeding-related fatality rates in rural areas--rural rates rise sharply off the Interstates (more than double) and remain relatively high (see Figure 5).

Figure 4. Speeding-Related Fatality Rates by Highway Class, Rural vs. Urban



Where We Drive Makes a Difference

Many rural roads evolved from farm roads upgraded to accommodate increased traffic volumes and vehicle size. In many areas, farmers, commuters, school buses, trucks, and tourists share roads with narrow lanes, limited sight distance, less enforcement, and lack of clear roadsides. In rural areas, legal speeds on collector and local roads are often higher than their urban counterparts. On rural roads, unlike urban roads, traffic is not often slowed by frequent traffic signals, stop signs, and traffic congestion.