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CTRE's mission is to develop and implement innovative methods, materials, and technologies for improving transportation efficiency, safety, and reliability, while improving the learning environment of students, faculty, and staff in transportation-related fields.

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## From the director: Research and the web



Steve Andrie

No one wants research that just "sits on a shelf." Thanks to the Internet it no longer does. While the Internet has revolutionized access to information, the sheer number of web sites can lead to confusion. I thought I would share some of the sites that I have found most useful.

### TRIS web sites

The Transportation Research Information Service (TRIS), which has been operating for nearly 35 years and is funded by the US Department of Transportation and managed by the Transportation Research Board (TRB), prepares abstracts of transportation publications. All contracts with federal funding (including National Cooperative Highway Research Program (NCHRP)) are required to submit a report copy to TRIS, and most states do so as well. In 2000, TRIS went online. At no cost to the user, you now have instant access to nearly half a million transportation documents. I searched on Iowa State University and Iowa DOT and found 592 publications, the most recent of which was a May 2001 Iowa Highway Research Board publication. That's pretty up to date as web sites go. Access TRIS through the Transportation Research Board at [www4.trb.org/trb/tris.nsf](http://www4.trb.org/trb/tris.nsf).

Another component of TRIS is Research in Progress (RIP). You can access this searchable database directly at [www.dcddata.com/trip](http://www.dcddata.com/trip). Projects are voluntarily submitted by state DOTs, universities, NCHRP, and federal researchers. The database is fairly up-to-date, but the voluntary nature of participation leads to great variation between states. You can search a topic and

find out which states are actively researching it right now.

A separate state DOT page lets you review projects by state. I checked Iowa and found 25 ongoing projects listed. The researcher is listed, so you can call him or her and get current information.

### Other national web sites

Since 1962, the NCHRP has been a leading source of transportation research, and the Transit Cooperative Research Program (TCRP) has been active since 1992. If you want to limit your search to these sources, go to [www4.trb.org/trb/crp.nsf](http://www4.trb.org/trb/crp.nsf) and search by topic. Status reports are available on research in progress, and links to completed reports are provided. Many documents are available online in the web documents section. Over 40 TCRP syntheses are available online.

If you are really a data hound, try the National Transportation Library at the Bureau of Transportation Statistics (<http://ntl.bts.gov/>). BTS was created by ISTEA in 1991, and has spent most of the last decade assembling transportation databases. You can search by subject in a broad array of topics. Transportation associations like AASHTO ([www.transportation.org/aashto/home.nsf/FrontPage](http://www.transportation.org/aashto/home.nsf/FrontPage)), ITE ([www.ite.org/](http://www.ite.org/)), ASCE ([www.asce.org/](http://www.asce.org/)), ITS America ([www.itsa.org/](http://www.itsa.org/)), etc., have very informative web sites, too.

### Iowa web sites

The Iowa DOT lists all Iowa Highway Research Board projects with links to many abstracts at [www.dot.state.ia.us/materials/research/reports.htm](http://www.dot.state.ia.us/materials/research/reports.htm). Other reports and summaries are listed at [www.dot.state.ia.us/sitemap.htm#traninfo](http://www.dot.state.ia.us/sitemap.htm#traninfo).

CTRE, of course, is in the web site business too. Our site at [www.ctre.iastate.edu/](http://www.ctre.iastate.edu/) contains a searchable database of completed and in progress

## Roadway safety projects in Iowa are effective

research projects, including full electronic copies of reports dating back to 1996. We also publish staff conference presentations, conference proceedings, and newsletters online.

CTRE's webmaster Michele Regenold maintains the CTRE web site and several related sites including the Midwest Transportation Consortium (MTC) ([www.ctre.iastate.edu/mtc/](http://www.ctre.iastate.edu/mtc/)) and the Center for Portland Cement Concrete Pavement Technology ([www.ctre.iastate.edu/pcc/](http://www.ctre.iastate.edu/pcc/)). The Transportation Research Expo (TRexpo) ([www.trexp.org/](http://www.trexp.org/)) is a new site sponsored by the MTC that provides contact information and expertise about researchers in the Midwest. Michele is also assisting the Minnesota DOT with the development of a research web site. If you need help with a web site, CTRE may be able to assist you.

If you are like me, you need research yesterday and don't have time to read much. I generally start with TRIS Online and TRIS Research in Progress to get an idea of what is going on. Then I call the researcher or the staff officer (TRB or state DOT) responsible for a group of projects and pick his or her brain directly. If there is time, I download reports and do some reading.

Time is a luxury. Use the web to make the telephone a better tool. •

A recent CTRE study demonstrates that past Iowa Department of Transportation (Iowa DOT) traffic safety projects have been effective in reducing crashes. The study, conducted by Gary Thomas, former transportation engineer at CTRE, evaluated crash reduction percentages and benefit/cost (B/C) ratios for common types of roadway safety improvements.

The most significant finding was that the replacement of pedestal mounted signals with mast arm mounted signals contributed to a 36 percent crash reduction. Benefits outweighed costs by 11.2 to 1 for this type of improvement, giving it the highest B/C ratio of any improvement type studied.

Thomas also found that the addition of a traffic signal, turn lane, or both does not necessarily cause an overall reduction of crashes. In fact, while some collision types decreased after these types of improvements, others increased.

The *Effectiveness of Roadway Safety Improvements* report confirms that the Iowa DOT's past safety projects have been, on average, very effective—with an overall crash reduction of 23 percent and an overall B/C ratio of 6.3. The report will also help the Iowa DOT prioritize future roadway safety improvements.

To see the study, visit [www.ctre.iastate.edu/reports/roadsafe.pdf](http://www.ctre.iastate.edu/reports/roadsafe.pdf). •