

# Tech Brief

## Congestion, Safety, and Security Initiative

FHWA-NJ-2005-001TB

January 2005

Need a solution?  
Think Jersey DOT

### HERE'S THE PROBLEM

As a result of the 1998, 2002, 2004 Federal Certification Reviews, the FHWA, New Jersey Division Office determined the need for a statewide planning process to be in place for congestion mitigation, public safety, and disaster relief.

### AND, HERE IS THE SOLUTION...

The decision was then made to adopt the most appropriate innovation technology in New Jersey by first examining several technical resources. When comparing technology transfer applications, there are many similarities that exist between national trends for transportation congestion, security and safety issues. The similarities are identified in Figure 1. The three issues are predominantly handled through the establishment of partnerships, planning, standardized procedures, training, technical assistance, and best practices.

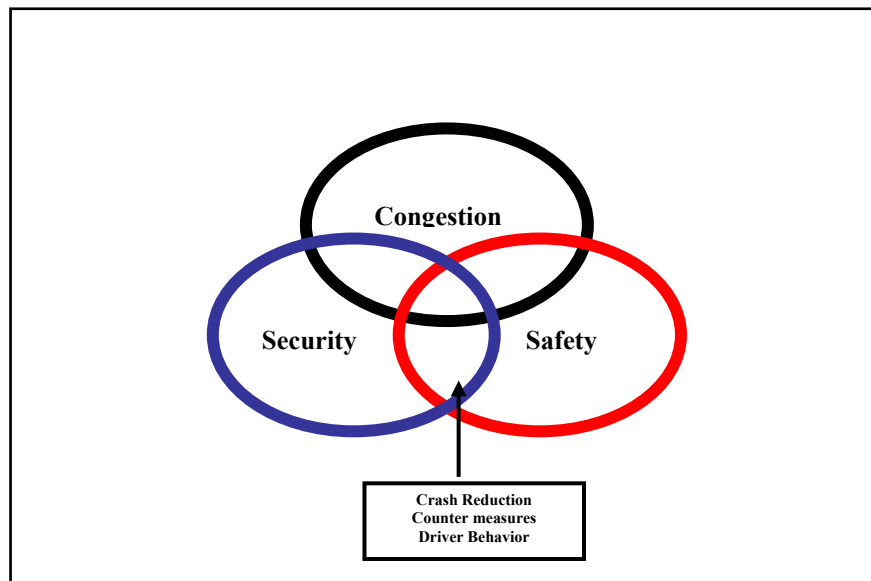


Figure 1. Commonalities between congestion, safety, and security

Safety Conscious Planning (SCP) appears to be the most global model that is capable of reaching congestion and security, through transportation safety. Forums are the venue used to identify safety issues through comprehensive programming. The short-term objective of SCP is to integrate safety into the transportation planning process at all levels, including the Statewide Transportation Improvement Plans (STIP) and the Transportation Improvement Plan (TIP). Also, this step is followed by the long-range, twenty year plan that the State DOTs and the MPOs are required to prepare and update periodically. Partnerships provide input throughout the various stages of the planning process, especially in the development of safety goals and identification of future safety needs.

## BUT, HOW CAN IT BE DONE?

The establishment of a three tier partnership approach, based on the SCP Model, fosters the creation of a statewide SCP Partnership between the MPOs, the NJDOT, and other state level transportation and safety professionals. As identified in Table 1, this Tier 1 encompasses the preparation and development of a survey for state, county, and local transportation agencies in order to determine the importance of transportation safety within their organizations. Also, a Safety Conscious Planning Working Group (SCPWG) is formed and meets frequently to identify potential partners, plan program activities, and invite participants to a statewide forum that provides feedback to three MPOs and the NJDOT. A series of safety technical resources are then developed and distributed to transportation organizations on many occasions to help facilitate the safety network.

Tier 2 encompasses the organization of regional (county) level forums for elected officials and professionals that promote safety in a similar manner as the previous statewide event. County and local public sector representatives are invited to offer input to the MPO representatives on their safety needs. The functions of Tier 2 are to assess the existing level of safety within local agencies, target local elected officials to internally drive their organization's commitment toward safety, and have safety practitioners participate in the development of an external partnership network.

Later, Tier 3 is accomplished through the provision of outreach services to local elected officials. Their role is to drive safety internally, while the safety professionals (police officers) organize the community network. A broader description of this adoption process is described in the following section.

Table 1. New Jersey SCP (External) Partnership Network Model

Level	Procedures
Tier 1 – Statewide SCP Network	<ul style="list-style-type: none"> <li>• MPO &amp; NJDOT safety integration.</li> <li>• TIP, STIP, Long Range Plans.</li> <li>• Development of the Regional Safety Task Force.</li> </ul>
Tier 2 – Regional Forum & Safety Task Force	<ul style="list-style-type: none"> <li>• Identify existing local ad hoc &amp; enforcement groups of the network</li> <li>• Educate representatives on the role of MPOs.</li> <li>• Create partnership between four county representatives and DVRPC.</li> <li>• Provide updates on safety issues to the Regional Safety Task Force representatives that communicate the information to local agency representatives.</li> <li>• Expand LTAP services provided to locals and counties through newsletter, training, and resource distribution.</li> </ul>
Tier 3 –Outreach to Local Officials	<ul style="list-style-type: none"> <li>• Adoption of SCP within local organization.</li> <li>• Creation of SCP local system</li> </ul>

THESE ARE OBJECTIVES OF THE STUDY...

- To examine the relationship between transportation congestion, security, and safety, in order to identify effective technology transfer applications that have been adopted nationally.
- To compare these national trends to the conditions found in New Jersey.
- To implement the most appropriate solution for addressing congestion, safety, and security domains.

Further examination of national transportation trends identified the Safety Conscious Planning (SCP) Model as the network to adopt for reducing crashes that consequently impact security and congestion of the transportation system in New Jersey.

AND, HERE'S WHAT WE DID...

In New Jersey, the Safety Conscious Planning Partnership Network was successfully formed on the state level with the MPOs, and the NJDOT working together, while receiving input from the FHWA -New Jersey Division, NHTSA, NJDHTS, NJSP, NJ Transit, Rutgers University CAIT-LTAP and TSRC Centers, and several other agencies. The NJTPA had partnered with the NJDOT and national consultants to analyze data for all of the local agencies within their region; while the SJTPO was functioning as a fully integrated safety planning system since 1998. Although the DVRPC had teamed with

local agencies in the past (i.e. access management codes, emergency response programs), they did not maintain a formalized transportation safety network.

The DVRPC, SJTPO, NJTPA, and New Jersey CAIT-LTAP representatives cooperatively scheduled a series of regional forums. These forums were modified to address local needs; therefore the role of the DVRPC was presented, while the South Jersey Traffic Safety Alliance Model had been described as a best practice, and additional information on safety funding and resources for local agencies was offered to the program participants. Valuable recommendations were also obtained for the DVRPC to use in organizing their Regional Transportation Safety Task Force, a unified county-based network. Since local officials were not available to participate in the county programs, outreach had been accomplished through the distribution of the Elected Officials' Safety Kit that was sent to each mayor in the region, along with a request for the individual to advocate for a local SCP partnership in the community. Therefore, both the decision makers and the safety professional had been simultaneously supported with the tools for moving their organization to the proactive level.

Although feedback had been important for establishing this network, county profiles were another means for the DVRPC to obtain guidance on future actions. The County analysis revealed that three of the four organizations in this jurisdiction had established area wide safety networks, while none existed in Mercer County. Fortunately, there was the Police Traffic Officers Association that filled this void by offering law enforcement safety support to the thirteen towns of the area. Also, the Mercer County Traffic Engineer then volunteered to serve as a liaison between the DVRPC and this police organization.

Additionally, municipal safety assessments offered a basic indicator of the readiness level that an organization maintains for integrated Safety Conscious Planning as an accepted practice. Of course additional criteria such as resources, partnerships, funding and independent factors must be taken into consideration but at least this basic information enables sponsors to further prepare for the successful establishment of safety in the community. Interestingly, two local officials had been proactively involved in soliciting support for reducing truck traffic on their streets. Lastly, the DVRPC Forum Report and Elected Officials' Kit reached the elected officials as promotional tools for moving safety to the next level, which is the adoption of Safety Conscious Planning.

## CONCLUSION...

It is important to maintain Safety Conscious Planning (SCP) as the trademark for this comprehensive, data driven, and collaborative effort that has the capacity to appear at all levels of government because it connotes a new way of thinking, instead of the "safety business" as usual. This is especially important when empowering local elected officials, who frequently defer such issues to safety professionals who often require further support to affect change on all levels of government.

Fortunately, the SCP Model has provided local elected officials with the leadership opportunity for championing transportation safety causes on the executive level; while at the same time there is enough flexibility in the model to address the requirements of

safety professionals, thus producing a unified safety system that reaches many local agencies in New Jersey. The most important outcome of this project is to direct additional safety resources to local communities where they are needed for addressing the reduction of local roadway, crashes, injuries, and fatalities.

Lastly, SCP has proven to be an effective tool for establishing a unified safety support network that extends to all levels of government in New Jersey. Minimal enhancements have enabled this model to be implemented on the county level, and extended locally through a technology transfer approach that educates elected officials to internally drive their programs, while safety professionals, usually police officers, build the community partnerships. Research needs to be done after the Innovation Adoption Process is complete to determine the true value of this safety lifeline.

### WHAT IS THE NEXT STEP?

The future direction of adopting Safety Conscious Planning, in New Jersey, is for the Rutgers Transportation Safety Resource Center Centers to work with the DVRPC and SJTPO and develop a curriculum for county personnel. This new product will complete all stages of Technology Transfer that are identified in Table 2. The first stage, Awareness, is accomplished through the sponsorship of statewide and county forums. The next stage, Attitude Formation, involves the user becoming proactive in seeking additional information and forming attitudes that are shared with fellow network members. During this period, training reinforces attitudes of elected officials. A specialized Safety Conscious Planning Professional (SCPP) credential will become available for county representatives that work directly with the municipalities to enforce safety programs. Lastly, the Confirmation stage enables the effectiveness of SCP to be measured by the accomplishment of a unified network of state, county, and local safety representatives.

Table 2. Technology Transfer Innovation Adoption Process

<b>Stages</b>	<b>Actions</b>
Awareness	<ul style="list-style-type: none"> <li>• Series of Forums to complete the regional network</li> </ul>
Attitude Formation	<ul style="list-style-type: none"> <li>• Establishment of the MPO Task Force and participation in the county-based network</li> <li>• Safety Conscious Planning Professional (SCPP) training program and seminars for elected officials</li> </ul>
Trial/Decision	<ul style="list-style-type: none"> <li>• Offering technical support for local adoption of SCP</li> </ul>
Confirmation	<ul style="list-style-type: none"> <li>• Evaluation of improved transportation systems (e.g. additional funded projects, lower transportation crashes) as a result of the Safety Network</li> <li>• Use of municipal status profiles to document the progress on local adoption of SCP</li> </ul>

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A final report is available online at <http://www.state.nj.us/transportation/research/research.html>

If you would like a copy of the full report, please FAX the NJDOT, Bureau of Research, Technology Transfer Group at (609) 530-3722 or send an e-mail to [Research.Bureau@dot.state.nj.us](mailto:Research.Bureau@dot.state.nj.us) and ask for:

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