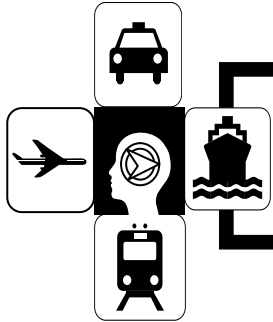


JERSEY DOT'S

"TURNING PROBLEMS INTO SOLUTIONS"



Need a solution?
Think Jersey DOT

Tech Brief

Transportation Safety Professional Development Clearinghouse (TSPDC)

FHWA-NJ-2007-004

February 2007

SO, HERE'S THE PROBLEM...

By the year 2010, it is anticipated that the entire workforce of the United States will begin to feel the pinch of the anticipated "Workforce Crisis" as the aging baby boomers born after 1945 begin to retire, leaving fewer qualified workers and increasing the difficulty of attracting and retaining those that are qualified. The workforce of the future will be younger, less experienced, and culturally quite different from today's workforce. Just when there is a greater need for managers to take an active part in developing their workforce and grooming future leaders, downsizing and cost cutting has resulted in even less time for this important activity. The Transportation Industry is not immune to this phenomenon. In addition to experiencing loss of knowledgeable and seasoned workers, changing technology and increased emphasis on highway safety has created a critical need for transportation professionals within New Jersey to continue to update and maintain their skills in order to meet the state's safety goals.

AND, HERE'S OUR SOLUTION

Create a database that will serve as a "clearinghouse" of readily available information related to the training of transportation professionals in the State of New Jersey. Have this database on line for use by anyone who is required to take training (Trainee), department managers who need to monitor compliance with mandatory training directives and who must plan ahead for budgeting training expenses (Department), institutions that offer training (Training Center), and agencies such as NJDOT and FHWA-NJ Division who need an overall picture of the entire state in terms of project readiness (Agency).

BUT HOW CAN IT DO ALL THIS???

Four distinct levels of access to the system would be available, each with their own limited set of privileges:

- TRAINEE LEVEL
 - o Register themselves
 - o Enter and update only their own personal information
 - o View all available classes listed on the system
 - o Access brochures associated with classes
 - o Access training center on-line registration if available
- DEPARTMENT LEVEL
 - o Register as a Department
 - o Register employees of their department as Trainees
 - o Inactivate/Activate employees associated with their department
 - o Run reports on Trainees associated with only their own department
 - Training completed
 - Training required
- TRAINING CENTER LEVEL
 - o Register as a Training Center
 - o Enter Class/Course Information
 - o Update Class/Course Information
 - o Run Reports on training needs throughout the state
 - Locations
 - Number of people needing training
- AGENCY LEVEL
 - o Register as an Agency
 - o Determine Profession/Job Title Combinations
 - o Determine required courses for each Profession/Job Title
 - o Run statewide reports

A fifth level of privileges would also exist within the database for the database administrator who could run all possible reports and have browse and update ability at all levels.

In order to combat the problem of not hearing about existing training until it was too late to register, Trainees who identify training needs in their profile would receive e-mail notification as classes became available to fill those needs.

AND, HERE'S WHAT WE DID...

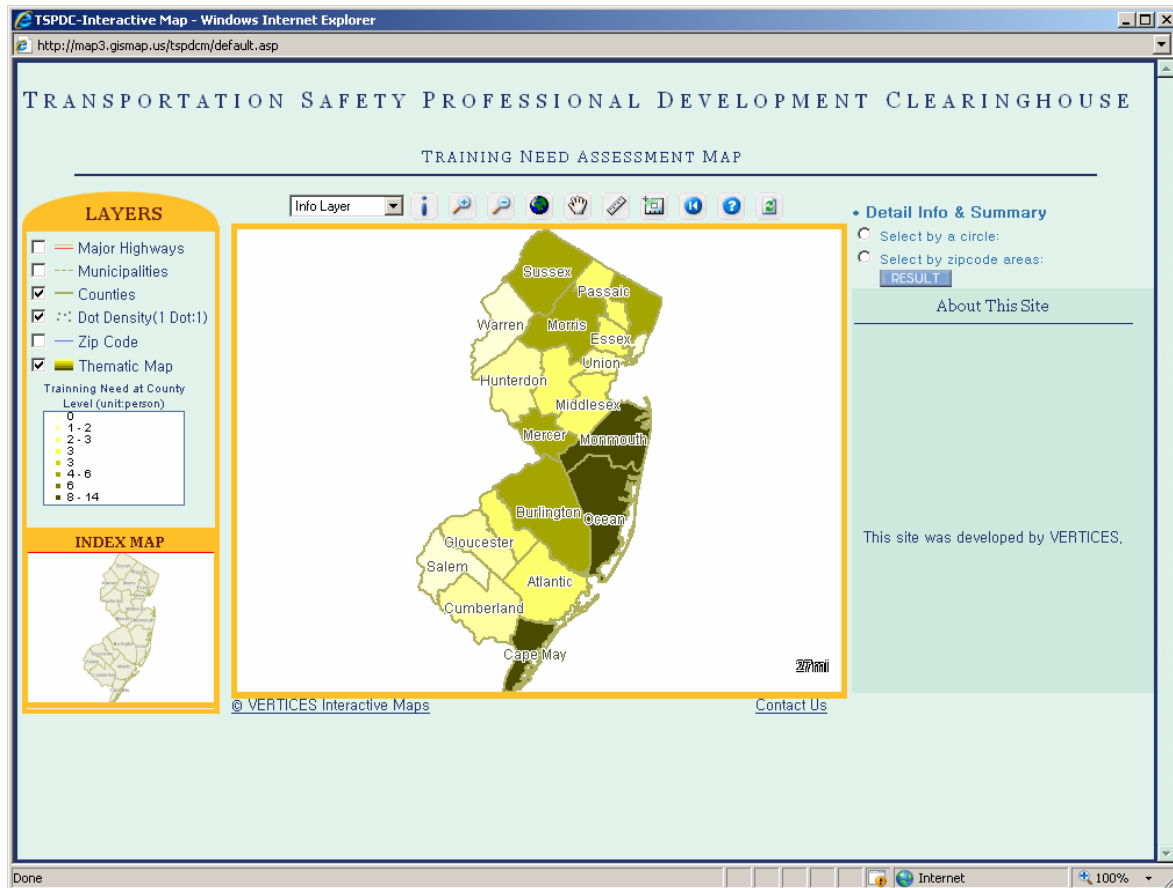
The project began with an exhaustive research of current trends in personnel management that included mentoring, coaching, skills and personality assessments, periodic evaluations, and formal and informal training programs. Throughout the research process, company/agency sponsored training and the opportunity for advancement surfaced as critical elements for job satisfaction and employee retention.

Next, we created a survey to determine needs and restrictions that might influence the set up of an on-line clearinghouse of training information. Responses from the New Jersey office of FHWA indicated that access to the internet was readily available, but opinions were divided regarding what unique identifiers should be used to gain access to the system and whether personality and skills assessments should be part of the clearinghouse and if trainee's managers should be made aware of those results. One important piece of data derived from the survey was that people frequently became aware of available and needed training too late to register.

With the survey results in mind, the decision was made to eliminate assessments and focus solely on training expectations for each profession/job title registered in the system. Trainees would be able to indicate their current position as well as a target position and be notified by e-mail about courses associated or required by both of those profession/job title combinations. Trainees could then browse the data base, view the training center's brochure describing the class, and click on a link to register directly with the training center.

HERE'S WHAT WE CAME UP WITH...

A pilot database was created with a small subset of information for each of the data elements. Reports were created using a GIS component that could depict information in graphical format or as points on a map of the state. Training needs (or training completed) could be shown by county or zip code level as well. Reports of training needs could be customized to show needs projected for different periods such as 6, 12, or 24 months in advance. In addition, reports could be generated showing individuals and locations where training had been completed.



Report selection screen for Agency

THE BOTTOM LINE...

Moving forward, beyond the pilot stage, the TSPDC data base will require a substantial amount of initial effort to determine and enter information regarding the training required for each of the associated profession/job title combinations. Moving from the pilot phase to a viable working tool is dependent on this effort. In addition, at least a part time administrator must be assigned to resolve system problems, answer questions, and load course information. A solid marketing plan will need to be created to encourage full use of the system by transportation professionals; otherwise the information generated from system reports will be incomplete and not provide a true picture of New Jersey's readiness for conducting major highway projects in a safe and effective manner.

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

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 and ask for:

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