FHWA-NJ-2007-004

Transportation Safety Professional Development Clearinghouse

FINAL REPORT
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Submitted by

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16. Abstract

Throughout private and public work settings, employee professional development is regarded as critical to grooming future leaders and to attract and retain talented employees who will enable the company or agency to achieve its goals. Professional development is accomplished through formal education, assessments, job experience, and interpersonal relationships (Noe, Hollenbeck, Gerhard & Wright: 2000). Education has been identified by the New Jersey Department of Transportation (NJDOT) as a 4E countermeasure for reducing roadway fatalities. There is 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. The NJ LTAP staff worked with safety managers to identify training opportunities and obstacles to training. Together they recognized the need to track the safety training progress of personnel from the transportation industry. The target solution was to develop a data base tool for the NJDOT to use in tracking state, regional, and local safety training needs and accomplishments of transportation professionals. While the tool was being developed, ongoing research was used to create a series of professional development articles published in the NJ LTAP monthly newsletter and distributed to transportation personnel throughout the state.

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EXECUTIVE SUMMARY

Throughout private and public work settings, employee professional development is regarded as critical to grooming future leaders and to attract and retain talented employees who will enable the company or agency to achieve its goals. Professional development is accomplished through formal education, assessments, job experience, and interpersonal relationships (Noe, Hollenbeck, Gerhard & Wright: 2000). Education has been identified by the New Jersey Department of Transportation (NJDOT) as a 4E countermeasure for reducing roadway fatalities. There is 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. The NJ LTAP staff worked with safety managers to identify training opportunities and obstacles to training. Together they recognized the need to track the safety training progress of personnel from the transportation industry. The target solution was to develop a data base tool for the NJDOT to use in tracking state, regional, and local safety training needs and accomplishments of transportation professionals. While the tool was being developed, ongoing research was used to create a series of professional development articles published in the NJ LTAP monthly newsletter and distributed to transportation personnel throughout the state.

BACKGROUND

As with other professions in the U.S., the transportation industry faces a critical workforce shortage within the next ten years. There is an urgent need to prepare the workforce for the challenges that lie ahead. Keeping up to date with training is the key to maintaining a strong and safe workforce.

OBJECTIVES

The objective of this project is to establish a clearinghouse for New Jersey Transportation professionals to become aware of training opportunities that will help them achieve the transportation safety goals of the New Jersey Department of Transportation. This clearinghouse can also act as a tool for managers to confirm completion of required and requested training, and will provide a way to determine workforce readiness for upcoming transportation projects.

INTRODUCTION

Prior to commencing work on this project, extensive research was done on professional development and state of the art practices of the private sector. Although not entirely applicable to the public sector, many of these principles are sound and are offered as background material in Appendix A. Impressions and information that can be related to the project at hand will be featured in the outline that follows.

Since employee development belongs to Human Resources and Manager-Employee interaction, considerable attention has been given to aligning the research with the

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TSPDC project, while respecting the privacy of the individuals, and eliminating duplication of effort wherever possible. This project should in no way be considered an attempt to replace functions of the supervisor or manager. Rather, it is offered as a tool to assist managers and members of the transportation community in accessing and leveraging safety training in a timely manner.

SUMMARY OF THE LITERATURE REVIEW

Projected Workforce Crisis - In the United States and worldwide, both public and private sector aspects of the transportation industry are facing projected workforce shortages over the next ten years. The cause of this shortage is largely due to the aging population. The so called "Baby Boomers" born shortly after the end of World War II, are rapidly reaching retirement age.   For the public sector, the shortage is compounded by individuals opting for early retirement and workers lured away to work in the private sector. The gradually shrinking workforce is actually helpful for agencies trying to cope with shrinking government funds and budget cuts, but the implications are that expertise will be lost and the remaining workforce will need to be more efficient. Training and transfer of knowledge becomes increasingly important, not just to bridge the gap between retiring transportation professionals and those that remain, but to keep abreast of technological developments, improved practices, and changes in regulations.

"Vital Few" Goals – Federal and State governments, recognizing the looming workforce crisis, have incorporated employee development initiatives into their yearly goals. In addition, roadway safety has become a national mandate, with nationwide goals of reducing the number of fatalities significantly.

In April 2000, the FHWA established the Workforce Planning and Professional Development Task Force to examine the challenges involved in attracting and retaining a competent workforce in the face of a rapidly changing applicant pool with cultural, ethnic, and skill diversity, and tremendous competition due to a then very strong economy. Although the economic conditions have declined and attractive corporate hiring and retention bonuses have all but disappeared, the diversity of the workforce has not changed and most of the issues addressed by the task force are still relevant today. Of particular importance is the aging of the workforce and the approaching retirements that threaten to deplete the pool of workers with extensive knowledge and experience.

Members of the Task Force included representatives from throughout the agency and membership was drawn from Core Business Units (Infrastructure/Operations/Planning and Environment/Safety), Service Business Units (Professional Development/HR/Corporate Management/Office of Information and Management Service), Change Management, Field Services, Resource Centers, and Division Offices. Briefly stated, the mission of the Task Force was to make recommendations that would insure that the right people with the right skills are in the right place at the right time in order to allow the FHWA to achieve its immediate and future goals. One of the conclusions of the study was that the continued development of employees is critical to the achievement of FHWA's strategic goals and objectives of professional development

is listed as one of the four initiatives aimed at closing the gap between the "current state" (2000) of the workforce and the "future state" in the year 2010.

Recommendations from the Task Force echo the best practices of Corporate America. Some highlights from the report are:

- The goal of Professional Development is to enhance the capabilities of individual employees so they can effectively accomplish the FHWA mission (and its goal to become a world class organization with a talented, highly skilled and motivated workforce)
- Professional Development is a shared responsibility of the employee, the agency, and its managers
- Recommended Action: Integrate the Performance Plan and Workforce Plans with the Training and Development Plans
- Recommended Action: Require Individual Development Plans (IDPs) for all employees
- Professional Development is comprehensive and includes all activities that positively influence employee performance in the following areas:
    - Technical Skills
    - Professional Skills
    - Business Skills
- Recommended Action: Recognize employees who have become licensed, certified, or credentialed since this demonstrates professional competency and a commitment to the profession
- Questions that should be asked both before training is approved and after it is taken include:
    - To what extent is the training or developmental assignment likely to increase knowledge, improve skills, and/or change attitudes of the employee?
    - To what extent should job behavior and performance change as a result of this training and development?
    - How will this investment in development help the agency achieve its goals?
- Training evaluation tools need to be developed that can show "evidence of achievement" that skills development is taking place and being used on the job
- Feedback should be used to continually improve training

In "Filling the Pipeline" (Public Roads November/December 2002), an article co-authored by Clark Martin, workforce programs coordinator for FHWA's Office of Professional Development, a sense of urgency was communicated on the challenges facing the transportation industry and its need to develop and maintain a first class workforce. The article reported about a National Workforce Summit that was held in May 2002 with 75 transportation industry leaders from labor, industry, academic institutions, consulting firms, and professional associations. Over half of the participants were from Federal and State transportation industries.

At the conclusion of the summit, all participants signed an agreement entitled "*A Partnership for Educating, Training, and Developing the Nation's Transportation Workforce*." The purpose of the agreement was to solidify the commitment of each of the representatives to strengthen workforce development programs within their own organizations, support partnerships that work toward that goal, and promote the concept that a well trained workforce is a vital contribution to the safety and well being of society.

One of the five strategic goals published by FHWA for 2003 involved organizational excellence, or "managing for results." The intent was to develop and implement the FHWA Human Capital Plan and the restructuring that the Assessment Task Force recommended for Professional Development and Training as it aligns with the multi-year strategic goals of the agency. The strategic initiative is meant to encourage professional development while improving employee satisfaction and effectiveness by implementing key recommendations of the Workforce Planning and Professional Development Task Force.

The FHWA New Jersey Division's 2003 goals were similar and included the following measurements specific to employee development:

- Increase employee satisfaction – Increase positive responses to employee surveys from 63.2% to 75%
- Increase job related training and professional development opportunities
- Increase the percentage of business hours dedicated to job related training and professional development from 3.4% to 4%

State of the Art in Business – Best corporate practices for employee development have as their foundation the belief that employee development is critical to the survival and success of a business entity. This belief permeates the organization and as such has support from the top and is incorporated into the organization's strategic goals. Benefits of employee development include: employee retention; strengthening the workforce; succession planning; business planning. Employee development is recognized as a joint effort with different responsibilities residing with the employee; the corporation; and each manager.

First and foremost, each organization must have a clear cut goal or set of strategic goals that are effectively communicated to each employee. All employee development must be focused around these goals as it relates to the talents and interests of the employee. Every company should have a complete list of job descriptions and skill levels required for those jobs and these should be readily available to the employee for career planning.

Next, the corporation should have a clear understanding of the talent it has on hand. This is usually achieved by having each employee complete and maintain a skills assessment inventory. Accurately forecasting the skills that will be needed in the future is a concurrent step. This is called a Needs Assessment. Gap Analysis occurs when the skills on hand are compared with the Needs Assessment. Gap Analysis tells

managers where skills are missing and corporate leaders must then decide how best to fill that gap.

While gap analysis is happening at the executive level, the employee should also be honestly assessing his own interests, abilities, and ambitions. Assessment can be formal or informal and usually includes performance feedback from the manager. Armed with the resulting information, manager and employee should then confer and decide on a career path that will benefit the employee, the manager, and the corporation.

Once the career path has been set, the employee, with guidance from the manager, can then draw up a development plan with specific and measurable goals. A large component of this plan usually consists of training classes to fill a knowledge gap or courses required for certification. Locating the classes or obtaining approval for training can sometimes be frustrating.

In these days of extreme corporate belt tightening, many companies have reduced their training budgets to levels that represent slightly more than 1% of total compensation. This is significantly lower that the 8-10% training budget offered by European counterparts. One of the compelling reasons for reducing training expenditures is perceived poor ROI – Return on Investment. In order to justify the high cost of training, measurements must be made that correlate growth and productivity with money spent on training. Non productive training is a waste of money and should be abandoned.

This is where the partnership of the employee and manager is most critical. They must work together so the manager can approve for training only those employees that will benefit from the training. Assessments must always be part of the training process. Initial assessment will determine interests, abilities, areas for improvement, and employee potential. After completing coursework, the employee must demonstrate mastery of the material before receiving credit. Once mastery has been demonstrated, it becomes the manager's obligation to provide the employee with opportunities for practical application of the skills so they can flourish and be productive.

All of this takes time and easy access to information. Both are commodities that are in short supply for today's overburdened managers.

Needs of NJ Transportation Professionals

Compliance With Mandated Training - At the opening of a crash preventing test facility in June of 2003, U. S. Transportation Secretary Norman Mineta emphasized that he and President George W. Bush had made the reduction of highway fatalities the "number one priority" for the DOT. As individual states and local communities follow this lead, it will become essential for all members of the transportation industry comply with any mandated safety training.

<u>Fully Trained Professionals</u> - In order to maintain safety standards, it is anticipated that transportation professionals will be required to meet new criteria.

<u>Access to Timely Information</u> - Managers will need a way to quickly access reliable, up to date information regarding training and certifications. Workers will require timely information regarding opportunities for training.

Assessment

<u>Purpose</u> - Assessment is a constant throughout everyone's career, from the initial hiring manager's evaluation of a candidate's suitability for the job, through yearly performance reviews, to the tough decisions regarding promotion, demotion, or termination. Occupational Testing, an outgrowth of psychological research into personality and personality disorders, is a field that has grown steadily since it was first used by the U.S. military in WWI (Anastasi:1998). It has become an important part of an effective personnel program in private industry as well as the military and has evolved from a narrow focus of educational and vocational planning to a tool to enhance self-understanding, thus enabling the employee to make better career choices and contribute to the formation of his career development plan.

An effective career development plan incorporates assessment at several stages and for different reasons. For the clearinghouse project to be effective, a skills analysis should be made by the employee and verified by the manager. This would establish a baseline from which safety training can be planned. Optional personal interest measurements may be offered to insure suitability for any planned career move and to increase employee satisfaction. Any development plan should have measurable goals. Once those goals are determined, measurements can be put in place to determine the completeness and effectiveness of the plan.

<u>Methods</u> -   Different assessment needs demand different tools. To be of value, any assessment tool used must be valid, unbiased, and honest. Evaluation of results should be done in conjunction with interviewing and firsthand observation of the person at work, and judgements should never be made solely on test results.

Assessment tools must be carefully chosen and must accurately predict performance on the job. In addition, the selection of an assessment tool must adhere to legal guidelines to reduce the chances of employment discrimination lawsuits. Some of the tools commonly used by career counselors and more fully described in Appendix A are:

- Myers-Briggs Trait Indicator (MBTI)
- Strong Interest Inventory (SII)
- Differential Aptitude Tests (DAT)
- Campbell Interest & Skills Survey (CISS)

Alternative Learning Methods

<u>Traditional</u> - Learning can be formal or informal. Informal learning can take place on the job or through working with a mentor. Instructor led training in a classroom setting is the most traditional form of formal learning. It usually takes place in a setting away from the job site and removes the employee from work-related distractions. It allows for questions and answers and immediate feedback and offers valuable networking opportunities. The main drawback to instructor-led classroom training is the expense involved, from the instructor's salary to location rental, travel expenses, and time lost from the job. Inconsistencies in the quality of the training when different instructors are used can also be a problem.

<u>Innovative</u> - Videos, computer based training, and video conferencing have been available for several years. Some of the most innovative videos have been created to transfer knowledge from one very experienced worker to others that are new to the job or who may come on board after the specialist retires. Creation of high quality videos that are very job specific can be done for under $3000.

E-learning is rapidly becoming the method of choice for large companies trying to control training costs. These systems are web based and require mastery of the material before the trainee is allowed to move on. IBM is one company that has developed a very extensive and effective learning library.

Learning Management systems are high budget options and can include skills assessments, gap analysis, tracking and compliance, courseware, testing, and report generation. Some systems even include authoring software to design custom courses. The chief advantage of these alternate electronic learning methods is that learning can take place at the student's convenience and at their own pace. Valuable time can be saved by allowing the student to skip the training material that he has already mastered elsewhere.

One of the innovative ways to foster learning was adopted by the FHWA in 2000 when they began to actively support and encourage Communities of Practice (CoP) throughout the agency. Communities of Practice are highly effective ways for organizations to continuously learn. While informal, one-on-one knowledge sharing has always existed, Communities of Practice expand on this by capturing the knowledge and making it available to all via shared data bases and intranet web sites where problems can be aired, questions asked, and responses given by knowledgeable parties. This is especially important in assisting new staff in new roles to quickly become productive by accessing the institutional knowledge base.

<u>Employee Preferences</u> - It is not surprising, given human resistance to change, that the most preferred learning method is traditional classroom training. This is substantiated by the Workforce Development for Transportation Safety Survey (Leiphart & Ngo). As younger workers come on board with increasing computer experience, some of the

resistance to e-learning is diminishing, but the survey found that the majority of transportation workers are only willing to participate in training during working hours.

Reality - Improved learning methods, shrinking training funds, and smaller workforces make a great case for non-classroom training, but to abandon classroom training altogether would eliminate a vital networking opportunity and would not satisfy the majority of employees. The ideal situation would be to judiciously combine classroom training with supplemental e-learning, perhaps by requiring completion of on-line background courses prior to coming together in a classroom setting. This would allow students to learn the easier material at their own pace. Videos and CD-ROM or other electronic classes could be used as backup and refresher training.

Safety Training

Federal Programs - At the Federal level, the Office of Professional Development was created to be an advocate for promoting professional development throughout the transportation community. The FHWA partners with many other agencies to provide training throughout the transportation community. Most notable are NHI, the training arm of the FHWA, the Transportation Curriculum Coordination Council (TCCC), American Association of State Highway and Transportation Officials (AASHTO), and LTAP and TTAP centers.

Local Technical Assistance Programs & Tribal Technical Assistance Programs - Sponsored by the FHWA, these centers exist in all 50 states and Puerto Rico. Each center offers low-cost, efficient solutions that meet the specific needs of their local transportation community and provide access to their libraries of periodicals, manuals, reports, videos, and CD ROMS.   LTAP centers are renowned for successful Roads Scholar and Safety Circuit Rider programs.

Colleges & Universities - Degree programs and specialty training exist for engineers and planners preparing to enter the transportation field. Some programs offer a unit on safety, but no program currently exists that is devoted solely to highway safety.

SUMMARY OF THE WORK PERFORMED

Phase I: TSPDC Survey

SURVEY DISTRIBUTION: At a regular monthly FHWA New Jersey Division staff meeting, LTAP gave a Power Point presentation summarizing the initial findings of the literature review and outlining the proposed database solution to track transportation professional training in New Jersey via an on-line training database tool. At the conclusion of the presentation, surveys were distributed to the audience for the purpose of soliciting information regarding the type of information that should be included in the database. Surveys were also e-mailed to staff members that were not in attendance.

METHOD OF TABULATION: Results were tabulated separately for supervisory and

non-supervisory personnel. If they differed significantly, that difference is mentioned in the analysis. If no distinction is made, both categories were combined for the report. Analysis of the results yielded the following information:

CONNECTIVITY (E-mail and Internet access): As expected, all FHWA NJ employees have access to e-mail and to the internet at work and most, if not all, also have access at home, suggesting a fluency and high degree of comfort in using web sites and computer programs. This "computer literacy" will facilitate access to the Clearinghouse website and suggests few, if any, difficulties entering and retrieving information on the part of the user.

The survey returned some surprising and conflicting results regarding unique identifiers, such as an employee number. Although all agreed that a unique identifier did exist for everyone in their agency (with the exception of one respondent who pointed out that Social Security Numbers are not necessarily "unique"), half of the respondents reported that the identifier used was the SSN while most of the remainder believed that an Employee Number is used. One respondent claimed that the identifier consisted of Last Name preceded by first initial of First Name. Respondents responsible for supervising others were split on this as well. This discrepancy may be the result of the questionnaire wording, which offered "Employee Number" as an example of a unique identifier. For this agency, the Employee Number may in fact be the Social Security Number.

Half of the respondents agreed that the same ID should be used in the Clearinghouse tool while the other half had no preference or disagreed. Those that did not think it wise to use the same identifier in the tool believed that the identifier used is the SSN. This is reflective of a growing trend in the USA to move away from using SSN for anything other than financial/income records.

ASSESSMENTS: Supervisors were unanimously in favor of offering <u>Personality Assessments</u>, while non-supervisory personnel were evenly divided about its usefulness. Enthusiasm for <u>Interest and Ability Assessments</u> was high or neutral for both groups. Several suggestions were made for other types of assessments that could be offered:

1. Peer exchange/360 degree feedback
2. Competency assessments for specific positions
3. Current skills measured against core competencies for future/desired positions
4. Succession Planning Assessments

Most felt that assessments should be optional, but one of the two respondents that felt they should be mandatory indicated that if not mandatory, people would not use them. In line with the choice of optional assessments was also the belief that sharing results with the manager/supervisor should be at the discretion of the employee. Those with

differing opinions indicated that assessment results should go to the employee and manager simultaneously.

FIELDS CHOSEN BY ALL	FIELDS CHOSEN BY 50% OR MORE	FIELDS CHOSEN BY FEWER THAN 50%	FIELDS NOT SELECTED
Name	ID#	Birth month/day	Job Code
E-mail address	Agency	Department name	Department Code
Job Title	Manager/supervisor name		
Workshops & Seminars attended	Education level		
Classes Taken	Degrees		
	Certifications		
	Licenses		
	Renewal dates for licenses/certifications		
	CEU information		
	Classes needed for current job		
	Classes needed for IDP		

Table 1- Information to include in employee database

FIELDS CHOSEN BY 80% OR MORE	FIELDS CHOSEN BY 50-70%	FIELDS CHOSEN BY FEWER THAN 50%	OTHER TRAINING SOURCES SUGGESTED BY RESPONDENTS
NJ workshops, seminars, & showcases	Classes at other colleges & universities	ATSA offerings	USDA Graduate School
Out-of-state workshops, seminars, & showcases	ITE offerings	APWA offerings	On-line services
Classes at Rutgers	NTI offerings	HRDI offerings	Skillpath
FHWA offerings			AMA
NHI offerings			Professional societies
Subject Matter Experts			

Table 2 - Training opportunities to represent in database

Training Opportunities & Restrictions: It was no surprise that this group almost unanimously selected FHWA and NHI as good sources for training. They also had a high regard for SME (Subject Matter Experts). Additional sources for training were recommended and will be included in next version of the questionnaire. The most frequently reported sources of training information were websites and direct mail from sponsors of the training and word of mouth. Less frequently reported were internal memos or newsletters, communication from managers, and CAIT-LTAP newsletter. One respondent listed LADS as a source of training information.

More than half (60%) of the respondents reported that they often or usually learned about training opportunities too late to participate, while the remaining 40% did not have a problem. Many factors contributed to the decision to take advantage of a training opportunity.

Opinions on whether the agency had a limit on training hours were pretty evenly divided among three categories for both supervisory and non-supervisory personnel. Thirty percent felt that training hours were unlimited; 40% believed they were flexible according to agency needs; 30% did not know what the agency policy was.

Half believed that the nature of the training would dictate if prior approval was necessary while 30% indicated it was always necessary. Approval is obtained either through a Learning Management System (LADS) or verbal or e-mail confirmation. Respondents with supervisory responsibilities differed in opinion with two indicating that prior approval was <u>always</u> necessary and one indicating it was <u>seldom</u> necessary.

Half reported that they are able to obtain desired training within 6 months while the others found they sometimes wait 6 months to over a year. This may vary because of the nature of the training needed or it may be a function of late notification. All agreed that for FHWA, travel restrictions are flexible.

Mandatory Training: Mandatory training appears to occur infrequently (less than once per year) and when it does, the time frame for compliance can vary according to the mandate but usually is expected within a year. There was no consensus about whether funding for mandatory training occurred within or outside of the annual training budget, but this result was not unexpected given the uncertainty of whether there was a limit on yearly training.

Preferred Days and Times for Training: No clear preference occurred for full day, morning only, or afternoon only training, but Thursday emerged across the board as a favorable day for training to occur. Friday and Monday were days least preferred for training.

Types of Training: As with many other studies conducted with private and public sector employees, Traditional Classroom Training was the first choice for most respondents, although some selected Workshops and Interactive Web-Based training as their first choice. Workshops came in as the overall second favorite method, with Conferences and Interactive Web-Based training virtually tied for third place. Least preferred training methods were books and self study/correspondence (write-in choices) and CDs.

Reporting: Respondents with supervisory responsibilities showed more interest in the reporting capabilities of the Clearinghouse. Comments indicated that respondents saw the Clearinghouse more helpful as a management tool than for individuals, again because of LADS.

Other Comments: Comments generally reflected a reluctance to duplicate information in LADS but looked to the Clearinghouse to supplement LADS with information on courses that don't appear in LADS. Items that were specifically requested were:

1. Send out notifications at least 1 month prior the event date
2. Send an e-mail reminder of course date
3. Provide links for course registration
4. Future plans to include CAIT-LTAP review of courses offered

Summary

The FHWA population should have no problem connecting to and using the Clearinghouse web site but may be reluctant to do so because of LADS and the perceived duplication of effort and benefits. Introduction and training for this system needs to clearly demonstrate its advantages for individuals as well as managers. Since limited training hours and travel restrictions appear not to be a factor, searching for appropriate courses for FHWA participants will need to be handled differently than for state and local participants. Once the project expands from the "core" to the "enhancement" level, assessment offerings should be expanded to include more specific job related competencies and identifying candidates for succession planning.

Future versions of the questionnaire should include training sources suggested by the respondents of this first version: USDA Grad School, Skillpath, AMA, On-line Services, and Professional Societies. The last two options should include a request for specific sources.

The LTAP staff also worked with transportation managers to provide strategies for organizing professional development opportunities for personnel. Technical support was provided to local transportation agencies through the publication of professional development articles that were featured in the NJ LTAP electronic newsletter. Finally, a tracking system was developed for determining the progress of users through an on-line database that is accessible to transportation personnel as well as training providers.

Phase II: Local Professional Development Corner

As an outgrowth of the literature review, the Professional Development Corner was launched in May 2005 as a regular feature of *the Just the CAIT-LTAP Fax* newsletter. Mentoring was the most popular topic to be addressed. These articles included attributes of a good coach, the fast track to management, finding a mentor, asking for help from a mentor, and what is in it for a mentor. Several articles were written about the work force crisis that is affecting the transportation industry, while alternative learning methods were described to the readership. Other professional development articles included team building and work-life balance. Lastly, the safety forum "Driving Down Deaths" was highlighted as an important safety training opportunity.

**Professional Development Corner Articles in Percent**
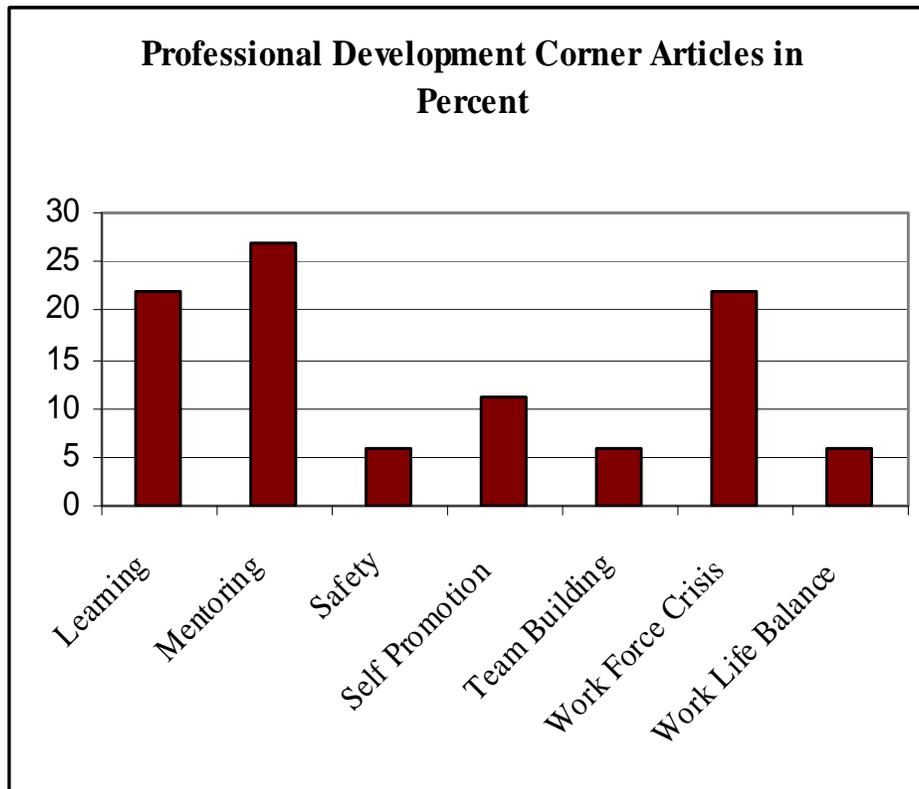
Figure 1.   Percentage of Professional Development articles by subject

Phase III: Transportation Safety Professional Development Clearinghouse (TSPDC) Website

The Transportation Safety Professional Development Clearinghouse (TSPDC) website is a data clearinghouse which centralizes information about training events and trainees of both the public and private sector. Users log into the system with a specialized password and are allowed different access privileges depending upon their level of membership and the needs of that level. For example, trainees are able to view upcoming course information as well as their own trainee profile and training history, but they are allowed to update only their own information. Training centers can update their own training class information and can view reports that indicate where training needs exist, but do not have access to individual trainee records. Agencies such as NJDOT have the highest level of privileges and can obtain all reports generated by the system.

Figure 2. Clearinghouse welcome screen

This online resource enables users to archive and track training for transportation safety professionals. Managers are then able to track training needs and obtain reports on training needs, as well as specialized information.

Trainee Main Page

This website contains several features that appear below:
- Self registration via website
- Edit and update personal information
- Manage training history
- Track upcoming training/certification requirements
- View required courses for the current or target job title
- Browse the prospective course data base
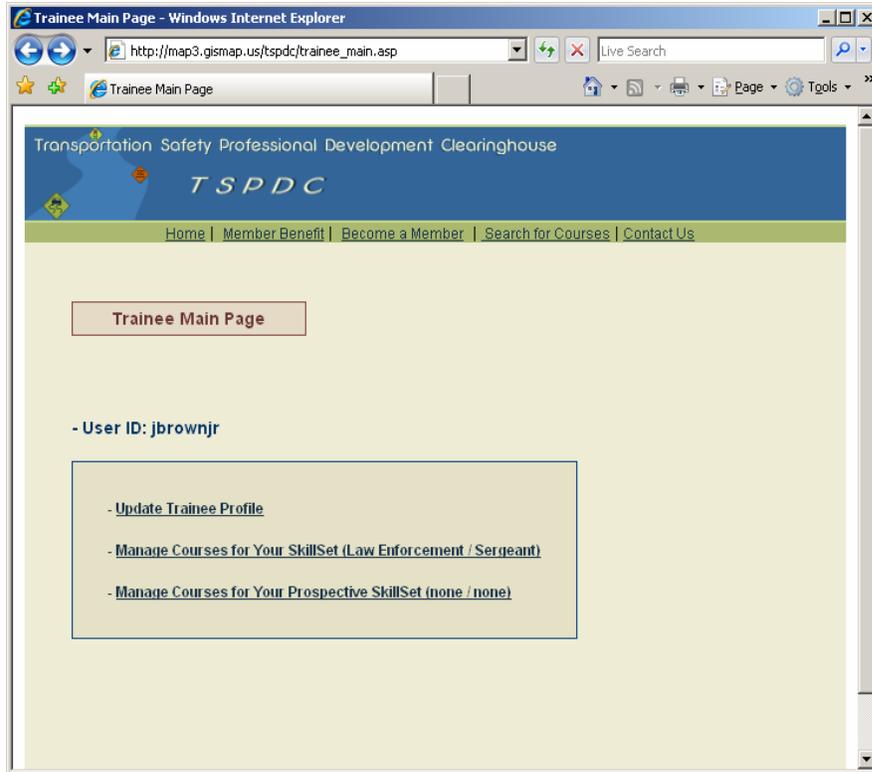
Figure 3. Trainee main page
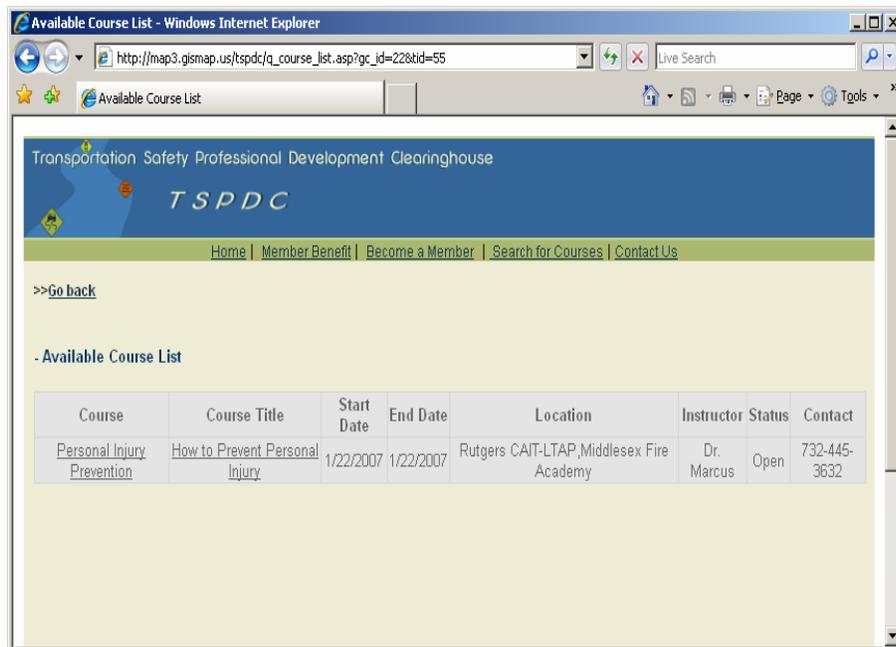

Figure 4. Display of an available course
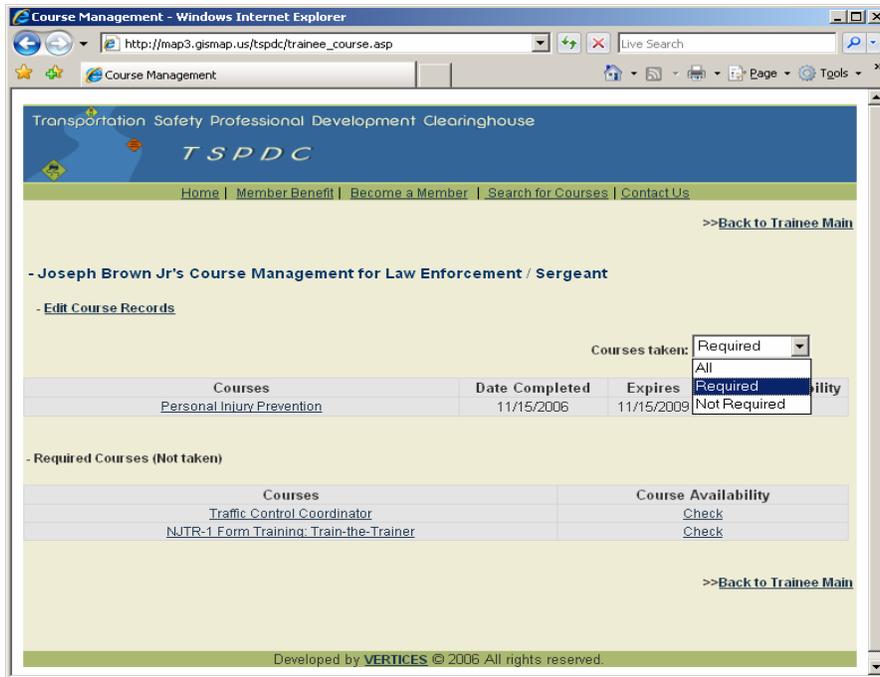
Figure 5. Completed and pending courses
for a trainee
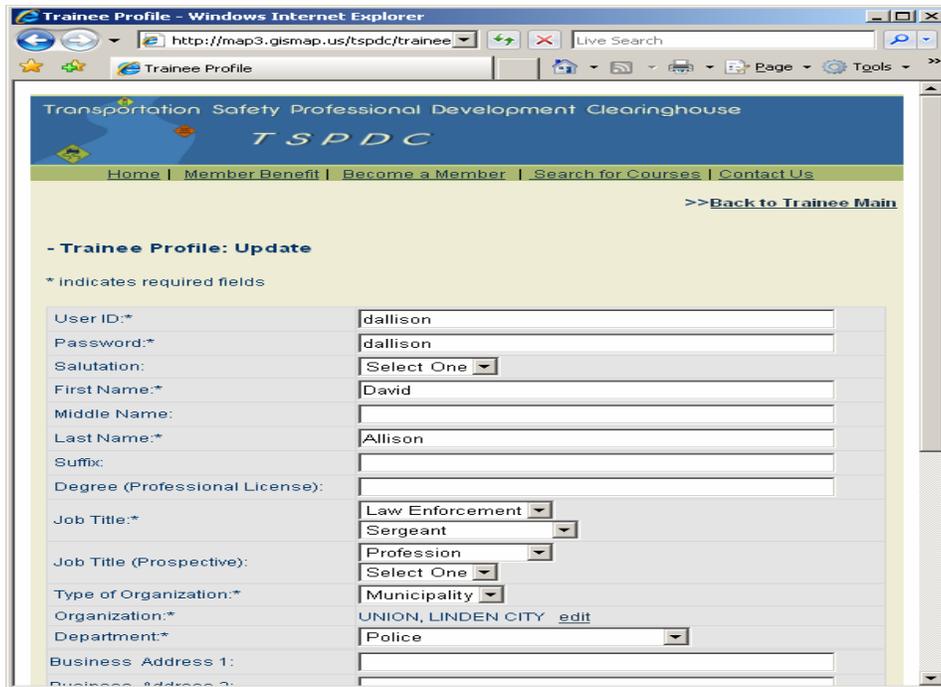
Figure 6. Trainee profile update page

Figure 7.   Initial trainee registration screen

Training Center Level Main Page

The Training Center main page contains a training center profile and enables the administrator to add and edit upcoming training events, update the event status, archive past training events for review, and assess training needs through tables, graphs, and spatial visualization (GIS) applications.

Figure 8. Training Center course list
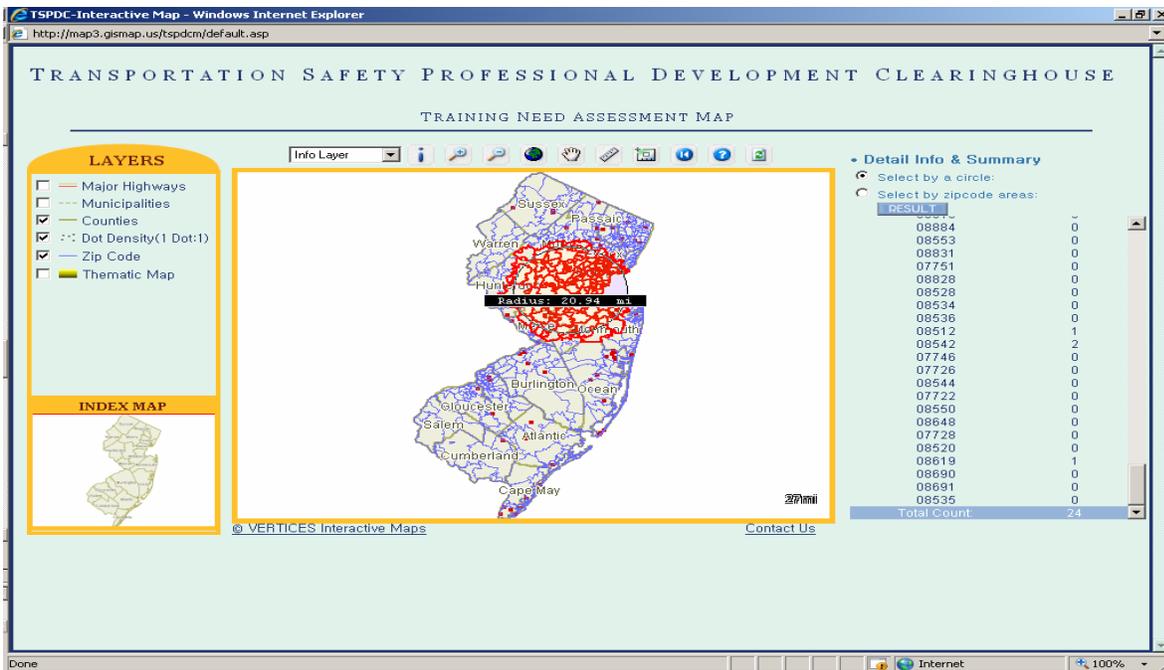
Figure 9. Training center report showing location of training
needs by zip code
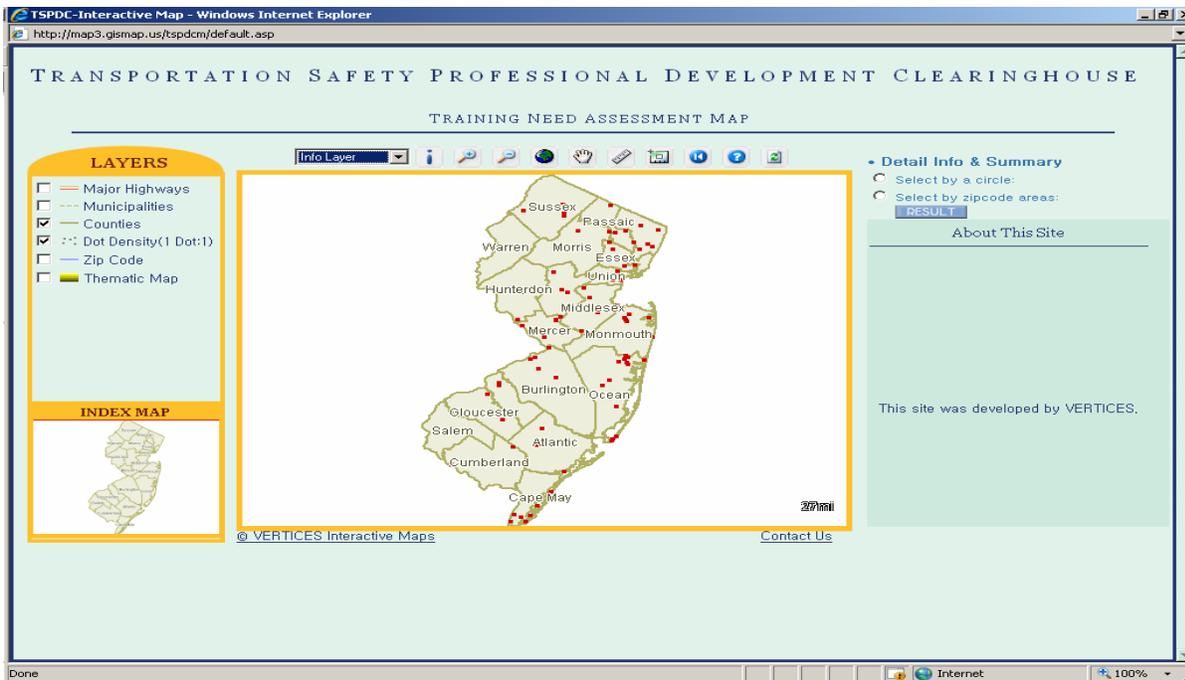
Figure 10. Training center report showing training needs
by county (map)
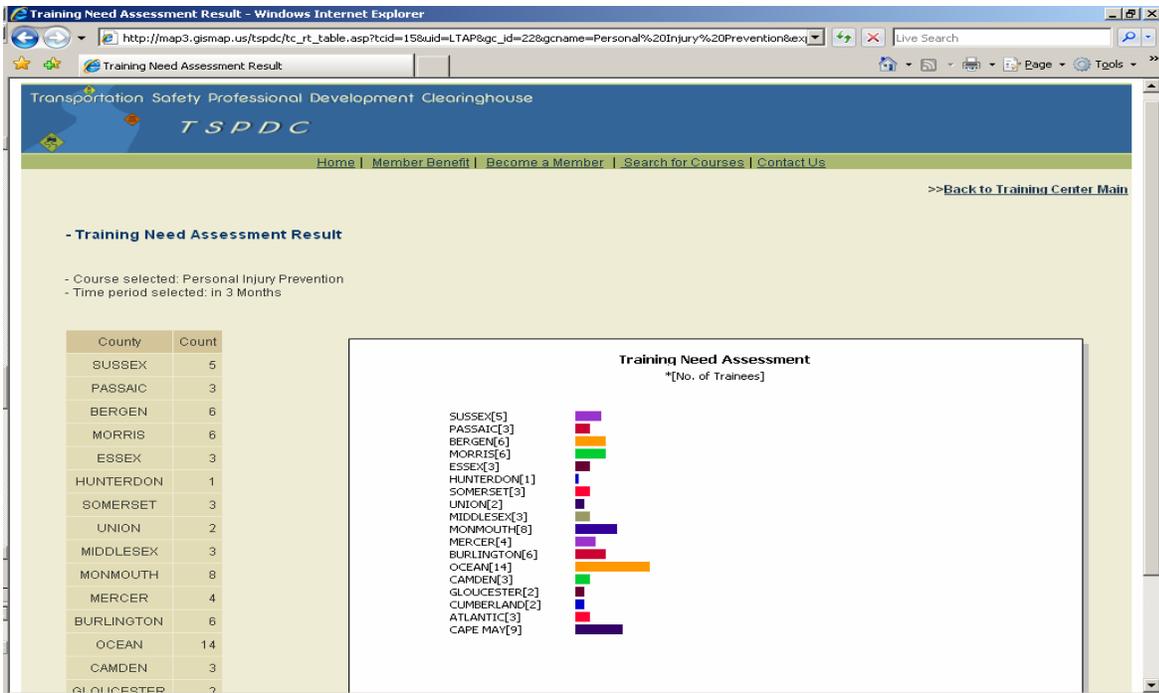
Figure 11. Training center report listing training needs
by county (numeric/bar graph)

Figure 12. Course edit screen for Training Center

Figure 13. Course entry screen for Training Center

Figure 14. Training Center profile update screen

Department Level Main Page

The Department Level Main Page enables the administrator to edit and update department information, manage staff profiles, and assess training needs.
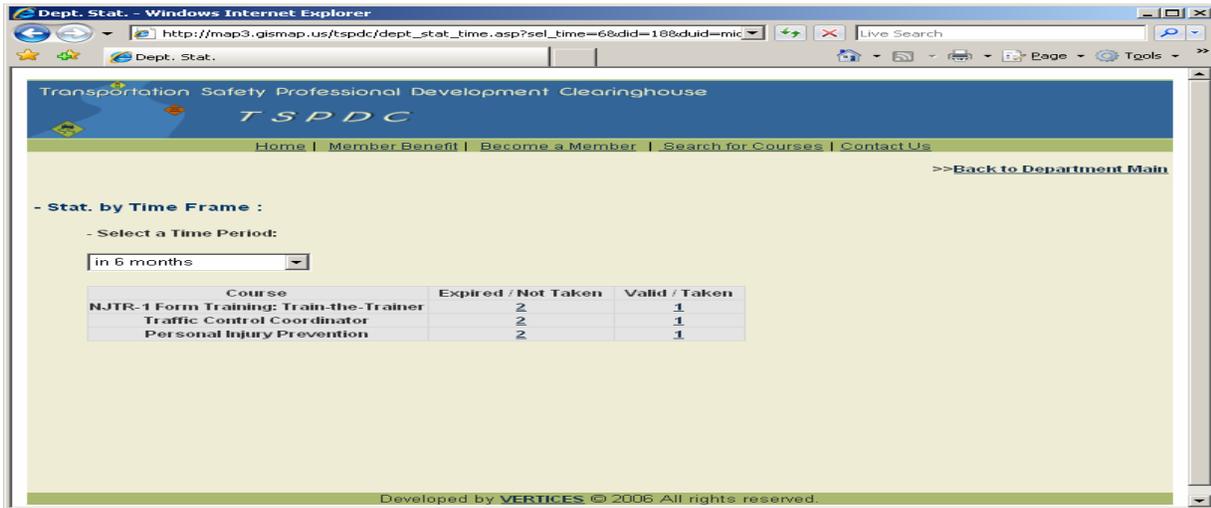
Figure 15. Report showing training needs by course
within a department

Figure 16. Department staff management screen

Figure 17. Department profile update screen

Agency Level Main Page

The Agency Level Main Page enables the administrator to update agency profile, using the highest level of access and permissions. Professions and job titles are updated, along with course requirements. Also, this main page provides information on statewide and local safety training status, areas where more training is needed, and training history graphs.
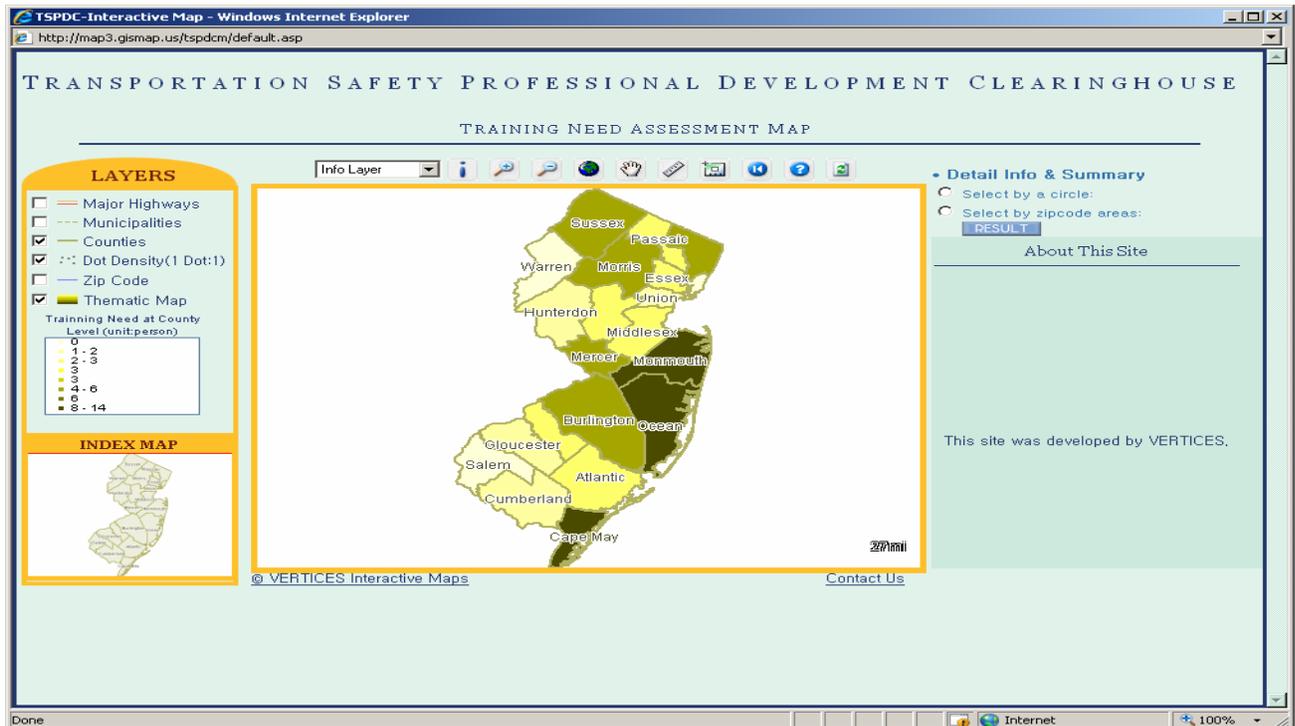
Figure 18. Report selection screen for Agency
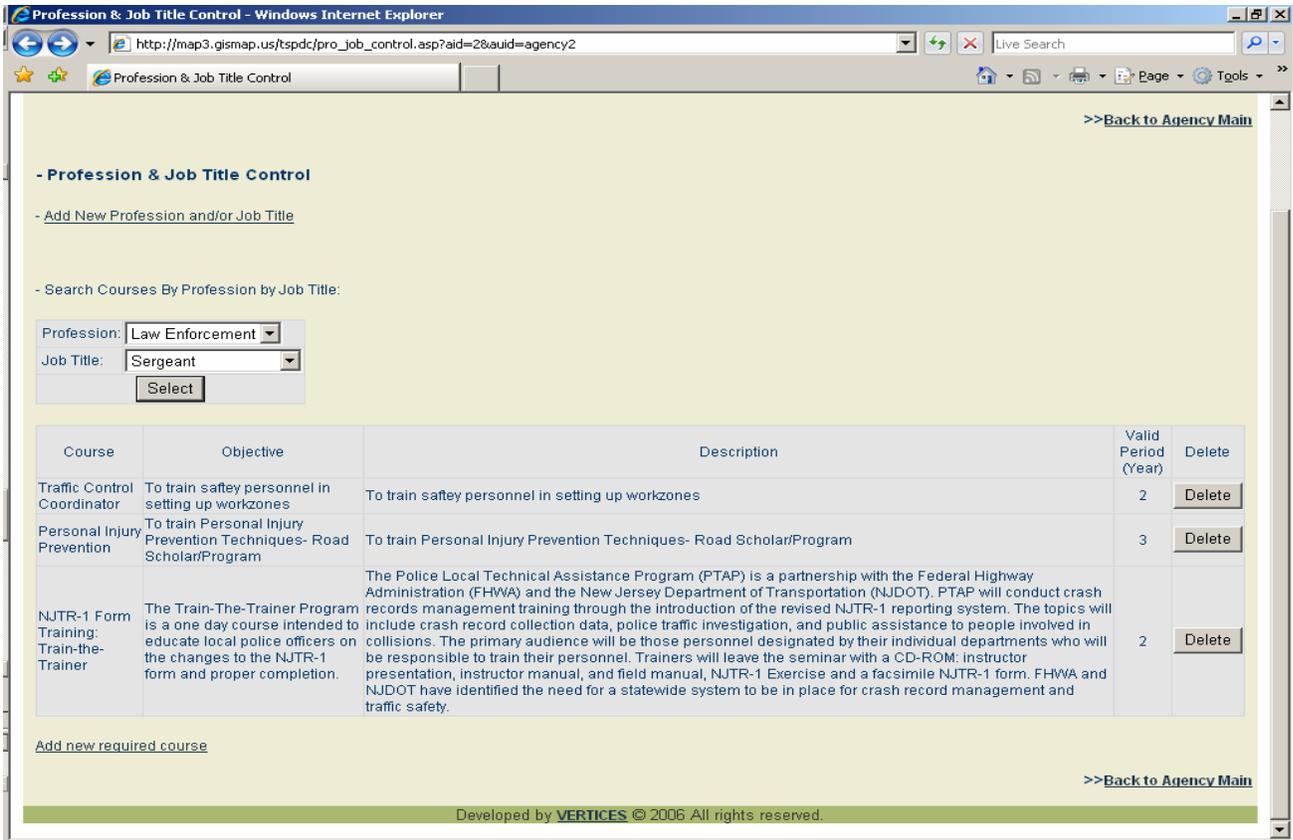
Figure 19. Required course update screen for profession and job title
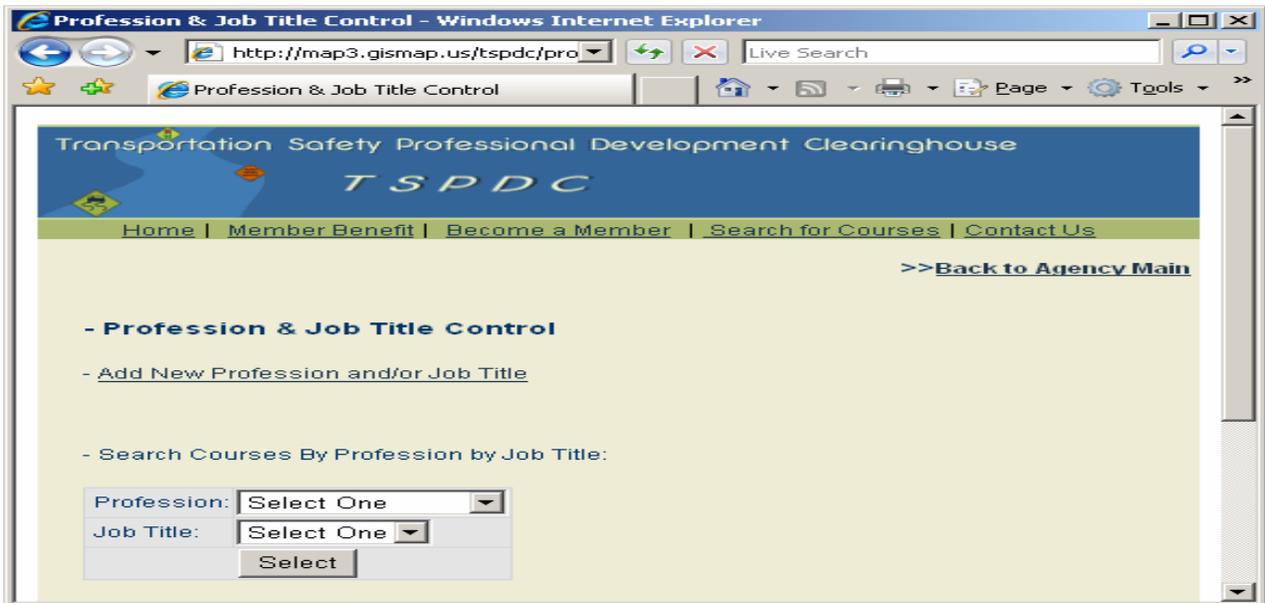
Figure 20. Profession and job title control screen
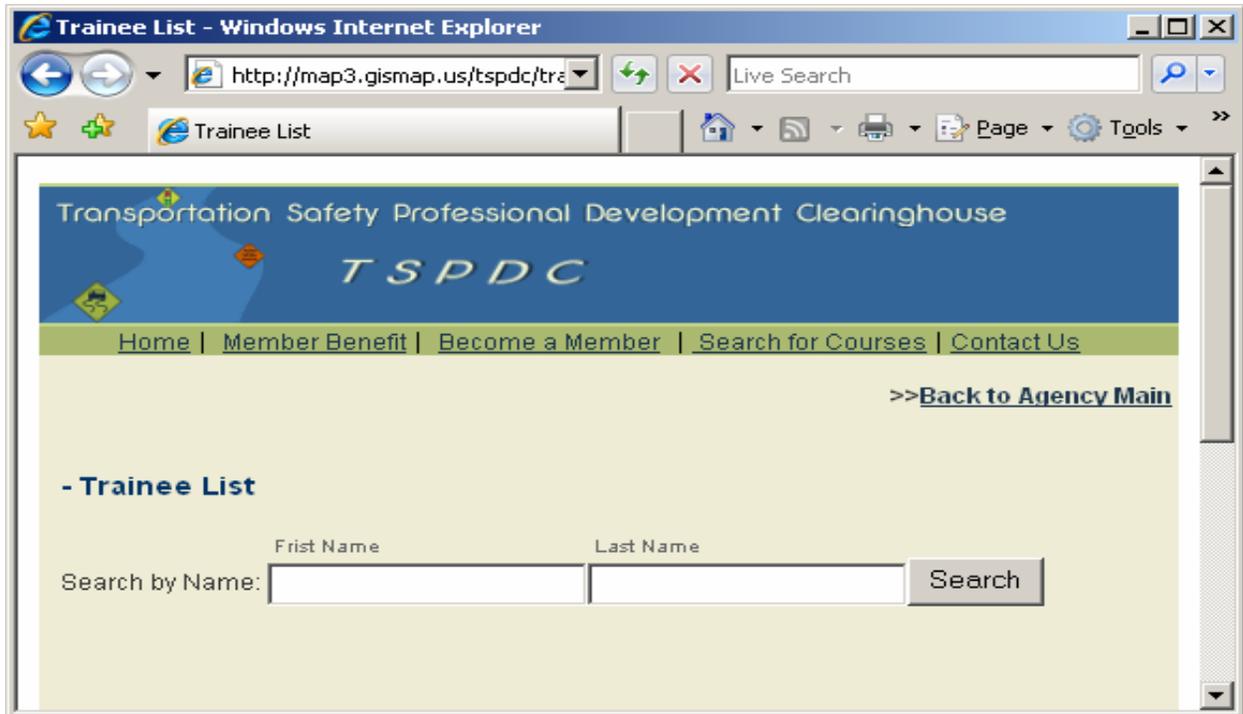
Figure 21. Name search of trainee list
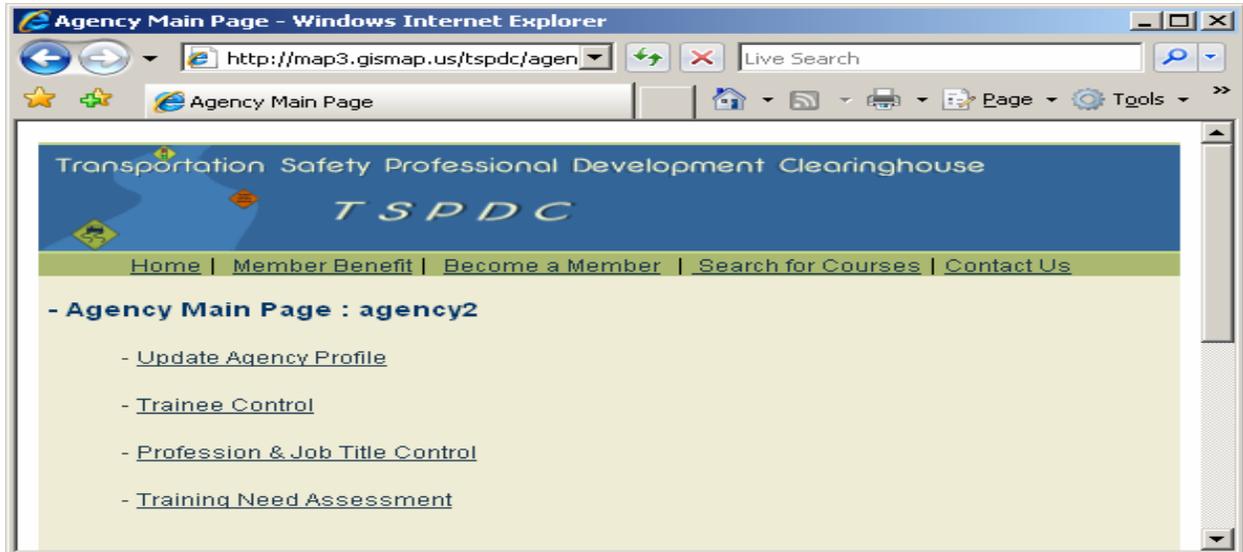
Figure 22. Options available at agency level

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the Transportation Safety Professional Development Clearinghouse (TSPDC) is capable of providing the critical function of connecting transportation safety professionals from both public and private agencies with the appropriate training sources. It can be used by managers to plan and budget for projected training needs within their departments.   Lastly, this tool identifies where targeted training should be conducted to supplement the skills of the transportation work force, promoting safety education, a critical component of the 4E's that reduce highway fatalities.

IMPLEMENTATION AND TRAINING

Full implementation of the clearinghouse tool will require additional effort and manpower to determine the appropriate required and recommended courses for all profession and job title combinations within the transportation industry.   Availability of the tool will need to be publicized and departments and training centers encouraged to actively use it. Some training may be required for Agency users as well as Training Centers regarding the various report formats and options that are available, but users at the Trainee and Department level should find the screens easy to negotiate and intuitive.

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State of the Art in Business

Career Development

OVERVIEW: World Class companies, determined to continue their success in the future, all recognize the need to commit themselves to career development. Employee development is seen as a strategic investment and one that must be nurtured. To be successful, employee and manager must be equally committed. Career planning begins with an assessment of needs in terms of corporate strategic goals and individual employee desires, strengths, and weaknesses. Development should be available for all employees and several different training methods can be employed. In addition, development programs should be used to address problem conditions or behaviors that negatively affect productivity. The trend in business is to develop a high level training strategy that is a structured, planned effort to develop employees. Since training funds are scarce, there is increasing emphasis on assessment, not only of mastery of the skills taught, but of application of learned skills.

According to contemporary "pop" management culture (Nelson & Economy:1996), career development/employee development is one of the most important jobs that a manager has. But employee development requires effort, time, and commitment from **both** the employee and the manager. To be truly effective, it must be ongoing, not just addressed once a year. Also critical to success is the employees' sincere desire and drive to develop themselves since they alone have the power to "develop". Attention to the job at hand is critical since statistics show that 90% of employee development occurs on the job.

Why is career development important, and why should a manager want to spend the time?
- Improve efficiency/productivity
- Pinpoint deficiencies and their causes
- Increase employee motivation
- Anticipate/prepare for the future
- Cross-train personnel
- Succession planning

In addition to meeting future needs of the organization, career/employee development is crucial to motivating employees and improving/maintaining employee morale. Investing in employee development contributes to an individual's sense of self-worth and the belief that he is valued by the company. Combined with other needs satisfiers, it can make the difference between an unhappy employee who is looking for a chance to jump ship and one who is excited about his work, the company's success, and his potential for growth within the company.

Effective employee development requires thought, planning, and an honest, unbiased assessment of the employee's current skills, interests, talents, and areas that need improvement. This unbiased assessment is critical in order to formulate realistic and meaningful goals. It allows the employee to discover opportunities previously not considered and helps him reach a better understanding of himself. An assessment of personality traits can identify the personal needs that must be met to contribute to his happiness. Happiness has a positive effect on the immune system and leads to less stress and job satisfaction. Job satisfaction is the foundation required to build high morale and increased productivity (Kleiman, 1994).

Once the preliminary work is done (a.k.a. assessment), defining realistic goals is the next step in creating a Career Development Plan and must be a joint effort by the employee and his manager. To be accepted by management, the employee's goals must support the strategic goals of the company. Guidance from the manager in this matter is essential.

Career Development Plans need not be complex, and are actually best kept simple but they do require the following fundamentals:

- Specific learning goals
- Required dates of completion for each learning goal
- Employee and management agreement on clear standards to measure completion
- Resources to achieve the goals:
    - Team Assignments
    - Job Shadowing
    - Stretch Assignments
    - Formal Training

Career Development begins when the employee identifies areas where training or experiences will help make him more productive. Managers must be alert to development needs of the employee and watch for development opportunities. In addition, the manager must be astute in forecasting future business needs and identify development that must take place to meet those needs. This requires an understanding of corporate goals and behavioral needs.

Once the goals are defined, the tasks or training necessary to reach those goals are listed in the career plan. Then it is up to the employee to follow the plan. The manager should do all he can to enable the employee to remain on schedule.
The employee is the only one who can actually effect his own development, but the manager can positively affect its outcome by taking the following steps:

- Meet with employees and listen to their personal goals
- Discuss their strengths and weaknesses
- Assess current skills/talent/potential

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- Create a career development plan together with the employee
- Follow through on agreements and check employee progress regularly
- Reassign work if necessary to allow time for development
- Conduct formal discussion 4 times/year

Although training is an integral part of employee development, it is not synonymous with career development. Training can occur outside of career development simply to bring a new employee "up to speed" or to bring employees on board with new policies and procedures. Training is very often "now" oriented and mandatory and the delivery method is often informal OTJ (On the Job) training.   Employee development, on the other hand, is future oriented and voluntary.   It consists of formal and informal education, assessment of personality and abilities, and takes into account job experiences and job relationships. However, as the focus of training becomes more strategic and linked to corporate goals, the distinction between training and development may become less evident.

The need for ongoing training is recognized by Jennifer M. George and Gareth R. Jones (1999). They refer to training as a "top priority in the struggle for American companies to maintain competitiveness in the global economy." These thoughts are echoed by authors Noe, Hollenbeck, Gerhart, and Wright (2000) as they illustrate how companies are considering using training to gain competitive advantage. Both sources quote figures that US companies lag behind Japanese and European counterparts by one third to one half when it comes to investing in training. This is often cited as a reason why foreign competition is gaining market share.

As training becomes more important for all types of workers to retain a company's competitive edge, so too does career development, particularly when the goal is to preserve the investment by retaining well trained and motivated workers. Employee development can be used effectively with management as well as non-management staff by selecting appropriate training methods for each unique situation. There are three basic types of training methods (Boone & Kurtz:1999):

- **On The Job Training** - Involves guidance and supervision by experienced employees
- **Apprenticeship** - Similar to OTJ above, but the new employee is considered an "assistant" to a trained worker for a specific period of time. This is more common in Europe than in the US
- **Off The Job Training** - Includes instructor led, group learning environments and self-paced individual learning opportunities
  o Classroom instruction
  o Lectures
  o Conferences
  o Audio Visual Aids
  o Programmed Instruction
  o Specialized machines
  o Benchmarking

- o Distance Learning
- o CD ROM/Web Based Training

Because resources are scarce and competition is fierce, the trend in employee development is to employ a **high level training strategy** (Noe, Hollenbech, Gerhart, & Wright:2000). Training is understood to be "a planned effort of a company to facilitate employee learning of job related competencies, knowledge, skills, and behaviors that are critical for successful job performance." The goal of this **high level training** is not only mastery, but application. It becomes the manager's responsibility to insure that the employee has the opportunity to apply the newly acquired skills.

As part of this high level training strategy, training must develop a broader focus of sharing newly acquired knowledge. This is known as **high leverage training** and it contributes toward gaining that competitive edge by creating "intellectual capital".

Intellectual capital represents the company's ability to preserve what is learned over time and consists of:

- Basic skills (to do the job)
- Advanced skills (use technology to share information)
- Understanding of the customer/system
- Self motivated creativity

Preserving intellectual capital is important because forecasts indicate that 85% of jobs in the US will require extensive use of knowledge. (Noe, Hollenbeck, Gerhart, & Wright:2000) As knowledge increases, more skills are needed to manage and utilize that knowledge. Some companies publish "informational maps" internally to identify where and with whom specific knowledge resides.

World class, high energy companies with a high level training strategy become "learning organizations" (Noe, Hollenbeck, Gerhart, & Wright:2000). These organizations have the following characteristics:

- High leverage training - uses tools to assess training effectiveness
- Employees continually try to learn new things and apply this knowledge to improve output

The company itself has an enhanced capacity to learn, adapt, and changeExcept for the intense effort to preserve and make available intellectual capital, the steps involved in designing an effective, high leverage training system are not so different from the basic approach to employee development discussed earlier. Noe, Hollenbeck, Gerhart, and Wright (2000) advocate using a systematic approach and an instructional design process consists of six steps:

- Conduct a needs assessment
- Determine employee readiness

- Create a learning environment
- Ensure transfer of training
- Select training methods
- Evaluate training programs

Both strategies involve a commitment from the employee and a high degree of involvement by management.

Special Challenges in Employee Development (Nelson & Economy:1996**)**

- Overcoming the "Glass Ceiling"
  - Identify causes
  - Provide additional support by establishing mentorship programs specifically for women and minorities
- Planning for Succession
  - Identify and track high potential employees
  - Involve targeted employees in fast-track development programs using a combination of methods
  - Taylor job assignments based on the successful career paths of the executive they are targeted to replace
- Developing managers that have dysfunctional behaviors
  - Identify the behaviors such as
    - Insensitivity to others
    - Poor team player
    - Arrogance
    - Inadequate conflict management skills
    - Inability to meet business objectives
    - Resistance/inability to manage change
  - Use interviews and tests to determine if the behaviors can be changed
  - Set developmental objectives
    - Coaching phase - Communicate the problem and encourage behavior modeling training.
    - Support phase - Create conditions so the manager is able to use new behavior. Provide feedback, revising the action plain if needed.

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Mentoring and Coaching

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OVERVIEW: Although mentors and coaches share the same characteristics and exhibit similar behaviors, subtle differences exist between them. Managers sometimes employ coaching as a leadership style. Even if an employee is fortunate enough to have a manager that is also a good coach, it would be helpful to acquire a mentor since the mentor can provide growth experiences beyond the documented career plan and can often provide insights to aspects of the corporation that the manager is unable or unwilling to do. Since a mentor is never responsible for employee evaluation, the relationship between the employee and mentor is voluntary and relatively stress free.

Coaching is one of four styles of situational leadership that can be used by a manager, counselor, colleague, or cheerleader. It utilizes highly directive, highly supportive behavior (Nelson & Economy:1996). A manager must be proactive in using it since employees that could benefit from coaching usually will not ask for it. Coaching involves instruction, leadership and encouragement. Coaching is an important managerial strategy which many managers are reluctant to use because it may involve confrontation, is time consuming, and may be interpreted by some employees as criticism (Noe, Hollenbeck, Gerhart, & Wright:2000).

Good coaches exhibit the following behavior:

- Assists in setting goals (and teaches employees how to achieve them)
- Supports and encourages
- Places emphasis on team success
- Quickly assesses talents and shortfalls of team members
- Inspires
- Creates environments for success
- Provides feedback
- Spend time on coaching daily
- Work slowly and methodically
- Complement and supplement the ability and experience of their employees
- Reward positive performance
- Use mistakes as a learning tool
- Remain patient
- Tailor their approach to specific needs of each team member

Effective coaches transfer their knowledge and perspective and provide context and vision by explaining WHY things are done in a certain way. They make time for people and act as a sounding board.

Mentors can also be coaches, but the significant difference between a mentor and a coach is that the mentor is not the employee's direct supervisor and is not involved in employee evaluation. Mentors also have no influence in creating environments for success on the job but can provide outside opportunities for experience and networking.

A mentor is usually a senior person in the employee's company or chosen profession. Mentorships can be formal or informal. Informal mentorships develop when the experienced, successful senior worker sees potential and takes an interest in a younger, more inexperienced colleague. Mentor/protégé relationships are usually formed based on shared interests and values. The mentor can be extremely helpful in explaining the unwritten rules of the corporation, suggesting career enhancing experiences, and pointing out dead end jobs or poor managers that should be avoided. A mentor can provide growth experiences beyond the documented career plan.

Since informal mentorship programs often occurred within the "old boy network", corporations today are encouraging formal mentorship programs that are accessible to all, particularly women and minorities. In formal mentorship programs, mentors are trained and often compensated for their time and the programs are usually of a limited duration.

Nationally syndicated employment columnist and television reporter Carol Kleiman (1994) believes so strongly in the importance of mentors as a career development aid that she advises readers to secure their own mentor if no formal mentorship program exists within their company. If the employee is unable to find someone with the time and inclination to take on this responsibility, then she suggests they "create a composite mentor" by asking several people in the organization or profession to advise them on a particular aspect of their career.

Addendum: At the executive level, executive coaching has become a standard component in leadership development training in many of the Fortune 500 Companies. It is used to correct counter-productive management behavior or to develop individuals identified as having high leadership potential. In all cases, the ultimate goal is to enhance productivity of the individual being coached and have a positive effect on his subordinates and others with whom the executive interacts. In short, success should be reflected in the bottom line or some other meaningful measurement in the case of non-profit organizations. To this effect, a few ROI studies have been undertaken during the last 3-4 years.

Coaching executives, particularly those that have been in very visible and powerful positions for awhile, pose some unique problems that would be best addressed by a professional coach that is experienced in recognizing and defusing issues related to the level of achievement and accompanying feelings of isolation, arrogance, and often narcissism. (Gorkin, Mark 2003)

Team Building

OVERVIEW: As organizations begin to rethink their structure and move away from the traditional top-down hierarchy, the importance and effectiveness of teams is acknowledged. Different types of teams as well as roles within teams are explored. Team success is positively correlated to the degree of team cohesiveness, and team building exercises are seen as a way to improve relationships within an existing team and shorten the time for a new team to establish itself and become effective.

A team is a group of workers with complementary skills committed to achieving a common objective.

Several kinds of teams exist within an organization. Some occur spontaneously as people with similar interests gather together. Other teams are formed with a specific purpose, as when a particular problem needs to be solved, and are disbanded once the

goal has been achieved. A trend over the past 15-20 years has been to restructure organizations from a top down hierarchy to a flatter organizational structure composed of functional units or teams. This has worked particularly well for innovative, start-up companies like PeopleSoft and Saturn Corporation (Boone & Kurtz:1999).

Established organizations can benefit from restructuring by eliminating costly and delay-inducing layers of management. Time to market is reduced, quality is improved, innovation is encouraged, and employee morale is heightened as teams are empowered and team members realize the value of their input. British Petroleum is one example of a successful transition from a bloated, struggling company to a smaller, more nimble, and more profitable industry leader made possible by converting to a team structure (Boone & Kurtz:1999). Another success story is GE's washing machine complex in Appliance Park, Kentucky (George & Jones:1999).

Teams may be relatively permanent, as with **Work Teams**. These teams usually consist of a small number of people with complementary skills. Members are often cross-trained to perform each other's jobs. Permanent work teams are most effective if they are **self-managed**, that is if they have the have the authority to:

- Select their team members
- Make decisions
- Spend money
- Solve problems
- Evaluate results
- Plan future projects

Problem Solving Teams are most effective if they are cross-functional, bringing together a variety of people with different perspectives.

Team characteristics can vary according to:

- Size – Most teams consist of fewer than 15 members, but can range from 2-150 people. Maximum results are achieved by teams with about 7 members. Any team having more than 20 members should probably organize themselves into sub-teams.
- Team Roles
  - Task specialist
  - Socio-emotional facilitator
  - Dual (both of the above)
  - Non-participative
- Team Diversity – homogeneous vs. heterogeneous
  - Experience
  - Age
  - Gender
  - Cultural background

- o Personality traits
- o Beliefs, attitudes, values
- Group Functions
- Group Status
- Social Facilitation

As noted previously, teams can form spontaneously (informal) or they can be management directed (formal). Informal teams spring from casual associations. They generally do not have a specific goal, but serve as an information source and can provide an outlet to vent frustrations. Formal teams usually involve a team charter, specific goals, deadlines, and structured communication.

There is also a third type of team known as a **Self-Managed Team** which combines the characteristics of both the formal and informal team. These teams usually consist of 3-30 members and are also known as "High Performance Teams", "Cross Functional Teams", or "Super Teams" (Nelson & Economy:1996). To reap the most benefits, these teams should be small (to facilitate communication), multifunctional, consist of people from different parts of the organization, and be empowered to make decisions and act on their own. Empowerment involves shifting responsibility for decision making to those closest to the problem. It is a tool that fosters employee development and results in increased innovation and customers that are better served. Many teams fail or are inhibited in their performance because of "empowerment imitators". The "empowerment" buzz word is widely used, but real empowerment is relatively rare since upper management is hesitant to trust and reluctant to relinquish its decision making function. Most teams have a 5 step life cycle according to B. W. Tuckman (1965). These stages are:

- Forming - Orientation to the team
- Storming - Period of conflict as personalities emerge and roles are clarified
- Norming - Brief period where roles and group values are accepted
- Performing - Focus is on achieving the team's goal
- Adjourning - Dissolution of the group once the goal has been attained

For many groups, the first three stages can be very difficult and it may take up to two years to reach the performing stage (George & Jones:1999). In today's competitive global environment, this delay in productivity is unacceptable. In addition, changes in team composition often result in a period of adjustment where the team moves from the Performing Stage to the Norming Stage and back again.

Clearly, it is imperative that the first three stages of the life cycle be compressed in order to realize the promised productivity of teams. There are several ways to facilitate this:

- Select team members carefully - assess their skills and experiences to anticipate their contribution to the team, and determine their ability to function in a team environment

- Allow existing teams to hire (and fire) their own members
- Utilize behavior modification training to eliminate or reduce behaviors that negatively affect team dynamics
- Conduct team building exercises

For teams to be productive, it is important to match the team to the task and select the right types of people as team members. An employee's ability to work effectively as a team member is becoming increasingly important. Valuable, talented employees unaccustomed to working in a team environment, or someone whose behavior is disruptive to a team might need behavior modification training as part of a career development plan. Sometimes it is sufficient to socialize them through team building activities.

Team Building is a common method of improving relationships within a group. It requires the participation of all the team members. The goal of team building is to improve the interactions within the group thus making the team more effective. It is especially helpful when a new group is formed because it reduces the time required to define tasks and role relationships and establish group norms and values. Team building facilitates the development of a common approach to problem solving. (George & Jones:1999)   Periodic team building experiences are recommended to maintain team cohesiveness, which is exhibited by the attraction of members to the team and their willingness to remain on board. Team cohesiveness is enhanced by frequent interaction, shared common goals and attitudes, and individuals who enjoy being together. (Boone & Kurtz:1999)

Allowing team members to interact in non-job related settings, such as those provided by team building activities, can overcome personal and cultural differences and allow team members to view one another in new ways, resulting in a heightened awareness and appreciation of the talents and strengths available within the team. Team building exercises are also helpful in resolving team conflicts and they can be structured in a way that will strengthen team norms.

Team building is more than just games and good times. It is actually training that is specifically designed to build cohesive teams and consists of group-building methods that help team members understand their own and their co-workers strengths and weaknesses. It facilitates the sharing of ideas and experiences and improves interaction among team members. Discussion is a key component of this type of training, and requires exploration of feelings, perceptions, and beliefs about the team itself. In **high leverage training** situations, team building participants develop a plan to apply what was learned to the work setting (Noe, Hollenbeck, Gerhart, & Wright:2000).

Typical group-building methods are:

- **Adventure Learning** - Usually consists of very physical, structured outdoor activities that require development of trust of other team members. It is designed to develop skills related to

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- o Self awareness
- o Problem solving
- o Conflict management
- o Risk taking
- **Team Training** - Uses multiple delivery methods to coordinate the performance of team members to achieve a common goal and may consist of
  - o Cross-training **-** Prepares team members to assist other members if needed
  - o Coordination training - Involves information sharing and decision making
  - o Team leader training - Provides training in conflict resolution and coordination of activities and skills
- **Action Learning** - A team of 6-30 employees (customer and/or vendors may be included) work on an actual current problem. Completion of the exercise requires
  - o Solving the problem
  - o Designing an action plan
  - o Carrying out the action plan
- **Trained Group Facilitator**
  - o Observes interaction of team members and identifies how team currently works
  - o Meets with team members individually to identify problems that are occurring and ways that the process can be improved
  - o Discusses observations with the group and solicits discussion that will promote group wide awareness and appreciation of the group dynamics as well as establish a platform for group members to identify and resolve problems as they arise
- **Intergroup Training -** Similar to Trained Group Facilitator but the focus is on how different functional groups or departments work together
- **Organizational Mirroring**
  - o Conflicting groups are given the opportunity to discuss perceptions and problems, with each side listening to the other task forces discuss ways of dealing with problems and develop action plans to correct situations.

Career Assessment

Overview: Assessment is acknowledged to be a critical step in the Career Development lifecycle and must meet certain criteria to be effective. Understanding personality (relatively enduring ways in which a person thinks, acts, and feels) and ability (an indication of what a person is capable of doing) is the starting point in developing a career plan, and many methods and tools exist to facilitate this understanding.

Assessment is a constant throughout everyone's career, from the initial hiring manager's evaluation of a candidate's suitability for the job, through yearly performance reviews, to the tough decisions regarding promotion, demotion, or termination. Occupational Testing, an outgrowth of psychological research into personality and personality disorders, is a field that has grown steadily since it was first used by the U.S. military in WWI (Anastasi:1998). It has become an important part of an effective personnel program in private industry as well as the military and has evolved from a

narrow focus of educational and vocational planning to a tool to enhance self-understanding, thus enabling the employee to make better career choices and contribute to the formation of his career development plan. Different assessment needs demand different types of tests. Types of assessment tools commonly used include:

- Personality Assessment
- Aptitude Testing
- Interest Inventories
- Values Testing - to determine motivation
- Psychological Tests – to predict behavior
- Objective Performance Tests
- Assessment Center Testing

To be of value, any assessment tool used must be valid, unbiased, and honest. Evaluation of results should be done in conjunction with interviewing and firsthand observation of the person at work, and judgements should never be made solely on test results.

Effective career planning should begin with an accurate assessment of personality traits and abilities. These two scales taken together represent individual differences between people.

Personality can be described as:
- Relatively enduring ways in which a person thinks, acts, and feels
- A factor that influences career choices, job satisfaction, stress, leadership potential, and job performance
- A product of both nature and nurture
- Subject to slow changes over time

Ability is often defined as what a person is capable of doing. There is cognitive ability and physical ability. Both are a product of nature as well as nurture and both can and do influence career choices.

Jennifer M. George and Gareth R. Jones (1999) reference a third type of ability known as "Emotional Intelligence" which is believed to represent the ability to understand and manage one's own feelings and emotions as well as the feelings and emotions of others. This is a critical ability for high level executives charged with company leadership. As organizations shift to team structures, the need for a high degree of emotional intelligence becomes important for all.

Career developers must be aware that both personality traits and abilities are subject to change through experiences and training. Using the appropriate tools to identify areas of potential growth is critical to employee development. Assessment tools must be carefully chosen and must accurately predict performance on the job. In addition, the selection of an assessment tool must adhere to legal guidelines to reduce the chances

of employment discrimination lawsuits. Some of the tools commonly used by career counselors and more fully described in a subsequent chapter are:

- Myers-Briggs Trait Indicator (MBTI)
- Strong Interest Inventory (SII)
- Differential Aptitude Tests (DAT)
- Campbell Interest & Skills Survey (CISS)

Once the initial assessment is made and a Career Development Plan is underway, additional assessments should be done periodically to determine the effectiveness of any training that has occurred as well as to identify other areas that need to be addressed. Effective assessment systems at this stage should be selected based on the following considerations:

- Strategic congruence - Does the employee's performance contribute to the company's strategic goal?
- Validity - Assessment method must address relevant work related aspects of performance
- Reliability - The measurement must be consistent over time and exhibit inter-rater reliability (non-subjective)
- Acceptability
    - By Managers - If the assessment tool is too time consuming, they will refuse to use it
    - By Employees - The tool must be perceived as fair on three levels
        - Procedural fairness
            - Consistent standards
            - Minimal errors
Employee and manager should develop it together
        - Interpersonal fairness
            - Timely
            - Employee must be allowed to challenge the assessment
            - Feedback given in a respectful and courteous manner
        - Outcome fairness - link to and communicate expectations and rewards
- Specificity - Provides clear guidance as to expectations and ways to meet those expectations

There should be differences between performance evaluation systems for compensation purposes and assessment for employee development, although there will always be some overlap. Some of the primary differences are that assessment for compensation often involves ranking of employees, forced distribution, and paired comparisons, while assessment for employee development focuses on how well the employee has mastered newly learned material and how consistent the development is with the company's goals.

Development of evaluation tools can be difficult and time consuming. Many consulting firms can provide Performance Management Systems that include appropriate

assessment tools. (Noe, et al:2000) Some of the assessment methods commonly used are:

- **Comparative Approach** - Utilizes ranking and rating of individuals within a group. Not suitable for Career Assessment
- **Attribute Based Performance Management Techniques** - These are the most popular because they are easy to develop and can be generalized across different strata. However, they usually have little strategic congruence and are so subjective that they have poor inter-rater reliability.
- **Behavioral Approach** - This approach utilizes **assessment centers** where individuals are observed performing a number of simulated tasks such as group discussions or role playing. They are most often used to evaluate potential management candidates. This type of assessment system is currently in use in North Carolina State Government as part of a certification program for middle managers (Noe, Hollenbeck, Gerhart, & Wright:2000)

  - Advantages
    - Objective rather than subjective
    - Provides specific feedback
    - Facilitates creation of development plans
    - Can be constructed to be strategically congruent
    - On the job analysis produces high validity
    - High level of acceptability
    - Utilizes trained raters so inter-rater reliability is high

- Disadvantages – Relatively high maintenance. Behaviors and measures must be constantly monitored and adjusted as the strategic focus shifts**Results Approach** - This approach assumes elimination of subjectivity and the belief that "results" are the closest indicators of contribution to the stated goal.

  - **MBO** - Management by Objectives is the most commonly used results measurement tool. It is widely accepted because of its high probability of strategic congruency, but it requires a substantial commitment from top management to be effective. It is characterized by:
    - Specific, difficult, and objective goals
    - Participation of managers and employees in setting goals
    - Objective feedback given throughout the rating period as progress is monitored
    - **Measurement & Evaluation Systems (PROMES) -** This relatively new tool measures productivity and provides feedback to the employee. Early results indicate that it is effective in increasing productivity but it can be time consuming to set up.
    - Advantages
      - Objective
      - High degree of acceptability (both managers and employees)
      - Strategic congruency

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- ▪ Disadvantages
  - o Objective measurements can be contaminated by things not under the employee's control
  - o Objective measurements may be deficient if some aspects of the job don't lend themselves to this type of measurement
  - o Non measurable qualities affecting job performance may be neglected
  - o Feedback may not be helpful in teaching employees how to improve results through behavioral changes

Quality Approach - Here the focus is on customer satisfaction and prevention of errors. The Quality Approach utilizes a combination of the Behavioral Approach and the Results Approach and is heavily system-focused. Both subjective and objective measures are used. Perceived advantages depend on the way a company is structured and the degree to which it is team oriented. This method of assessment is well suited to a team environment because it measures personality traits such as cooperativeness. Many managers are reluctant to adopt this method of evaluation because they have come to rely heavily on ranking and rating methods (Comparative Approach) and analysis can be complicated when feedback comes from multiple sources.

Availability & Evaluation of Personality & Interest Assessment Tools

OVERVIEW: Literally hundreds of instruments are available to measure various personality traits, behaviors, values, and vocational interests. Some are available for purchase by qualified individuals while others are used only in research. Selection of an appropriate assessment tool should be based on an understanding of how the test was constructed with respect to standardization, norming, reliability, and validity. Some of the more popular tests are listed along with information on access, delivery methods, and qualifications required to purchase and administer.

In order to accurately evaluate and interpret test results, the person responsible for selecting and administering the test must understand how the tests were constructed, what they can accomplish, and what their limitations are.

Before selecting an assessment tool, Anastasi (1988) recommends obtaining information about a particular test directly from the test publisher, researching critical reviews of the test, and reading the manual that accompanies each test. The publisher's catalog will provide information regarding cost, testing time required, delivery method, and the speed and ease of scoring. These are important factors in making a business decision regarding the test. In order to determine the appropriateness of the test for the population to be tested, the administrator should review the manual for detailed instructions on administering and scoring the test as well as information pertaining to test construction.

The test manual should include information on the following:

- Standardization – Test instructions should clearly spell out the materials and conditions required, how instructions and demonstrations are to be given, and methods of handling questions from the test takers
- Norms - How they were developed and the standardization sample used
- Objective Measurement of Difficulty - What measures were taken to assure objectivity in designing the test questions?
- Reliability - How was consistency of scores determined?
- Validity - The extent to which a test is said to measure a trait or theoretical construct

Understanding and evaluating the considerations listed above requires a certain level of expertise especially to guard against selecting an instrument on face validity alone. The person who selects and administers the instrument should have had some training in psychological tests and measurements. For this reason, and for ethical considerations, purchase and use of legitimate testing materials is restricted to qualified users. Misuse and misinterpretation of psychological tests renders the test useless at best and may cause serious damage to an individual taking the test. Qualifications for purchasing any psychological testing materials vary with the degree of complexity of the test. Three categories of testing materials are designated by the letters "A", "B", and "C". There is no restriction to purchasing material in the first classification. The sale of "B" material is limited to "qualified" or "certified" individuals, and "C" material can only be purchased by a Ph.D. Level "C" assessment tools are generally used only in clinical and research environments while level "B" appears to be most appropriate for employment purposes.

If no qualified individual is available within the company to administer the tests, there are countless numbers of consulting firms that offer the standard tests as well as newly developed ones. Options for taking them include paper and pencil as well as on-line availability, and feedback is often a multipage report with no opportunity to question the results or their meaning. Some of the internet consulting companies link into the O*NET government data base of jobs with their descriptions and qualifications. This is useful in developing a career path. However, most of the internet consulting companies do not offer test construction information to back up their claims that their test is "highly reliable and valid."

Since the creation of a meaningful career development plan relies on an individual's understanding of his needs and motivators, it follows that the most frequently used assessment tools focus on personality and interest testing. Self report inventories are the best known and most widely used tools for personality appraisement. Some of these self report inventories are discussed below.

The most basic type of self assessment could be as simple as taking a pencil and paper and jotting down the things that a person enjoys doing, then making a corresponding list of thing they really hate doing. Carol Kleiman (1994) suggests that the positive tasks

give a baseline approach to the "right" job while the negative tasks represent things that the employee might not be able to avoid entirely, but could be minimized by selecting jobs that do not rely heavily on these activities. However, this approach does not provide for professional interpretation and feedback and is limited to a narrow set of tasks that the employee **thinks** he likes or dislikes. Standardized tests are more subtle and specialize in uncovering traits that the respondent may be unaware he has.

There are many well established and well respected tools available that have been carefully prepared and thoroughly tested. With their accompanying professional, and often computerized, interpretation, they appear to be more legitimate and powerful than introspective self-designed and self-limiting inventories.

Myers-Briggs Trait Indicator - By far the most popular and most widely used tool for assessing personality traits is the MBTI, designed in the 1950s and modified over the years. Its distribution is controlled by CPP, Inc. and purchase of this "B" level test is restricted to qualified or certified practitioners. It is relatively easy to be considered "qualified" to purchase and administer the test. The applicant must have a 4 year college degree and have successfully passed/completed either a) a college course in psychological or educational tests and measurements or b) a recognized qualifying program. The requirements for certification are more stringent and include a minimum of one year of experience in administering the test and the accumulation of ongoing continuing education credits. Both qualified and certified practitioners are expected to honor the **MBTI Code of Ethics** which focuses on maintaining confidentiality and strictly controls the way feedback of test results is given.

The test is used by clinicians, employment counselors, and consulting companies and is available on-line by various entrepreneurs and research groups. The on-line feedback does not strictly follow the guidelines in the MBTI Code of Ethics.

If MBTI is selected as an assessment tool, consideration should be given to the methods employed and the qualifications of the test administrator. A better trained and more experienced administrator is assumed to provide more consistent test reliability.

The qualification and certification process, use and promotion of a code of ethics, and very aggressive marketing have contributed to the popularity and widespread use of MBTI in educational, counseling, and corporate settings. But the popularity and general acceptance of MBTI does not necessarily indicate that it is the best tool to use in employee development.

One of the most vocal critics of MBTI has been Robert Todd Carroll who publishes The Skeptic's Dictionary on line at www.skepdic.com. In a November 1996 entry regarding the Myers-Briggs Type Indicator, Carroll criticizes personality tests and personality profiles in general saying that they can be used to justify discriminatory behavior and may result in bad advice given during career counseling.

Robert Carroll suggests that the type indicator tool is nothing more accurate than a parlor game or cleverly worded astrological forecast since the descriptions are phrased so that most people can see themselves in almost every category. There is so much flexibility in type determination in fact that in a 1999 report published by CPP, Inc. (owner of the MTBI instrument), the author suggests that if a testee does not see himself in the resulting profile, he should consult with the test administrator who can help him change a letter or two in the type combination that would produce a better fitting type!

The MBTI instrument also seems to score low on reliability, since there appears to be little consistency in retest situations given just a few weeks apart. Test enthusiasts insist that variations from day to day are a result of a person's current mood, but that the basic structure of the indicator remains the same. Critics consider this variation as "error" since the purpose of the test is not to measure mood changes.

Carroll suggests that no matter what your preferences, your behavior will still sometimes contrast with your type, therefore no behavior can ever be used to falsify the type and any behavior can be used to verify it. He dismisses the tool and its development as "unscientific" since MBTI is based on Jungian principles and theories of personality type which are admitted by Jung himself to be non-scientific. This is in spite of the longitudinal studies conducted by Isabel Myers and the ongoing evaluations and adjustments that have been made through the years.

A more statistically oriented challenge to the MBTI was made by David J. Pittenger (1993). He states that in spite of its popularity, there are many problems with its use, particularly unsupported claims and questionable results when analyzed against the basic measurements for evaluating psychological tests. Measurements examined were:

- Statistical Structure (Poor) - There is no evidence of bimodal distributions for opposite traits .
- Reliability (Low)
    o Test-retest results saw 50% of participants falling into another category even after a short period of time. It is unclear if differences are due to legitimate changes in the person being measured or to errors in the testing process
    o The standard error of measurement, a statistic used to determine when the difference between two test scores is meaningful (or trivial), it is made up of the standard deviation (SD) and test-retest reliability. If the SD is large and test-retest reliability is low, large differences among scores must be present to assume meaningful differences among individuals. This does not occur with MBTI
- Validity (Poor)
    o Do the dimensions identified by the test really exist? - Factor Analysis of MBTI produced 6 factors, not 4, a high level of measurement error, and scales were not unique that correlated with each other.
    o Is there a relationship between MBTI type and occupation? - Examination of normative data reveals that the proportion of MBTI types within each

profession is equivalent to that within a random sample of the population. There is no data that shows a positive relationship between MBTI types and success within a particular occupation.

Based on this examination, it is Pittenger's conclusion that there is no evidence that MBTI measures anything of value. He also notes that a review of MBTI commissioned by the Army Research Institute concluded that **the instrument should not be used for career counseling**. This conclusion was based on finding no evidence of the test's utility and the suspicion that the "types" could be a form of stereotyping and may bias a manager's decisions on hiring, firing, evaluating, and promoting.

Strong Interest Inventory - Another well established and widely used tool in career development is the Strong Interest Inventory, which is also used by career consultants and is available as an on-line tool. The fee for the on-line experience sometimes includes a telephone counseling session.

The Strong Interest Inventory measures interests, not abilities. It shows "patterns of interests" and how those patterns compare with those of people from a wide variety of occupations and is best used to help identify career options. Various versions are available for different uses and many consider this a "benchmark career planning tool." (Qualifying.org)

The test was developed in 1927 as an outgrowth of E. K. Strong's work with the military. It was expanded in 1960, and "Holland Codes" were added to link test results and job categories according to Dr. Holland's theory that test responses will tend to cluster around 6 scales or "interest types" and job categories can also be classified under those six groups. According to consultants at Paladin Associates (2003) the power and usefulness of the Strong Interest Inventory rests on two assumptions:

- The day to day activities typical of a specific occupation are reflected in the interests of the people who are employed in it
- Those who have similar patterns of interests will be satisfied in that occupation if they have compatible values and the necessary knowledge and abilities

Since a person's effectiveness and behavior at work is believed to be affected by the interaction of his personality and the work environment, it follows that a good match between the two will result in greater job satisfaction, high performance, and less turnover.

The Strong was revised most recently in 1994. Because the tool is periodically updated, the scores received by an individual today compare that person's interests with those of people who have responded to the inventory recently. Many of the occupations currently represented did not exist when the instrument was first conceived.

Claims for this instrument indicate that the Strong Interest Inventory is more valid and reliable than any other interest inventory tool. It boasts a large and diversified norming

sample that is 13 times larger than any other career planning inventory and encompasses a wide range of educational, ethnic, and socioeconomic levels. The test itself contains 317 questions and 211 occupational scales. It can be used effectively with people at all stages of their employment life cycle. The test version that includes the **Skills and Confidence Inventory** is especially helpful in career planning since it opens discussion regarding the employee's confidence level in his skills which, if low, may prevent him from seriously considering careers where there is a high level of interest. Because of its length and complexity, this tool can only be scored electronically.

This test is also available for purchase from CPP, Inc. and the qualifications for purchasing and administering are the same as for MBTI.

Campbell Interest and Skill Survey (CISS) - Another Level B instrument, the CISS is available for group testing on line from Pearson Assessments. It is a variation of the Strong Interest Inventory, and its creator, Dr. David P. Campbell, was the recipient of the E. K. Strong, Jr. Gold Medal for excellence in psychological testing research. Results are based on 7 orientation scales similar to Dr. Holland's RIASEC traits, 25 basic scales, and 60 occupational scales. The focus is on careers requiring post secondary education and measures skill confidence as well as interests. The test was normed on over 5000 male and female workers. It contains 320 items and takes about 25 minutes to complete. The computer generated report graphically indicates interest and skill levels for the seven categories and suggests development, pursuit, exploration, or avoidance based on interest/skill levels. The internet version provides links to career planning activities as well as the O*NET website for detailed information on occupations may be obtained. Group rates for internet testing range from $9-$10 each through Pearson Associates. Individual testing is available from Pearson for $17.95. NCS Assessments offers the test with a 1 hour consultation for $175.00 per person.

Sample questions appear to be too career specific and the respondent may be influenced to answer positively and steer the results in a particular direction.

Self Directed Search (SDS) - According to PAR consultant, Robert C. Reardon, PhD, the SDS is the most widely used interest inventory in the world [Online 2003]. It was first developed by Dr. John Holland in 1971 and results are calculated on Dr. Holland's RIASEC codes and extensive research about how people choose careers. Based on the answers given to an extensive list of questions, a 3-letter "Holland Code" is returned that indicates 3 of 6 Holland types that the test taker most closely resembles. The interpretive report from PAR, Inc. takes this code and searches 1,309 occupations, over 750 fields of study, and over 700 leisure activities to produce a list of occupational and leisure activities that a person with this result would find appealing. Each of the occupations is listed along with its DOT Number, educational requirements, and specialized training needed to excel in the occupation. Suggestions for using the information contained in the report are given as well as a list of resources for further career investigation.

The SDS looks like it would be an excellent starting point for someone looking for career direction, but may have limited and perhaps negative use in FHWA career development programs. The career suggestions in a sample report appeared to be very diverse and in many ways, contradictory. It was not apparent that the test could measure latent talents or potential success. This is a Level A assessment tool. No special training or qualifications are required to purchase or administer.

Hartman Value Profile (HVP) - Use of this instrument as a career development tool requires very well defined job descriptions and analysis. The multi page report that is computer generated references particular traits and indicates the degree to which the respondent is developed along these traits, but it does not link the results to any particular career path or job grouping. The instrument was developed in the late 1960s and the Hartman Institute goes to great lengths to explain how the test was constructed and is very open about the reliability and validity studies. It is still in the process of collecting data and offers the test with its interpretation on line at no cost. This test is promoted by a small group of consultants who do charge for the service of scoring the test and providing follow up counseling.

Minnesota Multi Phasic Inventory (MMPI) – This lengthy test (550 items) is used extensively in clinical settings. It measures psychological disturbances in addition to personality traits. It is probably not appropriate to use in a business setting unless the expressed purpose of the testing is to identify psychological problems that are negatively affecting work behavior.

ACT Interest Inventory (UNIACT) - Twenty years of research supports the reliability and validity of this 90 item interest inventory. The test parallels Holland's 6 interest and occupational types as they relate to 19 career families. However, the focus is on student career exploration and would not be appropriate for FHWA assessment.

Projective Tests - Another type of personality testing that has been widely used and studied are the projective tests such as the Rorschach Ink Blot and the TAT (Thematic Apperception Test). Although they are considered to be highly accurate in getting down to a persons true personality, they are time consuming to administer and interpret and require highly skilled and trained examiners. The tests are very subjective and therefore it is difficult to establish reliability for them. They are probably inappropriate for use in a business setting.

MAPP - Motivational Appraisal of Personal Potential, is an assessment tool designed by International Assessment Network. It claims 40 years of research and refinement and reports better than average results of validity studies. The test is available on-line and results are returned immediately via e-mail. An abridged version of the results is offered with no charge, and the results are retained for several months, during which you are encouraged to purchase the complete report for $39.95 - $129.95. In addition, personal counseling sessions can be arranged for an additional fee. Results are designed to match your traits to a data base of 900 job descriptions compiled by the US Dept. of Labor. This is done by analyzing 9 key worker traits and 72 underlying worker

traits from the data base and aligning them with your strengths. The philosophy behind this is that people will be more productive and enthusiastic about their work if the tasks required by the job are those that they enjoy and do well naturally.

Caveat: For career development purposes, all test results must be considered in conjunction with other information about the individual. It is virtually impossible to eliminate cultural and sub cultural differences as a strong contributing factor to test results.

Appendix B

Survey and Results

TPDC QUESTIONNAIRE
Rutgers University Center for Advanced Infrastructure & Transportation

Introduction: The Transportation Professional Development Clearinghouse (TPDC) is a project that has been established to provide an on-line resource to archive and track continuing education in New Jersey. The Clearinghouse is intended to be a tool that will pull together information into a one stop resource for all aspects of training, covering past, present, and future training information. It is anticipated that it will be used to facilitate training and encourage transportation professionals to rapidly develop the skills that will be required when higher level roles become available as the nation focuses on meeting its Vital Few goal of reducing highway traffic fatalities by 20% by the year 2008.

Explanation of Survey: Your input is being requested to gather information that will be used to design the data bases needed to support the Clearinghouse. Your participation in this survey will contribute to making this a useful, user-friendly tool that is meaningful and helpful for you.

Who Should Respond? If you have received this survey, you have been identified as either:

a) Someone who would benefit from or requires training that would contribute to earning continuing education credits
b) You are the manager or supervisor of such individuals

Terms Used in This Survey:

IDP	Individual Development Plan, or any strategy developed between you and your manager/supervisor (usually as part of a yearly review) that indicates training needed to improve your performance or reach your career goals.
Transportation Professional	Anyone whose work directly or indirectly affects the safe transport of individuals on New Jersey's highways. This includes engineers, road crews, supervisors, inspectors, traffic officers, etc.
SME	Subject Matter Expert.
TPDC	Transportation Professional Development Clearinghouse: An on-line tool for tracking past, present, and future training information.

The Survey

DEMOGRAPHICS

Your Affiliation: (Check one)

- o   FHWA
- o   NJDOT
- o   MPO
- o   Municipal Government
- o   State Police
- o   Other (please list): _____

Your Name: _____

Your Title: _____

Do your job responsibilities include managing or supervising others? (Check one)

__ YES   ___NO

ASSESSMENT OF CONNECTIVITY

Do you have an e-mail address? (Check one)

- o   Yes, at work
- o   Both at work and at home
- o   At home only
- o   No e-mail address

Approximately what percentage of Transportation Professionals in your agency has an e-mail address at work? (Check one)

- o   100%
- o   Most but not all
- o   Less than 50%

Do you have access to the internet?   (Check one)

- o   Yes, at work
- o   Both at work and at home
- o   At home only
- o   No access to the internet

Approximately what percentage of Transportation Professionals in your agency has access to the internet at work (Check one)

- o   100%
- o   Most but not all
- o   Less than 50%

Do all Transportation Professionals in your organization have a unique identifier (e.g. employee number)?
____ YES   ____ NO

If "YES", how desirable would it be to use the same ID in the TPDC tool? (Check one)

- o   Very Desirable
- o   Somewhat Desirable
- o   No Preference
- o   Somewhat Undesirable
- o   Undesirable

Please indicate the nature of the unique identifier (Check one)

- o   Employee Number
- o   Social Security Number
- o   No Unique Identifier
- o   Other (Please Specify) _____

ASSESSMENTS

Current management theory views the process of periodically assessing one's personality and abilities as a critical step in the career development lifecycle. Personality can be described as relatively enduring ways in which a person thinks, act, and feels. It is one factor that influences career choices, job satisfaction, stress, leadership potential, and job performance. Other factors include physical and cognitive ability as well as interests. All of these factors are subject to change through experiences and training. Periodic assessments may serve to identify traits and abilities important for leadership roles and indicate opportunities for growth.

Would you find feedback from <u>personality assessments</u> helpful in defining your career goals? (Check one)

- o   Definitely
- o   Probably
- o   Don't Know
- o   Probably Not
- o   Definitely Not

Would you find feedback from <u>interest and ability assessments</u> helpful in defining your career goals? (Check one)

- o   Definitely
- o   Probably
- o   Don't Know
- o   Probably Not
- o   Definitely Not

What other types of assessments would you like to see as part of this development tool?

_____

_____

_____

_____

If assessments were available as part of this project, should they be mandatory?

- o   YES
- o   NO

How should the results be shared with your manager/supervisor?

- o   Results should go to both employee and manager/supervisor simultaneously
- o   Employee should be given the results by the manager/supervisor
- o   Employee should decide whether or not to share results with manager/supervisor

PROFESSIONAL INFORMATION EXPECTED FROM CLEARINGHOUSE DATA BASE
(Check all that apply)

_____   Name
_____   ID #
_____   Birth Month/Birth Day
_____   E-Mail Address
_____   Job Title
_____   Job Code
_____   Agency
_____   Dept. Name
_____   Dept. Code
_____   Manager/Supervisor Name
_____   Education Level
_____   Listing of all degrees received & date
_____   Listing of all certifications earned & date
_____   Listing of all licenses granted & date
_____   Renewal date for licenses and certifications
_____   Listing of all CEU information (including dates)
_____   Listing of workshops & seminars attended (including dates)
_____   Listing of all classes taken (including dates)
_____   Classes needed to fulfill job requirements
_____   Classes needed to satisfy IDP
_____   Other (Please List)
_____
_____
_____

<div align="center">**TRAINING OPPORTUNITIES**</div>

**What training opportunities should be represented in the Clearinghouse database?
(Check all that apply)**
__   Workshops/Seminars/Showcases offered in NJ
__   Workshops/Seminars/Showcases offered outside NJ
__   Classes at Rutgers University (Including CAIT-LTAP)
__   Classes at Other Colleges/Universities
__   Classes/Conferences offered by:
- FHWA
- NHI
- ATSA
- APWA
- ITE
- NTI
- HRDI
- SME (Subject Matter Expert) within your agency (e.g. Toolbox Chats)
- Other (Please List)

How do you currently hear about training opportunities? (Check all that apply)

- Internal agency memo/newsletter
- Communication from manager/supervisor
- CAIT-LTAP Newsletter
- Websites such as NHI, AASHTO, etc.
- Word of mouth
- Direct mail or e-mail from course/workshop sponsor
- Other (please list) _____

How frequently do you hear about training opportunities too late to participate? (Check one)

- Frequently/usually
- Often
- Seldom
- Rarely

How do you determine the appropriateness of a particular training opportunity? (Check all that apply)

- Historical performance/experience
- Approved/recommended by a school or agency
- Gut feeling
- Employee desire to participate
- Word of mouth
- Required for the job
- Manager/Supervisor recommendation
- Other (please list)

_____

_____

_____

TRAINING RESTRICTIONS THAT EXIST WITHIN YOUR AGENCY

Training hours limited to: (Check one)

- o   No agency funded training
- o   1-5 days/year
- o   6-10 days/year
- o   More than 10 days/year
- o   Unlimited
- o   Flexible according to agency needs
- o   No published policy/don't know

Training/Attendance at seminars & workshops requires prior approval before registration (Check one)

__ Always   __ Usually   __ Depends on Training   __ Seldom   __ Never

If approval is required, how is it obtained? (Check all that apply)

- o   Internal computer based Learning Management System
- o   Paper based form w/signature of immediate supervisor
- o   Verbal or e-mail approval from manager/supervisor
- o   Other (Please list) _____
    _____

    _____

Once you have identified an optional training need, what is the usual waiting time before you are able to take the training? (Check one)

- o   Over a year
- o   6 months – 1 year
- o   Less than 6 months

Travel Restrictions (Check all that apply)

- o   All training must occur in-state
- o   No overnight travel allowed
- o   All training must occur at the job site
- o   Travel restrictions are flexible

MANDATORY TRAINING

In your agency, or for your particular job, how often is training mandated? (Check one)

- o   Never
- o   Seldom (Less than once per year)
- o   Frequently (One or more times per year)

REPORTING

What reports would you like to obtain from the TPDC tool? (Check all that apply)

For a specific individual:

- o Training completed within a given time period
- o Certificates earned and their renewal dates
- o Licenses granted and their renewal dates
- o CEU credits for a given period
- o List of courses needed
- o All of the above

General:

- o List of Transportation Professionals that have/have not completed mandatory training
- o List of Transportation Professionals that have had **specific** optional training
- o List of Transportation Professionals that have obtained a **specific** certification
- o List of Transportation Professionals that have obtained a **specific** license
- o List of Transportation Professionals that have obtained a **specific** qualification

Other:

_____

_____

_____

_____

_____

COMMENTS

Please use this section to record any considerations/concerns or ideas regarding system features that you would like to see included in the Transportation Professional Development Clearinghouse (TPDC) tool.

THANK YOU for your participation!