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Professional Certification and Credentialing Program for the Transit Industry

DETAILS

AUTHORS

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PROFESSIONAL CERTIFICATION AND CREDENTIALING PROGRAM FOR THE TRANSIT INDUSTRY

The research reported herein was performed under TCRP Project J-06, Task 72 by McGlothin Davis, Inc., in association with Phoenix Rising Consultants. The research focused on the development of potential strategies to deploy and maintain voluntary professional development certification and credentialing programs in the transit industry. Mary J. Davis, President/CEO of McGlothin Davis, Inc., was the Project Director and Principal Investigator. Gwynn Simpson, of Phoenix Rising Consultants, served as Associate Researcher.

CONTENTS

INTRODUCTION

The digest was prepared as a resource for the American Public Transportation Association's (APTA) workforce development initiatives. APTA's Workforce Development Blue Ribbon Panel was established to develop a 5-year plan to ensure public transportation has a sustainable workforce for the future. In 2010, the panel issued its final report, including 32 recommendations, that was accepted by APTA's Executive Committee. The panel also published a final report of *APTA's Preliminary Skill Development and Training Needs for Transit Employees Survey*. This survey captured APTA members' perspectives of the industry's current and projected professional and skill-building needs. The results provide data to better plan for, identify, and address workforce development needs. One of the significant findings was over one-third of respondents to the survey have earned a professional certification, and two-thirds are interested in professional certification opportunities. As a next step, members of the Blue Ribbon Panel asked TCRP to fund a "scoping study" to identify strategies to establish and maintain voluntary professional devel-

opment certification and credentialing programs for the transit industry.

TCRP Project J-06, Task 72 was conducted as Phase 1 of a potentially two-phase study. With four objectives guiding the six-task project, four outcomes resulted: (1) identification of the range of existing certification and credentialing programs available for transit professionals; (2) identification of gaps discovered in the existing programs related to the identified needs of transit professionals; (3) development of a framework for a voluntary transit professional development certification or credentialing program; and (4) preparation of a comprehensive work plan for the development and implementation of a certification and credentialing program(s) for transit professionals.

The report structure is as follows:

Section 1: Introduction to the Study and Its Importance. The study's relevance is discussed in terms of the importance of addressing the critical shortage of transportation professionals who need to be ready on day one to fully perform the job.

Section 2: The Research Approach. The methodology used to conduct the research is described in detail, including the

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manner in which findings from literature were used to analyze data collected from primary sources, such as survey data.

Section 3: Literature Review and Documentation of Findings and Conclusions. The summary of main findings from the literature review from transportation-related and other pertinent secondary sources as well as findings from primary data sources are outlined. A gap analysis of the efficacy of four transit-specific professional development programs is detailed. Also included is a discussion of the manner in which relevant voluntary certification programs are implemented in a number of industries.

Section 4: Potential Strategies to Deploy and Maintain a Transit Industry Certification and Credentialing Program Development Process. Using research findings from the study, the team offers a potential framework and an approach to deploy and maintain voluntary professional certification programs for the transit industry.

Summary. The study results are summarized and potential next steps are presented.

SECTION 1 THE STUDY AND ITS IMPORTANCE

The American Public Transportation Association's (APTA) 2007 Member Needs Assessment Survey results revealed that respondents wanted one benefit above all others: the availability of a voluntary professional development certification and credentialing program. The 2007 survey uncovered two stark realities, which were confirmed in the 2009 APTA Skill Development and Training Needs Survey. Baby-boomer middle and senior managers are expected to retire in large numbers over the next decade. This impending talent crisis in the public transportation industry has consequently gained the attention of transit agency leaders around the Nation. The focus on credentialing and certifications in these two surveys was apparently driven by the perception that certifications and credentials communicate achievement beyond basic knowledge and experience, thereby distinguishing one professional from another. While a number of sources provide definitions of certification and credentialing, most are similar. The following summarizes definitions of professional certification: often called simply *certification* or *qualification,* it is a designation earned by a person to assure qualification to perform a job or task. Certifications are usually earned from a professional society and are intended to be portable to all places a certified individual might work.

By all accounts growing in popularity, there are over 1,200 certification programs registered in the country today. Certification programs, most often voluntary in nature, tend to share one goal in common: to define standards for practice—what a professional should aspire to—and to confirm credentials and professional achievement.

Certification normally requires assessment, including testing and evaluation of education and/or experience and has been called a "marker of excellence" of professionals who strive for it. Advocates for certification believe that it defines a profession's identity and is an important part of the quality improvement movement. Certification applies merit criteria as a standard for obtaining the credential and excludes those without adequate preparation. Sometimes it is misunderstood as licensing, which is mandatory and is administered usually by state agencies for public health or safety reasons.

Throughout this report, the term *certification(s)* is used to denote credentials acquired through voluntary professional certification programs. The following definitions from organizations that offer voluntary credentialing programs provide additional clarity about the use of the term:

> Certification is a voluntary action by a professional group to establish a system to grant recognition to professionals who have met a stated level of training and work experience. Certified individuals are usually issued a certificate attesting that they have met the standards of the credentialing organization and are entitled to make the public aware of their credentialed status, usually through the use of initials (i.e., PHR or SPHR after their names) (Retrieved from Society of Human Resource Management website at www.shrm.org)

> Certification is a process whereby an individual is evaluated in order to determine their mastery of a specific body of knowledge. Professional certification provides personal satisfaction for attaining a recognized level of achievement within one's profession. It means commitment to the requirements of the job and participation in additional training to exemplify the dedication to do the best possible job in the community transportation field. (Retrieved from the Community Transportation Association of American website: www.ctaa.org)

Initiatives to Enhance Professionalism Within the Transit Industry

The Transportation Research Board has, since 1994, sponsored the International Transit Studies Pro-

2

gram, with a goal to promote the professional development of U.S. public transit managers by providing them with unique opportunities to learn about transit systems abroad. Each study mission of 12 transit agency nominees is designed to provide participants with a broader perspective on public transportation and to allow them to come home with new ideas for improving their own agencies. More than 450 transit professionals having participated to date.

Each year since 1997, a class of 25 upwardly mobile transit professionals has been selected for and has participated in Leadership APTA, a yearlong professional development program led by transit executives and other thought leaders. As a result, a number of program graduates have been promoted into general manager, executive director or other senior management positions.

The Eno Transportation Foundation's Center for Transit Leadership (CTL) Transit Executive Seminar focuses on the critical competencies and issues necessary to lead today's transit agencies. The program is tailored specifically for senior-level managers in public transportation agencies and in companies that serve the transit industry. The intensive weeklong course is held twice a year in two different cities with 25 to 27 participants in each group.

The National Transit Institute (NTI) at Rutgers University, funded by the Federal Transit Administration, offers a 3-day Senior Leadership course for future senior leaders in transit. Participants are middle- or upper-middle managers who have recently advanced to higher level positions or will do so in the near future. According to the NTI website, the Senior Leadership program provides a unique training and educational opportunity for upper level transit managers through teaching comprehensive and integrated information that is necessary for successful executive careers.

Several universities, designated as USDOT University Transportation Centers (UTC), provide transit-specific degree and professional development programs. For instance, the North Carolina State University Institute for Transportation Research and Education's Transit Leadership Development Program is an example of a state-sponsored leadership development initiative. North Carolina's program is designed to give transportation professionals an opportunity to significantly improve their decision-making and leadership skills. The 12-week self-study program gives participants a framework by which to shape their own leadership styles as they learn and practice communication, teamwork, mentoring, and teambuilding skills.

Another university-based program is the Graduate Studies in Transportation at Texas Southern University (TSU). This interdisciplinary program is designed to prepare students for careers in transportation planning and management. For students with career goals in planning, the TSU program provides foundations in traffic operations, transportation planning, public transportation, and Intelligent Transportation Systems (ITS). Students pursuing management careers receive foundations in transportation principles, economics and finance, and transportation policy and management.

The Mineta Institute at San Jose State University specializes in policy studies related to surface transportation, offers the Masters of Science in Transportation Management (MSTM), which is accredited by the Association to Advance Collegiate Schools of Business (AACSB). The Institute also offers a Certificate in Transportation Security and Management (CTSM) and a Certificate in Transportation Management (CTM). Each program, offered with the support of the San Jose State University College of Business, follows an established series of accredited course requirements to achieve the designated degree or certification.

While each program described above is making important contributions to the preparation of transit professionals, the span of their impact is limited for a number of reasons. Current delivery methods pose access challenges for many professionals interested in taking advantage of these development opportunities. The focus of the programs has been primarily on individuals in or aspiring to go into leadership positions, with little focus on other professionals in the transit industry. In addition, traveling to distant locations, in some cases several times during the program, may make time requirements and costs prohibitive.

This study brings to the forefront how the programs described above provide a starting point for making sure the public transportation industry has processes in place by which professionals around the nation can be recognized as having the knowledge and skills needed to fill the gaps expected over the next decade and beyond.

SECTION 2 THE RESEARCH APPROACH

TCRP Project J-06, Task 72 was conducted in a six-task process. Each task is described in the following paragraphs:

3

Task 1: Form of an "expert panel" to help facilitate the work of the research team and that will provide input throughout the study. The panel provided ongoing input and guidance. Panel members included professionals with diverse expertise and views and included the following:

- Transit chief executives with current responsibilities for managing transit systems and senior staff members in diverse settings;
- Transit industry executives with experience managing transit systems, employees, and projects in public and private sectors;
- Transit system human resources executives who have responsibility for workforce planning, recruitment, and retention; and
- Executives responsible for conducting needs assessments and for developing and executing programs designed to develop transit professionals.

Task 2: Conduct a literature review.

Task 3: Implement research approach; the major outcome is a gap analysis that focuses on how prepared graduates of four different transit-specific professional development programs are.

Task 4: Prepare a memorandum that summarizes the results of Task 3 and suggest strategies to deploy and maintain voluntary professional development credentialing and certification programs.

Task 5: Meet with the Working Group to discuss the findings.

Task 6: Based on Tasks 1 through 5 and the Working Group comments received at the meeting, prepare a final report that summarizes the findings, draws conclusions, documents results, and presents potential strategies to deploy and maintain voluntary professional development certification and credentialing programs.

SECTION 3 LITERATURE REVIEW AND DOCUMENTATION OF FINDINGS AND CONCLUSIONS

TCRP Studies

At the outset of the study, the research team conducted an exhaustive review of the literature, in order to identify relevant research and reports related to the project objectives. Initially, the review examined relevant research reports published as part of the TCRP Program, including the following:

TCRP Report 77: Managing Transit's Workforce in the New Millennium (2002) this study assessed the transit industry's workforce needs and prospects for the future. The research concluded that the challenges transit agencies face, whether large or small, could be attributed to a number of factors. One study found that little research has been conducted to address the issue of workforce readiness within the transit industry at any level which lends credence to the importance of conducting the current study.

TCRP Synthesis 47: Corporate Culture as the Driver of Transit Leadership Practices (*2003*) reports that transit agencies were just beginning to identify core competencies—measurable patterns of knowledge, skills, behaviors and values—required for successful leadership team performance. While agency chief executives were able to identify core competencies required of successful leaders, this knowledge was typically not translated into concrete plans for leadership development.

TCRP Report 97: Emerging New Paradigms—A Guide to Fundamental Change in Local Public Transportation Organizations (2003) includes information on how public transportation organizations have entered an era of fundamental change; how they are responding to dramatic and new expectations; and what factors have triggered the emergence of a "new paradigm" industry-wide. The study identified four key elements of the emerging paradigm that may be particularly relevant to the types of leaders and skill sets that will be required in the future.

TCRP Report 103: Public Transportation Operating Agencies as Employers of Choice (2004) emphasizes that at a time of sharply increasing demand for services, public transportation is facing serious problems in recruiting, developing, and retaining a qualified workforce.

TCRP Synthesis 71: Paratransit Manager's Skills, Qualifications, and Needs (2007) documents the skills, knowledge, abilities and other qualifications needed for the position of paratransit manager. Since the position of paratransit manager is relatively new to the public transportation industry, the research concludes that there is not a consistent career path to becoming a paratransit manager.

Additional Pertinent Public Transportation Research Study Results

TRB Special Report 275—The Workforce Challenge: Recruiting, Training and Retaining Qualified Workers for Transportation and Transit Agencies

4

(2003) addresses how public transportation agencies can adjust to their workforce challenges and labor market realities through specific human resource actions. Success depends in large part on identifying the strategic needs and applying a diverse mixture of measures to meet those needs.

Recruitment, Selection and Retention of Community Transportation System Personnel—A Toolkit (2004) includes strategies focused on developing a toolkit to improve human resource management at rural and small urban transit systems to provide consistency in practices throughout the state. The primary product from the study was a toolkit of effective practices to support community transportation systems in performing these tasks.

Each study report gave credence to the importance of the current study and provided a foundation for considering how a voluntary certification program may provide an additional resource for ensuring readiness of a pool of transit professionals in the future.

Institute for Credentialing Excellence

A non-profit organization, the Institute for Credentialing Excellence (ICE), is dedicated to providing educational, networking, and advocacy resources for credentialing organizations. The organization's accrediting body, National Commission for Certifying Agencies (NCCA), evaluates certifying organizations for compliance with the NCCA *Standards for the Accreditation of Certification Programs.*

The organization provides several resources that help organizations planning to implement certification programs move through the development process. One such resource, available on its website, is a 10-page booklet titled *Defining Features of Quality Certification and Assessment-Based Certification Programs.* The purpose of this document is to aid stakeholders in gaining a better understanding of the distinctions between assessment-based certificate programs, certificates of attendance or participation, and professional or personnel certification programs.

Benefits and Potential Pitfalls of Certification Programs Found in Literature Review

The review of business literature revealed that the benefits of certification are potentially immense. Many feel strongly that it contributes to the identity of a profession. In addition, a well-thought-out certification program may help management establish precise job criteria that define clear expectations. Such

programs can also be an evaluation process that tests and confirms mastery of knowledge and skill. Common benefits cited in professional certification brochures include the following:

- Allows for professional recognition in specialized areas and third-party affirmation of personal and professional achievement;
- Enhances status within the professional community;
- Acknowledges expertise and encourages professional growth; and
- Promotes better quality of practice and service.

Some writers advise caution in establishing a new certification program. These individuals state that such a program is not easy and may not be economically affordable. By most accounts, certification is a massive undertaking, demanding considerable time and resources. Others argue that certification is not an assurance that the holder is more competent to perform on the job than the noncertified individual.

Other Research Documentation and Findings

Following approval of the research plan, the study team proceeded to complete subsequent tasks within the time allotted for the project. The first major task was a gap analysis that focused on how prepared graduates of four transit-specific professional development programs (Leadership APTA, ENO Transit Executive Seminar, NTI Senior Leadership, and International Transit Studies Program) feel they are to advance their career goals. Contacts made with administrators of each program helped to facilitate access to and responses from graduates of the programs through online surveys. Online surveys were also conducted of a sample of CEOs of agencies in which these graduates are employed to determine their perceptions of the adequacy of these programs. Additional data collection included an online survey of a sample of small, medium, and large public transit agencies to determine the types of certifications held by current staff and to identify past and current positions held by those with these certifications. A comparative analysis was conducted on the career paths of individuals in these agencies to determine similarities and differences in practices within and among these organizations. Using these data, along with input from the expert panel, the team conducted the gap analysis to determine what benefits a certification program may provide to the transit industry.

5

The research team drew from two major sources: information retrieved from the Internet and other sources about professional certification and credentialing programs, and experiences of transit professionals who hold credentials in their professional disciplines. Research focused on attempts to identify existing frameworks for voluntary certification programs from which transit professionals have already gained certifications, as well as in disciplines not typically found in transit agencies. The goal of this research segment was to determine the theoretical constructs these voluntary credentialing and certification programs have in common.

The gap analysis for the study focused on how prepared professionals who have completed four transit-specific professional development programs (Leadership APTA, Eno Transit Executive Seminar, NTI Senior Leadership, and International Transit Studies Program) feel they are to advance their career goals. The analysis also included feedback for CEOs of participants of these programs about their views on the efficacy of the programs in preparing transit leaders of the future. Descriptions of the programs, their purposes, intended audiences, program structures, and expected outcomes are summarized herein

Eno Transit Executive Seminar, which is taught to senior transit executives in classroom settings by subject matter experts, consists of individual consultation, small-group leadership workshops, and classroom instruction.

Individuals completing the program have opportunities to develop competencies in multiple areas: gain self-knowledge, including seeking feedback, questioning assumptions, and aligning strengths to the context of the chief executive of an organization; experience personal change in the way problems are considered and solved, and expand thinking habits to include reflective, critical/analytical, conceptual, and creative thinking; articulate the social and economic benefits of transit; capture the complexities of becoming a chief executive; demonstrate insight into the competencies, skills, and perspectives of the chief executive, in contrast to those required in current functional areas; expand current conceptions of ways to partner with transit boards and consider methods to build effective board teams; recognize the continuous nature of learning and the role of feedback, as one leads a transportation organization; and recognize the importance of and begin to build a "kitchen cabinet" to provide feedback throughout one's career.

Leadership APTA, with a focus on professional development of emerging transit leaders, connects class members with world-class leaders and respected leadership and industry experts. The program includes a combination of specialized workshops, sessions, class research projects, teleconferences, online events, and APTA conferences that address the challenges, demands, and key topics of the transit industry.

Program graduates are expected to develop and deepen understanding of the transit industry; strengthen and refine core competencies as transit leaders and build networks of professional colleagues and friends; engage in activities that connect them with world-class leaders and respected leadership and industry experts; learn and grow as leaders through customized sessions, focused workshops, team assignments, online venues, site visits, and leadership projects; have the opportunity to be featured speakers at APTA conference sessions, meetings, workshops and events; and identify leadership challenges facing the transit industry today and be part of teams that identify and recommend solutions that take the public transportation industry into the future.

The three-day **NTI Senior Leadership** course, taught to upper-level transit executives, places emphasis on providing a comprehensive and integrated set of information necessary for successful executive careers. Presented from both academic and empirical perspectives, the course is taught by practitioners, academics, transit agency executives, and government officials.

Individuals completing the course are expected to have broadened their professional capabilities and understanding of the requirements and challenges of executive management positions in eight areas: understanding what makes a leader; building managerial and leadership skills; working in a public environment; succeeding in the transit industry; thinking strategically and conceptually; mastering external dynamics; implementing change successfully; and confronting evolving issues.

The **International Transit Studies Program** is designed to provide participants with a broader perspective on public transportation and to allow them to come home with new ideas for improving their own agencies. Each study mission focuses on one transit-specific theme, and has a professional transit leader and a contract program coordinator.

Online surveys were designed to gather data on participant experiences, specifically related to the expected outcomes. Each survey included multiple-choice questions based on the expected outcomes of the individual programs. In addition, open-ended questions were included in a number of areas: most

beneficial aspects of the program; program weaknesses; what the respondent would want prospective program participants to experience; what the respondent has done differently as a result of the program experience; how the program has helped to expand thinking, skills and understanding of leadership style and competence; and finally, an invitation to add any other information about the program. Demographic information requested was in six areas: year program was completed, position title, title of position respondent reports to, approximate number of employees in her or his organization, number of employees respondent supervises, and a list of professional certifications the respondent has earned.

CEO Surveys Regarding Professional Development Program Outcomes

In addition to conducting surveys of graduates of the four professional development programs, the research team sent online surveys to a sampling of chief executives in organizations that have sponsored employee participation in these programs. The purpose of the CEO surveys was to determine their perceptions of the adequacy of these programs. For the most part, CEOs were selected from organizations that had sponsored the participation of several employees in one or more of the programs.

Recognizing how busy these individuals were likely to be, the research team contacted the project expert panel for recommendations on the most effective approaches to surveying transit chief executives. On each survey, the executives were given three options to respond to the impact he or she perceived the programs have had on one particular employee who had completed one or more of the programs. The executives were given the option of answering "improved," "not sure," or "not improved" to each statement on the survey. A total of 16 CEO responses were received. CEOs generally agreed that employees had shown improvements in areas of expected program outcomes following completion of the programs.

Conclusions of Gap Analysis

The gap analysis focused on how prepared graduates of four transit-specific professional development programs feel they are to advance their career goals as a result of program participation. Additional feedback was solicited from CEOs of several agencies that have sponsored employee participation in the four subject programs. Initial attention was given to responses to questions related to established program outcomes, the research team determined that program graduates are satisfied that expected outcomes are being met, with a few exceptions. Clearly respondents feel that the information and activities incorporated in the programs have contributed to advancing their knowledge of the transit industry. As aspiring and, in some cases, accomplished transit industry leaders, they viewed the mastery of leadership skills and the understanding of strategic and tactical factors that determine a transit system's success as important program components.

Several comments related to program pace and timing show that participants were fully engaged during their time in the program and desired to see an increase in program length to allow expanded participant interaction and inquiry. All groups particularly value the camaraderie gained through networking experiences, the presentations of top-level transit executives and planned small group interactions. Program graduates view these activities as avenues for not only assimilating program content during the program but also as methods for marketing and sustaining their professional competencies throughout their careers in transit.

Respondents in all groups expressed an interest in additional avenues for applying knowledge and skills gained from the learning they experienced while enrolled in the program. Quite a number were concerned about being able to practice what they learned after completing the program. The frequency with which comments were made about the need for formal follow up to defined program activities signals a possible area for consideration of adjustments in program design.

Respondents appear to place high value on having a chance to demonstrate their learning and skills within the broader transit industry. In the case of Leadership APTA graduates, the chance to present team project results to captive audiences of industry leaders at major conferences was cited as an important possible springboard to future advancement.

When asked to make suggestions about experiences they felt future program participants should have, respondents also spoke about those aspects that should remain the same as well as aspects they feel need some adjustments. Responses indicate how significant skills sets in certain areas are perceived as important to transit leaders. For instance, Leadership APTA graduates feel that there should be more

7

attention to labor-management and operational issues. Eno Transit Executive Seminar participants expressed a desire for more time to fully assimilate all of the content presented in a short period of time. This group also suggested having additional focus on how all of the pieces fit together from a CEO perspective of organization design and operation. The NTI Senior Leadership course graduates expressed a need for a better balance between theory and more specific examples from transit agencies. This group also suggested the possibility of activities such as peer review or work exchanges with other transit agencies as enhancements to the program. International Transit Studies Program participants spoke about the need for more time between locations and the need for more interaction between participants and presenters as well as the need to learn more about the cultures of the countries visited prior to the mission.

Several questions related to program design and administration may be worthy of consideration if the return on investment in the programs is to be maximized. How can program design ensure sustained connectivity with industry leaders, mentors, and peer groups for participants? What commitments other than paying for the program and allowing time off to participate should be part of the agreement from sponsoring agencies? What follow-up actions should be in place for participants to facilitate leadership career path development? How much exposure to leadership opportunities can program participants realistically expect from program activities designed to create a sense of awareness about major issues in any of the three programs?

As stated earlier, CEO respondents for the most part, indicate that employees from their agencies have demonstrated improvements in the areas identified as expected outcomes for each program. Responses to the open-ended questions, while quite limited, were positive in regards to the value of the programs in preparing future transit leaders.

Data Gathering Regarding Professional Certifications

In order to recommend a framework and strategy to deploy and maintain voluntary professional development credentialing and certification programs, the research team drew from three major sources: information retrieved from the Internet and other sources about professional certification and credentialing programs, transit professionals who hold credentials in

their professional disciplines, and human resource professionals in transit agencies. Research focused on attempts to identify voluntary certification programs from which transit professionals have already gained certifications, as well as in disciplines not typically found in transit agencies.

Data collection to achieve the goal of suggesting strategies to deploy and maintain voluntary professional development credentialing and certification programs was accomplished in three steps. The first step was to request that respondents to the Eno Transit Executive Seminar, Leadership APTA, NTI Senior Leadership course, and International Transit Studies Program surveys identify certifications they possess. The second step in gathering data about certifications that transit employees possess was to ask the three human resource executives on the expert panel to identify certifications required or preferred for specific positions in their agencies. The third step was to conduct an online survey of a sample of small, medium, and large public transit agencies (using the APTA HR Committee list) to determine the types of certifications held by current staff and to identify past and current positions held by those with these certifications.

The frequency distribution of the combined list of certifications by all survey respondents, with two or more identifying each certification, is provided in Table 1.

The information from the professional development respondent surveys and human resource expert panel member feedback was used to structure a survey (the third step) to assess the range of certifications preferred or required within the organizations of APTA Human Resources Committee members employed in public transit agencies. The data received from this survey give a fairly comprehensive view of what these Human Resources professionals consider professional certifications as well as the range of certifications within transit organizations. The summary of the survey of this group is included as Table 2.

Summary of Inquiry Into Current Certifications in Transit Agencies

Data collected in the three-step process provided insight into the range of professional certifications possessed by transit employees. Eno Transit Executive Seminar, Leadership APTA, NTI Senior Leadership course and International Transit Studies Program participants identified the professional engineer credential as the certification most frequently held.

8

Table 1 List of certifications identified by respondents to Eno Transit Executive, Leadership APTA, NTI Senior Leadership, and International Transit Studies Program surveys.

Certification/Certifying Agency	Number of Responses
Professional Engineer (registrations or licenses issued by individual states) Note: There is a question as to whether the P.E. qualifies as a certification as defined in this study.	16
AICP (American Institute of Certified Planners)	10
CPA (American Institute of Certified Public Accountants)	4
PHR (Society for Human Resource Management)	4
Certified Community Transit Manager (Community Transit Association of America)	4
FTA-TSI Safety Management Certification (Federal Transit Administration—Transportation Safety Institute)	2
Certified Safety and Security Director (World Safety Organization)	2

In some states, this credential is identified as a registration, in others a license. Certainly, while some engineers practice as professionals without being a P.E., there are some functions that can only be performed by individuals who hold this credential. Other credentials identified included are those held by planners, professional accountants, transit managers and human resource professionals.

The survey of APTA HR Committee members yielded valuable information on which certifications are required or preferred for specific positions in transit agencies around the nation. A total of 72 surveys were emailed to committee members, with specific attention to not duplicate surveys sent to any single agency. Ten members responded for a response rate of 14%. The data provided gave insight into the frequency with which the responding agencies specify certain certifications as preferred or required to qualify for positions. The survey included a list of positions identified by the project Human Resources expert panel members and through research by the research team, It also allowed respondents to add other preferred or required certifications in their transit agencies.

Overview of Ten Voluntary Certification Programs

Another aspect of data gathering about voluntary certification programs involved reviewing ten organizations offering voluntary certification programs. These programs were reviewed in preparation to complete the task of making suggestions on how to deploy and maintain a voluntary professional certification program for the transit industry. A list-

ing of core certifications offered or sponsored by these organizations is provided in the following list. All information was retrieved from the websites of the sponsoring groups.

American Association of Airport Executives (AAAE) offers three certifications: Certified Member (C.M.), Airport Certified Employee (ACE) Program, and Aircraft Rescue and Fire Fighting (ARFF).

Association of Certified Fraud Examiners offers the Certified Fraud Examiners certification.

American Planning Association (APA) sponsors the American Institute of Certified Planners (AICP) certification.

American Public Transit Exams Institute (APTREX) offers six certifications: Certified Transit First Line Manager (CTFM), Certified Transit Control Center Manager (CTCCM), Certified Transit Section Manager (CTSCM), Certified Transit Division Manager (CTDVM), Certified Transit Department Manager (CTDM), Certified Executive Manager (CTBM).

Community Transportation Association of America (CTAA) sponsors three transportation certifications: Certified Transit Program Administrator (CTPA), a cooperative venture between CTAA and (American Association of State Highway and Transportation Officials (AASHTO); Certified Community Transit Supervisor (CCTS), and Certified Community Transit Manager (CCTM).

Employee Assistance Professionals Association (EAPA) sponsors the Certified Employee Assistance Professional (CEAP) certification program.

International Public Management Association (IPMA) certifies project managers world-wide, using a four-level certification system: Certified Project

9

Table 2 Summary of APTA Human Resources committee survey results: preferred and required professional certifications in transit agencies.

Number of Respondents: 10

Name of Certification/ Certifying Organization	Number of Agencies Required	Number of Agencies Preferred	Positions for which required (R) or preferred (P)	Typical past positions held by individuals who meet the qualification
CPA (American Institute of Certified Public Accountants)	1	5	Dir. Finance, Sr. Accountant, Executive Vice President, Auditor, Intern Accountant	Dir. Finance, Controller, Sr. Accountant, Sr. Auditor, Financial Analyst
CIA (The Institute of Internal Auditors)	1	4	Auditor, Audit Mgr., Vice President, Internal Audit Job Family	Internal Audit Job Family, Vice President, Auditors, Mgrs. of Audit, external auditors
PHR (Society for Human Resource Management)	0	6	HR Mgr., HR Dir., HR Job Family, HR Generalist	HR Job Family, HR Dir., HR Mgr., HR Generalist, HR Specialist
CCP (World at Work Society of Certified Professionals)	0	4	Dir. Compensation, Mgr. Compensation, HR Specialist/Compensation, Benefits Specialist in HR	Compensation Job Family, Director/Mgr. Compensation, Benefits Specialist in HR
PMP (Project Management Institute)	1	5	Construction Project Mgr., Sr. Project Mgr., Project Management Job Family, Project Management Officers IT, Project and Program Management positions, Planner, Analyst, Engineers	Construction Project Mgr., Project Management Job Family, Project Management Officers IT, Application Administrators, Project and Program Managers, Project Coordinators, Planner, Analyst, Engineer, Manager
AICP (American Institute of Certified Planners)	1	2	Transportation Planner, Manager of Transit-Oriented Development, Planners	Planners, Manager of Transit-Oriented Development
CEAP (Employee Assistance Certification Communication)	1	0	Employee Assistance Staff	Employee Assistance Staff
DAPC (Drug and Alcohol Professional Certification by U.S. DOT)	1	3	Drug and Alcohol Testing Staff, Safety Professionals, Drug Testing Professionals, Training Supervisor, Manager of Employment Support	Manager of System Safety
NICET (National Institute of Certified Technologies)	0	1	Construction Inspector	Construction Inspector

Director (IPMA Level A), Certified Senior Project Manager (IPMA Level B); Certified Project Manager (IPMA Level C); and Certified Project Management Associate (IPMA Level D).

Society of Human Resource Management (SHRM) offers three core certifications: Professional Human Resources (PHR), Senior Human Resources Professional (SPHR) and Global Professional Human Resources (GPHR).

Transportation Safety Institute (TSI), which falls under the parent organization of the Research and Innovative Technology Administration (RITA) offers certifications in the four areas: Aviation, Traffic Safety, Multi-Modal Safety and Transit Safety and Security.

World Safety Organization (WSO) offers certification programs related to the functions of safety, occupational and environmental safety, and health and related disciplines: WSO-Certified Safety Executive (WSO-CSE); WSO Certified Safety Manager (WSO-CSM); WSO-Certified Safety Specialist (WSO-CSS); WSO-Certified Safety-Security Director (WSO-CSSD). The WSO Entry Level Certification; and WSO Certified Governmental Safety and Environmental Officers.

The core strategies used by the organizations listed above are summarized in Table 3.

SECTION 4 POTENTIAL FRAMEWORK AND STRATEGY TO DEPLOY AND MAINTAIN A TRANSIT INDUSTRY CERTIFICATION AND CREDENTIALING PROGRAM DEVELOPMENT PROCESS

Suggested Framework Considerations

The transit industry, through the APTA Standards and Oversight Council (SDOC), a 29-member group comprised of transit, business and FTA representatives, may already have an excellent starting point for determining voluntary professional certification standards for the industry. The APTA website includes the following information: SDOC was created

Table 3 Core strategies used to manage ten voluntary certification programs.

Organization	Organization Governing Board Manages Certification Program	Autonomous Certification Commission/Board Manages Certification Program	3rd Party Management of Certification Program	Application and Exam Fees
AAAE	AAAE Board of Directors			Application fee
ACFE	ACFE Board of Regents			Exam fee
APA		AICP Commission	Testing outsources to Prometrics	Application fee
APTREX		APTREX International Transit Certification Review Board		Exam fee
CTAA		CTAA National Certification Council		Application and exam fees
EAPA		Employee Assistance Certification Commission		Application and exam fees
IPMA		Certification Validation Management Board	Third party assessment	Exam fee
SHRM			Human Resources Certification Institute manages total program	Application and exam fees
TSI		Programs coordinated by RITA		Non-FTA grantees pay fees
WSO	WSO Board of Directors			Application fee

11

to promote the support for and use of standards in the public transportation industry. The Council, working in concert with existing APTA standards development policy and planning committees, coordinates and oversees the development of standards in the industry. In this role the committee establishes priorities for standards programs at APTA, coordinates the standards development activities of APTA's modal groups, and develops and manages the standards annual work plan and budget. In describing work that has already been done related to developing industry standards, the website points out that "hundreds of industry volunteers serving on numerous working committees have developed standards for bus, rail transit and commuter rail operations, maintenance, procurement, and ITS."

With this structure in place, whether SDOC should be the body with ultimate authority to determine voluntary certification standards, it certainly has the potential to provide a model for how industry leaders can collaborate in developing standards. Recognizing its value would prevent the transit industry from starting from a zero-base position in responding to members' expressed interest to have access to a certification program.

The research team suggests that SDOC or another designated group become familiar with a resource that many organizations contemplating a certification program consult: Institute for Credentialing Excellence (ICE). Headquartered in Washington DC, ICE is dedicated to providing educational, networking and advocacy resources for credentialing organizations. The organization's accrediting body, NCCA, evaluates certifying organizations for compliance with the NCCA *Standards for the Accreditation of Certification Programs.* The organization provides several resources that help organizations that are planning to implement certification programs move through the development process. One such resource, available on its website, is a 10-page booklet titled *Defining Features of Quality Certification and Assessment-Based Certification Programs.* The purpose of this resource is to aid stakeholders to gain a better understanding of the distinctions between assessment-based certificate programs, certificates of attendance or participation, and professional or personnel certification programs. The document focuses on 12 key aspects of certification and assessment-based certificate programs.

At the suggestion of the TCRP Working Group, the research team contacted ICE to gather data on their services. Data collected from ICE staff reveal there are many factors that go into starting a certification program that will affect overall program costs. While the organization would not attempt to estimate the cost for setting up a voluntary professional certification program for the transit industry, the staff stated the primary start-up costs would be for certification test item preparation, pilot testing and validation of tests and setting up the information technology to manage the program. According to ICE staff, at least $100,000 would need to be committed to cover start-up costs. The staff provided the following list of considerations:

- Format and length of the certifying exam(s) (multiple choice, essay, oral, etc.);
- Exam administration (paper and pencil, computer based);
- Number of exam forms the organization will need/want to develop each year;
- Candidate application review processes;
- Number of examinations to offer per year; and
- Number of candidates to test each year.

Suggested Certification Program Start-up Strategy

A review of one area in which standards have been completed—procurement—suggests a case business case for using those standards as a test case to determine knowledge, skills, abilities, and other (KSAOs) characteristics one must possess to be certified in the field. Presented below is a potential approach.

1. Because SDOC already has oversight for standards development, it could be charged with establishing the APTA Credentialing and Certification Commission. The Commission would have the authority and autonomy within the confines of the standards that have been agreed to by SDOC. The Commission would be comprised of individuals with the KSAOs needed to work collaboratively in designing and managing the credentialing process.

2. The SDOC could work with the Transportation Research Board to request allocation of research funds that would be used to conduct the research needed to develop certification standards based on the established procurement standards. Reviews of previous relevant TCRP research reports would be a key element in this discovery process.

3. Following this review process, the work can be done with the guidance of individuals with expertise in credential program design. This work

12

should incorporate the best thinking within the industry about how to assess readiness to go through an assessment process. Involving one or more of the 33 UTC institutions in the process may be a cost-effective approach to developing testing and other assessment criteria, questions, and processes.

4. A key element in the design and development phase would be to involve APTA's membership as much as feasible throughout the process. Feedback received during the meeting with the TCRP Working Group to review the study's draft final report revealed a number of questions and, in some cases, reservations about the need for and efficacy of deploying a transit industry certification program. The diversity of views expressed during the meeting is likely reflective of the types of questions and reservations the membership will want addressed before giving its support to program deployment. Therefore, a communication plan that ensures extensive two-way communication with the membership should be developed at the early stages of work and executed in a consistent and responsive manner.

5. Once certification standards have been finalized, the APTA Credentialing and Certification Commission could send them to various UTCs such as the Mineta Institute at San Jose State University or the National Center for Transportation Management, Research and Development at Morgan State University, and the Institute for Transportation Research and Education at the North Carolina State University. In some cases, the route to take may be an adaptation of current curricula to meet the SDOC-approved standards.

6. Other resources available for possible preparation for certification include an assessment of how the three programs reviewed during this project can be resources for qualifying for certification. For instance, NTI already offers a four-course series on procurement for FTA grantees: Orientation to Transit Procurement, Basic Cost and Price Analysis and Risk Assessment, RFPs and Competitive Contract Negotiations, and Contract Administration. Tuition for the course is waived for federal, state, and local government employees who work in transportation or related areas.

7. These entities would send the proposed curricula the APTA Credentialing and Certification Commission Institute for approval to become a third-party provider of training and/or testing center, where online testing and scoring can be available.

8. Once approved curricula are approved, workshops could be held at APTA conferences, as well as onside at the provider locations.

SUMMARY

Over the past two decades, transit industry leadership has been successful in making the business case that increased resources are needed to prepare the transit workforce of the future. As evidenced in the four programs reviewed in the gap analysis conducted during this study, much has been achieved in preparing a corps of leaders for the industry. The current programs, while substantive and open to the entire industry, have limited capacity to reach significant number of professionals annually. In addition, costs, delivery mechanisms, locations, and other variables have made these programs less than advantageous to a large segment of the industry.

Recent feedback for APTA members has indicated an interest in the availability of a program that reaches and is accessible to the masses that provide public transportation services nationwide. This feedback, given through the APTA 2007 Member Needs Assessment and more recently the 2009 APTA Skill Development and Training Needs Survey, signals a desire for additional attention to a credentialing process by which transit professionals can communicate achievement beyond basic knowledge and experience. Credentialing is generally recognized as a means by which the achievements of one professional can be distinguished from those of another.

This study revealed that numerous professions have addressed the matter of credentialing through voluntary professional certification programs. Transit has a number of substantive resources and mechanisms in place to facilitate inquiry into the feasibility of making a certification program a reality. Most notable is the APTA Standards and Oversight Council, which coordinates and oversees the development of standards for the industry. With resources such as the International Transit Studies Program, Eno Transit Executive Seminar, Leadership APTA, NTI Senior Leadership course, and workforce development programs at several University Transportation Centers, much of the groundwork has been laid for serious

13

consideration of a certification program. As described in the suggested strategy presented herein, additional resources and research are needed if the idea is to move from the conceptual stage to program design and implementation.

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14

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