

TCRP

SYNTHESIS 71

TRANSIT
COOPERATIVE
RESEARCH
PROGRAM

Paratransit Manager's Skills, Qualifications, and Needs

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A Synthesis of Transit Practice

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**Paratransit Manager's Skills,
Qualifications, and Needs**

A Synthesis of Transit Practice

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New Orleans, Louisiana

SUBJECT AREAS

Public Transit

Research Sponsored by the Federal Transit Administration in Cooperation with
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WASHINGTON, D.C.

2007

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The nation's growth and the need to meet mobility, environmental, and energy objectives place demands on public transit systems. Current systems, some of which are old and in need of upgrading, must expand service area, increase service frequency, and improve efficiency to serve these demands. Research is necessary to solve operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the transit industry. The Transit Cooperative Research Program (TCRP) serves as one of the principal means by which the transit industry can develop innovative near-term solutions to meet demands placed on it.

The need for TCRP was originally identified in *TRB Special Report 213—Research for Public Transit: New Directions*, published in 1987 and based on a study sponsored by the Federal Transit Administration (FTA). A report by the American Public Transportation Association (APTA), *Transportation 2000*, also recognized the need for local, problem-solving research. TCRP, modeled after the longstanding and successful National Cooperative Highway Research Program, undertakes research and other technical activities in response to the needs of transit service providers. The scope of TCRP includes a variety of transit research fields including planning, service configuration, equipment, facilities, operations, human resources, maintenance, policy, and administrative practices.

TCRP was established under FTA sponsorship in July 1992. Proposed by the U.S. Department of Transportation, TCRP was authorized as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). On May 13, 1992, a memorandum agreement outlining TCRP operating procedures was executed by the three cooperating organizations: FTA, the National Academy of Sciences, acting through the Transportation Research Board (TRB); and the Transit Development Corporation, Inc. (TDC), a nonprofit educational and research organization established by APTA. TDC is responsible for forming the independent governing board, designated as the TCRP Oversight and Project Selection (TOPS) Committee.

Research problem statements for TCRP are solicited periodically but may be submitted to TRB by anyone at any time. It is the responsibility of the TOPS Committee to formulate the research program by identifying the highest priority projects. As part of the evaluation, the TOPS Committee defines funding levels and expected products.

Once selected, each project is assigned to an expert panel, appointed by TRB. The panels prepare project statements (requests for proposals), select contractors, and provide technical guidance and counsel throughout the life of the project. The process for developing research problem statements and selecting research agencies has been used by TRB in managing cooperative research programs since 1962. As in other TRB activities, TCRP project panels serve voluntarily without compensation.

Because research cannot have the desired impact if products fail to reach the intended audience, special emphasis is placed on disseminating TCRP results to the intended end users of the research: transit agencies, service providers, and suppliers. TRB provides a series of research reports, syntheses of transit practice, and other supporting material developed by TCRP research. APTA will arrange for workshops, training aids, field visits, and other activities to ensure that results are implemented by urban and rural transit industry practitioners.

The TCRP provides a forum where transit agencies can cooperatively address common operational problems. The TCRP results support and complement other ongoing transit research and training programs.

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FOREWORD

*By Staff
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Transit administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to the transit industry. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire transit community, the Transit Cooperative Research Program Oversight and Project Selection (TOPS) Committee authorized the Transportation Research Board to undertake a continuing study. This study, TCRP Project J-7, "Synthesis of Information Related to Transit Problems," searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute a TCRP report series, *Synthesis of Transit Practice*.

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

This synthesis documents current requirements for being a paratransit manager and actual experiences of current paratransit managers in their positions. Transit managers, policy makers, educators, trainers, human resource directors, and stakeholders, as well as current and future paratransit professionals, will find the results valuable in determining action steps needed to enhance the profession and paratransit service delivery. In addition, it offers information from general managers, chief operating officers, and paratransit advisory committees about college degrees desired and guidance offered aspiring paratransit managers. Technology proficiency and knowledge of the Americans with Disabilities Act were identified as the most needed skills. College educations were recommended by a majority of the professionals, with business management identified as the most desirable area of study; however, aside from this, successes in the field were attributed to specifics such as ethics, customer relations, communications, management and supervision, and sensitivity.

This synthesis contains information derived from survey data collected from selected transit agencies throughout the United States; a literature review; APTA, CTAA, and Easter Seals Project ACTION website material; as well as interviews with organizations' and agencies' staffs selected for profile documentation. The profiles of selected paratransit managers represent a variety of types of service provided, agency size, and individual tenure in the field.

A survey was undertaken to acquire information on methodologies used in a variety of situations, satisfaction with these methods, and suggestions for improvements. Following a review of the survey results, case studies were developed that included transit agencies of various sizes and from different geographic regions, agencies with a variety of approaches and methods related to ridership forecasting, and agencies that could offer insight to the industry as a whole.

John F. Potts and Maxine A. Marshall, The DMP Group, New Orleans, Louisiana, collected and synthesized the information and wrote the report, under the guidance of a panel

of experts in the subject area. The members of the topic panel are acknowledged on the preceding page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

CONTENTS

1	SUMMARY
5	CHAPTER ONE INTRODUCTION Background, 5 Methodology and Organization, 5 Report Organization, 6
7	CHAPTER TWO WHAT IS A PARATRANSIT MANAGER? Background, Experience, and Skills of Current Paratransit Managers, 8 Summary of Current Requirements to Be a Paratransit Manager, 9 Summary of Actual Background, Experience, and Skills of Current Paratransit Managers, 12
17	CHAPTER THREE WHAT SKILLS ARE MOST DESIRED FOR PARATRANSIT MANAGERS? Importance of Skills, 17 Additional Skills, Training, and Certifications, 19 Education, 20 Guidance That Current Managers Would Offer Aspiring Paratransit Managers, 20 Impacts of Structures, Cultures, and Sizes of Transportation Agencies on the Role and Function of the Paratransit Manager and the Delivery of Service, 22
24	CHAPTER FOUR PARATRANSIT MANAGER PROFILES
28	CHAPTER FIVE CONCLUSIONS
31	FREQUENTLY USED ACRONYMS
32	BIBLIOGRAPHY
33	APPENDIX A PRESS RELEASE
34	APPENDIX B SYNTHESIS SURVEY QUESTIONNAIRE
43	APPENDIX C SURVEY RESPONDENTS
44	APPENDIX D ADVICE OR GUIDANCE OFFERED TO PARATRANSIT MANAGERS
46	APPENDIX E SPATIAL PERCEPTION TEST

PARATRANSIT MANAGER'S SKILLS, QUALIFICATIONS, AND NEEDS

SUMMARY In October 2005, a Consensus Conference for Paratransit Managers was convened by Easter Seals Project ACTION (ESPA) as the result of a Statement of Need submitted to ESPA proposing an effort related to the recruitment, training, retention, and rewarding of paratransit managers on the subject. The conference produced several recommendations to close the gap between the need and availability of qualified and competent paratransit managers. This synthesis effort was developed to satisfy one of the recommendations. It documents the current state of the practice in paratransit managers' skills, qualifications, and needs. Transit managers, policy makers, educators, trainers, human resource directors, and stakeholders, as well as current and future paratransit professionals, will find the results valuable in determining action steps needed to enhance the profession and paratransit service delivery. For the purposes of this synthesis, paratransit is defined as the full range of demand-responsive services, including Americans with Disabilities Act (ADA)-complementary, general public dial-a-ride, and human service transportation.

A web-based survey questionnaire was used to collect responses. The survey questionnaire was e-mailed to more than 100 agencies and was e-mailed either to the paratransit manager or the general manager (GM)/chief executive officer (CEO) of the agency, with instructions to forward the questionnaire to the "highest-ranking person in the agency with direct responsibility for paratransit service delivery."

A total of 60 survey questionnaires were completed and returned from 58 agencies. One survey from each of the agencies that submitted two responses was deleted from the database. Geographically, the survey respondents were located in 37 states and relatively evenly distributed throughout the entire country. Nine of the 58 agencies (16%) served rural areas, whereas the remaining 49 (84%) served urban areas.

The synthesis documents, through a review of position descriptions, the current requirements for being a paratransit manager.

- Current education requirements for the position,
- Current years of experience needed for the position,
- Current years of supervisory experience needed for the position,
- Current skills required for the position, and
- Starting salary ranges for the position.

This report discusses the actual experiences of current paratransit managers in the following:

- Education achievement (level of education attained and area of study),
- Longevity in current position,
- Years of experience in passenger transportation,
- Years of supervisory experience,
- How recruited for current position,
- Attraction of the position,
- Skills training received in the past five years, and
- Current salary ranges.

The report provides information on additional skill sets desired by paratransit managers, their GMs/CEOs, and paratransit advisory committee members. It ranks the skills that are important to paratransit managers, GMs/CEOs, and paratransit advisory committee members. The report documents the recommended additional skills, training, and certifications that paratransit managers should have to improve their overall effectiveness. It provides information on the views of paratransit managers, their GMs/CEOs, and paratransit advisory committee members on whether paratransit managers should have college degrees and, if they should, what area of study is most desirable. It also presents information on guidance that current managers would offer aspiring future paratransit managers. Additionally, it provides information obtained from the surveys on the impacts of the structures, cultures, and sizes of transportation agencies on the role and function of the paratransit manager and the delivery of service.

The report documents interviews with several paratransit managers and/or their GMs/CEOs to gain a deeper understanding of their backgrounds, philosophies regarding paratransit management, and the types of skills that they feel are needed to be truly effective. The individuals selected for the profiles were also asked to identify training resources that they found to be most effective and, if applicable, to describe what “excites” them about a career in paratransit.

Based on the survey results, the following are some of the key conclusions of the synthesis.

- In reviewing the current requirements to be a paratransit manager:
 - A majority of paratransit manager positions for all types and sizes of agencies required a college degree or higher (66%).
 - Most agencies (75%) required five years or less of experience, including supervisory experience, to qualify for the position.
 - Starting salaries for paratransit managers varied considerably, with \$40,000–\$49,000 being the most frequently cited range (27%), followed by \$75,000–\$99,000 (17%). As would be expected, the lowest starting salaries were at rural and small agencies and the highest were at the large agencies.
 - Technology was the most often reported as a necessary skill for a paratransit manager (38%), followed by knowledge of ADA (31%) and business/management (31%).
- The survey responses on the actual experience of current paratransit managers reveal that:
 - A substantial majority of current paratransit managers (69%) had college degrees or higher. A much higher percentage of current paratransit managers had graduate degrees than undergraduate degrees (50% versus 19%). This was consistent with the education requirements found in the position descriptions.
 - The major areas of study by the paratransit managers were business/management (32%), followed by “other” (32%) and public administration (28%).
 - Most paratransit managers had been in their current positions for five years or less (62% total). Only 15% of the paratransit managers had been in their current position for more than ten years.
 - Current paratransit managers had considerably more experience than the position description required, with 42% having more than ten years of passenger transportation experience before taking his/her current position and another 27% having five to ten years of experience.
 - Current paratransit managers reported salaries that were significantly higher than the starting salary stated for the position. More than 45% of current managers reported salaries of \$75,000 or more, whereas only 23% of the position descriptions contained starting salaries of \$75,000 or more.
 - A majority of current paratransit managers were hired externally for their positions (58%), and a significant number were either hired externally or promoted internally without paratransit experience (38%).

- A slight majority of current paratransit managers (52%) stated that it was the “challenge” that attracted them to the position, whereas only 8% mentioned that it was the pay.
- The skills for which current paratransit managers had received training in the past five years included customer service, management and supervision, and preventing sexual harassment (31.7%); performance evaluations (27%); sensitivity skills (25%); and team building (25%).
- Of the current paratransit managers surveyed, 32% had attended or participated in workshops and panels on paratransit topics at the CTAA Annual Expo.
- Of the current paratransit managers surveyed, 14% had participated in the Mobility Planning Services Institute provided by ESPA.
- Fourteen percent of the current paratransit managers surveyed had participated in the CTAA course on Passenger Service and Safety and 11% had participated in the CTAA Certified Community Transit Management course.
- Current paratransit managers reported little attendance at or participation in TRB-sponsored conferences.
- Fifty percent of the current paratransit managers had attended or participated in an APTA Bus and Paratransit Conference and 25% had attended an APTA annual meeting.
- Only 8% of the current paratransit managers had enrolled in a transportation degree program at a U.S.DOT-sponsored University Transportation Center.
- A considerable number of current paratransit managers reported making \$75,000 or more (46%), but several (27%) were making \$49,999 or less.
- The survey results on the importance of a paratransit manager having certain skills show that:
 - Paratransit driving, paratransit reservationist, and manual scheduling were viewed as not very important.
 - Dealing with the media, computerized scheduling, safe driving practices, labor relations, and affirmative action were viewed as very important to a slight majority of respondents.
 - Working with boards, written communications, oral communications, sensitivity, management and supervision, ethics, and customer relations were deemed to be very important to an overwhelming majority of respondents.
- In reviewing the survey results on what kinds of additional skills and training paratransit managers should have to improve their effectiveness:
 - Total Quality Management was the most requested additional skill (50%).
 - Managing the cost of paratransit services was the most requested type of training (52%), followed by paratransit scheduling and dispatching fundamentals (42%), comprehensive ADA paratransit eligibility (39%), and Certified Community Transit Supervisor (39%).
- In response to whether paratransit managers should have a college degree:
 - A slight majority (52%) believe that paratransit managers should be required to have a degree from a four-year college or university, with 35% answering no and 13% not sure.
 - One-half of the respondents (50%) indicated that business/management was the most desirable area of study, followed by transportation (17%) and public administration (14%).

The detailed case studies and profiles of paratransit managers and GMs/CEOs confirmed the conclusions of the synthesis survey. These case studies and profiles offered a range of perspectives from “new” to the more experienced that were from different size and agency types.

The paratransit manager position is relatively new at public transportation agencies and the survey results do not appear to show a consistent career path to becoming a paratransit manager. The survey results show that the current paratransit manager is highly educated and has passenger transportation experience but is almost always new to the current position, has

little or no paratransit experience, and is not highly compensated. He or she took the job for the challenge and not the pay or the status of the position. Interestingly, the position descriptions for paratransit manager most consistently have technology and knowledge of ADA as the most necessary skills to have; however, most paratransit managers do not believe that those skills are as important to their success as ethics, customer relations, communications, management and supervision, and sensitivity. It appears that most paratransit managers receive their training on the job and not through any well-defined educational curriculum or industry-provided training. Although paratransit operations are very different from fixed-route public transit, most paratransit managers at fixed-route systems report to the chief operating officer or subordinate who has his or her roots in fixed-route operations.

INTRODUCTION

BACKGROUND

A Consensus Conference for Paratransit Managers was convened in October 2005 by Easter Seals Project Action (ESPA) as the result of a Statement of Need submitted to ESPA proposing an effort related to the recruitment, training, retention, and rewarding of paratransit managers on the subject. Experts from transportation agencies and associations, higher education, the disability community, and the personnel field met on October 6–7, 2005, to review the current situation and suggest actions. The conference was directed at the long-term goal of increasing the professional status and competency of paratransit managers, as well as the effectiveness of their training. It produced several recommendations to close the gap between the need and the availability of qualified and competent paratransit managers including:

- Develop and encourage adoption of a transit manager degree program.
- Stimulate the creation of practicum and internships relating to the preparation of future and current personnel regarding paratransit management.
- Develop and disseminate a course on universal design that builds on the concept of one transportation system for all customers.
- Develop and disseminate a story of why people should choose careers as paratransit, transit, or mobility managers to assist in the recruitment of people to the profession.
- Create and disseminate a comprehensive list of current academic, continuing education, and other training for use by people interested in becoming paratransit managers.
- Explore the creation of a universally recognized transit certification program similar to CTAA's current Certified Community Transit Manager (CCTM) program that would convey importance and recognition.
- Develop and disseminate community projects for elementary, middle, and high school students to actively create awareness of transit careers.
- Develop practicum for degree candidates to work with paratransit providers.
- Synthesize the background and experience of current paratransit managers.

This synthesis was developed to satisfy the last of these recommendations. Transit managers, policy makers, educators, trainers, human resource directors, and stakeholders, as well as current and future paratransit professionals, will find the results

valuable in determining action steps needed to enhance the profession and paratransit service delivery. For the purposes of this synthesis, paratransit is defined as the full range of demand-responsive services, including Americans with Disabilities Act (ADA)-complementary, general public dial-a-ride, and human service transportation.

METHODOLOGY AND ORGANIZATION

This synthesis documents the current state of the practice in paratransit managers' skills, qualifications, and needs including:

- Skill sets, backgrounds, and training of current paratransit managers;
- Additional skill sets desired by current paratransit managers and their organizational leadership and stakeholders;
- Guidance that current managers could offer to aspiring future paratransit managers; and
- Impacts of the structures, cultures, and sizes of transportation agencies on the role and function of the paratransit manager and the delivery of service.

Information presented in the synthesis was gathered from the following sources:

- Literature accessed from TRB's Transportation Research Information Services (TRIS);
- Websites of APTA, CTAA, and ESPA;
- Websites of various agencies that provide paratransit service;
- A survey of agencies that provide paratransit service;
- A survey of members of agency paratransit advisory committees; and
- Interviews with individual managers or organizations selected for profiles.

Because the synthesis documents the current state of the practice in paratransit managers' skills, qualifications, and needs, it was important to collect information that would be representative of the universe of paratransit systems throughout the nation. It was noted at the outset that there were hundreds of paratransit operations in the country and it would be important to obtain information from as many agencies as possible, given the synthesis time constraints

and budget. To ensure that 30 to 50 agencies would be surveyed, more than 100 agencies were selected to receive the survey questionnaire. To assist in this effort, CTAA provided a comprehensive list of agencies that identified themselves as paratransit systems. ESPA staff provided the names of agencies that might be interested in participating in the survey. The APTA directory contained a list of its transit agency members. The criteria for the development of the list included:

- Geographic location (at least two from each state were selected).
- Population size (rural, small urban, medium urban, and large urban).
- Agency type (ADA paratransit only, human service transportation only, dial-a-ride only, and combinations of the three).
- Organizational culture (public, private not-for-profit, and private-for-profit).
- Number of vehicles (less than 20, 21 to 99, 100 and over).
- Availability of website e-mail addresses.

This effort was augmented by additional outreach to obtain as much input as possible. An information sheet on the synthesis was developed for distribution (see Appendix A). The notice was disseminated by synthesis panel members at the 17th National Rural Public and Intercity Bus Conference held in Stevenson, Washington, on October 22–25, 2006. The notice was also distributed to the membership of the California Association for Coordinated Transportation. In addition, APTA published an article in its weekly newspaper, *Passenger Transport*, about the synthesis survey, and both CTAA and ESPA provided information about the survey on their respective websites, with a link to the synthesis study e-mail address (trbparatransitstudy@thedmpgroup.com) for anyone interested in participating.

A web-based survey questionnaire (see Appendix B) was e-mailed to all of the agencies on the list compiled for this purpose plus any agency that expressed an interest through the outreach efforts. The survey questionnaire was then e-mailed either to the paratransit manager or the general manager (GM)/chief executive officer (CEO) of the agency, with instructions to forward the questionnaire to the “highest-ranking person in the agency with direct responsibility for paratransit service delivery.” To obtain the highest possible

rate of return, two reminder e-mails were sent to individuals who had not responded to the previous messages. All e-mails were distributed with an official TRB cover memorandum to provide authenticity to the requests.

A total of 60 survey questionnaires from 58 agencies were completed and returned; two agencies provided responses from two different persons. In turn, one survey from each of the agencies that submitted two responses was deleted from the database. The list of participating agencies can be found in Appendix C. The survey responses were supplemented by follow-up interviews to augment and/or clarify answers to the survey questionnaire.

REPORT ORGANIZATION

The synthesis report begins with a discussion on the definition of a paratransit manager and then focuses on the results of the survey and other interviews on the current state of the practice in paratransit managers’ skills, qualifications, and needs.

- Chapter two provides information on the current skill sets, background, and training of paratransit managers based on responses from the survey. It documents position description requirements, educational levels, paratransit work experience, reasons for applying for the positions, salary levels, skill sets, and job training of the current cadre of paratransit managers.
- Chapter three provides information on additional skill sets desired by paratransit managers, their GMs/CEOs, and paratransit advisory committee members. It includes information on guidance that current managers could offer aspiring paratransit managers. It also provides information obtained from the surveys on the impacts of the structures, cultures, and sizes of transportation agencies, on the role and function of the paratransit manager, and on the delivery of service.
- Chapter four presents profiles of selected paratransit managers representing a variety of types of paratransit service provided, agency sizes, and tenure in the paratransit field. The profiles provide detail on the educational levels, prior and current positions, philosophies about paratransit management, and recommended skills and training resources for paratransit managers.
- Chapter five summarizes the conclusions and next steps, including suggestions for additional study.

WHAT IS A PARATRANSIT MANAGER?

This chapter begins with a discussion on how to define a paratransit manager from a historical and service delivery perspective. That discussion is followed by a profile of the existing background, experience, and skills that are currently required to be a paratransit manager. The chapter concludes with a summary of the actual backgrounds, experiences, and skills of current paratransit managers.

Finding a commonly accepted definition for paratransit manager is a challenge in and of itself. Paratransit service delivery options are so diverse that a single title does not easily “fit all.” For purposes of this study, paratransit is defined as the full range of demand-responsive services, including ADA-complementary, general public dial-a-ride, and human service transportation. Each of these demand-responsive services has a somewhat different but interrelated history.

As early as the late 1960s and early 1970s, human service program officials began to recognize that many of their clients lacked adequate transportation to access the services they were providing. Agencies sometimes budgeted funding for transportation and occasionally began contracting with small private providers to transport clients or began providing transportation service themselves for their clients; however, these innovations were generally few and far between. Some local governments, such as Fairfax County, Virginia, provided mechanisms such as FASTRAN for coordination of nonemergency transportation services, whereas others had a more ad hoc approach. Soon, funding agencies began to note the duplicative transportation services that were being provided and began paying more attention to the concept of “coordination.”

In the early 1970s, general public dial-a-ride became an innovative approach to providing public transportation in the United States. There were significant experiments with computer-aided dial-a-ride systems in Haddonfield, New Jersey; Rochester, New York; and Santa Clara County, California, that were ultimately discontinued, often because the technology was not yet sufficiently developed or they could not keep up with the demand. The concept has continued in smaller urban areas and in rural areas, and has been adapted for use in larger urban areas for special populations such as older adults and persons with disabilities. Demand-responsive service has also been used to serve neighborhoods in close proximity to major transit facilities; for example, a rail station.

ADA-complementary paratransit service was the result of the Americans with Disabilities Act of 1990, which profoundly changed the way most transit systems provided public transit service. Before the ADA, most urban transit agencies concentrated on their core fixed-route transit service, with only a few systems experimenting with and implementing demand-responsive service. U.S.DOT regulations adopted pursuant to Section 504 of the Rehabilitation Act (passed in 1973), as amended, allowed substantial flexibility in the provision of public transit service for a new constituency, persons with disabilities. Many agencies, such as the New Orleans, Louisiana, Regional Transit Authority (NORTA), implemented demand-responsive (paratransit) systems to provide service to this new constituency. NORTA implemented the “Lift” paratransit service instead of providing accessible fixed-route service. Other systems such as Seattle, Washington (now King County Metro), and many systems in California and Michigan (because of state laws) concentrated on providing fully accessible fixed-route transit through lift-equipped buses while leaving paratransit service to other agencies. In contrast, the ADA required that public transit agencies provide both accessible fixed-route service *and* complementary paratransit service for persons with disabilities who could not use the fixed-route system. With the ADA, all transit agencies were required to have a paratransit system—with new rules.

The ADA has also changed some relationships with organized labor and with the private sector. Many public transit systems were unsure of how to handle the new ADA requirements and turned to private management firms, taxicab companies, and local not-for-profit organizations to assist in providing the newly required paratransit service. Similarly, many labor unions did not want the new service to interfere with their traditional jurisdiction over fixed-route operations and were willing to allow extensive amounts of contracting out for paratransit service.

Many efforts have been made in the past several years to coordinate and improve the quality and cost-effectiveness of ADA paratransit and human service transportation. These efforts received their most recent impetus from a variety of initiatives, including federal, state, regional, and local activities designed to foster coordination. The Transportation Equity Act for the 21st Century (TEA-21) encouraged the coordination of nonemergency transportation service funded by both U.S.DOT and non-DOT federal agencies through

metropolitan planning organizations. Two recent federal actions, Executive Order 13330 and United We Ride (which culminated in the Congressional funding approvals and coordinated planning mandates contained in SAFETEA-LU), have accelerated the efforts for coordination of publicly funded transportation services. A recent TRB study indicated that all states reported that they encouraged coordination and that 38% of the states had passed legislation on the issue. Entities such as APTA, CTAA, and ESPA have been involved for several years in efforts to coordinate publicly funded transportation services. For example, ESPA sponsors an annual Mobility Planning Services Institute (MPSI) that brings together teams of leaders from the disability community and transportation industry to share information and strategies to improve access to transportation services in their communities. MPSI has contributed to the efforts of several public transit agencies operating coordinated paratransit systems for ADA and some human service transportation programs. Public transit systems in Erie, Pennsylvania; Jacksonville, Florida; and Sumter, South Carolina, are examples of systems that have developed programs for coordinating human service transportation passenger trips with ADA-eligible passenger trips. Many rural public transit systems provide for coordination of ADA-eligible and human service transportation passenger trips.

A paratransit manager could have his or her roots in traditional public transit; in human service transportation; in the technology-oriented demand-responsive transit; or in the case of external hires, some other field. In urban public transit systems, the paratransit manager is usually a part of the operations department and, in many instances, a “contract” employee. In rural systems, the position may be filled by someone who wears multiple hats. In dial-a-ride and human service transportation systems, which are often smaller, local systems, the paratransit manager could be the CEO or chief operating officer (COO). For purposes of this study, a paratransit manager was defined as being the highest-ranking person in the agency with direct responsibility for paratransit service delivery. Individuals who responded to the survey questionnaire and identified themselves as paratransit managers had a range of titles and reporting relationships, including:

- Director of paratransit services who reports to the executive director of the agency;
- Paratransit operations branch chief who reports to the public transit division head;
- General manager who reports to the regional vice president;
- Senior transit operations specialist who reports to the director of contract services; and
- Director, accessible transportation program, who reports to the executive director of operations.

Indeed, the demographics of the survey questionnaire respondents reflected the characteristics of a paratransit manager. Two-thirds of the respondents were from public

agencies and the remaining were split almost evenly between private not-for-profit agencies (17%) and private-for-profit agencies (15%). The paratransit manager was an actual agency employee in 71% of the responses and a contractor in the remaining 29%. Although the vast majority of respondents were from systems that provided service to ADA-eligible passengers (82%), almost 44% of the respondents provided human service transportation and 35% provided general public dial-a-ride. Twenty-two of the agencies (38%) provided only ADA paratransit service, four (7%) provided only human service transportation, and one provided only general purpose dial-a-ride service, with the remaining 31 (53%) providing a mix of the three. Thirteen of the agencies (22%) provided only paratransit service, whereas the remaining 45 (78%) provided other types of service such as fixed-route. With respect to the categories of paratransit passengers that the agencies transported, the results were as follows:

- ADA-complementary paratransit (87%),
- Older adults (59%),
- Persons with disabilities who may not be ADA eligible (45%),
- General public passengers (40%),
- Older adults funded by human service programs (37%),
- Medicaid clients (28%), and
- Job Access and Reverse Commute passengers (28%).

Most respondents used technology in their paratransit service delivery as follows:

- Computer scheduling software (83%),
- Computer dispatching software (72%),
- Automatic vehicle location (AVL) (47%), and
- Mobile data terminals (MDTs) (47%).

Geographically, the survey respondents were located in 37 states, relatively evenly distributed throughout the entire country: Northeast (10), Southeast (15), Midwest (10), Southwest/Rocky Mountain (9), and Far West/Hawaii (16). Nine of the agencies (16%) served rural areas, whereas the remaining 49 (84%) served urban areas.

BACKGROUND, EXPERIENCE, AND SKILLS OF CURRENT PARATRANSIT MANAGERS

This section summarizes the survey responses on the backgrounds, experiences, and skills of current paratransit managers. It documents, through a review of position descriptions, the current requirements for being a paratransit manager.

- Current education requirements for the position,
- Current years of experience needed for the position,
- Current years of supervisory experience needed for the position,
- Current skills required for the position, and
- Starting salary ranges for the position.

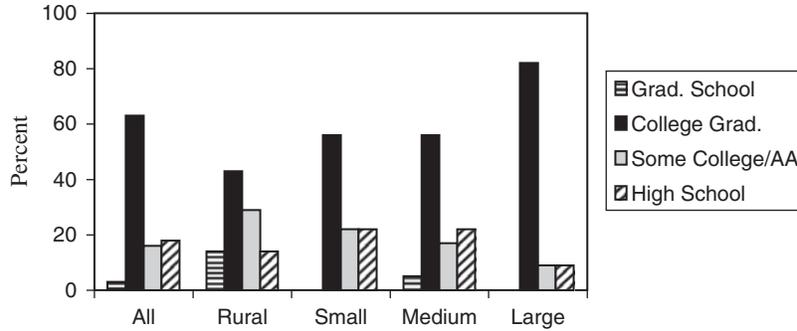


FIGURE 1 Education requirements in position description by size of agency (N = 44).

In some instances, the survey results from the position descriptions were tabulated for the following subgroups:

- All,
- Small agencies (fewer than 20 vehicles),
- Medium agencies (20 to 99 vehicles),
- Large agencies (100 or more vehicles), and
- Rural agencies (serving a rural clientele).

SUMMARY OF CURRENT REQUIREMENTS TO BE A PARATRANSIT MANAGER

Forty-four of the agencies surveyed (75%) reported that they had position descriptions for paratransit manager.

Education

Figure 1 summarizes the educational requirements specified for a paratransit manager, which show that the vast majority of these positions required a college degree or higher (66% total, 63% required a college degree and 3% required a graduate degree).

As would be expected, rural, small, and medium-sized agencies had lower educational requirements than the larger agencies (see Table 1).

Experience

Seventy-five percent of the agencies surveyed required five years or less experience to qualify for the position. Figure 2

TABLE 1
EDUCATION REQUIREMENTS FOR
PARATRANSIT MANAGER POSITIONS

Agency Size	Percent Requiring College
	Degree or Above
Rural	57
Small	56
Medium	61
Large	82

summarizes the results that show that 3% required fewer than two years of experience and 72% required three to five years of experience.

Small and rural agencies required the least experience and large agencies required the most (see Table 2).

The average number of years of experience required by agencies increased with the size of the agency, as shown in Table 3.

Most of the agencies surveyed also required five years or less of supervisory experience to qualify for the position (78%). Figure 3 summarizes the results that show that 8% required fewer than two years of supervisory experience and 70% required two to five years of supervisory experience.

Small and rural agencies required fewer years of experience and large agencies required the most experience (see Table 4).

The average number of years of supervisory experience required by responding agencies was less for rural and small agencies and about the same for medium and large agencies, as shown on Table 5. This differs from Table 3, which showed the requirements for both supervisory and nonsupervisory experience.

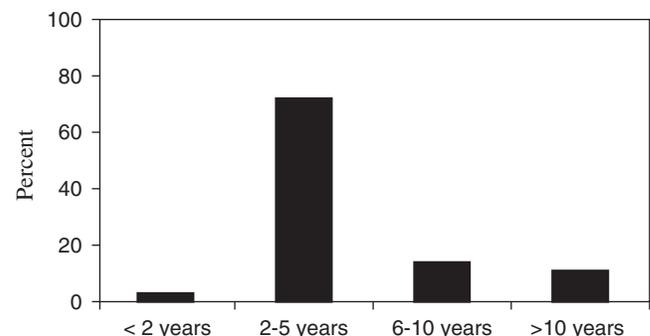


FIGURE 2 Years of experience required in position description (N = 44).

TABLE 2
YEARS OF EXPERIENCE REQUIRED TO QUALIFY FOR PARATRANSIT POSITION

Agency Size	Percent Requiring Five Years or Less of Experience
Rural	100
Small	100
Medium	86
Large	58

TABLE 4
AGENCIES REQUIRING FEWER THAN FIVE YEARS SUPERVISORY EXPERIENCE

Agency Size	Percent Requiring Five Years or Less of Supervisory Experience
Rural	100
Small	100
Medium	87
Large	67

TABLE 3
YEARS OF EXPERIENCE REQUIRED IN POSITION DESCRIPTION BY SIZE OF AGENCY

Experience	All	Rural	Small	Medium	Large
Mean (average)	5.92	4.20	3.43	5.29	6.33
Median	5.00	5.00	4.00	5.00	6.50
Minimum	1.00	2.00	1.00	2.00	2.00
Maximum	19.00	7.00	5.00	15.00	19.00

TABLE 5
YEARS OF SUPERVISORY EXPERIENCE REQUIRED IN POSITION DESCRIPTION BY SIZE OF AGENCY

Experience	All	Rural	Small	Medium	Large
Mean (average)	5.02	4.83	3.51	5.07	4.75
Median	5.00	5.00	5.00	5.00	4.50
Minimum	1.00	2.00	1.00	1.00	1.00
Maximum	15.00	7.00	5.00	15.00	10.00

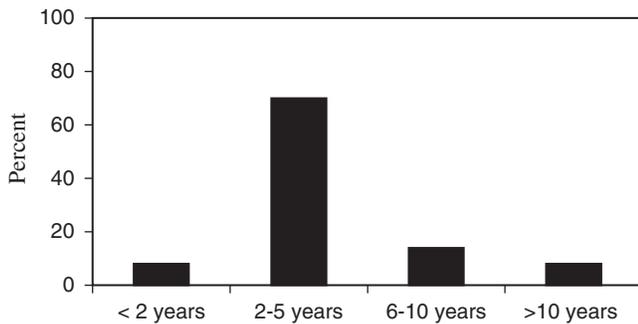


FIGURE 3 Years of supervisory/management experience required in position description (N= 44).

Starting Salaries

Figure 4 shows the starting salaries for all responding agencies for paratransit managers, with \$40,000 to \$49,000 being the most frequent range (27%) followed by \$75,000 to \$99,000 (17%).

Figures 5 through 8 show the starting salary ranges for rural, small, medium, and large agency respondents. The lowest starting salaries were at rural and small agencies and the highest starting salaries were at the large agencies.

In summary, according to the survey results:

- Eighty-eight percent of rural agencies reported starting salaries of from \$40,000 to \$49,999 or less.

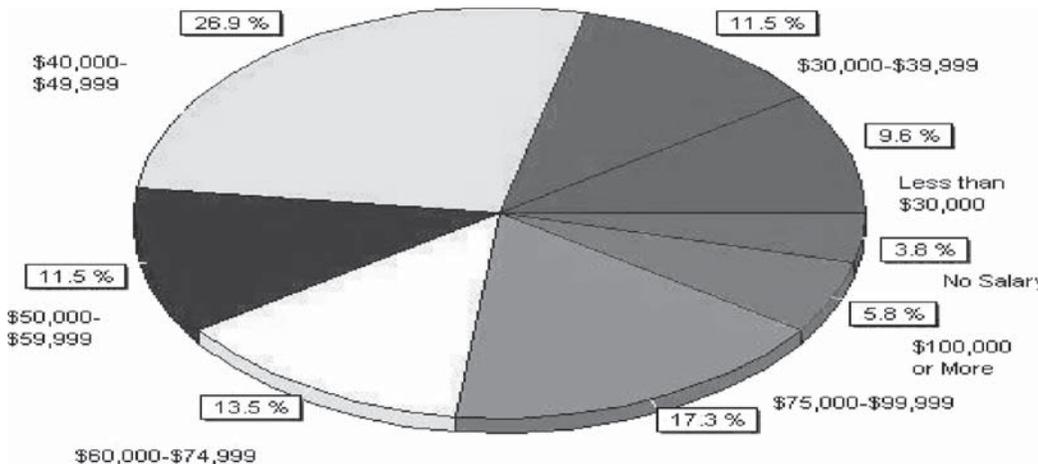


FIGURE 4 Starting salaries in the position description for all responding agencies (N= 44).

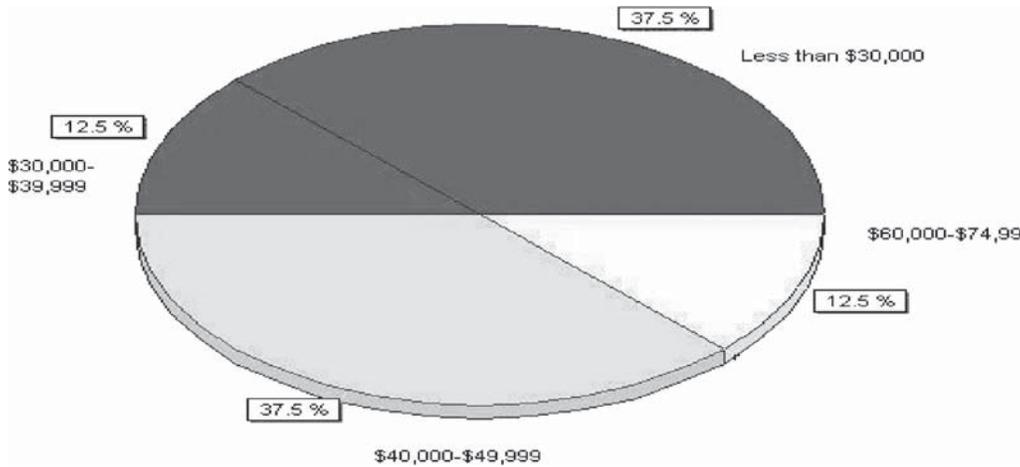


FIGURE 5 Starting salaries in position description for rural agencies (N=7).

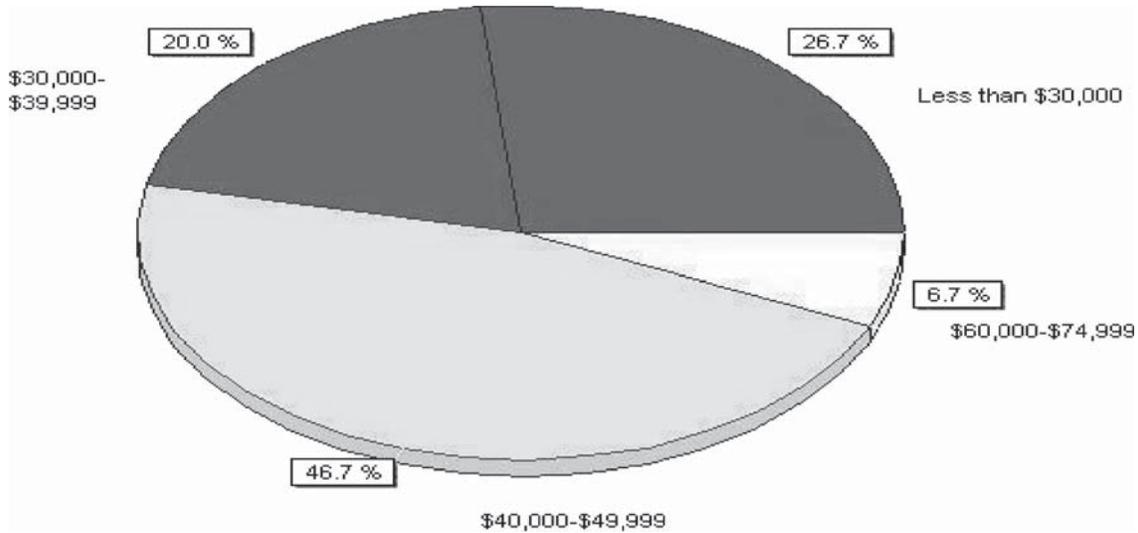


FIGURE 6 Starting salaries in position description for small agencies (N=14).

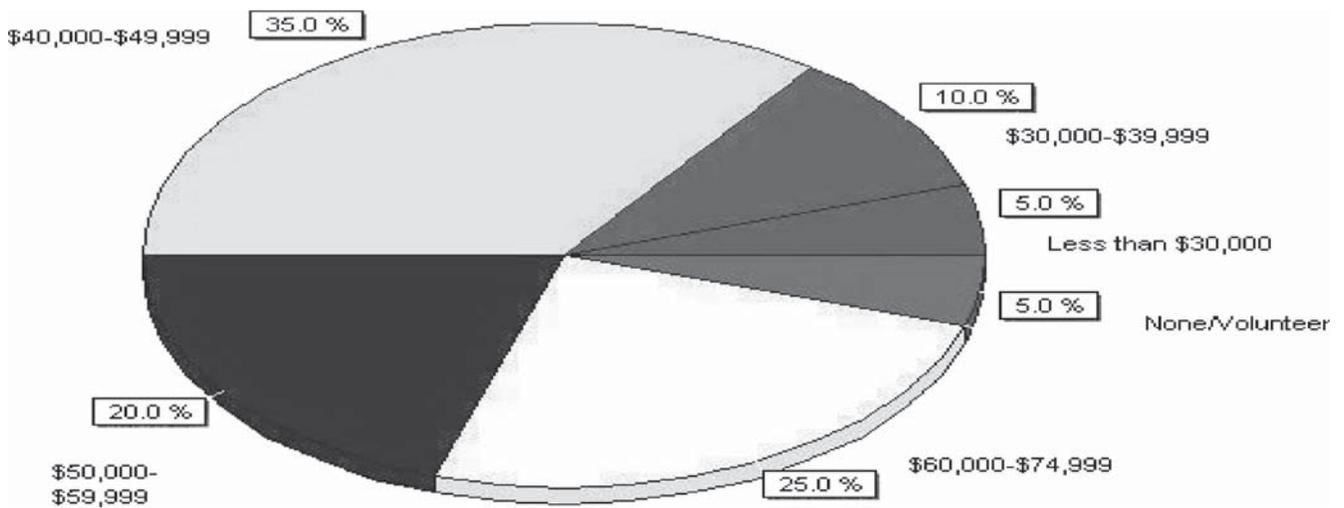


FIGURE 7 Starting salaries in position description for medium agencies (N=18).

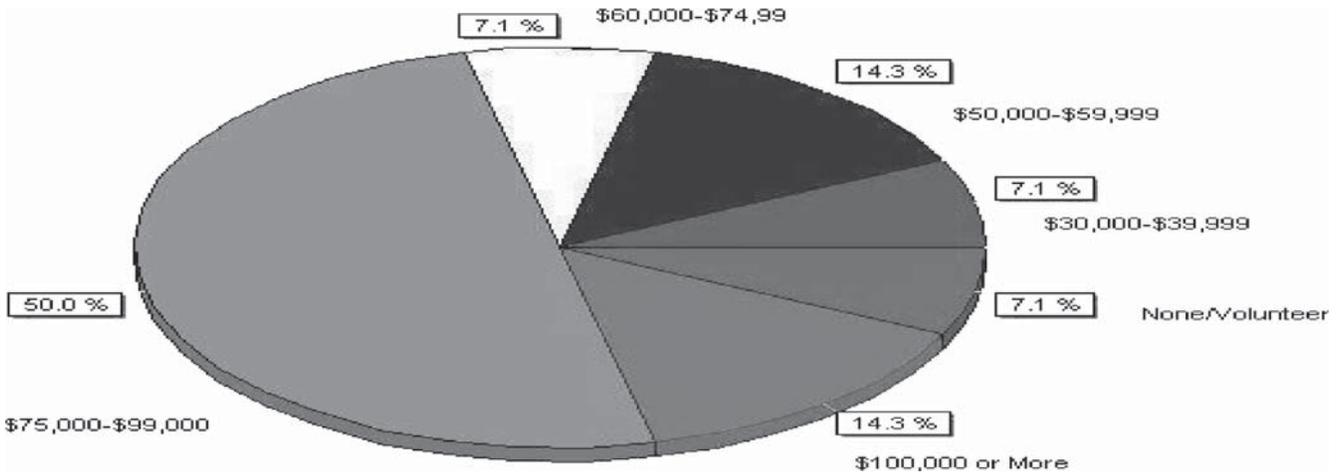


FIGURE 8 Starting salaries in position description for large agencies (N = 12).

- Ninety-three percent of small agencies reported starting salaries of from \$40,000 to \$49,999 or less.
- Eighty percent of medium agencies reported starting salaries of between \$40,000 and \$49,999 and \$60,000 and \$74,999.
- Of the large agencies, 64% reported starting salaries of \$75,000 or more.

Special Skills, Training, and Certifications

When asked if there were any special skills, training, and/or certifications required, technology was the most often reported as a necessary skill (38%), followed by knowledge of ADA (31%) and business/management (31%). Table 6 summarizes the special skills, training, and/or certifications that were required and the frequency that they occurred in the responses.

TABLE 6
SPECIAL SKILLS, TRAINING, AND
CERTIFICATIONS REQUIRED IN POSITION
DESCRIPTION FOR ALL PARATRANSIT
MANAGERS

Skills/Training/Certification	Percent Most Often Reported
Technology	38
Knowledge of ADA	31
Business/Management	31
Operations	10
Commercial Driver's License	10
Analytical Skills	7
Grant Writing	7
Communications	7
Planning	7
Customer Relations	7
Supervisory	7
Leadership	3
Non-Profit	3
Sensitivity Training	3

SUMMARY OF ACTUAL BACKGROUND, EXPERIENCE, AND SKILLS OF CURRENT PARATRANSIT MANAGERS

This section documents the actual experiences of the 36 current paratransit managers that responded to the survey in the following areas:

- Education achievement (level of education attained and area of study),
- Longevity in current position,
- Years of experience in passenger transportation,
- Years of supervisory experience,
- How recruited for current position,
- Attraction of the position,
- Skills training received in the past five years, and
- Current salary ranges.

Education Achievement

Figure 9 shows the highest level of formal education completed by the current paratransit managers that responded to the survey questionnaire. Similar to the education requirements discussed previously, a substantial majority of current paratransit managers (69%) had college degrees or higher. However, a much higher percentage of current paratransit managers had graduate degrees than undergraduate degrees (50% versus 19%).

As shown in Figure 10, the major areas of study by the paratransit managers were business/management (32%), followed by "other" (28%), and public administration (20%). The "other" areas included English, economics, biology, chemistry, and foreign languages.

Longevity in Current Position

As shown in Figure 11, most current paratransit managers had been in their current positions for five years or less (62%

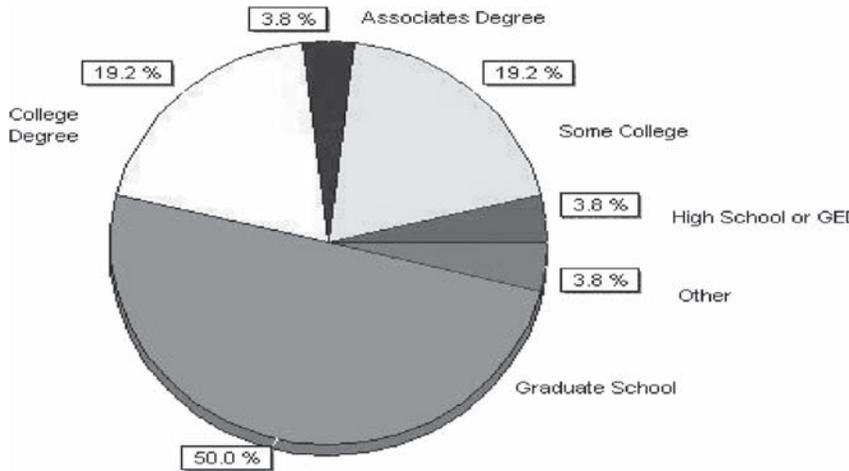


FIGURE 9 Highest level of formal education completed by paratransit managers (N = 36).

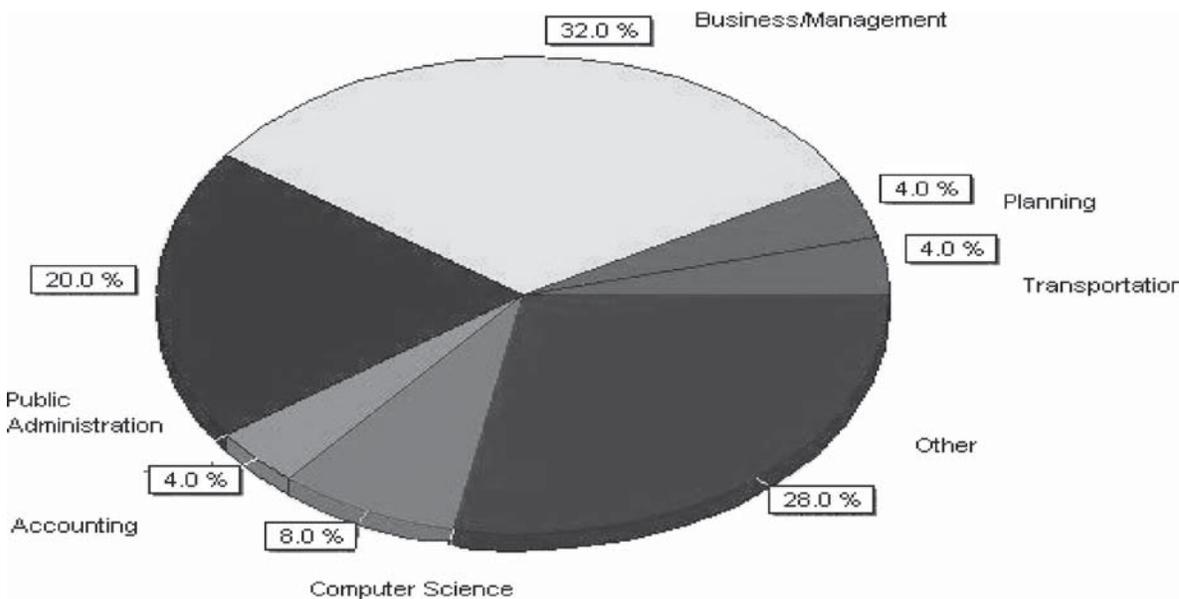


FIGURE 10 Major areas of study by paratransit managers (N = 36).

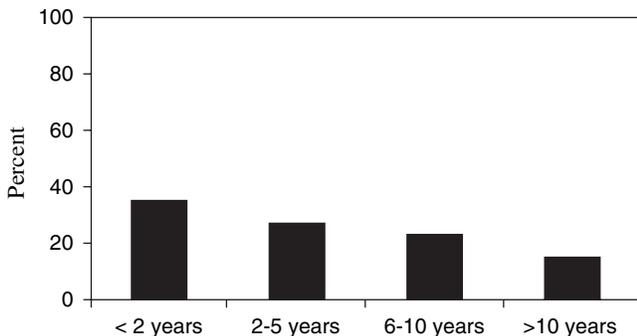


FIGURE 11 Years paratransit manager in current position (N = 36).

total). Only 15% of the current paratransit managers had been in their current position for more than ten years.

Prior Experience

As shown on Figure 12, current paratransit managers had considerably more experience than the position description required, with 42% having acquired more than ten years of passenger transportation experience before taking his or her current position and another 27% having five to ten years of experience. However, there was considerable variation in supervisory experience, with 32% of current managers having fewer than two years experience prior to their current position and 32% having more than ten years of supervisory

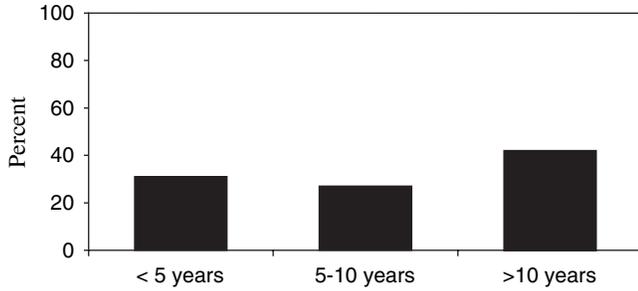


FIGURE 12 Actual prior transportation experience of current paratransit managers (N = 36).

experience. Eighteen percent of the survey respondents had two to five years of previous supervisory experience and another 18% had six to ten years of previous supervisory experience.

How Managers Were Recruited for Current Positions

As shown in Figure 13, most current paratransit managers were hired externally for their positions (58%), and a considerable number were either hired externally or promoted internally without paratransit experience (38%).

Figure 14 shows that, when asked about what attracted them to the position, a majority (52%) stated that it was the “challenge,” whereas only 8% noted that it was the pay.

Skills Training Received

When asked about which skills they had received from training in the past five years, customer service, management and supervision, and preventing sexual harassment were the most frequently mentioned (32%), followed by performance evaluations (27%), and then sensitivity skills and team building (25% each). Figure 15 displays the full range of training that the current paratransit managers who reported have received in the past five years.

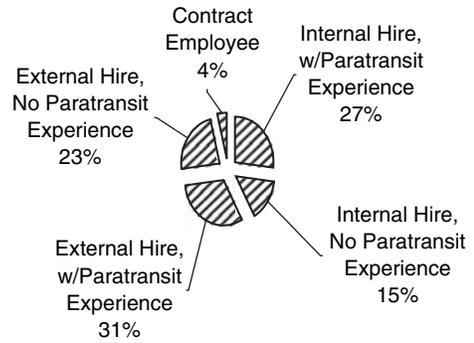


FIGURE 13 How paratransit managers were recruited for current position (N = 36).

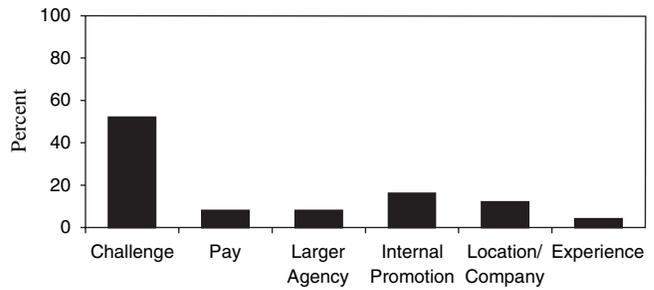


FIGURE 14 What attracted paratransit managers to the position (N = 36).

Figure 16 shows that 14% of the current paratransit managers had participated in ESPA’s MPSI, but others had received little or no ESPA training.

Figure 17 shows that 32% of the current paratransit managers had attended workshops and panels on paratransit topics at the CTAA Annual Expo; however, there was little or no participation or attendance at other CTAA workshops and panels.

Figure 18 shows that 14% of the current paratransit managers had participated in the CTAA course on Passenger

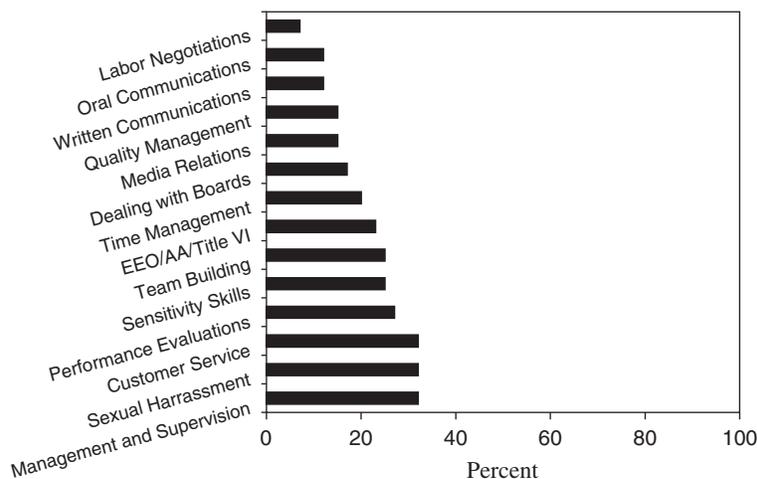


FIGURE 15 Skills training received in past five years (N = 36).

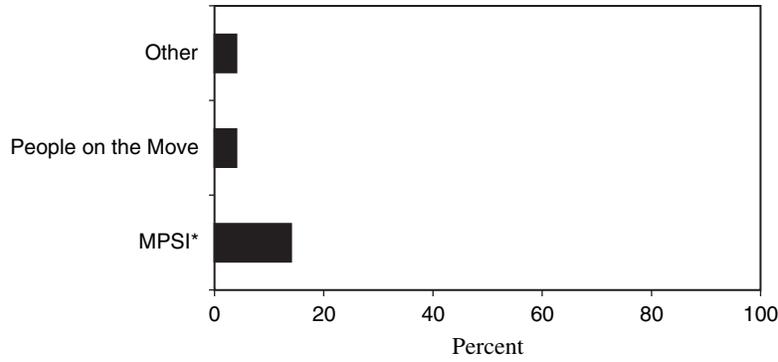


FIGURE 16 Percent of paratransit managers that participated in ESPA training (N = 36). *Mobility Planning Services Institute.

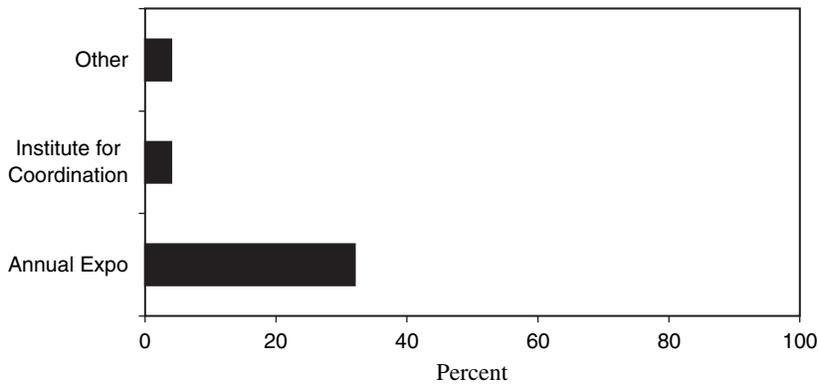


FIGURE 17 Percent of paratransit managers that attended CTAA meetings (N = 36).

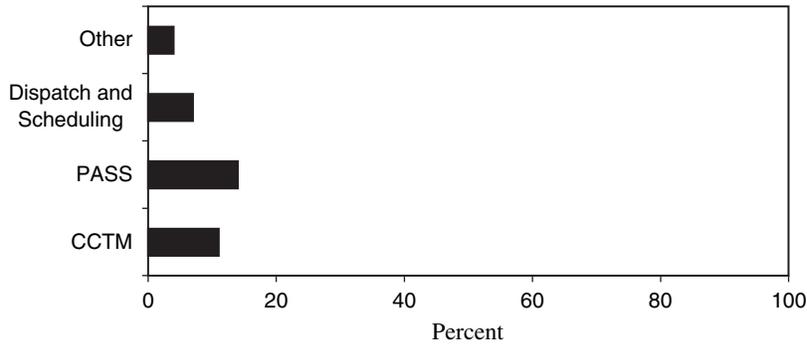


FIGURE 18 Percent of paratransit managers that participated in CTAA training (N = 36). PASS = Passenger Service and Safety; CCTM = Certified Community Transit Management.

Service and Safety (PASS) and 11% had participated in the CTAA CCTM course, but that others had received little or no CTAA training.

Figure 19 shows that there has been very little attendance or participation at TRB-sponsored conferences.

Figure 20 shows that 50% of the current paratransit managers had attended or participated in an APTA Bus and Paratransit Conference and that 25% had attended an APTA

Annual Meeting, but there was little participation or attendance at other APTA workshops and panels.

Of the paratransit managers surveyed, only 8% had enrolled in a transportation degree program at a U.S.DOT-sponsored University Transportation Center (UTC). This was not too surprising because there is limited UTC coursework that appears to be applicable to paratransit managers. A review of current UTCs (FY 2005–2009) revealed that of the more than 60 funded programs, only one, the Small Urban &

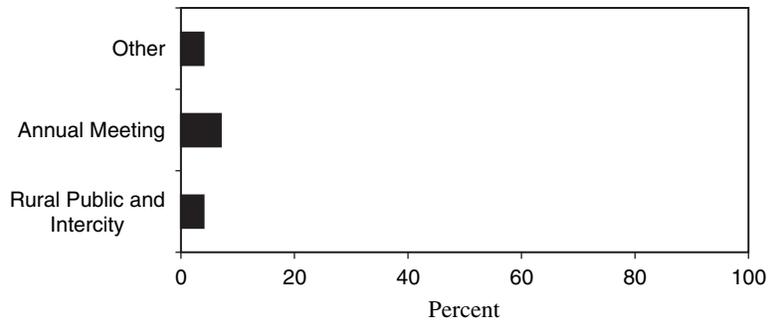


FIGURE 19 Percent of paratransit managers that attended TRB conferences (N = 36).

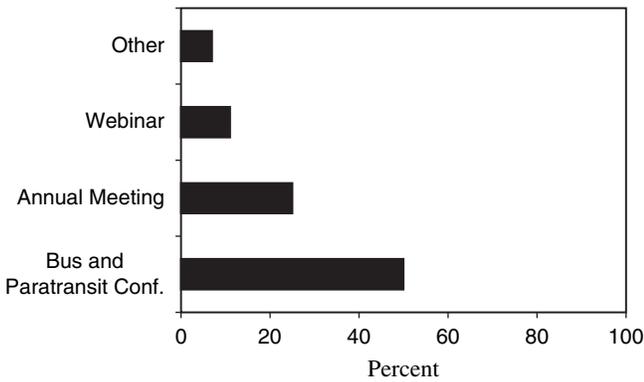


FIGURE 20 Percent of paratransit managers that attended APTA meetings (N = 36).

Rural Transit Center at North Dakota State University, focused on public transit and addressed paratransit management. Several other programs, such as those at Montana State University and the University of Arkansas, had themes that included rural transportation; however, the curriculum offered did not address transit or paratransit in any significant way.

A slight majority of the current paratransit managers (52%) had enrolled in or completed a training program or workshop on paratransit topics sponsored by other organizations, and of those 54% had enrolled in or completed a training program or workshop sponsored by the National Transit Institute (NTI). Thirty percent of the current paratransit managers had a certification or license in a field (e.g., Nursing Home Administration, Commercial Drivers License, Information Systems Analyst, Certified Community Transit Manager, and Financial Management for Rural Providers), but there was no commonality among the certifications or licenses.

Current Salaries

With respect to the current salaries of paratransit managers, a considerable number reported making \$75,000 or more (46%); however, 27% were making \$49,999 or less. Figure 21 displays the salary ranges of the current paratransit managers who reported.

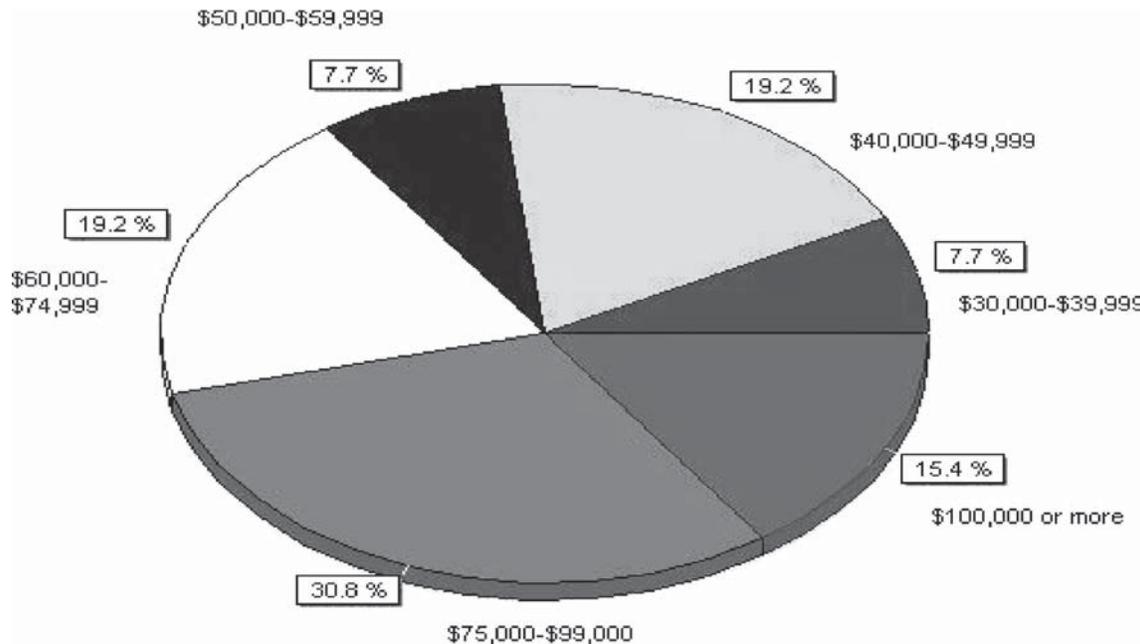


FIGURE 21 Current annual salaries of paratransit managers (N = 36).

WHAT SKILLS ARE MOST DESIRED FOR PARATRANSIT MANAGERS?

This chapter provides information on additional skill sets desired by paratransit managers, their GMs/CEOs, and paratransit advisory committee members. It ranks the skills that are important to paratransit managers, GMs/CEOs, and paratransit advisory committee members, and documents the additional skills, training, and certifications that paratransit managers should have to improve their overall effectiveness. It discusses the views of paratransit managers, their GMs/CEOs, and paratransit advisory committee members on whether paratransit managers should have a college degree and, if so, what area of study is most desirable. It also provides information on guidance that current managers could offer aspiring future paratransit managers. In addition, the chapter reviews information obtained from the surveys on the impacts of the structures, cultures, and sizes of transportation agencies on the role and function of the paratransit manager and the delivery of service.

IMPORTANCE OF SKILLS

The survey questionnaire requested that respondents rank the importance of a paratransit manager having the following 16 skills:

- Computerized scheduling,
- Manual scheduling,
- Management and supervision,
- Prior experience as a paratransit driver,
- Prior experience as a paratransit reservationist,
- Sensitivity skills (persons with disabilities),
- Customer relations,
- Written communications,
- Oral communications,
- Working with boards and committees,
- Dealing with the media,
- Safe driving practices,
- Labor relations,
- Time management,
- Affirmative action, and
- Ethics.

Respondents weighed the importance of the skills using the following rankings:

- Extremely important,
- Very important,
- Important,
- Somewhat important,

- Not very important, and
- Not important at all.

In some instances, the results were then stratified by subgroups: paratransit manager, GM/CEO, “other” (defined as a survey respondent whose position was other than a GM/CEO or paratransit manager), and paratransit advisory committee member. This was done to determine any similarities and differences in the views of the subgroups.

Three of the 15 skills were determined not to be very or extremely important: prior experience as a paratransit driver (18%), prior experience as a paratransit reservationist (25%), and manual scheduling (40%). GMs/CEOs and paratransit managers both agreed that paratransit driving was not very important, but differed on the other two. GMs/CEOs ranked paratransit reservationist skills as very or extremely important more than twice as frequently (41%) as paratransit managers (19%). GMs/CEOs also ranked manual scheduling skills as very or extremely important more frequently (47%) than paratransit managers (28%).

A slight majority of the respondents ranked five of the skills as very or extremely important: dealing with the media (50%), computerized scheduling (52%), safe driving practices (52%), labor relations (55%), and affirmative action (58%).

GMs/CEOs and paratransit managers differed on the importance of dealing with the media, with the former ranking it as very or extremely important 35% of the time and the latter ranking it as very or extremely important 53% of the time. A majority of GMs/CEOs (53%) actually ranked dealing with the media somewhat important or not important at all. GMs/CEOs and paratransit managers generally agreed on the importance of computerized scheduling, with 59% of GMs/CEOs and 50% of paratransit managers ranking it as very or extremely important. GMs/CEOs and paratransit managers also generally agreed on the importance of safe driving practices, with 47% of GMs/CEOs and 56% of paratransit managers ranking it as very or extremely important. GMs/CEOs and paratransit managers differed on the importance of labor relations, with GMs/CEOs ranking it as very or extremely important 35% of the time and paratransit managers ranking it as very or extremely important 61% of the time. GMs/CEOs and paratransit managers generally agreed on the importance of affirmative action, with 41% of GMs/CEOs and 33% of paratransit managers ranking it as very or extremely important.

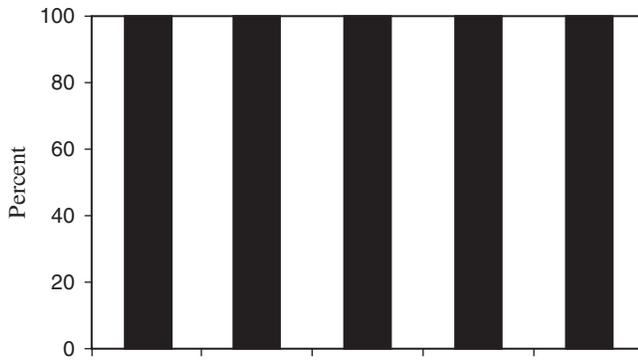


FIGURE 22 Percent that rated customer relations skills as very or extremely important (N = 63).

The subgroup “other” ranked affirmative action as very or extremely important 86% of the time.

Seven of the 16 skills were determined to be very or extremely important to a substantial majority of the respondents: customer relations (100%), oral communications (98%), sensitivity skills (persons with disabilities) (97%), management and supervision (97%), ethics (93%), written communications (90%), and working with boards and committees (75%).

Figure 22 shows how the various subgroups ranked customer relations as very or extremely important. As shown, all of the groups agreed on this ranking.

Figure 23 shows that 98% of all respondents ranked oral communications as very or extremely important. In this instance, GMs/CEOs, the subgroup “other,” and paratransit advisory committee members ranked this skill marginally higher than paratransit managers.

Figure 24 shows how the various subgroups ranked sensitivity skills as very or extremely important. Interestingly, paratransit advisory committee members gave this a lower ranking than did the other groups.

Figure 25 shows how the various subgroups ranked management and supervision as very or extremely important. In

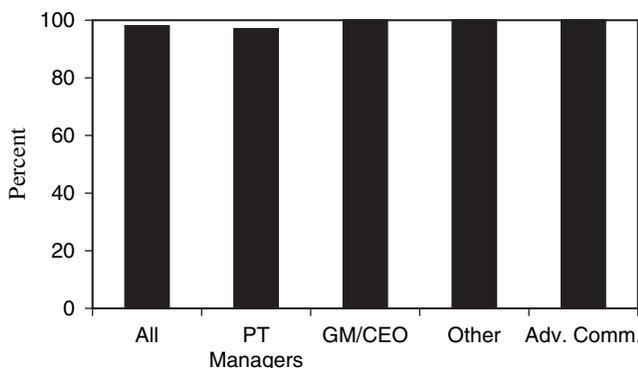


FIGURE 23 Percent that rated oral communications skills as very or extremely important (N = 63).

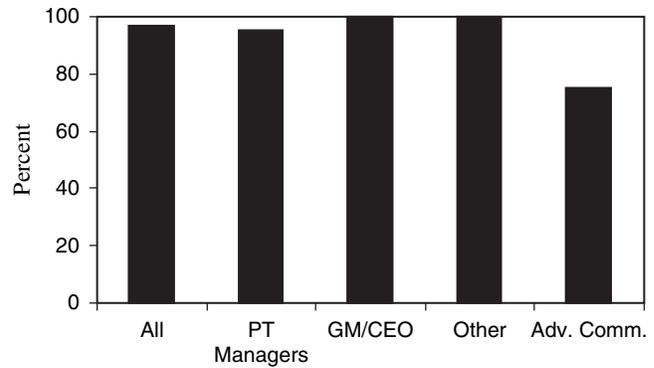


FIGURE 24 Percent that rated sensitivity skills as very or extremely important (N = 63).

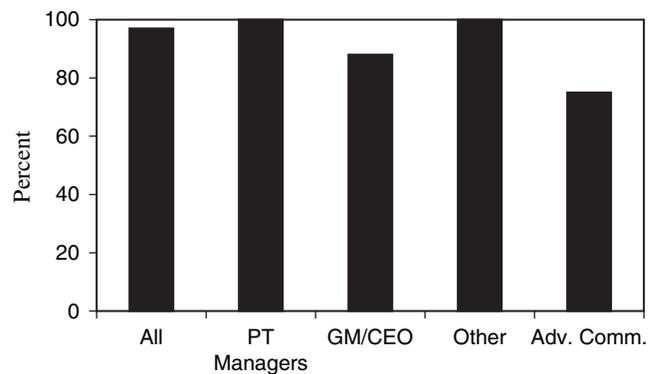


FIGURE 25 Percent that rated management or supervisory skills as very or extremely important (N = 63).

this instance, paratransit managers and the subgroup “other” ranked this skill slightly higher than GMs/CEOs and paratransit advisory committee members.

Figure 26 shows that more than 90% of all subgroups ranked ethics as very or extremely important. Paratransit advisory committee members and the subgroup “other” ranked this skill higher than GMs/CEOs and paratransit managers.

Figure 27 shows how all of the various subgroups ranked written communications as very or extremely important. As

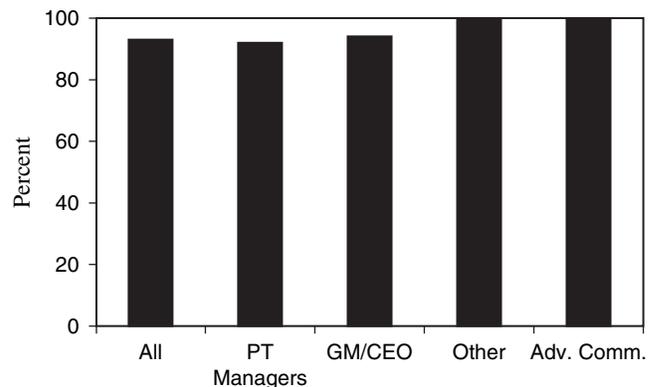


FIGURE 26 Percent that rated ethics as very or extremely important (N = 63).

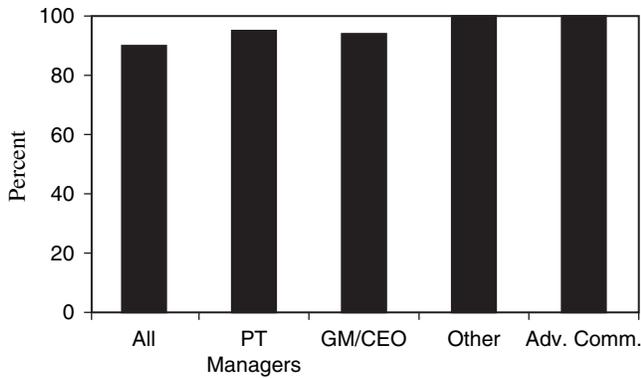


FIGURE 27 Percent that rated written communications skills as very or extremely important (N = 63).

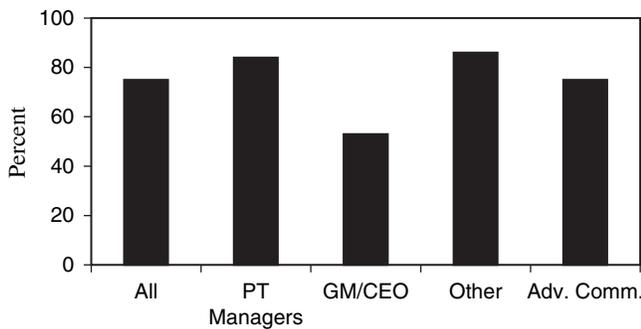


FIGURE 28 Percent that rated working with boards as very or extremely important (N = 63).

with ethics, paratransit advisory committee members and the subgroup “other” ranked this skill higher than GMs/CEOs and paratransit managers.

Figure 28 shows how all of the various subgroups ranked working with boards as very or extremely important. Paratransit managers and the subgroup “other” ranked this skill higher than paratransit advisory committee members and GMs/CEOs.

ADDITIONAL SKILLS, TRAINING, AND CERTIFICATIONS

The survey questionnaire requested that respondents indicate the additional skills paratransit managers should have to improve their effectiveness. The survey list included:

- Written communications,
- Oral communications,
- Total Quality Management,
- Time management,
- Team building,
- Sexual harassment,
- Sensitivity,
- Scheduling,
- Safe driving,
- Performance evaluations,
- Media relations,
- Management and supervision,

- Labor negotiations,
- Equal Employment Opportunity (EEO)/ADA/Title VI
- Dealing with boards and committees, and
- Customer service.

Table 7 displays the results from the survey. The most requested additional skills that a paratransit manager should have to improve his or her effectiveness were Total Quality Management (50%), followed by team building (47%) and time management (42%). GMs/CEOs cited these additional skills as their top three, but also indicated that skills in management and supervision (47%) and in customer service (47%) were equally as important. Paratransit managers believed the top three additional skills were needed as well but by lesser percentages.

The survey questionnaire requested respondents to indicate the additional training and/or certifications paratransit managers should have to improve their effectiveness. The survey list included:

- CTAA Certified Community Transit Manager
- CTAA Passenger Service and Safety
- CTAA Certified Community Transit Supervisor (CCTS)
- CTAA Professional Dispatch and Scheduling
- NTI Paratransit Scheduling and Dispatching Fundamentals
- NTI Managing the Cost of ADA Paratransit Services
- NTI Comprehensive ADA Paratransit Eligibility
- ESPA Mobility Planning Services Institute
- ESPA People on the Move.

Table 8 shows the results from the survey. Managing the Cost of ADA Paratransit Services was the most requested type of training (52%), followed by Paratransit Scheduling

TABLE 7
SUMMARY OF ADDITIONAL SKILLS FOR PARATRANSIT MANAGERS

Skill	All	CEO/GM	Paratransit Manager
Written Communications	24%	29%	22%
Oral Communications	26%	35%	25%
Total Quality Management	50%	53%	50%
Time Management	42%	59%	39%
Team Building	47%	59%	44%
Sexual Harassment	7%	12%	3%
Sensitivity Skills	15%	12%	17%
Scheduling	16%	35%	11%
Safe Driving	7%	0%	8%
Performance Evaluations	27%	29%	31%
Media Relations	10%	6%	14%
Management and Supervision	37%	47%	33%
Labor Negotiations	23%	24%	22%
EEO/ADA/Title VI	23%	18%	25%
Dealing with Boards	16%	12%	17%
Customer Service	31%	47%	22%
Other	10%	12%	11%

Notes: Total number of responses = 58. Most requested additional skills are highlighted in bold. EEO = Equal Employment Opportunity.

TABLE 8
SUMMARY OF ADDITIONAL TRAINING AND/OR CERTIFICATIONS FOR
PARATRANSIT MANAGERS

Training/Certification	All	CEO/GM	Paratransit Manager
CTAA			
Certified Community Transit Manager	15%	24%	14%
Passenger Service and Safety	26%	35%	22%
Certified Community Transit Supervisor	39%	29%	42%
Professional Dispatch and Scheduling	31%	41%	28%
NTI			
Paratransit Scheduling and Dispatching Fundamentals	42%	59%	39%
Managing the Cost of ADA Paratransit Services	52%	65%	44%
Comprehensive ADA Paratransit Eligibility	39%	41%	36%
ESPA			
Mobility Planning Services Institute	24%	35%	19%
People on the Move	23%	29%	17%
Other	5%	6%	3%

Total number of responses = 58.

and Dispatching Fundamentals (42%), Comprehensive ADA Paratransit Eligibility (39%), and CCTS (39%). GM/CEOs requested Managing the Cost of ADA Paratransit Services most often (65%), as did paratransit managers (44%).

EDUCATION

A slight majority of survey respondents (52%) believe that paratransit managers should be required to have a degree from a four-year college or university, with 35% answering no and 13% not sure. GMs/CEOs were evenly split on whether paratransit managers should be required to have a degree from a four-year college or university (35% each), whereas 30% were not sure. A slight majority of paratransit managers believe that they should be required to have a degree from a four-year college or university (53%), with 39% answering no and 8% not sure. Figure 29 summarizes the responses for all and the various subgroups.

If respondents answered affirmatively that paratransit managers should be required to have a degree from a four-year college or university, a majority indicated that business/management was the most desirable area of study (50%), followed by transportation (17%) and public administration

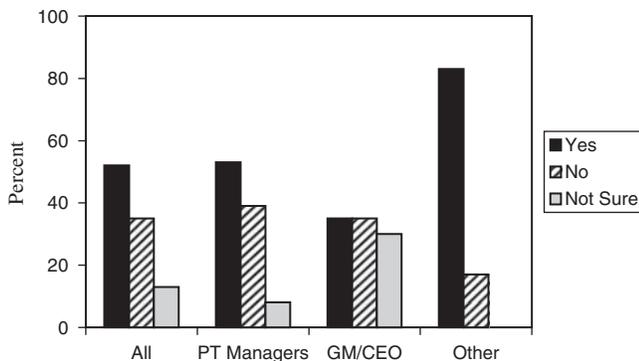


FIGURE 29 Should paratransit managers be required to have a college degree? (N = 58.)

(14%). Paratransit managers provided similar responses to the overall universe of answers, but GMs/CEOs overwhelmingly felt that business/management was the most desirable area of study (88%). Figure 30 summarizes the responses for all and the various subgroups.

GUIDANCE THAT CURRENT MANAGERS WOULD OFFER ASPIRING PARATRANSIT MANAGERS

More than 60% of the survey respondents took the time to respond to the following open-ended question: What advice or guidance would you offer to future or aspiring paratransit managers to help them be more effective and increase the status and tenure of paratransit managers?

Several respondents offered multiple comments. All of the comments are listed in Appendix D. The comments generally fell into the following nine categories, with the number of comments for each area noted in parentheses and each of the nine categories is discussed here:

- Attitude (12),
- Customer/clients (12),

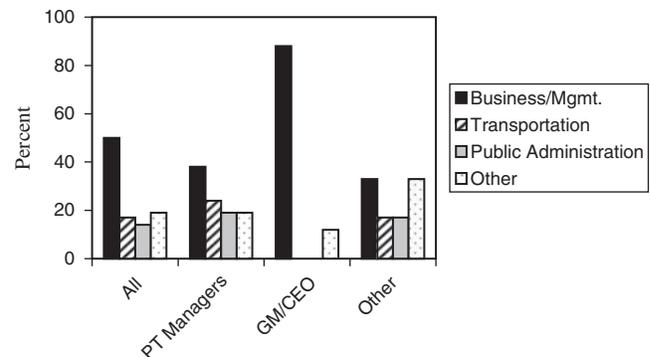


FIGURE 30 Most desirable area of study (N = 58).

Experience (11),
 Business/management (11),
 Employees and employee development (10),
 Leadership (9),
 Interaction with internal and external groups (8),
 Communications skills (6), and
 Training (3).

Attitude—The advice of the respondents on this topic focused on the type of commitment needed to work day in and day out in the paratransit arena. Aspiring managers were advised by a number of respondents that the job contains an enormous amount of responsibility and has daily high stress. Aspiring managers were advised to strive for the best service with a smile and act as a “coach” to your staff to build a winning team. Respondents also emphasized the need for aspiring managers to be flexible and be professional at all times. One respondent shared these thoughts:

Be prepared to deal with politicians and government bureaucrats who do not understand the big picture in paratransit and expect you to fulfill unrealistic expectations. IT IS A VERY TOUGH REWARDING JOB!!!!

Customer/clients—Respondents stressed the need to understand the customers, have sensitivity to passengers, and focus on customer service. Aspiring managers were told to “listen to the riders; they are why you have a job.” Good customer service skills and sensitivity were mentioned numerous times in the comments. One respondent advised aspiring managers that “small issues could become quite exaggerated in a short period of time if not anticipated early by a proactive paratransit manager.”

Experience—Respondents suggested that aspiring paratransit managers must fully understand the business from top to bottom. Some respondents felt that paratransit managers must understand the fundamentals of all aspects of the operation to be able to relate to drivers, dispatchers, reservationists, and schedulers. Other respondents felt that aspiring paratransit managers should have a good business administration background and concentrate on being a generalist with a diverse skill set. One respondent also stated that it is extremely helpful to be familiar with public transit and *coming up through the ranks* is helpful.

Business/management—Comments in this category tended to focus on strategies for effectively managing a paratransit operation. Comments included suggestions to plan ahead, manage the business as if it was for profit, learn to delegate, understand the numbers, and take time to analyze your current system requirements and spend the time to restructure the service plan if needed. Several respondents also commented on the budget, stating that it is the *key* and that managers should have experience with budgets.

Employees and employee development—Respondents noted that a strong support team of drivers and dispatchers is essential and is the backbone of paratransit operations.

Aspiring paratransit managers were advised by several respondents to “know your people and they need to know you.” Other comments in this area focused on the need to develop staff, build their skills, and maintain a positive and supportive culture for employees. This will allow the paratransit managers to spend less time *managing* staff or replacing them and hiring and training replacements.

Leadership—A number of respondents spoke of the need for paratransit managers to lead by example; in dress, conduct, and attitude. Comments included the need for managers to understand their role and to establish formal goals and an action plan to achieve them. One respondent suggested that a manager must think “out of the box” to be a good leader, whereas others suggested that it is important to keep up with changes and network with colleagues to learn “best practices.” One respondent suggested that a paratransit manager should be active in the community and encourage residents in the service area to join in decision making. Finally, one respondent suggested that paratransit managers should “Ride a route once a week, drive a route once a month.”

Interaction with internal and external groups—Respondents identified three groups with which it was important to develop relationships: advocacy groups, internal colleagues, and board members. Respondents encouraged aspiring paratransit managers to develop a good relationship with advocacy committees and to cultivate respect for them. The focus of the comments regarding internal colleagues was on the need to educate colleagues and executives on what ADA is all about and to make others understand that you are a professional transit manager not unlike managers of rail or fixed-route service. Aspiring managers were also advised to educate board members about the service and to develop the sensitivity and interpersonal skills needed to interact with the board members.

Communication skills—In addition to identifying the need to communicate and/or interact with various groups, respondents also had specific comments on needed communication skills. They stressed that it is important to be honest and communicate good or bad news early and consistently to all affected parties, including advocacy groups, passengers, board members, elected officials, CEOs, and subordinates. Respondents also suggested that aspiring paratransit managers should speak clearly, write well, never dismiss a complaint, and follow-up with each interested party. One respondent even suggested that communication is even needed with a higher authority: “Say what you mean and mean what you say . . . and pray daily . . .”

Training—Only a few respondents specifically mentioned training in their advice to aspiring paratransit managers. Their comments included the need build in time to cross train staff and that managers should take advantage of employer-sponsored courses in industry principles. One commenter stated that

certifications such as CTA management courses and other paratransit and transit management courses are invaluable.

Summary—Most of the comments were consistent in emphasizing the importance of various skills that were also ranked highly in earlier survey questions dealing with desired skills and training needs of paratransit managers. Other comments appeared to contrast with survey responses. For example, a number of comments addressed the importance of understanding computerized scheduling and paratransit reservationist duties even though the respondents did not rank those technology skills as very important. Although ethics was ranked as one of the most important attributes of a paratransit manager, it was seldom mentioned in the advice to aspiring managers. The responses on advice to aspiring managers also raised some topics that were not posed in the survey, such as the role of the paratransit manager as an advocate for persons with disabilities, advice on the type of attitude needed to be an effective paratransit manager, and the need for paratransit managers to educate colleagues, CEOs, and boards on the complexity and challenges of providing paratransit services. One respondent offered the following sage advice on the need to operate in a transparent and open environment: “If having a Board Member or Passenger take an unannounced tour of the operating facility were cause for concern, it would indicate something is in need of immediate attention and corrective action.”

IMPACTS OF STRUCTURES, CULTURES, AND SIZES OF TRANSPORTATION AGENCIES ON THE ROLE AND FUNCTION OF THE PARATRANSIT MANAGER AND THE DELIVERY OF SERVICE

For the purposes of this synthesis, paratransit is defined as the full range of demand-responsive services, including ADA-complementary, general public dial-a-ride, and human service transportation. Because the three types of paratransit systems evolved from somewhat differing historical contexts, they could be expected to have differing structures and cultures. Although the size of an organization is related more to demand, it also could have an impact on the structure and culture. An examination of several factors about paratransit service delivery revealed some interesting differences that affect the roles and functions of paratransit managers, including:

- Extent of the use of technology;
- Type of passengers transported;
- Public versus private organization;
- Agency employee versus contract paratransit manager; and
- Public versus private complaint handling, advanced reservations, scheduling, dispatching, same-day changes, and vehicle operations.

The factors were examined for urban agencies that transport only ADA-eligible passengers on their paratransit systems

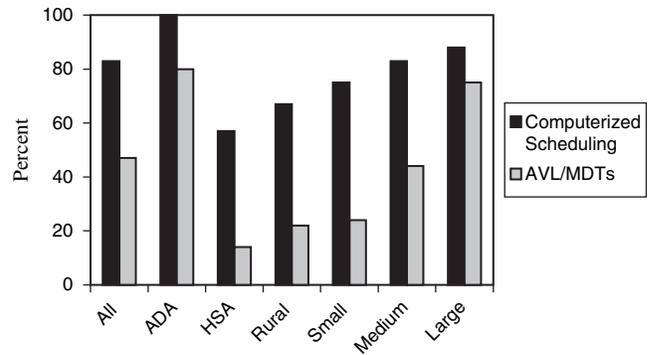


FIGURE 31 Extent of use of technology by agency types (N = 58). AVL = automatic vehicle location; MDTs = mobile data terminals.

(ADA-only), human service agencies (HSA), and agencies serving rural populations, as well as small, medium, and large agencies.

Figure 31 shows the extent of the use of technology by different agencies, as defined by how often they used computerized scheduling software and AVL/MDTs. The synthesis survey shows that 83% of all paratransit agencies use computer-scheduling software and that 47% use AVL/MDTs. Technology was used most often by ADA-only agencies and less often by HSAs, perhaps owing to transit purpose and funding. It was used more often by larger agencies than medium or smaller agencies.

Figure 32 shows the types of passengers transported by different agencies. Large agencies were far more likely to transport only ADA-eligible passengers (94%) than human service passengers (25%). Rural agencies were far more likely to transport human service passengers (89%) than ADA-eligible passengers (33%). Although the chart shows that the HSAs do not transport ADA-eligible passengers, it is likely because they do not have an ADA eligibility requirement.

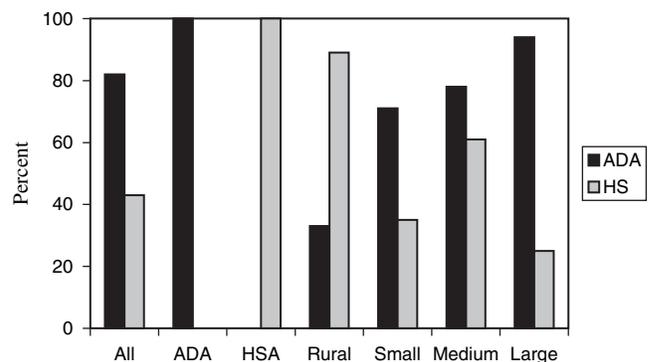


FIGURE 32 Types of passengers carried by agency types (N = 58). ADA = ADA-eligible passengers; HS = human service passengers.

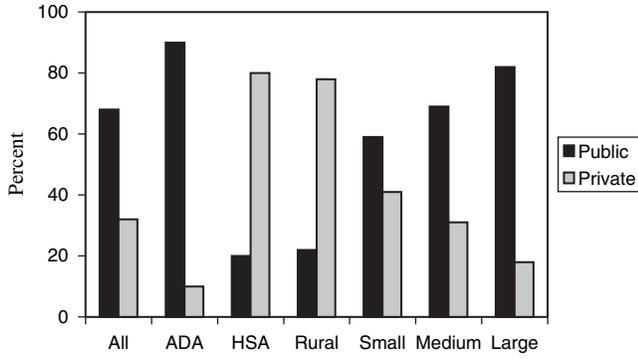


FIGURE 33 Public/private agencies by type (N = 58).

Figure 33 shows that ADA-only agencies were predominately public (90%), whereas HSAs were private and often nonprofit (80%), as were rural agencies (78%).

Figure 34 shows that most paratransit managers were agency employees (60%) and that there was no major variation among the service delivery types or sizes, except for HSAs. In examining statistics on complaint handling, advanced reservations, scheduling, dispatching, same-day changes, and vehicle operations, most agencies performed most of these functions

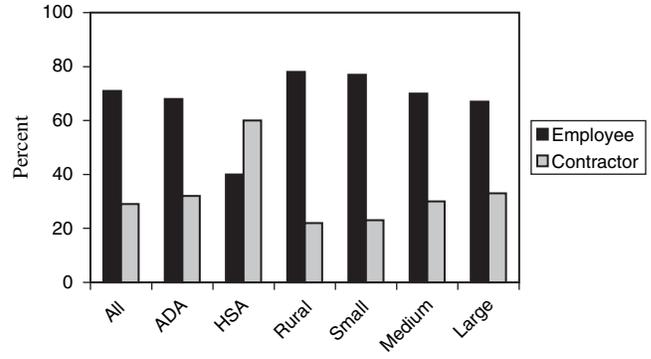


FIGURE 34 Agency employee or contractor paratransit manager by type (N = 58).

in-house, although ADA-only and large and medium-size agencies tended to contract out vehicle operations.

In reviewing the job titles of paratransit managers and the titles of the individuals to whom they report, there is no clear-cut pattern for either the title or the reporting relationship. Rural, human service, and smaller agencies tended to have paratransit managers reporting to individuals who were heads of agencies, whereas larger systems tended to have paratransit managers reporting to COOs.

PARATRANSIT MANAGER PROFILES

In an effort to learn more about the paratransit managers who responded to the survey, several managers and/or their bosses were interviewed to gain a deeper understanding of their backgrounds, philosophies regarding paratransit management, and the types of skills that they feel are needed to be truly effective. The individuals selected for the profiles were also asked to identify training resources that they found to be most effective and, if applicable, to describe what “excites” them about a career in paratransit. An effort was made to interview managers who represented a range of perspectives. The following four individuals were profiled.

- **Jeff Simpson**—A “new” paratransit manager with nearly three years of experience in the field. Came to paratransit from college, with his only prior position being in the social services field. Manages general public demand-responsive services in a 12-county area in rural Tennessee. In 2006, the Tennessee Public Transit Association recognized Jeff as the Rural Executive Manager of the Year. The Tennessee Department of Transportation (DOT) also selected Jeff to implement a major Intelligent Transportation System project.
- **Tom Groeninger**—A “veteran” paratransit manager, he has worked exclusively in paratransit in Illinois since completing graduate school. Has worked for Pace Suburban Bus since 1987 and is currently responsible for all non-fixed-route transit services, including ADA-complementary, dial-a-ride, and vanpools in the city of Chicago and surrounding suburbs. Pace’s paratransit services have expanded rapidly and Tom is now responsible for more than 900 paratransit vehicles and 10 private contractors, in addition to nearly 700 vehicles used to operate dial-a-rides in 65 local communities surrounding Chicago.
- **Richard DeRock**—His career began in and has returned to general management of fixed-route transit systems; however, along the way he spent nearly 20 years designing and managing the ADA-complementary paratransit service in Los Angeles County, California. Today, he is employing some interesting techniques to increase the efficiency of his paratransit system and has definite ideas about the skills needed to manage paratransit services.
- **Vicki Shotland**—Another “newcomer” to paratransit, but an experienced transportation manager, she started in the air freight business. Served as the Director of Operations for several fixed-route transit systems be-

fore taking on the role of Executive Director of the Greater Hartford Transit District, the operator of ADA-complementary paratransit within the Hartford, Connecticut, region.

The profiles of these managers follow.

Jeff Simpson
New paratransit manager.

Currently, Transportation Director for the Regional Transit System of the Mid-Cumberland Human Resource Agency (MCHRA), Tennessee.

Education: B.A. Public Administration—University of Tennessee at Chattanooga.

Prior positions: Began professional career as Lead Processing Specialist and later a program manager for Catholic Charities. Responsible for a human service program known as Families First. Joined current agency, MCHRA, in 2004, as a program coordinator to start up a Families First program.

Current position: Promoted to current position as Transportation Director for the MCHRA Regional Transit System in 2005. The Regional Transit System provides curb-to-curb, demand-responsive transit service to the general public in 12 upper middle Tennessee counties. Eighty-five vans are used to provide the service that operates Monday through Friday, from 6:00 a.m. to 6:00 p.m. Recognized in 2006 as the Rural Executive Transit Manager of the Year by the Tennessee Public Transit Association.

Philosophy: The most important thing about paratransit is that every day we make a difference in people’s lives, allowing them access to doctors, shopping, and jobs. Paratransit is a lifeline to many who have no transportation alternatives. Implementing new technology (Intelligent Transportation Systems) in paratransit is

a challenge and an area of personal interest. He believes that managers should not focus exclusively on what other transit systems are doing, rather they should focus on the needs of the customers, employees, and the agency and be creative in meeting the needs of all three. Salaries are not the most important thing, but salaries and staffing should reflect the size and complexity of the operation.

Skills desired: Managers should ideally have transportation or logistics experience. A college degree is also needed to increase the ability to research and think through problems. New managers with limited paratransit experience need training in federal/state regulations, transportation, scheduling, and finance. Managers must be able to understand the changing environment of paratransit and recognize that you never get “caught up” with your work. The job is stressful and people can get burned out easily. The manager has to want to “make a difference.”

Resources/training: Highly recommends training; specifically, a course taught at the Tennessee Transit Training Center at Middle Tennessee State University, called Financial Management for Rural and Small Urban Transit Systems (<http://www.mtsu.edu/~tttc/index.htm>).

Tom Groeninger

Extensive and exclusive paratransit experience.

Currently, Regional Manager Paratransit/Vanpool of Pace Suburban Bus, Arlington Heights, Illinois.

Education: B.A. Economics and Political Science—Illinois State University.

Masters Public Administration—Northern Illinois University.

Prior positions: Began career in paratransit in 1977 as a planner at the United Way in Rockford, Illinois, designing specialized transportation for United Way clients. Next, worked as a planner for the Rockford Mass Transit District to develop a transportation program for older adults. He joined the nonprofit agency, Winnebago County (Rockford) Paratransit Program, serving as the Manager for two to three years. In 1980, he joined the Illinois DOT as a manager working with paratransit systems around the state. In 1987,

he joined Pace Suburban Bus as Supervisor of Paratransit Operations.

Current position: Regional Manager for Paratransit and Vanpool. Responsible for all non-fixed-route transit services, including ADA-complementary, dial-a-ride, and vanpools in the city of Chicago and surrounding suburbs. Responsible for the operation of more than 1,600 vehicles in a 3,500-square-mile service area of more than five million residents. Ten contractors operate the ADA service, and the dial-a-ride program consists of 65 programs operated by municipalities. Pace handles reservations and dispatching for the dial-a-rides that include ADA only, general public, older adults, persons with disabilities, and individuals from human service programs. Pace employs contract managers and supervisors to oversee various aspects of the contracted work.

Philosophy: An effective paratransit program needs a CEO and general manager who understands the dynamics of paratransit service and who will provide support to ensure that adequate resources are made available. A paratransit program also needs employees and supervisors who care about what they do.

Has noticed some difficulty recruiting and attracting paratransit managers in the Chicago area. Believes that the increased recognition of the complexities of the service and customer relations issues by transit executives and policy makers across the country would result in paratransit manager positions being more highly ranked within their agencies and, therefore, more attractive as a career choice.

Skills desired: A paratransit manager must understand paratransit operations; specifically, the functions of dispatching, scheduling, and driving. The manager should learn to perform each of these functions. A paratransit manager must also be able to work well with all levels of people (i.e., drivers, customers, boards of directors, etc.). The ability to *multi-task* is also critical, as are the abilities to adapt frequently and think on your feet.

Resources/training: No specific courses are recommended. Believes that hands-on training is most successful. Prospective managers

should deal directly with operations and handle customer complaints to stay close to the operation. Feels that CTAA offers the most valuable training for paratransit managers.

Richard DeRock

Extensive large and small urban ADA paratransit experience.

Currently, Transit General Manager of Link Transit in Wenatchee, Washington.

Education: B.A. Environmental Geology—University of California, Davis

Certificates in Financial Management for Transit and Labor Relations for Transit—Indiana University.

Prior positions: Began career in public transit in 1979 as a bus driver and later Director of Operations while enrolled at the University of California at Davis. Upon graduation, he joined DAVE Systems as a contract general manager for three transit systems in California. First became involved in paratransit in 1984 in Antioch, California. Next, he worked as a senior planner for the Los Angeles County Transportation Commission in the Paratransit Division. During his tenure in Los Angeles, paratransit grew rapidly. He participated in the U.S.DOT's Federal Advisory Committee on the Implementation of ADA in 1991. He supported the effort to insert regional coordination language in the ADA regulations to enable transit systems to utilize the extensive network of paratransit services already being provided by localities and nonprofits. He created Access Services, Inc., in Los Angeles and served as its first Executive Director from 1995 to 2002. In that capacity, he directed seven contractors operating nearly 900 paratransit vehicles throughout Los Angeles County.

Current position: General Manager of Link Transit in Wenatchee, Washington. Link Transit operates 12 fixed routes, 11 flex routes, 2 commuter routes, and 1 seasonal route. Paratransit service for ADA-eligible individuals is known as LinkPlus and is operated with up to 28 paratransit vehicles. At Link Transit, all drivers (paratransit and fixed route) are paid the same and can "pick" between the two

Philosophy:

services. Drivers are comfortable with passengers on both services.

Integrating paratransit with fixed-route service is very important. One of the major goals of transit systems is to reduce paratransit operating costs by encouraging and sometimes *forcing* (by controlling eligibility) ADA paratransit riders to use fixed-route service. In the past five years, 35% of Link Transit's ADA paratransit riders have voluntarily moved to fixed route. An incentive is free rides; however, surveys of riders revealed that the main reason for moving is that the passengers are comfortable that the fixed-route drivers will *accommodate* them at the same level as the paratransit drivers. With experienced drivers who can adapt, productivity is high. In a rural service area of 480 square miles, Link Plus carries four passengers per hour, at a cost of approximately \$18 per trip.

Skills desired:

A college degree is not necessary, but is a good indicator of someone who can think through issues. Paratransit managers must be flexible and be able to think three-dimensionally. Because paratransit is so dynamic, a manager must be able to visualize the challenges in meeting the needs of paratransit customers. A retired army sergeant may be great at managing fixed-route service, but would not be a good paratransit manager because he or she might be too rigid. A manager should also be able to dispatch paratransit service to understand the complexities and should also be willing to drive or ride the paratransit service on a regular basis to understand the needs of the customers and the drivers. Common sense is perhaps the most important skill.

Resources/training:

Uses a spatial perception test (see Appendix E) that was used by DAVE Systems in the early 1980s to hire dispatchers. Believes that this test is also useful for paratransit managers because they must be able to solve problems that are often multidimensional. Recalls, but cannot verify, that the test is not culturally biased. Also highly recommends a series of ten courses offered by Willamette University and the University of the Pacific (<http://www>.

pacific.edu/esb/westgate/transit/transit.html). The courses lead to a Transit and Paratransit Management Certificate.

Vicki Shotland

New to paratransit, extensive transportation background.

Currently, Executive Director of the Greater Hartford Transit District.

Education: B.S. Degree—Adelphi University, Long Island, New York.

Prior positions: Began professional career as a manager for the worldwide package express carrier, DHL Airways, in New York. She held the position of Director of Facilities, Fleet, and Finance for DHL before leaving the company after 13 years. Began her career in public transportation in 1994 as the Director of Operations for the fixed-route transit system in Springfield, Massachusetts. Later she served as Assistant General Manager for Transit Services for CTTransit, with responsibility for managing more than 550 employees in this role.

Current position: She joined the Greater Hartford Transit District (the “District”) as its Executive Director in July 2005. The District provides ADA-complementary paratransit service under contract to the Connecticut DOT. A private contractor operates the ADA paratransit service, whereas the District staff oversees the contractor’s performance. Approximately 100 vehicles are used to operate the consolidated paratransit program.

There are currently 16 member towns represented by appointees who collectively form the Board of Directors, which is the policy-making body of the District. The District has broad powers to acquire, operate, finance, plan, develop, maintain, and otherwise provide all forms of land transportation and related services, including the development or renewal of transportation centers and parking facilities.

The District also leases suburban coaches to privately owned bus companies for use in state-supported commuter express service. It also manages the Union Station Transportation Center operation and parking facility and adminis-

ters the Statewide Insurance and Drug and Alcohol Testing Consortiums.

Philosophy:

Believes that the focus on the passenger is absolutely critical in paratransit owing to the one-on-one nature of the business. In her opinion, ADA paratransit managers appear to be more transient than fixed-route managers. Seasoned paratransit professionals appear to occupy more of a middle rung in the “pecking order” of passenger transportation management. A general overview of recruiting in the paratransit industry has provided her with an insight that it is more difficult to find experienced managers who are seasoned veterans when compared with fixed-route service. She also believes that getting to the point of running a model agency equates to listening to the passengers, not being fearful of the challenges, and not allowing yourself to be satisfied with current levels of service when there is always room to improve. Putting out “fires” daily in this industry appears to be the norm at times, but finding a proactive approach to resolving these issues permanently is the long-term goal.

Skills desired:

A paratransit manager must have a strong transportation background and common sense. It is also imperative to have the natural ability to manage employees and to be decisive when it comes to resolving operational issues. The ability of a manager and management staff to instill customer service skills in paratransit drivers is critical. Good managers must be able to motivate the drivers in a manner that allows the driver to feel “ownership” in the operation; however, rules of safety and conduct cannot be overlooked. A good paratransit manager must also ensure that the dispatchers, reservationists, schedulers, and drivers communicate effectively with each other on an ongoing and consistent basis.

Resources/training:

There are many good external courses offered by the Transportation Safety Institute and NTI that should not be overlooked for supervisors and/or managers. She believes that training opportunities should be taken advantage of and that managers should network with other paratransit managers and visit various systems to identify “best practices.”

CONCLUSIONS

Based on the survey results, the following are some of the key conclusions of the synthesis.

In reviewing the current requirements to be a paratransit manager:

- A majority of paratransit manager positions (66%) required a college degree or higher.
- Most agencies required five years or less of experience, including supervisory experience, to qualify for the position (75%).
- The starting salaries for paratransit managers varied considerably, with \$40,000 to \$49,000 being the range most frequently cited (27%), followed by \$75,000 to \$99,000 (17%). The lowest starting salaries were found at rural and small agencies and the highest starting salaries at large agencies.
- Technology was the skill most often reported as necessary for a paratransit manager (38%), followed by knowledge of the Americans with Disabilities Act (ADA) (31%) and business/management (31%).

In reviewing information from the survey results on the actual experience of current paratransit managers:

- A substantial majority of current paratransit managers had college degrees or higher (69%). A much higher percentage of current paratransit managers had graduate degrees than just undergraduate degrees (50% versus 19%), which was consistent with the education requirements found in the position descriptions.
- Paratransit managers' major areas of study were business/management (32%) and "other" (32%), followed by public administration (28%).
- Most paratransit managers (62% total) had been in their current positions for five years or less, with only 15% in their current position for more than ten years.
- Current paratransit managers had considerably more experience than the position description required, with 42% having more than ten years of passenger transportation experience and another 27% having five to ten years of experience before taking the paratransit position.
- Current paratransit managers reported salaries that were significantly higher than the starting salary reported for the position. More than 45% of paratransit managers reported salaries of \$75,000 or more, whereas only 23%

of the position descriptions noted starting salaries of \$75,000 or more.

- Most current paratransit managers were hired externally for their positions (58%) and a significant number were hired either externally or promoted internally without paratransit experience (38%).
- A slight majority of current paratransit managers (52%) reported that it was the "challenge" that attracted them to the position, and only 8% mentioned that it was the pay.
- The skills for which current paratransit managers had received training in the past five years included customer service, management and supervision, and sexual harassment (31.7%); performance evaluations (27%); sensitivity skills (25%); and team building (25%).
- Of the current paratransit managers surveyed, 14% had participated in Easter Seals Project ACTION's Mobility Planning Services Institute.
- Thirty-two percent of the paratransit managers surveyed had attended or participated in workshops and panels on paratransit topics at the CTAA Annual Expo.
- Fourteen percent of the current paratransit managers surveyed had participated in the CTAA course on Passenger Service and Safety, with 11% having participated in the CTAA Certified Community Transit Management course.
- Current paratransit managers reported infrequent attendance or participation at TRB-sponsored conferences.
- Fifty percent of the current paratransit managers had attended or participated in an APTA Bus and Paratransit Conference, with 25% having attended an APTA annual meeting.
- Only 8% of the current paratransit managers had enrolled in a transportation degree program at a U.S.DOT-sponsored University Transportation Center.
- A considerable number of current paratransit managers (46%) reported making \$75,000 or more; however, 27% were making \$49,999 or less.

In reviewing the survey results on the importance of a paratransit manager having certain skills:

- Most respondents viewed dealing with the media, computerized scheduling, safe driving practices, labor relations, and affirmative action as very important.
- An overwhelming majority of respondents reported working with boards, written communications, oral communications, sensitivity, management and supervision,

ethics, and customer relations as very important.

- Paratransit driving, paratransit reservationist, and manual scheduling were viewed as not very important.

In reviewing the survey results on what additional skills and training paratransit managers should have to improve their effectiveness:

- Total Quality Management was the most requested additional skill that a paratransit manager should have to improve his or her effectiveness (50%).
- The most requested type of training was managing the cost of paratransit services (52%), followed by paratransit scheduling and dispatching fundamentals (42%), comprehensive ADA paratransit eligibility (39%), and certified community transit supervisor (39%).

In response to the survey question on whether paratransit managers should have a college degree:

- A slight majority (52%) believe that paratransit managers should be required to have a degree from a four-year college or university, with 35% answering that a degree should not be required and 13% were not sure.
- Fifty percent indicated that business/management is the most desirable area of study, followed by transportation with 17% and public administration with 14%.

The guidance given to aspiring paratransit managers by survey respondents generally fell into nine categories (attitude, customers/clients, experience, business/management, employees and employee development, leadership, interaction with internal and external groups, communications skills, and training) and some of the poignant comments included:

- “Be prepared to deal with politicians and government bureaucrats who do not understand the big picture in paratransit and expect you to fulfill unrealistic expectations. IT IS A VERY TOUGH REWARDING JOB!!!!”
- “Listen to the riders; they are why you have a job.”
- “Small issues could become quite exaggerated in a short period of time if not anticipated early by a proactive paratransit manager.”
- “Know your people and they need to know you.”
- “Ride a route once a week, drive a route once a month.”
- “Say what you mean and mean what you say . . . pray daily.”
- “If having a board member or passenger take an unannounced tour of the operating facility were cause for concern, it would indicate something is in need of immediate attention and corrective action.”

The paratransit manager position is relatively new at public transportation agencies and the survey results do not show a consistent career path to becoming a paratransit manager. The survey results do show that the current paratransit man-

ager is highly educated and has passenger transportation experience, but is almost always new to the current position, has little or no paratransit experience, and is not highly compensated. He or she took the job for the “challenge” and not the pay or the status of the position. Interestingly, the position descriptions for paratransit manager most consistently have “technology” and “knowledge of ADA” as the most necessary skills to have, but most paratransit managers do not believe that those skills are as important to their success as ethics, customer relations, communications, management and supervision, and sensitivity.

It appears that most paratransit managers receive their training “on the job” and not through any well-defined educational curriculum or industry-provided training. Although paratransit operations is very different from fixed-route public transit, most paratransit managers at fixed-route systems report to the chief operating officer COO or subordinate who has his or her roots in fixed-route operations.

This synthesis provides a good first step at understanding the profile of a paratransit manager. However, it is based on a relatively small sample size when compared with the entire universe of paratransit managers. For that reason and for several questions not covered or left unanswered during this synthesis study, it is important to undertake additional research on the subject. Larger surveys that separate rural and urban agencies and can collect considerably more data on how paratransit managers fit into agency organizations and cultures and what specific training needs are necessary to ensure successes could be helpful. Additional research could address attracting new entrants and job retention. The findings of the synthesis could also be considered in TRB Project F-13, Vehicle Operator Driver Recruitment, Retention, and Performance in ADA Complementary Paratransit Operations. In addition, the synthesis provides valuable input into the implementation of the other recommendations of the 2005 Consensus Conference for Paratransit Managers.

- Develop and encourage adoption of a transit manager degree program.
- Stimulate the creation of practicum and internships relating to the preparation of future and current personnel regarding paratransit management.
- Develop and disseminate a course on universal design that builds on the concept of one transportation system for all customers.
- Develop and disseminate a story of why people should chose careers as paratransit, transit, or mobility managers to assist in the recruitment of people to the profession.
- Create and disseminate a comprehensive list of current academic, continuing education, and other training for use by people interested in becoming paratransit managers.
- Explore the creation of a universally recognized transit certification program similar to CTAA’s current Certified Community Transit Management program that would convey stature and recognition.

- Develop and disseminate community projects for elementary, middle, and high school students to actively create awareness of transit careers.
- Develop practicum for degree candidates to work with paratransit providers.

Another next step could include the development of model job descriptions for paratransit managers to assist employers in

selecting managers with the appropriate backgrounds to perform at a high level. These job descriptions would detail the desired skills, training, and certifications necessary for paratransit managers based on the structures, cultures, and sizes of transportation agencies. Finally, increased focus should be given to the development of additional transportation degree programs with emphasis on paratransit management by U.S.DOT-sponsored University Transportation Centers.

FREQUENTLY USED ACRONYMS

ADA	Americans with Disabilities Act	MCHRA	Mid-Cumberland Human Resource Agency
AVL	Automatic vehicle location	MDT	Mobile data terminal
CCTM	Certified Community Transit Management	MPSI	Mobility Planning Services Institute
CCTS	Certified Community Transit Supervisor	NORTA	New Orleans Regional Transit Authority
CEO	Chief executive officer	NTI	National Transit Institute
COO	Chief operating officer	PASS	Passenger Service and Safety
EEO	Equal Employment Opportunity	TDC	Transit Development Corporation, Inc.
ESPA	Easter Seals Project ACTION	TRIS	Transportation Research Information Services
GM	General manager	UTC	University Transportation Center
HSA	Human service agency		

BIBLIOGRAPHY

- Burkhardt, J.E., C. Nelson, G. Murray, and D. Koffman, *TCRP Report 101: Toolkit for Rural Community Coordinated Transportation Services*, Transportation Research Board, National Research Council, Washington, D.C., 2004, 438 pp.
- Easter Seals Project ACTION, *Consensus Conference for Paratransit Managers, Easter Seals Project ACTION, Summary Report*, Washington, D.C., Oct. 6–7, 2005, 8 pp.
- Hemily, B. and R. King, *Synthesis of Transit Practice 41: The Use of Small Buses in Transit Service*, Transportation Research Board, National Research Council, Washington, D.C., 2002, 71 pp.
- KFH Group, Inc., and A-M-M-A, *TCRP Report 70: Guidebook for Change and Innovation at Rural and Small Urban Transit Systems*, Transportation Research Board, National Research Council, Washington, D.C., 2001.
- KFH Group and Associates, Inc., and TransCore, *TCRP Report 76: Guidebook Selecting Appropriate Technology Systems for Small Urban and Rural Public Transportation Operators*, Transportation Research Board, National Research Council, Washington, D.C., 2002, 73 pp.
- Koffman, D., *Synthesis of Transit Practice 53: Operational Experiences with Flexible Transit Services*, Transportation Research Board, National Research Council, Washington, D.C., 2004, 57 pp.
- Lave, R.E., R. Teal, and P. Piras, *TCRP Report 18: A Handbook for Acquiring Demand-Responsive Transit Software*, Transportation Research Board, National Research Council, Washington, D.C., 1996, 83 pp.
- Multisystems, Inc.; Ecosometrics, Inc.; Mundle and Associates, Inc.; and Simon and Simon Research Associates, Inc., *TCRP Report 64: Guidebook for Developing Welfare to Work Transportation Services*, Transportation Research Board, National Research Council, Washington, D.C., 2000, 91 pp.

APPENDIX A

Press Release

ARE YOU INTERESTED IN PARTICIPATING IN A SURVEY OF PARATRANSIT MANAGERS' SKILLS, QUALIFICATIONS, AND NEEDS?

The Transit Cooperative Research Program (TCRP) of the Transportation Research Board (TRB) of the National Academies is conducting a research effort to document the state-of-the-practice in paratransit managers' skills, qualifications, and needs in order to increase the understanding of the current state of paratransit management. This research effort is one of the recommended action items resulting from a 2005 Paratransit Consensus Conference hosted by Easter Seals Project ACTION that explored issues associated with recruitment, training, retraining, and rewarding paratransit managers.

The following areas will be explored in the TRB research effort:

- Skill sets/backgrounds of current managers.
- Skill sets desired by current managers.
- Guidance current managers would offer those aspiring paratransit managers.
- Agency/structure culture.

The research survey will be conducted between December 2006 and February 2007. Surveys will be distributed to a representative sample of paratransit managers, CEOs, and ADA advisory committee chairs representing small urban and rural agencies that may operate ADA, general public demand-response paratransit services, as well as urban ADA-only paratransit operations.

The research will be conducted by John F. Potts and Maxine A. Marshall of The DMP Group.

If you wish to participate in the research survey, please send an e-mail, no later than December 1, 2006, with your name, title, address, telephone and fax numbers, and e-mail address to:

TRBParatransitStudy@thedmpgroup.com

WE LOOK FORWARD TO HEARING FROM YOU.

APPENDIX B

Synthesis Survey Questionnaire

TRANSIT COOPERATIVE RESEARCH PROGRAM

Synthesis Project J-7, Topic SF-12

PARATRANSIT MANAGERS' SKILLS, QUALIFICATIONS, AND NEEDS

Purpose: The objective of this synthesis is to document the current state-of-the-practice in paratransit managers' skills, qualifications, and needs. For the purposes of this study, paratransit is defined as the full range of demand-responsive services, including ADA complementary, general public dial-a-ride, and human service transportation. Transit managers, policy makers, educators, trainers, human resource directors, and stakeholders, as well as current and future paratransit professionals, would find the results valuable in determining action steps needed to enhance the profession and paratransit service delivery. Please call the number at the end of this survey if you have any questions concerning the questionnaire. The final results will be synthesized into a report available from the Transportation Research Board (TRB).

Thank you for taking the time to complete this questionnaire.

Submission Instructions

The highest-ranking person in your agency with direct responsibility for paratransit service delivery should complete this survey. This may be a direct employee or a contractor. Please complete the online survey by January 31, 2007, following the instructions provided on the transmittal e-mail. We also ask that you provide copies of the following documents if they are available:

- Paratransit Manager Job Description (for employee and/or contractor, if applicable)
- Agency Organization Chart
- Agency Pay Scale
- Paratransit Manager's Resume
- Paratransit Accessibility Advisory Committee Roster

Please e-mail or mail these documents to the project manager at the address below:

John Potts
 The DMP Group
 2423 Killdeer Street
 New Orleans, LA 70122
 (504) 282-7949 or e-mail trbparatransitstudy@thedmpgroup.com

General Information

Agency name: _____

Address: _____

City/state/zip code: _____

Person completing the survey: _____

Title: _____

Contact phone no.: () _____

Contact fax no.: () _____

Contact e-mail address: _____

Agency website address: _____

Agency Characteristics

1. Agency's service area (square miles) _____
2. Total population of service area _____
3. Number of paid paratransit employees: Full-time _____ Part-time _____
4. Number of volunteers _____
5. Number of paratransit vehicles _____
6. Annual paratransit ridership _____
7. What technologies does your paratransit operation currently use? Check all that apply.
 - Computer scheduling software
 - Computer dispatching software
 - Automatic vehicle location (AVL)
 - Mobile data computers (MDCs) or mobile data terminals (MDTs)
 - Other, please describe: _____
8. Current annual agency paratransit operating budget \$ _____
9. What types of paratransit services are provided by your agency? Check all that apply.
 - ADA complementary paratransit
 - General public dial-a-ride
 - Human service transportation (including programs funded for Medicaid, mental health, developmental disabilities, etc.)
10. What categories of paratransit passengers does your agency transport? Check all that apply.
 - ADA complementary paratransit eligible passengers
 - General public passengers
 - Elderly passengers
 - Medicaid clients
 - Older adults with service funded by Title III of the Older Americans Act or other human service funding programs
 - Children, including Head Start participants
 - Job Access and Reverse Commute (JARC)
 - Persons with disabilities who may not be eligible for ADA paratransit services
 - Other, please specify: _____
11. Is your organization:
 - Public
 - Private, not for profit
 - Private, for profit

12. Is your paratransit manager:

- Agency employee
- Contractor

13. Please indicate for each function if it is performed by employees of the agency, contracted broker, or contracted operator employees:

Function	Agency Employee	Contract Broker	Contract Operator
Advance reservations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Same-day changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scheduling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dispatching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer complaints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Does the paratransit manager job have a position description?

- No
- Yes, please provide the following from the position description:
 - Years of experience _____
 - Years of supervisory/management experience _____
 - Education _____
 - Training/certification _____
 - Specialized skills, please specify: _____

15. What is the starting salary, as stated in the position description?

- | | |
|--------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> None/volunteer | <input type="checkbox"/> \$50,000–\$59,999 |
| <input type="checkbox"/> Below \$29,999 | <input type="checkbox"/> \$60,000–\$74,999 |
| <input type="checkbox"/> \$30,000–\$39,999 | <input type="checkbox"/> \$75,000–\$99,999 |
| <input type="checkbox"/> \$40,000–\$49,999 | <input type="checkbox"/> Over \$100,000 |

16. Which of the following best describes your position with the agency receiving this survey?

- Paratransit manager or the highest ranking person in your agency with direct responsibility for paratransit service delivery (answer all remaining questions)
- General manager or CEO (ONLY answer Questions 34–38)
- Paratransit advisory committee member (ONLY answer Questions 34–38)

**Note: If You Are Not the Paratransit Manager
Please Skip Ahead To Question 34 on Page 7**

**The Following Questions Should Be Answered by the *Current* Paratransit Manager
Describing His/Her Background and Experience.**

17. What is your current job title? _____
18. What is the title of the person to whom you report? _____
19. On what date did you *start* this position? _____(mm/dd/yyyy)
20. How were you recruited for the position?
- Internal posting/promotion
 - External—Other paratransit agency
 - External—No paratransit experience
 - Other, please specify: _____
21. What attracted you to the position?
- Promotion to larger agency
 - Internal promotion
 - Challenge
 - Pay
 - Other, please specify: _____
22. What is the highest level of formal education that you have completed?
- Some high school
 - High school or GED
 - Some college
 - Associate's Degree (community college)
 - Bachelor's Degree (college or university)
 - Graduate school
23. If you attended college, what best describes your major or area of study?
- Transportation
 - Planning
 - Business/Management
 - Public Administration
 - Marketing
 - Accounting
 - Computer Science
 - Psychology
 - Social Work
 - Other, please specify: _____
24. How many years of experience in *passenger* transportation did you have *before* you took this position?

- 0–3 years
- 3–5 years
- 5–10 years
- 10–20 years
- More than 20 years

25. Please list the titles of the last three jobs you held *before* you took this position:

Descriptive Position Title	Employer	Years in Position (e.g., 1990–1995)	Annual Salary

26. What is your *current* annual salary?

- | | |
|--------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> None/volunteer | <input type="checkbox"/> \$50,000–\$59,999 |
| <input type="checkbox"/> Below \$29,999 | <input type="checkbox"/> \$60,000–\$74,999 |
| <input type="checkbox"/> \$30,000–\$39,999 | <input type="checkbox"/> \$75,000–\$99,999 |
| <input type="checkbox"/> \$40,000–\$49,999 | <input type="checkbox"/> Over \$100,000 |

The Following Questions Pertain to Training and/or Certification of the *Current* Paratransit Manager.

27. Have you received training in the following skills during the past five years? Check all that apply.

- | | | |
|----------------------------------------------|-----------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Customer service | <input type="checkbox"/> Management and supervision | <input type="checkbox"/> Scheduling |
| <input type="checkbox"/> Dealing with boards | <input type="checkbox"/> Oral communications | <input type="checkbox"/> Sexual harassment |
| <input type="checkbox"/> EEO/ADA/Title VI | <input type="checkbox"/> Performance evaluations | <input type="checkbox"/> Safe driving |
| <input type="checkbox"/> Labor negotiations | <input type="checkbox"/> Total Quality Management | <input type="checkbox"/> Sensitivity |
| <input type="checkbox"/> Media relations | <input type="checkbox"/> Written communication | <input type="checkbox"/> Team building |
| <input type="checkbox"/> Other: _____ | | <input type="checkbox"/> Time management |

28. Have you participated in any of the following paratransit training seminars in the past five years? Check all that apply.

National Transit Institute (NTI)

- Paratransit Scheduling and Dispatching Fundamentals
- Managing the Cost of ADA Paratransit Services
- Comprehensive ADA Paratransit Eligibility
- Other NTI Course, please specify: _____

Easter Seals Project ACTION (ESPA)

- Mobility Planning Services Institute
- People on the Move
- ESPA Distance Learning (teleconferences on specific topics with guest speakers)

- Other ESPA course, please specify: _____

Community Transportation Association of America (CTAA)

- Certified Community Transit Manager (CCTM)
- Passenger Service and Safety (PASS)
- Certified Community Transit Supervisor (CCTS)
- Professional Dispatch and Scheduling (PDS)
- Other CTAA course, please specify: _____

29. Have you attended or participated in workshops or panels on paratransit topics sponsored by the following organizations? Check all that apply.

Transportation Research Board (TRB)

- TRANSED—International Conference on Mobility and Transport for Elderly and Disabled Persons
- Annual Meeting (held annually in January in Washington, D.C.)
- National Rural Public and Intercity Bus Transportation Conference
- Other TRB meeting, please specify: _____

American Public Transportation Association (APTA)

- Bus and Paratransit Conference
- Annual Meeting
- Webinar, please specify: _____
- Other APTA meeting, please specify: _____

Community Transportation Association of America (CTAA)

- Annual Expo
- Institute on Transportation Coordination
- Faith Based Summit
- Other CTAA meeting, please specify: _____

30. Have you ever enrolled in a transportation degree program at a DOT-sponsored University Transportation Center (UTC)?

- No
- Yes, please specify which UTC and your field of study: _____

31. Are you currently enrolled in or have you completed any training program or workshop on paratransit topics *not* sponsored by any of the previously mentioned organizations?

- No
- Yes, please specify: _____

32. Do you currently hold a certification or license in any field?

- No

- Yes, please specify: _____

33. If you *have not had any training* or professional development in the past year, please explain why not:

- No agency funds available for training
- No time to take off for training
- No alternate staff to replace me
- I am not aware of training opportunities
- My manager does not believe training is needed
- I do not believe training is needed
- Other, please explain: _____

The Following Questions Pertain to Skills Desired for Paratransit Managers and Advice Offered to Future Paratransit Managers. ALL Respondents Should Answer the Following Questions.

34. Please rank the importance of the following skills in a paratransit manager:

Skills Required of Paratransit Managers	Importance (1= Not Important, 5= Very Important)				
Computerized Scheduling	1	2	3	4	5
Manual Scheduling	1	2	3	4	5
Management and Supervision	1	2	3	4	5
Prior Experience as Paratransit Driver	1	2	3	4	5
Prior Experience as Paratransit Reservationist	1	2	3	4	5
Sensitivity Skills (persons with disabilities)	1	2	3	4	5
Customer Relations	1	2	3	4	5
Written Communication	1	2	3	4	5
Oral Communication	1	2	3	4	5
Decision Making	1	2	3	4	5
Working with Boards and Committees	1	2	3	4	5
Dealing with the Media	1	2	3	4	5
Safe Driving Practices	1	2	3	4	5
Labor Relations	1	2	3	4	5
Time Management	1	2	3	4	5
Affirmative Action	1	2	3	4	5
Ethics	1	2	3	4	5
Other	1	2	3	4	5
Other	1	2	3	4	5

35. What *additional* skills would you like to have to improve your effectiveness or that of your paratransit manager? Check all that apply.

- | | | |
|----------------------------------------------|-----------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Customer service | <input type="checkbox"/> Management and supervision | <input type="checkbox"/> Scheduling |
| <input type="checkbox"/> Dealing with boards | <input type="checkbox"/> Oral communications | <input type="checkbox"/> Sexual harassment |
| <input type="checkbox"/> EEO/ADA/Title VI | <input type="checkbox"/> Performance evaluations | <input type="checkbox"/> Safe driving |
| <input type="checkbox"/> Labor negotiations | <input type="checkbox"/> Total Quality Management | <input type="checkbox"/> Sensitivity |
| <input type="checkbox"/> Media relations | <input type="checkbox"/> Written communication | <input type="checkbox"/> Team building |
| <input type="checkbox"/> Other: _____ | | <input type="checkbox"/> Time management |

36. What *additional* training and/or certification would you like to receive or have your paratransit manager receive to improve his/her effectiveness?

National Transit Institute (NTI)

- Paratransit Scheduling and Dispatching Fundamentals
- Managing the Cost of ADA Paratransit Services
- Comprehensive ADA Paratransit Eligibility
- Other NTI course, please specify: _____

Easter Seals Project ACTION (ESPA)

- Mobility Planning Services Institute
- People on the Move
- ESPA Distance Learning (teleconferences on specific topics with guest speakers)
- Other ESPA course, please specify: _____

Community Transportation Association of America (CTAA)

- Certified Community Transit Manager (CCTM)
- Passenger Service and Safety (PASS)
- Certified Community Transit Supervisor (CCTS)
- Professional Dispatch and Scheduling (PDS)
- Other CTAA course, please specify: _____

General Management/Supervisory Skills Training

- Written Communication
- Oral Communication
- Decision Making
- Working with Boards and Committees
- Dealing with the Media/Public Relations
- Labor Relations
- Time Management
- Affirmative Action
- Ethics
- Other, please specify: _____

37. Do you think that a paratransit manager of an agency similar to yours should be required to have a college degree?

- No
- Yes, please identify which area of study is most desirable:

<input type="checkbox"/> Transportation	<input type="checkbox"/> Accounting
<input type="checkbox"/> Planning	<input type="checkbox"/> Computer Science
<input type="checkbox"/> Business/Management	<input type="checkbox"/> Psychology
<input type="checkbox"/> Public Administration	<input type="checkbox"/> Social Work
<input type="checkbox"/> Marketing	<input type="checkbox"/> Other, please specify: _____

38. What advice or guidance would you offer to future or aspiring paratransit managers to help them be more effective and increase the status and tenure of paratransit managers?

**PLEASE RETURN THE COMPLETED QUESTIONNAIRE AND OTHER
MATERIALS (see list on page 1 of the survey)
BY JANUARY 31, 2007 TO:**

**The DMP Group
2423 Killdeer Street
New Orleans, LA 70122-4315
504-282-7949 (phone and fax)**

THANK YOU FOR YOUR PARTICIPATION!

APPENDIX C

Survey Respondents

AC Transit/East Bay Paratransit, Oakland, CA
 Ann Arbor Transportation Authority, MI
 Arlington County STAR, VA
 Brunswick Transit System, Inc., Bolivia, NC
 Capital District Transportation Authority (CDTA),
 Albany, NY
 Casper Area Transportation Coalition, WY
 Centre Area Transportation Authority (CATA), State
 College, PA
 City and County of Honolulu Department of Transportation
 Services, HI
 City of Albuquerque Transit Department, NM
 ClasTran, Birmingham, AL
 Dallas Area Rapid Transit, TX
 Diversified Transportation, LLC, Pomona, CA
 Duluth Transit Authority, MN
 Eau Claire Transit, WI
 Fastran, Fairfax County, VA
 Garrett County Community Action Community,
 Oakland, MD
 Gold Country Telecare, Grass Valley, CA
 Greater Hartford Transit District, CT
 Hampton Roads Transit, VA
 IndyGo, Indianapolis, IN
 Intracity Transit, Hot Springs, AR
 Kansas City Area Transportation Authority, KS
 King County Paratransit, Seattle, WA
 Link Transit, Wenatchee, WA
 LYNX (Central Florida Regional Transportation
 Authority), Orlando, FL
 Metropolitan Atlanta Rapid Transit Authority (MARTA),
 Atlanta, GA
 Metro Transit, Oklahoma City, OK
 Mid-Cumberland Human Resource Agency (HRA),
 Nashville, TN
 Mountain Line, Missoula, MT
 Nashville Metropolitan Transit Authority (MTA), TN
 Neighborly Care Network, Clearwater, FL
 Omnitrans, San Bernardino, CA
 Ottumwa Transit Authority, IA
 Pace Suburban Bus, Chicago, IL
 Paducah Transit Authority, KY
 Portage Area Regional Transportation Authority (RTA),
 Kent, OH
 San Diego Metropolitan Transit System (MTS), CA
 San Francisco Paratransit, CA
 Santa Clara Valley Transportation Authority (VTA)
 Santee Wateree Regional Transportation Authority (RTA),
 Sumter, SC
 Southeastern Pennsylvania Transportation Agency
 (SEPTA), Philadelphia, PA
 Southland Transit, Inc., El Monte, CA
 South Lane Wheels, Cottage Grove, OR
 Special Mobility Services, Inc., Eugene, OR
 Special Transportation Service, Charlotte, NC
 StarTran, Lincoln, NE
 Sun Metro, The LIFT, El Paso, TX
 The RAPID, Grand Rapids, MI
 Transfort, Fort Collins, CO
 Transit Authority of River City (TARC), Louisville, KY
 Triangle Transit Authority, Raleigh, NC
 Tri-County Metropolitan Transportation (TriMet),
 Portland OR
 Utah Transit Authority, Salt Lake, UT
 Ventura County Transportation Commission (VCTC)/
 Ventura Intercity Service Transit Authority (VISTA),
 Ventura, CA
 Walterboro Paratransit, SC
 Washington County Transit Authority, Washington, PA
 Washington Hancock CAA, Washington, ME
 Washington Metropolitan Area Transit Authority
 (WMATA), Washington, DC

APPENDIX D

Advice or Guidance Offered to Paratransit Managers

What advice or guidance would you offer to future or aspiring paratransit managers to help them be more effective and increase the status and tenure of paratransit managers?

1. Lead by example; dress, conduct, attitude. 2. Understand the work process and practices of subordinates; driver, reservations, scheduler, dispatcher. 3. Plan ahead. 4. Build time to cross train staff.

Work in as transparent and open an operating environment as possible. Whether it be an advocacy group, passenger, board, elected official, superior, subordinate or “Jane/John Doe,” service reality should be communicated accurately. If it’s “bad news,” owing to budget constraints, etc., communicate that early. Never dismiss a complaint and follow-up with each interested party. Have a thorough understanding of operating policy and communicate that as consistently as possible at all times. If having a board member or passenger take an unannounced tour of the operating facility was cause for concern, it would indicate something is in need of immediate attention and corrective action.

Focus on the development of people and less on managing them. Understand your role and your business from top to bottom. Manage this business as if it was for profit. Know the customers internal and external and be honest with them and true to yourself.

Need for understanding of reservations and scheduling. Also need to have sensitivity to passengers with special needs.

You must fully understand the business whether it be ADA, Medicaid, operations, reporting, etc.

Learn all the basic functions first including driver jobs, schedulers, order takers, and dispatchers. Focus, speak clearly, write well, and be ethical.

Being familiar with public transit is extremely helpful. Coming up through the ranks is helpful, but being the manager takes on a whole new life. Having a strong support team is essential to the system success. Finally, learn to delegate without flooding your assistants.

Focus on customer service and understanding the fundamentals of ALL aspects of the operations. One cannot relate to the issues of a driver, dispatcher, and such if you are not familiar with the job.

Ensure that the organization maintains a supportive and positive culture for employees. This allows the manager to focus on building employee skills and performance rather than constantly recruiting and training new hires.

Keep up on changes and needs assessments.

I would suggest that they always remember that our clients are why we are here, and our drivers and dispatchers are the backbone of our operations. If you are available, supportive, kind, and sincere you will gain the respect of those who work for you and those whom you work for.

They must be a people person and love what they do. They must understand that transportation is not a 9:00 a.m.–5:00 p.m. job—it requires commitment and patience. You must know your people and they need to know you. You cannot manage in a paratransit environment being in the office. You must set the example. Say what you mean and mean what you say... and pray daily.

Managers should take advantage of employer-sponsored courses in industry principles. Certifications such as CTAA management courses and paratransit/transit management are invaluable.

Ride a route once a week; drive a route once a month.

This career requires much patience, a code of ethics, and long hours to ensure persons using paratransit services are afforded every opportunity to function as completely as possible in his/her community.

Run your operation as though it were a for-profit business to keep operation in the black and continue to provide over-all service.

Be flexible to change.

Learn how to manage your resources in the most efficient manner and listen to the riders. They are why you have a job.

Be professional at all times. Ensure your data are accurate. Develop a good relationship with your advocacy committee. Ensure your human resources staff has a solid handle on your responsibilities. Accountability—honesty. Ensure that the agency realizes that you are a professional transit manager not unlike fixed-route and rail.

Be prepared for a job with an enormous amount of responsibility and daily high stress. Be prepared to deal with politicians and government bureaucrats who do not understand the “big picture” in paratransit and expect you to fulfill unrealistic expectations! IT IS A VERY TOUGH REWARDING JOB!!!!

Effective and positive dealings with customers of every type and background.

Learn the numbers! Learn what reports and statistics are critical to managing. Personnel management (hiring, evaluating, delegating, developing). Demonstrate respect for the customers and advocates—educate them. Time management/prioritizing. Inclusive problem solving and decision-making processes. Stress management.

Network with your colleagues and keep up on industry best practices and innovations. Concentrate on being a generalist and developing a diverse skill set that ranges from management and communication to technical and operational knowledge. To be successful, the manager must be well versed in all of these areas. Educate your internal colleagues on what your paratransit operation is doing and how it fits into the overall mission of your agency.

Have a good Business Administration background, good analytical skills, and experience with budgets.

Have good customer service skills and out of the box thinking.

Be a coach and build a team that you can take to playoffs every year and do not worry about winning the Super Bowl. Be proud of your team accomplishments; work on your team's weakness and get them ready for the next season (of course the season is the annual budget that you need to meet to secure your position).

Educate executive management and board members on what the ADA is about, which is equal access to the fixed-route; it is not about ADA paratransit eligibility.

Understand the make-up of the client base. Many small issues can become quite exaggerated in a short period of time if not anticipated early by a proactive paratransit manager.

None.

Budget and people management (staff) are the key; dealing with the special needs of our riders with empathy is vital. Know your staff.

Know your community well and be active in it. Invite them to join you in decision making.

Treat it as a career and get as much education as possible. Please note, in our organization the paratransit manager is combined with the fixed-route manager as a manager of operations.

Learn how to manage paratransit like a business.

Develop sensitivity and interpersonal skills necessary to interact with a wide range of contacts (customers to board members), learn basic transportation operations, and learn the significant impact that scheduling has on operating cost and performance. Establish formal goals and an action plan to achieve them.

Understand that your system cannot be all things to all people, but you can strive to provide the best service to the most people with a smile.

Take the time to analyze your current system requirements and spend the time to restructure your service plan.

APPENDIX E

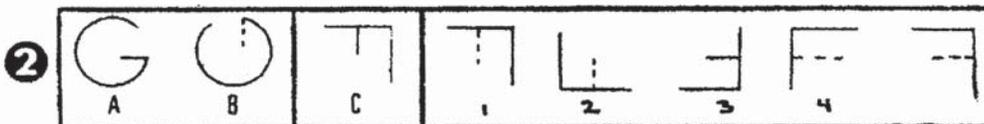
Spatial Perception Test

Page 1

Name _____ Date _____

SPACIAL PERCEPTION TEST

This is a test to explore your spacial perception. Below are examples of the types of figures you are asked to identify. In these logic puzzles, Figure A changes to Figure B like Figure C changes to one of the last five figures. Circle the correct figure of the last five figures.



In example 1, if Figure A is turned counterclockwise one-quarter of a turn and the colors are reversed, it becomes Figure B. Therefore, if we do the same thing to Figure C, it becomes the fifth figure.

In example 2, if Figure A is turned counterclockwise one-quarter of a turn and the cross bar is changed to a dotted line instead of a solid line, it becomes Figure B. If we do the same thing to Figure C, it becomes the fourth figure.

Although the figures in the two examples were turned counterclockwise one-quarter of a turn, each figure in the remainder of the test will be different.

The test is divided into four parts. Work as fast as you can; and when you complete a section, please turn to the next page and continue. If you have difficulty with one problem, go on to the next problem. If you finish ahead of time, go back and try to answer the problems you skipped.

YOU HAVE EIGHT (8) MINUTES TO COMPLETE THE TEST.

DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO.

PART I

In these logic puzzles, Figure A changes to B like C changes to what number?

Circle one of the last five figures in each row.

1								
2								
3								
4								
5								
6								
7								

IN THIS EXAMPLE, NUMBER FIVE IS THE CORRECT ANSWER.
 B CHANGES BY SHADING SO C CHANGES BY SHADING ALSO.



CIRCLE THE ANSWER YOU THINK IS CORRECT.

1	A	B	C	1	2	3	4	5
2	A	B	C	1	2	3	4	5
3	A	B	C	1	2	3	4	5
4	A	B	C	1	2	3	4	5
5	A	B	C	1	2	3	4	5
6	A	B	C	1	2	3	4	5

Go on to the next page.

A changes to B like C changes to what numbers?

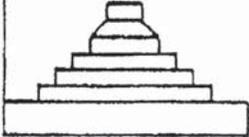
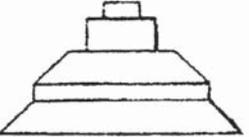
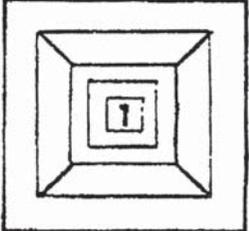
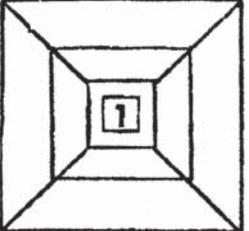
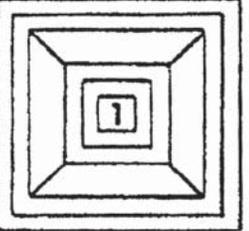
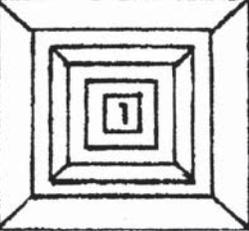
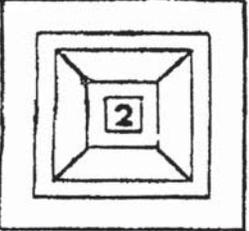
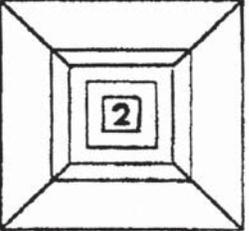
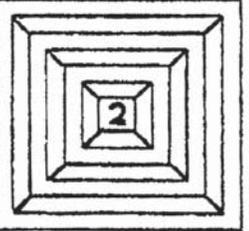
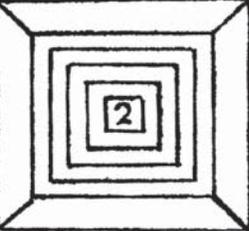
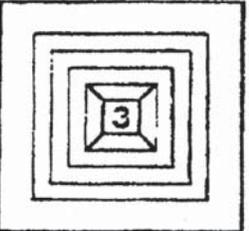
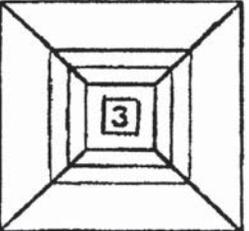
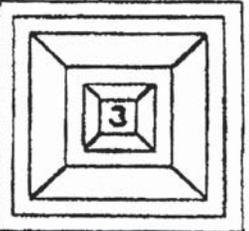
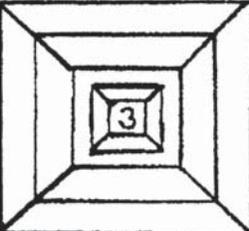
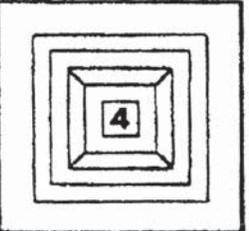
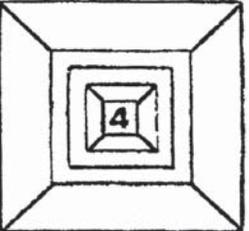
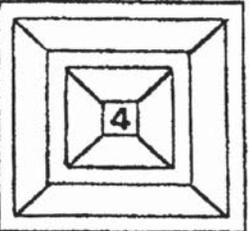
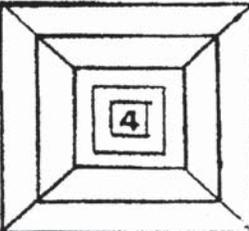
Circle one of the five choices.

1	 A	 B	 C	 1	 2	 3	 4	 5
2	 A	 B	 C	 1	 2	 3	 4	 5
3	 A	 B	 C	 1	 2	 3	 4	 5
4	 A	 B	 C	 1	 2	 3	 4	 5
5	 A	 B	 C	 1	 2	 3	 4	 5
6	 A	 B	 C	 1	 2	 3	 4	 5
7	 A	 B	 C	 1	 2	 3	 4	 5

Go on to the next page.

PROFILE PUZZLE

FIND THE CORRECT TOP VIEW FOR EACH FIGURE

			
A	B	C	D
			
			
			
			

WHICH ONE DIFFERS ?

A							
	1	2	3	4	5		
	B						
		1	2	3	4	5	
		C					
			1	2	3	4	5
D							
			1	2	3	4	5
	E						
			1	2	3	4	5

SCORING KEY
SPATIAL PERCEPTION TEST

Part I. Page 2		Part I. Page 3	
Question	Question	Question	Answer
1	1	1	4
2	3	2	3
3	5	3	2
4	4	4	5
5	3	5	3
6	1	6	4
7	1		

Part II. Page 4		Part III. Page 5	
Question	Question	Question	Answer
1	5	A	3
2	2	B	3
3	4	C	3
4	4	D	4
5	1		
6	5		
7	1		

Part IV. Page 6	
Question	Question
A	1
B	5
C	2
D	5
E	1

Abbreviations used without definitions in TRB publications:

AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI-NA	Airports Council International-North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	Air Transport Association
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation