The State Role in Technical Assistance and Research

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INTRODUCTION

Effective communication and interaction between state program managers and their public transportation projects is often the key to the project's success, both from the state perspective and the local service delivery perspective. Technical assistance and research are integral to this communication and interaction. A state's technical assistance and research programs are important to both the state and local properties. They ensure the state is sponsoring or funding programs that meet state goals for public transit and also improve a local project's chances of success.

The purpose of this paper is to explore the subjects of technical assistance and research in general and then the state's role in providing technical assistance or conducting research.

The paper begins by addressing the question of what activities are defined as technical assistance and research and how, traditionally, these activities have been accomplished within national and state organizations. Next, the paper explores how this role is changing and what factors affect a state's ability to provide assistance. Finally, the paper poses a number of questions that individual states can ask to plan an effective technical assistance and research program.

Interactions aimed at improving the way public transit services are provided can be categorized into four general categories:

- **Research** – aimed at generating new ideas, new technologies, or new ways of doing things
- **Demonstrations** – aimed at implementing new ideas on the local level; can be grouped into the demonstration of ideas that are still experimental in nature and the demonstration of ideas that have been implemented in only a limited manner
- **Technical Assistance** – aimed at improving local services by sharing experience, knowledge, and information generated, in part, by research, demonstration, and training activities
- **Training** – aimed at training local operators and their staffs to perform a variety of functions more efficiently

WHAT IS TECHNICAL ASSISTANCE?

Technical assistance can be loosely defined as information sharing that helps solve a problem. Regardless of the approach, technical assistance efforts share the common desire to solve or prevent problems. Persons providing technical assistan ce often act as a resource for local operators, who may be overworked and unable to investigate new areas or learn new procedures. Technical assistance may be providing hands-on problem solving, either in person or over the telephone, or relaying information through workshops or lending libraries, or it may involve the state assuming some functions for local grantees (such as procuring insurance or vehicles). Although training appears to be a subject in itself because it is the focus of so many state technical assistance activities, it is actually only one method of transmitting information through a technical assistance program.

Technical assistance is certainly not new to public transit. Once a federal or state program is created, support in the form of technical assistance or research soon follows. Traditionally, the flow of assistance in transportation and most governmental programs has been from the top down–from the federal level to the state level and from the state level to the local level.

Throughout this long history of engaging in research and technical assistance activities, transit professionals have been highly reflective on the substance of their efforts. However, there has been less reflection and little written about the process of providing technical assistance in an effective manner. Yet, the process is the key to the success of any technical assistance or research program.

There are many impediments to providing technical assistance effectively or conducting research that will help improve local programs. First, the giver and the receiver are usually located in different cities and, often, in different environments. Second, the farther removed in governmental levels the giver of technical assistance or initiator of research activities is from the people who need the information, the harder it is to anticipate and meet their need for assistance. For example, it is hard for people on the federal level to develop an effective assistance and research program without continued interaction with local grantees. Third, effective interaction is often inhibited by the fact that the "assistor" (whether at the state or federal levels) may also have oversight and monitoring responsibilities, which local grantees may see as intrusive or authoritarian.

WHAT IS RESEARCH?

What is research and how does it fit into an overall plan for interacting with local operators? For the purposes of this paper, research is defined as those activities intended to result in ideas that solve problems faced by local operators (as distinguished from research activities that might be undertaken by states to solve their internal administrative problems). Research can be performed with a number of purposes in mind. It can be aimed at generating solutions that advance federal or state policies or goals. It can also be focused on developing technological or nontechnological remedies to local problems.

Research goes hand-in-hand with efforts to demonstrate the validity or success of the innovative ideas generated by the research. Demonstrations can be grouped into the demonstration of ideas that are still experimental in nature (never been used before) and the demonstration of ideas that have been implemented but only in a limited manner. Experimental demonstrations are aimed at determining whether the idea is successful; exemplary demonstrations further the concept by implementing it in a number of sites and then evaluating its success in a variety of settings.

Research activities aimed at solving local problems often are not distinguishable from technical assistance activities since most research projects result in materia ls (usually written) that are used in the technical assistance process. What makes research distinct from technical assistance is that research is often an attempt to demonstrate a new idea or a new approach to a problem and then measure or evaluate the results of that effort. Technical assistance tends to be the sharing of methods or techniques that have already been demonstrated as successful solutions to local problems.

There is an integral interaction between research and technical assistance. Research provides information on new methods, while technical assistance disseminates this information and tailors it to local needs. Without research, technical assistance is less meaningful; similarly, without effective technical assistance, many research results would go unused. This does not mean research and technical assistance have to be done by the same organizations, or even at the same level of government. What it does mean is that there should be an effective flow of information from the providers of technical assistance to the researchers in terms of what is needed and from the researchers to the assistors in terms of research results.

WHAT HAS BEEN THE FEDERAL OR NATIONAL ROLE IN TECHNICAL ASSISTANCE OR RESEARCH?

Any review of technical assistance and research on the state level requires an understanding of how states interact with the national or regional perspective from above and the local perspective from below. On the national level, a role is played by a variety of agencies:

- The Urban Mass Transportation Administration (UMTA) through its Office of Technical Assistance, its Rural Transit Assistance Program (RTAP), and the involvement of its many program offices that are involved in research and technical assistance.

- The American Public Transit Association (APTA) through its efforts to provide assistance to its members and its continuing efforts to have an effective research program. This includes the emergence of the Strategic Transit Research Program (STRP).

- The Transportation Research Board (TRB) through its continuing efforts to foster research and sharing of information through publica-

tions, conferences, workshops, committees, and the National Cooperative Transit Research Program (NCTRP).

- The American Association of State Highway and Transportation Officials (AASHTO) through its efforts to share information among states, particularly its new Multi-State Technical Assistance Program (MTAP).

- The National Association for Transportation Alternatives (NASTA) through its efforts to provide information to specialized transit providers.

Federal Government Role

While there have always been strong training programs and strong information dissemination efforts initiated on the federal level, the federal or national role has centered on conducting research rather than providing direct technical assistance. The exceptions to this have been the PPTN (but this focused on providing technical assistance in the narrow area of privatization) and the newly created RTAP program (applicable only in nonurban areas). In addition to the development of national training materials, the RTAP program is providing direct technical assistance through its national hotline and, soon, through its peer-to-peer network. While this effort is subsidized by UMTA, it is described below as a cooperative national effort because of the nature of the program.

Most transit research activities have been focused at the federal level, centered around UMTA, where agendas have been set and states and local operators have had a more distant involvement. (One notable exception to this observation was the NCTRP program, in which research agendas were set cooperatively by federal, state, and local operators.) One reason the federal government has played a predominant role in transit research is that, from the beginning of federal subsidies for public transit, the federal government recognized the need to fund research on how to make transit services better. While funds for this research have been reduced and the focus of this research has changed over time, the federal government continues to be the major force in transit research.

During the 1980s, federal funding for research and development has dropped dramatically (UMTA research spending dropped from $60 million annually in the 1970s to approximately $22 million annually in 1987). Even more important than this reduction in federal funding for research is the recent orientation of federal research efforts toward more narrowly defined topics of federal concern. In 1985, UMTA reorganized its research to reflect changing federal goals for transit (specifically the desire to make transit safe, reduce dependence on federal subsidies, and protect the federal capital investment in transit). In addition to reducing the overall scale of the program, the new program consolidated research activities into "lead programs" that UMTA felt were directly related to its mission: ensuring the safety and security of passengers, creating competition in and privatization of public transit services, protecting the federal financial investment in transit, and monitoring the state of the industry so federal policies and programs remain responsive to industry needs.

As a result of this change in focus, less federal research is being performed that is initiated on the state or local level to meet their needs or concerns. The federal research program provides less support to problem-solving research directed toward the needs of local operators. This leaves a serious gap in the development of information on basic needs of local transit operators and in the development of research findings and materials that are available to states for technical assistance to local transit agencies. This gap can be filled in a number of ways, one of which is being furthered by APTA and TRB through their efforts to put the STRP program in place and another that is being implemented by UMTA through its RTAP program. Both are discussed below.

Funding for federal involvement in research and training is possible under a number of federal programs. Section 6 of the UMTA Act of 1964 authorizes DOT to undertake research, development, and demonstration projects. Funding under this program has provided more than 90 percent of all federal assistance for transit research. Section 11 funds the university research program for basic research projects and for training researchers in the field. Section 10 authorizes training of transit managers, and Section 20 authorizes funding to address human resources issues, including manpower and training needs.

In efforts to develop new technologies, Section 3(a)(1)(c) (part of the discretionary grant program) provides for introduction of new technologies and improved products. Section 4(i) authorizes grants for innovative technologies. Finally, Section 22 authorizes the Secretary to investigate transit systems for safety, and Section 15 includes funds to maintain the DOT database developed under the S.15 reporting system.

Other National Research and Technical Assistance Efforts

There have been other national efforts to research transit issues or provide technical assistance to state or local governments. Many national organizations of state and local transit officials are active in these efforts, which include TRB's NCTRP program, APTA's STRP program, UMTA's RTAP program, and AASHTO's MTAP program.

National Cooperative Transit Research Program (NCTRP) – This program is the best example of a cooperative effort among federal, state, and local levels in transit research activities. It was created to help the transit community work together to address the problems of the transit industry. The program is managed by three parties. APTA manages the Technical Steering Group (TSG), which is responsible for setting the research agenda. The TSG is comprised of transit operators, state transit officials, and UMTA staff. TRB administers the program, and UMTA provides the funding.

Research problems are submitted by local operators or states to the TSG, which creates an annual program of projects. The program is approved by UMTA and administered by TRB (the TRB staff and panels of experts define specific projects from the broad problem statements developed by the TSG). The intent of the program is to provide a mechanism within which local operators can influence a

portion of the federal research program. Although funding for the program has been curtailed in recent years, UMTA recently approved funding for the NCTRP FY 1985 annual program. This effort will include five projects: two research projects (on the cost/benefits of vehicle standardization and the incremental ridership impacts for bus route service changes) and three synthesis studies (on supervision strategies to improve reliability of major bus lines, collection of ridership data on rapid transit, and local versus regionally operated bus service). It is anticipated that this may be the last year funding is available for the program.

Strategic Transportation Research Program (STRP) – In reaction to changes within UMTA's program focus, UMTA asked TRB to examine the current need for transit research and recommend how these research needs should be met. The study committee recognized a need to establish an operator-oriented, problem-solving research program focused on topics relevant to local operators. Of particular interest were seven broad research topics reflecting the basic issues faced by local operators:

- human resources management
- service configuration and marketing
- service delivery models
- internal inefficiencies
- maintenance
- equipment
- innovative financing

The study recommended that the new program be funded through a mandatory set-aside of 1/2 percent of their federal formula grants (Sections 9 and 18) on which the required local match would be waived. Funding would be approximately $10 million annually. It was further recommended that the transit industry seek legislation to authorize the set-aside and clarify that research by local agencies is an eligible activity under Sections 9 and 18. Modelled administratively after the NCTRP program, the effort would be dominated by local transit agencies and state DOTs. To date, APTA has taken the lead in seeking legislation necessary to create the program.

Rural Transit Assistance Program (RTAP) – The RTAP program is another national effort, funded by UMTA, to assist in training, technical assistance, research, and other support services for transit in nonurbanized areas. The program has two components. The state-oriented component provides an annual allocation to each state to develop and implement training and technical assistance programs for operators who serve nonurbanized areas (most of the RTAP funds are allocated directly to states). The program also has a national component, which is guiding the development of information and materials for use by local operators and within state programs. The national RTAP program is being administered by a consortium of four organizations: the American Public Works Association (APWA), Rural America, the National Association for Transportation Alternatives (NASTA), and International Support Services (ISS). The national component is guided by an advisory committee comprised of representatives of state agencies and local

operators. FY 1987 RTAP funds were derived from the mass transit account of the highway trust fund; starting in 1988, RTAP funds will be authorized from the general fund rather than the trust fund.

The RTAP program has a number of objectives, one of which is particularly important to state DOTs: "to foster the development of state and local capacity for addressing the training and technical assistance needs of the rural/small urban transportation community." It is significant to note that one of the program's goals is building the capacity on the state and local levels to provide technical assistance on a continuing basis. Unfortunately, many of the state RTAP programs have focused exclusively on one-time training activities or assistance efforts that do not build state-level capacity to continue technical assistance efforts outside the RTAP program funds.

Multi-State Technical Assistance Program (MTAP) – The purpose of the MTAP project is to facilitate information sharing on successful state technical assistance efforts or practices among state transit officials. This is the only effort aimed at technical assistance that focuses on state-level activities. One of its primary objectives is to increase the ability of state transit officials to interact effectively with local operators. For the 1988 program year, 16 states from all areas of the country are involved. There are three major tasks slated for the first year:

- compile and showcase exemplary state practices
- create networking opportunities among state transit officials
- hold regional meetings

In the first task, a showcase of exemplary state practices is being developed in the areas of cost containment, revenue/ridership gains, and training. Information on state technical assistance programs is being collected, and a catalog of state involvement in technical assistance is being prepared. Once exemplary practices have been selected and materials developed, a plan to promote the showcase will be developed.

In the second task, MTAP hopes to create opportunities for effective sharing of information among the MTAP states. State officials can travel to a state that has a practice of interest, choosing from among the descriptions of exemplary practices. By requiring the preparation, dissemination, and archiving of site reports on how the practice was or was not useful, the MTAP project will be furthering the state of the art.

The final task for 1988 will be to hold three regional meetings to provide a forum for states to develop solutions to common problems or concerns. The meetings will be informal to facilitate highly interactive discussions. Participants from each region will set the agenda for the meetings.

WHAT HAS BEEN LOCAL OPERATOR INVOLVEMENT IN TECHNICAL ASSISTANCE OR RESEARCH?

In addition to being the recipients of most technical assistance efforts, local operators have also provided the sites for most of the research activities. They have also provided the forum for identifying solutions and, through national organizations such as APTA and NASTA, have been involved in identifying problems.

A number of interesting developments are taking place in technical assistance and research as it pertains to the involvement of local operators. First, local operators are becoming more vocal and active in operator-initiated efforts to affect the national research agenda. With the scaling back of many federal research programs, local operators are voicing their need for problem-solving research in areas of interest to them (such as service alternatives and human resource management), especially through the APTA/TRB STRP program and the national RTAP program described above. Second, local operators in rural areas are becoming more involved in setting technical assistance agendas on the state level. This appears to be happening in part because the RTAP guidelines suggest the involvement of an advisory committee of local operators in the agenda-setting process. The other part of the explanation leads us to the final point: local operators in many states have become more vocal on a variety of issues through the emergence of state transit associations. Local providers are joining together to work on many issues, including responsive and effective technical assistance, training, and research.

In summary, local operators are beginning to express the need for a national research program in which they have significant influence. In rural areas, local operators are more involved in setting agendas and making their needs known for technical assistance and research activities on both the state and national levels. This has not happened to date in the urban areas.

WHY AND HOW SHOULD STATES BE INVOLVED IN TECHNICAL ASSISTANCE OR RESEARCH?

Why do states provide technical assistance or engage in research activities? One reason is to improve local services. Another reason is that technical assistance and research are often integral to a state meeting its own goals for transit services. There are many other ways to meet state transit goals, such as active requirements (e.g., local operators will recover 50 percent of their operating costs through the farebox), incentives, or general oversight/monitoring activities. However, technical assistance, in spite of being the mildest alternative, is often the most effective and can achieve things that requirements or oversight activities often cannot. It is useless to set performance standards that local operators do not have the information or experience to achieve. Further, technical assistance can help local operators achieve marginal increases in efficiencies rather than just meet minimum requirements.

It also can be argued that states are better able to know the needs of their localities, their local context, and political realities, and that direct technical

assistance is better provided from the state level than the federal level. However, when thinking about a particular state's role in technical assistance, it is important to realize that public transit agencies, UMTA, and their state counterparts are relatively new organizations. Further, while the federal role in public transit emerged as a marriage between financing and research activities, this was not necessarily true for most states. Until recently, many states have had little or no involvement in any aspect of pubilc transit. Thus, technical assistance has not been of primary concern to many states.

It is interesting to note that few states report that they have a formal technical assistance program. In the 1987 AASHTO survey of states, only six states reported that they "have a state public transportation technical assistance program independent of UMTA." However, while many states do not call it that, almost all states provide technical assistance to local transit operators. It also appears state involvement in technical assistance activities is increasing. RTAP has had a dramatic impact on technical assistance at the state level. For the first time, states have developed a written technical assistance program (albeit exclusively for nonurbanized areas) with funds available to implement the program. For some states, this is the first time they have considered technical assistance as an activity separate from other grant management or planning activities. It is also the first time many states have solicited ideas for technical assistance from local operators.

A formal technical assistance program generally consists of–

- the organizational structure and procedures for information flow from the state level to local operators (this includes the institutional placement of technical assistance and research in the state organization and the policy or posture of the state regarding technical assistance and research)
- procedures for building agendas or identifying subject areas for technical assistance or research
- methods of developing or identifying materials of use to local operators
- techniques for transmitting information or providing assistance to the local level

Organizational Structure

There are a number of models for how states organize to provide technical assistance to local properties. The most common seem to be–

- state program managers, who have responsibility for various state or federal programs and provide assistance to local operators in the course of their daily interactions with these operators

- a separate division of persons responsible for technical assistance who interact both with state program managers and local operators (Some states have taken this a step further and have assigned or hired staff to specialize in certain assistance areas, e.g., computers or coordination with human service agencies.)

- decentralized responsibility for all or some portion of technical assistance activities to the regional or district level, often using either regional planning boards or their own district offices (The ability to use this model depends on how the state administers grant programs and whether the regional structure exists.)

Within any of these institutional arrangements, states often use individuals in other state departments or outside the state government (e.g., consultants or research organizations) to develop materials or, sometimes, to provide the technical assistance directly. Some states have strong relationships with universities, particularly in the areas of training and database management. Other states accomplish technical assistance activities through their state transit association. They also rely heavily on nationally developed materials and materials that are developed by one local operator and shared with others.

Agenda Setting

States have a number of alternatives for determining what subjects warrant research or technical assistance. On one hand, the state will have its own objectives for technical assistance or research activities, which are generally aimed at furthering state transit goals or correcting inefficiencies in local operations. These areas are important since state program managers may have insights into local problems that are impossible from the local perspective. On the other hand, states can rely on local grantees to identify issues they think are important to meeting local needs and aspirations for transit services. The ideal way to set agendas at the state level would probably be a combination of the two approaches so both the state program managers and local managers can influence the assistance.

Development or Identification of Materials

One of the most important aspects of a technical assistance or research program is developing or identifying materials to be used on the local level. Many states are engaged in the development of training programs, model agreements or contracts, or planning guidelines. While some of these materials will be generated on the state level, many will be the product of federal, national, or state research or technical assistance efforts. An integral component to any state assistance program is the continuing process of identifying and compiling information generated by other sources that can be used in the technical assistance process.

Techniques for Transmitting Information or Providing Assistance

There are innumerable techniques for sharing information or providing direct assistance, ranging from hands-on sharing of information from state to local

operators (either in person or over the telephone), through relaying of information via more formal means (such as workshops or dissemination of written materials), to the state assuming direct responsibility for some transit management functions. Common techniques have included—

1. hands-on assistance
   - hot lines
   - site visits to local projects
   - tours of existing projects
   - peer-to-peer networking
   - revolving "transit aid" for multiple projects
   - circuit riders
2. written materials
   - informational bulletins on priority subjects
   - case studies of other projects
   - papers/study reports
   - "how to" manuals
   - audiovisual programs
   - lending library
   - model documents (contracts, forms, etc.)
3. training group interaction
   - training workshops (developing, sponsoring, or giving scholarships)
   - seminars/conferences
   - speaker's bureau
   - on-the-job training for staff
   - internship and apprenticeship programs for managers
   - policy board orientation programs
4. direct state involvement
   - statewide vehicle purchasing program
   - statewide vehicle rehabilitation program
   - statewide marketing program
   - statewide vehicle leasing program
   - state insurance pool

Each of these techniques has its place, and the use of a particular technique is dependent on the subject, materials, and characteristics of local operators and state managers.

Research Activities

While many states engage in activities to develop general materials for local operators (e.g., model contracts or driver training manuals), very few states have a formal research program. Those that do tend to provide direct funds to local

operators to demonstrate a new concept or a new approach to solving a problem identified in the state. The results of these efforts are distributed to other local operators or used to modify state guidelines or requirements.

DETERMINANTS OF HOW TECHNICAL ASSISTANCE AND RESEARCH ARE APPROACHED ON THE STATE LEVEL

The determinants of effective technical assistance are the shapers of performance —what is needed, when it is needed, and in what form it is needed. Technical assistance is shaped by a series of factors that determine what finally emerges. And, because these determining factors are usually changing, a state's approach to technical assistance must also change to be continually effective. The determinants are clustered into three groups. Whether a state has a formal technical assistance and research program, how its technical assistance or agenda is built, and methods of providing assistance will depend in large part on—

- factors external to a state agency that affect technical assistance (most have to do with the availability of external forms of support for the state-level efforts):
  - availability of research results from national efforts
  - national-level technical assistance or training
- factors pertaining to the provider of the assistance (in this case, the state agency):
  - a state's posture toward transit in general and technical support in particular
  - the history of the state's involvement in transit and traditional forms of interaction with local activities
  - formalization of technical assistance or research activities within the state organization
  - the organizational structure for how individual transit programs are managed in the state
  - state-level staff and capabilities
- factors pertaining to the recipient of technical assistance (in this case, the local operators):
  - size and capability of operators
  - level of development of operators

Each of these factors is individually shaped by a number of issues. Without making the subject overly complicated or burdensome, it is informative to at least review the range of issues that might affect a state's ability to provide effective technical assistance.

External Determinants

The availability of research results in a usable form on issues of interest to the state or local operators is a key determinant of how a state approaches technical assistance or research. If materials are already available, the state can concen-

trate on the dissemination or interpretation of the materials rather than using resources for development activities. If, on the other hand, national research activities are not producing the necessary materials, the state will have to start its assistance with costly development activities.

Closely tied to this consideration is the existence of national technical assistance efforts that parallel state assistance efforts. The existence of a national technical assistance program can take some of the burden off states to be experts in all subjects and can be a key resource to state technical assistance providers when questions arise that they cannot answer. Without such a national support network, each state technical assistance provider is faced with building expertise in all aspects of public transit or developing a list of experts to call on.

State Posture – A state's attitude toward transit in general and the appropriate role for state/local interactions (or interference) can also affect the state technical assistance provider's ability to effectively impact local operations. The state can either have a reactive posture or a proactive posture toward local recipients. Whether there is a history of hands-off or active interaction in transit can either foster or inhibit the managerial role in responding to questions or problems since it dictates whether the state can take the initiative for providing information. While not always possible, the ideal way to channel information to those who need it is for the state program manager to be viewed in a helping role to assist local operators in achieving new levels of understanding.

History of Involvement in Transit – A state's role in technical assistance will also affect its historical involvement in transit, including whether it has made a financial investment in transit services or properties. If the state has had a vested interest in local transit, then the relationship between the local operators and the state will be different. The length of time the state has been involved also affects this relationship. If state involvement is relatively new, the relationships will not be as strong, which will affect both the ability of the state to provide technical assistance and the techniques that are most appropriate. For example, if state involvement is relatively new, hands-on technical assistance may be needed until relationships are established.

Formalization of Technical Assistance and Research at State Level – Another determinant of the effectiveness of state technical assistance and research programs is the degree of formalization of the program at the state level. This includes whether the state has a clearly stated mandate to provide assistance, whether it has a formal policy regarding technical assistance or research, and whether it has set formal goals for assistance activities. In general, the more formal the state program for assistance, the more legitimate it becomes, not only in the eyes of local operators but also in the eyes of state administrators (particularly as state resources are planned).

Organizational Structure – The organizational relationship between assistance efforts and other grant management activities will also affect the state's ability to provide effective technical assistance. How other grant management functions are organized and the role for technical assistance relative to these other state

functions (funding, monitoring and evaluating, grant management, and administration) will determine who within the state organization is responsible for technical assistance and who will influence their relationship with local operators. For example, if the technical assistance function is performed by program managers or planners, they may be more in touch with the daily needs of operators. On the other hand, if the state has a separate division for technical assistance and research, staff in that division can concentrate on this activity and can be hired for skills necessary to interact effectively with grantees. Technical assistance can also be more effective if the results of state evaluation efforts are used to identify problem areas and needs.

State Staff Level and Capacity – An effective technical assistance program depends on the expertise, abilities, personality, personal style, and preference of persons involved. One of the key determinants of a state technical assistance program is the people involved–both the number of staff available and their abilities. Obviously, if the state is short-staffed, it will be more difficult to provide technical assistance in addition to all the other functions the staff must perform. And, unfortunately, technical assistance often will not seem as important as keeping the funds flowing or meeting mandated reporting or accounting requirements. Also, if state staffs are more proficient in managing programs than in operating transit systems, they are less able to provide expert assistance on operating issues.

The personality of staff members also affects performance. Interaction with a variety of groups causes the program manager to assume different roles at different times. Sometimes, the manager will be a friend, confidant, or encourager; at other times, the manager will be the advisor, watchdog, or enforcer. The ability of state assistance providers to wear all these hats is significant to their effectiveness.

Local-Level Determinants

Size and Capability of Local Operators – In designing a technical assistance or research program, a state should be influenced by the size and capabilities of the staff at local levels. A state's interaction with larger systems, which often have large, diversified staffs, will probably be limited in nature. On the other hand, systems that have small staffs will look to the state for more types of assistance on a wider range of topics. Without the benefit of a full-time planner or the time to devote to solving specific problems, smaller systems may benefit the most from a state technical assistance program.

Stage of Development of Local Operators – There are many ways in which a state program manager will interact with local projects–from the initial contact for information about state programs through the ongoing contacts with local recipients. It is important to focus technical assistance to meet a project's specific needs at various stages of its development (project planning, initial operations, and ongoing project management). Differences can be seen in both the techniques that are appropriate and the subjects of interest. Techniques will depend on the transit system's stage of development, since certain technical

assistance techniques are best suited to certain stages in a project's development (in general, more personal contact is appropriate in the early stages). Also, the specific information needed will differ. For example, during the grant application process, more guidance is needed on planning and capital needs. During ongoing service, information is needed to monitor funds and to manage the service effectively.

SO NOW WHAT?

Given this history of technical assistance and research, what issues are states now facing? As federal efforts to perform research have been scaled back and focused away from local problems, local operators have become more vocal in expressing their need for such research. The state response to this situation is to develop RTAP programs to provide technical assistance on locally initiated topics in the manner prescribed by local operators. In general, states have considerably increased the amount of technical assistance they are providing but continue to look to national efforts to conduct research activities. While some states are developing new materials, they also continue to look to the national level for the development of materials and training courses for their local constituents. As states become more involved in technical assistance, it is important to ask questions regarding the appropriateness of their role in both research and technical assistance activities. These questions include—

1. What have we learned through technical assistance or research efforts in the past that can guide future efforts? Have we learned what works and what doesn't? Should we begin evaluating the effectiveness of technical assistance activities? As operating funds have been cut back, we have taken the attitude that something is better than nothing and have begun to concentrate on technical assistance and research as a means of doing better with less. But just because local areas appear to need help, is technical assistance appropriate or should we be putting these resources into more operating funds?

2. Is it possible to move a state toward an appropriate and useful technical assistance posture? How can each state sort out the best method of interacting with local operators based on the determinants discussed above? If a state cannot be moved to an appropriate posture, might it be better not to offer technical assistance at all?

3. What is the appropriate relationship of state technical assistance or research efforts to federal or national efforts? Should states be performing research or is this function best served at the national level? How should states relate to national technical assistance efforts to achieve local goals?

4. What is the appropriate relationship of state technical assistance or research efforts to efforts by other states or regions to solve common problems? How can states create an ongoing mechanism

within which to share information so that resources are used effectively (e.g., creating regional calendars for workshops or training courses)?

5. How can state technical assistance managers remain aware of new assistance techniques, approaches, and research results? How does a state make participants familiar with or aware of sources or types of technical assistance on the state and federal levels?

6. How can state technical assistance providers build agendas that are appropriate to state goals and yet responsive to local needs for information?

7. Where does state monitoring end and technical assistance begin, and how can they relate to improve both functions? Interactions with local projects will include monitoring to determine whether they are using funds appropriately and are in compliance with program guidelines and also providing them with assistance and guidance to allow them to operate effectively. How can a state take the results of monitoring and translate them into needs for technical assistance? While an effective and consistent supervisory or monitoring role keeps the paperwork and funds flowing, how can it relate to the advisory or educative role to help achieve excellence in local transit service?

8. What is the appropriate institutional structure for effective state technical assistance? How do state technical assistance activities relate to planning and other grant management activities on the state level? Who should be responsible for technical assistance in the state? Should the function be integrated into the program managers' responsibilities or should it be a separate function cutting across the modes? An advantage of using program managers is that they have relationships with local operators, and know the programs, the operations, and the local contexts. Program managers may feel more responsibility to meet state goals for their programs and may use technical assistance to meet those goals. The disadvantage of this approach is that program managers have many other duties and may not be able to keep abreast of materials, the state of the art, and what is happening in other state areas/programs. Also, separate technical assistance persons can be trained in human relations skills, can monitor and filter national studies, and can run separate specific assistance activities.

9. How much money should be spent on the state level for technical assistance? For research? And, how should these efforts be funded? Should some federal program money be retained on the state level for these activities? Should the state try to dedicate money for this purpose? Should some money be passed through to the local areas for site-specific technical assistance? Should the burden of payment be

on the operator who is being helped, and, if so, should payment for the technical assistance be performance based?

10. How can state transit staff generate support for technical assistance and research efforts within their departments? Is it possible to coordinate highway research and technical assistance with transit?

11. How can a state add desirable qualities to its technical assistance program? What can be done to make it motivating, imaginative, innovative, believable, responsive, credible, and continuing?

12. How can states ensure current and accurate technical assistance materials if they are not generating their own research or resource materials? How can states influence the federal level to ensure that the state has access to the best information?

13. How can a state build its capacity to provide technical assistance? Should resources be aimed at products, short-term needs, or capacity building for long-term carryover? While local operators will probably be interested in the immediate product or assistance, states should also be concerned with the lasting ability to continue assistance efforts. Are the individual staff members available to provide needed assistance? Do they have the appropriate capabilities and sufficient individual and collective capacity to make a difference? Or should we be concerned with developing a new corps of technical assistance professionals?

14. Is it important to monitor state technical assistance efforts? If so, who should do this, what should they look for, and what will we do with the findings?