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Overview of Rural Transit Planning and Implementation

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A typical planning and implementation process for rural transit systems is summarized. Specialized rural transit systems usually are initiated when local authorities perceive and define a transportation problem. The next step in the process is a needs and feasibility study in which efforts are made to determine whether or not a system should be started. After financial and political support are obtained, the system must then be designed and implemented. Finally, a continuous evaluation of whether the system is solving the perceived local transportation problems is necessary. The synthesis of the planning and implementation process that is described in this paper was developed from extensive information on special rural transit systems that was gathered by field visits to 12 systems and from data on other operations.

There are few conventional transit operations in low-density areas. Even when there is an urban transit system nearby, it rarely provides mobility for residents of the rural areas that are adjacent. Frequently, there are peak-hour commuter lines to suburban areas, but a person in a rural area who does not have access to an automobile usually has no transit option available.

Human service agencies in rural areas have responded to this access problem by attempting to provide transportation services for their clients. Small and occasionally large transit operations have been established for this purpose. Although not ubiquitous, these special transit services have been initiated by a wide variety of agencies, funded by various federal, state, and local agencies and had a varied degree of success in increasing the mobility of agency clients.

Twelve of these rural transit systems were visited as part of a research project in rural public transportation. The research team attempted to synthesize the steps that had been taken in the conceptualization, planning, and implementation of these systems.

A model of this process was developed that includes the most successful techniques used in each phase. In addition, some of the major areas of operational problems of rural transit systems were identified and ana-

lyzed. A review of the model and its components will be the subject of the remainder of this paper.

SYNTHESIS OF PLANNING AND IMPLEMENTING PROCESS

During the field-site visits to the 12 rural transit systems, data were gathered on the development of each system. Interviews with local agency personnel included discussions of the steps that had been taken to initiate each system. From these interviews and subsequent discussions with others involved in rural transit, a simple model of the process was developed. This model (see Figure 1) shows the planning and implementation sequence for a typical rural transit operation.

In the sections that follow, each of the steps in the planning process will be reviewed. Some insights into the process are given, and recommendations are made about how to make good decisions.

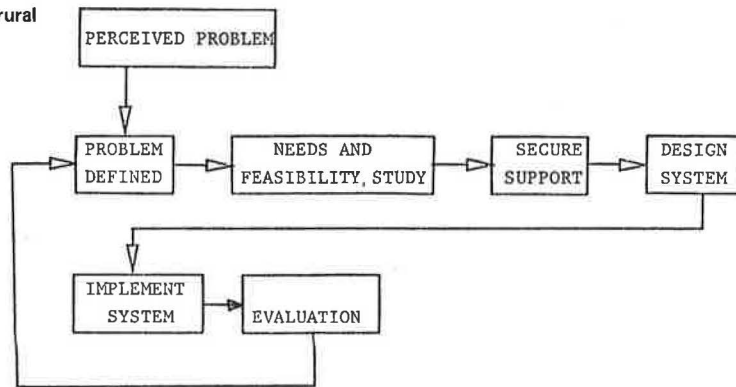
Perception of Problem

The problem is usually perceived by agency personnel who find that their clients have transportation problems. The initiator can be a perceptive agency head or a staff member who is spending too much time driving clients to and from appointments. Stories have also been told of agency clients paying exorbitant prices [e. g., \$25.00 for a 32-km (20-mile) trip to a medical clinic].

Definition of Problem

Logically, defining the problem is the next step. In this phase, the boundaries and extent of the problem should be analyzed. As the first step in the ongoing planning process, a planning group should be established. A set of initial goals and objectives should be formulated, and a clear statement of the mobility problem should be developed.

Figure 1. Planning and implementation sequence for rural public transportation systems.



Unfortunately, this problem-definition phase is often overlooked or bypassed. Frequently, the project funds that remain at the end of a fiscal year are used to buy some vehicles and there is very little consideration of the transportation needs and how best to serve them.

Needs and Feasibility Study

As indicated in Figure 1, the next phase should be a needs and feasibility study. This is the most critical step in the planning of a system. This phase begins with a well-defined mobility problem and concludes with an assessment of whether or not a transit system should be implemented. Geographical coverage and the target population are considered first. Next, a number of simple surveys are used to estimate the number of trips (need or demand) that will be taken if a system is implemented. Enough data are available on the ridership of existing systems that the demand estimate derived from the surveys should be compared with the actual ridership found on similar systems. Overestimating the demand is the most frequent, and often the most serious, mistake that can be made during this phase. Comparison with similar systems is the easiest way to avoid this common error.

The demand estimate is then used with cost estimates to decide whether or not to proceed with the subsequent steps. Admittedly, by this time, the process has gained momentum and it is rare that progress will stop here. However, some planners would have been wiser if they had made no-go decisions because of low potential demand rather than started systems that had sparse ridership and high costs per trip.

Once the decision to implement has been made, the planning group should be involved in the securing of financial and institutional support and in the final planning and design of the system. Depending on local circumstances, these can be done in the order indicated in Figure 1 or in the reverse order, or they can be done concurrently.

Securing Support

Securing financial support means first identifying the available funding sources and then securing adequate funds to start and operate a workable system. There are many potential funding sources at all levels of government; more than 50 separate federal programs provide project funds for the transportation of elderly, handicapped, and poor persons. There are also a myriad of eligibility requirements. The planner is cautioned not to spend time in contact with funding agency representatives unless there is a reasonable probability that the proposed project is eligible and

will receive funding if a proposal is prepared. Managers of rural transit systems usually spend an inordinate amount of their time pursuing funding.

As important in the long run as financial support is the enthusiasm and support for the system that can be generated in the potential service area. This means that a broad base of support among human-service-agency personnel, agency clients, local businessmen, and elected officials must be established. It is at this point that a citizen advisory group can be used to promote the system. Also important at this stage is the support of the state and regional transportation officials who are likely to be involved in any proposal for project funding.

Design of System

A final plan for implementing the system and a detailed design are the primary outputs of this phase. Data from the needs and feasibility study are used to decide on the type of service (fixed route, demand responsive, or a combination) and the frequency of service. Other service-related decisions (such as fares, routing and scheduling procedures, and eligibility requirements) are made. Decisions are also made about equipment, including vehicles, communication apparatus, and whether to have contracted or in-house vehicle maintenance.

This is where attention to details and a thorough analysis of the effects of each alternative are the key factors. The system manager should have been hired or appointed by the time this phase is under way. Because the manager's decisions will be the major factor that determines the success of the system, it is imperative that the manager participate in the final planning and design phases.

Implementation System

Starting the system is inevitably a more difficult task than was envisioned by the planners. Delays in hiring the staff, ordering and receiving vehicles, and receiving funds are some of the problems that must be dealt with during the start-up period. As in any business venture, some internal procedures must be established. The choices of accounting procedures and other routine data-collection efforts are particularly important. The manager and staff must decide on the information that should be collected and tabulated and how often this is to be done.

Personnel-related items are also part of implementation. Even before the staff is hired, job descriptions should be prepared and personnel policies established.

A set of rules governing the activities of drivers and dispatchers is also needed.

A marketing program must be developed. Although advertising is important, the marketing effort should permeate the entire system. Courteous drivers, clean buses, and reliable service are more effective than any advertising campaign.

EVALUATION

The tendency is for the manager to devote all of his or her time and energy to procuring funds and handling the daily crises that must be solved to keep the operation functioning. This leaves little time for ongoing evaluation of the system. But some evaluation is necessary, especially when public funds are being used.

The evaluation process depends on the existence of a set of measurable objectives and also requires data on the performance of the operation. This must be kept in mind during the implementation phase when record-keeping requirements are being established.

Trends in costs and ridership are always needed, but a meaningful evaluation procedure will also include other indicators of the effectiveness and efficiency of the system.

As indicated in Figure 1, the results of the evaluation should be used to determine whether the transportation problem is being solved. Are agency clients receiving increased mobility and has the human-service-agency delivery system been improved by the rural transit system?

ACKNOWLEDGMENT

This paper is an outgrowth of a research effort sponsored by the Office of University Research, U.S. Department of Transportation. The statements and views expressed represent my position and not necessarily that of the Department of Transportation.

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Transportation Planning and Implementation in Small Cities and Rural Areas

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The Indiana Mass Transportation Improvement Project is responsible for public transportation planning in the small urban and rural areas of Indiana. The goals of the Indiana Public Transportation Advisory Committee emphasize the public transportation system. In Indiana a unique working arrangement is established in which the mass transportation improvement project serves as the staff for local public transportation operators. The project attempts to combine planning and operations into a total management assistance program. Work currently is being done in nine cities of less than 50 000 population and 26 counties in the state. In rural areas, the transportation advisory committee plays a dominant role in local transportation planning and evaluation. It addresses the community's total transportation needs rather than having local social service agencies think only of their own transportation needs. The Indiana Mass Transportation Improvement Project is establishing transportation advisory committees in all of the state's 18 planning regions. Transportation problems must be addressed by the service or market area, not by political boundaries such as counties. The success of the transportation improvement project is defined by how well it designs and helps implement a public transportation system that serves public transportation needs in the state.

The Indiana Mass Transportation Improvement Project (IMTIP) is responsible for public transportation planning for more than 2 000 000 Indiana residents who live in urban areas with less than 50 000 population. IMTIP is a division of the Indiana University Graduate School of Business' Institute for Urban Transportation. Since 1975 the office of the governor has contracted with the Institute for all small urban and rural section 9 planning work.

IMTIP's operation is guided by the Indiana Public Transportation Advisory Committee. Serving almost as a division of public transportation under the State Planning Services Agency (SPSA), IMTIP is charged with carrying out the goals of the public transportation advisory committee. Its goals are

1. To provide quality public transportation in Indiana adequate to meet the needs of the general traveling public, especially those without ready access to other means of transportation;
2. To provide for the transit needs of special groups, particularly the elderly and handicapped;
3. To provide an alternative to the automobile in a period when the cost of private transportation has increased greatly;
4. To ensure that Indiana cities will be able to attract new industrial, mercantile, warehousing, and other economic activity, and to retain existing enterprise;
5. To help meet state and federal goals for safety, conservation of energy, and control of environmental pollution;
6. To recognize that mobility through high-capacity service in densely populated areas by means of light rail commuter service may be appropriate in certain regions of the state; and
7. To preserve and upgrade existing public transportation services and facilities and to encourage new