

INNOVATIVE APPROACHES TO RURAL TRANSPORTATION

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This paper identifies innovative approaches to rural public transportation at federal, regional, state and local levels. There is no attempt to evaluate them. Examples include federal and regional task forces; state assistance with planning, management, funding and cash-flow, coordination, and insurance; and local level approaches to service provision, cost savings, revenue sources, coordination, user-side subsidies, maintenance, and promotion.

There are many innovative approaches to rural public transportation throughout the country. This paper identifies a variety of activities at the regional, state and local levels. It is hoped that the paper will suggest ways of solving common problems. There is no attempt to evaluate the effectiveness of each alternative.

Federal Region Activities

One innovative approach to rural transportation has been the creation of regional councils or rural transportation task forces at the regional (federal) level. The task force is composed of representatives from the regional offices of the Departments of Health, Education and Welfare; Transportation; Labor; and state representatives. The task force or regional council promotes the exchange of information among states and the coordination of programs at the regional, state and local levels.

One of the first federal regions to use the task force approach was Region IV (2). It began in 1972. The task force developed materials on rural public transportation and assisted states and projects in developing and stabilizing rural transportation services. It also reviewed Section 147 proposals and assisted in resolving coordination problems. Region VII's council is developing a standardized reporting system (3), and Region I will be sponsoring a conference and workshops(4).

State Activities: Examples

State legislatures, DOT's, and the Governors' offices often provide the major impetus for coor-

inating and stabilizing rural public transportation. Some states--e.g., California, Illinois, Iowa, Michigan, Minnesota, Oregon and Wisconsin--provide funds for capital and/or operating assistance. The Iowa legislature has divided the state into 16 regions, each of which has one agency to coordinate requests for, and allocate, federal and state funds for transportation(5). State DOT's provide planning and technical assistance to rural systems, and attempt to improve coordination through regulation and incentives. Some examples are discussed in more detail below.

Planning and Management Assistance

The Bureau of Urban and Public Transportation in Michigan has provided a combination of technical, planning and funding assistance to rural and small urban areas to develop dial-a-ride transportation (DART) systems(6). (Michigan's plan for funding these systems is discussed under "State Funding," below.)

Other examples of state involvement include Wisconsin's hiring a consultant to help rural systems(7). The consultant provides planning and management assistance to a number of small city systems.

Indiana provided funds to Indiana University's Institute for Urban Transportation, which developed management teams to assist places with less than 50,000 population in planning and managing rural and small urban systems(8).

In California, the state Department of Transportation (Caltrans) provides planning and management help to rural and small urban transportation systems(9). Caltrans has also offered seminars and conferences for local operators and planners.

State Funding

The level and stability of funding is important to any transportation system. State funding may be used as a match for federal funds for capital purchases; for operating assistance; for demonstrations, or to improve the cash-flow of local systems. States usually allocate their funds on the basis of the area population characteristics (e.g., total population or population

density) or system operating characteristics (e.g., subsidy requirements, vehicle miles, passenger miles)(10).

For example, California allocates a percentage of the state sales tax back to the counties. New York allocates state dollars to systems according to the type of service (bus, subway or commuter rail) and the number of vehicle- and passenger-miles. The states of Wisconsin and Nebraska provide capital and operating assistance to rural systems based on a formula. Nebraska pays up to three-fourths of the costs the first year of service, then decreasing portions the second and third years.

As noted earlier, Michigan is initiating dial-a-ride systems in small urban and rural areas at the rate of almost one per month; forty-one systems have been started. The first year the state provides technical assistance and pays all the expenses except for \$1,000, which is the local contribution. The second year the local government decides if it will continue to support the service. Thereafter the state provides one-third of the system's support. In our opinion, Michigan has been successful because it provides technical assistance and funds to cover initial or front-end costs, and continues to help support the systems. We believe this creates system stability, and encourages local people to vote "yes" on referendums because they know they are not alone in their efforts to establish a transportation system.

State funding may also be used to improve system cash flow. Despite good management, rural systems do not have sufficient cash on hand both to start up and to continue service. Cash shortages occur when federal funds arrive later than planned, or agency reimbursements take longer than a month. More coordination usually means more sources of funding, beginning and ending at different times.

The state of Tennessee assists Section 147 demonstrations by reimbursing the systems when needed(11). Ohio DOT also has a flexible reimbursement process which minimizes accounting and cash-flow problems for local systems(12).

Coordination at the State Level

States may also be effective in increasing coordination among agencies and all forms of transportation. Florida, California, Iowa, Pennsylvania, and North Carolina have state transit operators' organizations which increase communications among operators and between operators and the state DOT. Ohio DOT holds quarterly meetings for the Section 147 project managers as well as other transit operators. This is extremely beneficial to new operators, who can learn from the mistakes and solutions of other systems.

Ohio DOT also encourages coordination by allocating funds to public systems. Through the State Elderly Bus Fare Assistance program, thirty-five cents per capita (based on total area population) is passed through county governments to systems serving the public. This has encouraged a number of social service agencies to contract with, or lease their vehicles to, existing public transit systems.

Other states are actively pursuing coordination among state agencies, either through interagency agreements (e.g., California, Iowa, Kansas, Maine, Nebraska, Wisconsin), or with strong backing by the governor (e.g., Pennsylvania and North Carolina (13)).

Insurance

Still another way that states may assist rural systems is to help obtain adequate and reasonably priced insurance. Insurance costs have increased tremendously. Premiums range from \$70 to \$3,000 per vehicle per year. The states of Vermont and South Carolina are considering assigned-risk pools. Some states have adopted no-fault insurance. Recently the Oregon DOT worked with the state Insurance Commission and helped form a consortium of special transportation operators that obtained insurance for about \$700 per vehicle per year(14). The consortium has also developed hiring, training and vehicle standards for member agencies. This reduces risk and therefore should help keep insurance rates low.

Local Activities

In addition to innovative approaches to rural transit at the regional and state levels there have been numerous examples at the local level. Most of these are associated with the provision of service.

Hitchhiking

Hitchhiking is a feasible, low-cost alternative in rural areas. Clear Creek, Colorado, a Section 147 Rural Highway Public Transportation demonstration project, is building upon the characteristics of hitchhiking(15). It will attempt to overcome the disadvantages of hitchhiking by having riders and drivers use I.D.s, and by building shelters. It is hoped this will reduce fears about personal safety and provide comfortable places to wait for rides.

Carpooling and Vanpooling

In 1970, 40% of rural residents carpooled. Recently the Federal Highway Administration began encouraging car- and vanpooling, primarily in urban areas, providing capital funds for van pools. Minnesota is one of many states encouraging vanpooling in rural areas. North Dakota is also encouraging a friends-and-neighbors approach to meet some of its rural transportation needs(16).

Commuter Service

Most rural public transportation systems are used primarily by the transportation disadvantaged and serve the non-work trip purpose. Many of these specialized systems are attempting to broaden their base by serving work and school trips. The Area 15 System in Ottumwa, Iowa, is a Section 147 project and serves both work and non-work trips (17). The North Central Pennsylvania Regional Transportation Authority acts as a broker by contracting with taxi, school bus, and other transportation systems to serve both work and non-work trips(18). Other systems, such as the Pee Dee Regional Transportation Authority in Florence, South Carolina, contract with Headstart and community colleges(19). This broader base increases revenue and community support for the system.

Transfers

Another method of increasing service and decreasing costs is to arrange transfers between routes and systems. Transfers may be scheduled between rural systems and other rural systems, urban systems, or intercity systems. The Area 10 system in Cedar Rapids, Iowa, developed a system of transfers between county vehicles(20). The Michigan Upper Peninsula Section 147 demonstration and the TRIP system in West Virginia are developing rural-intercity transfers using tickets good on both rural and intercity systems, providing joint schedules and using common terminals(21). The AORTA system in Athens, Ohio uses Post Offices as terminals for its fixed-route system in rural Athens County(22).

Providers

In the past, rural transportation services have been provided predominantly by social services, taxi systems, and intercity carriers. Now, providers are changing their roles to meet demand and the requirements of funding programs. Social services are becoming more "public". Taxi operators are seeking more social service contracts and assuming other responsibilities. For example, in Woodbury, Iowa, a taxi operator provides back-up service as well as service during the peak hours for the social service programs(23). In Traverse City, Michigan, the taxi company manages and dispatches the dial-a-ride buses(24). In Orange City, California, the taxi systems have contracted with the city on a cost-plus-fee basis; the contractor keeps all the fares as an incentive(25). This concept is also being demonstrated in Westport, Connecticut. In southeast Tennessee, taxis will provide emergency service for the Progress for People Human Resource Agency(26).

There are also other providers in rural areas. School buses are being demonstrated, both as a vehicle type and as a transportation provider, in North Central Pennsylvania; Morehead, Kentucky; Lewiston, Idaho; and Hancock County, Tennessee(27). The Cape May County, New Jersey, system uses school buses to transport elderly persons for shopping trips(28). Both of these systems are testing the feasibility of using school buses for public transportation, and seeking ways to overcome legal and institutional barriers to such use.

Private cars are the most common form of rural transportation. The Chester County, Pennsylvania, Section 147 demonstration project has worked out a system by which drivers are reimbursed for service using their own cars(29).

Parcel Delivery

Another innovative approach to rural public transportation is to combine passenger service with package delivery. Examples of this include the Pine Ridge Reservation where parts for moccasins are cut at a central location, delivered by passenger van to individual homes where they are assembled, and then returned to the central location for packaging and distribution(30). This cottage industry seems to be working out very well.

West Virginia and California are also attempting to combine passenger and package delivery (mail and bank printouts). Each is negotiating with the postal service to deliver mail to the rural post offices. The vehicle could carry bags of mail, in the vehicle or in a small trailer, between the county

seat and post offices in smaller places. (This is done in Scotland.) The Upper Peninsula system in Michigan has negotiated with Greyhound to be a collector and distributor of packages(31). Package delivery should increase system revenues and good will with very little additional cost.

Coordination at the Local Level

Coordination among federally funded transportation services and among the public and private sectors is receiving much attention. Increases in service and efficiency may result from coordination of resources such as:

- Drivers, dispatchers, and other operating and administrative personnel
- Vehicles
- Maintenance, repair and storage facilities and services
- Office space
- Fuel storage and distribution
- Promotional services and materials
- Technical assistance
- Information and referral services
- Computer services
- Radio equipment

Other aspects of rural transportation that could be coordinated include:

- Clientele
- Trip destinations
- Funding
- Bulk or volume purchasing of fuel, parts and supplies
- Insurance
- Tax exemptions

The Progress for People Human Resource Agency (PPF/HRA) in Southeast Tennessee has coordinated vehicles owned by other agencies. It has repainted the vehicles and applied the logo, "Rural Transportation," on each vehicle to give the system a unified public image(32). The PPF/HRA has also implemented a centralized radio dispatching system that has helped to increase its monthly ridership from 12,000 to 20,000.

Other examples of coordination are in planning and promotion. The Older Adults Transportation System (OATS) in Missouri uses volunteers to promote and coordinate service as well as to help in the central office(33).

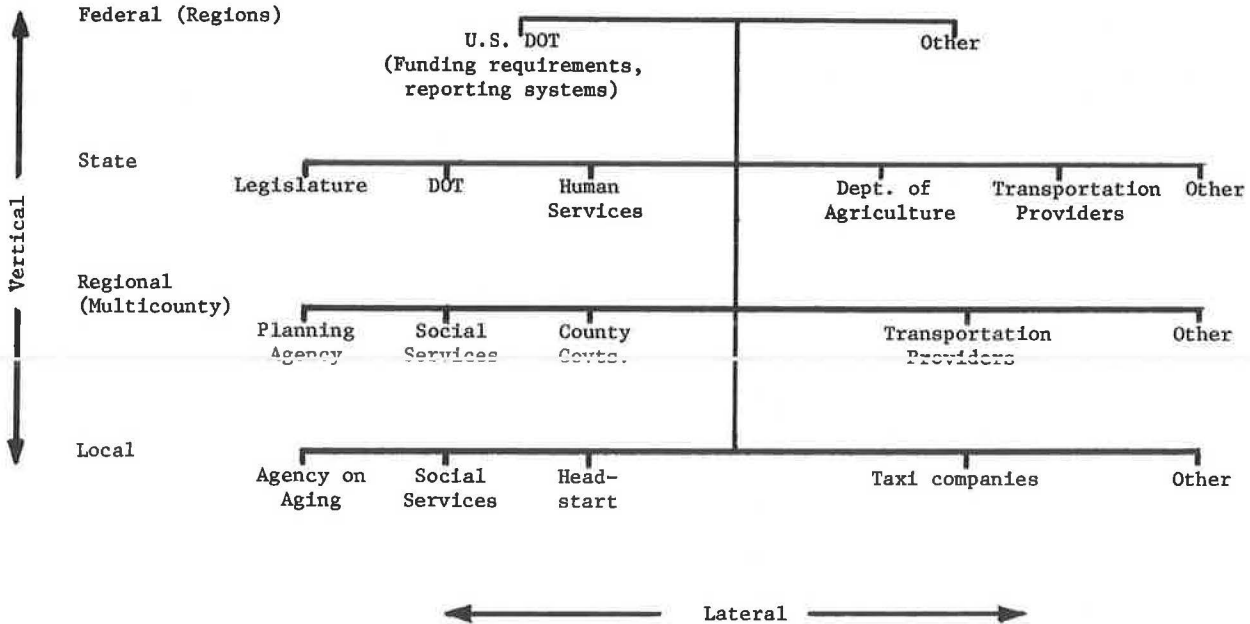
Other types of coordination, and the institutional barriers to coordination, are discussed in more detail in the Institute of Public Administration's report, Coordinating Transportation for the Elderly and Handicapped(34), and in Hindrances to Coordinating Transportation of People Participating in Federally Funded Grant Programs, published by the U.S. General Accounting Office(35). The Office of Human Development is also currently sponsoring five demonstrations of agency and service coordination(36).

One of the most important areas of coordination is in the area of funding. The HEW report, Transportation Authorities in Federal Human Services Programs(37), identified more than 100 federal programs directly or indirectly funding transportation, and drew attention to the need to coordinate these programs.

In summary, there are many different areas for coordination. However, the first step in any coordination is communication, both laterally and vertically (see Figure 1). More communication is needed. The most important criteria for deciding the type and extent of coordination should be:

1. Does it result in more mobility for those

Figure 1. Vertical and lateral communication for coordination.



without an alternative?

2. Does it increase the level of service?
3. Does it result in a system that is more stable financially?
4. Does it increase efficiency? (Sometimes costs, e.g., insurance, may increase)
5. Is it institutionally feasible?

User-Side Subsidy

Another innovative approach to rural transportation is to subsidize individuals rather than systems. This is called user-side subsidy(38). It permits the individual to choose the most convenient or appropriate of the available types of transportation. This can be less costly than operating a new and separate system, particularly in very low density areas, and the cost can be controlled. User-side subsidies are being demonstrated in the West Virginia TRIP program(39) and also in more populated areas such as Danville, Illinois(40). The latter is a demonstration project of the Service and Methods Program of the Urban Mass Transportation Administration.

Maintenance

Maintenance is another area where system managers have demonstrated new ways to reduce costs. One method is to write vehicle maintenance contracts. Such contracts have the advantage of allowing fixed amounts to be budgeted each year for maintenance. This avoids cost overruns and cash flow problems.

Most operators have reduced maintenance costs and down time by using local repair facilities. A

few systems have their vehicles serviced at county garages or vocational training schools at substantial savings. The Qualla Public Transportation System in Cherokee, North Carolina, obtains vehicle service from a vocational training facility in Cherokee(41). The PFP/HRA system in southeast Tennessee tried having its maintenance done by a vocational school but routine maintenance was not satisfactory and major repairs were not expedited; local independent garages were better able to meet the system's needs.

Another innovative approach to maintenance has been to develop a computerized maintenance system. The computer prescribes a maintenance schedule for each vehicle and updates it based upon vehicle mileage. This is being done by the PFP/HRA (southeast Tennessee) system(42). It should result in lower costs and longer vehicle life.

Promotion

Advertising and promotion of service is frequently important to the success of a transportation system. Many promotional ideas have been summarized in reports by the Urban Mass Transportation Administration, and in the Georgia DOT's Handbook on Marketing and Promotion for Small Urban and Rural Systems.

AORTA in southeastern Ohio has used many methods and media for promotion of its service. One innovative idea was to have local Cub Scouts distribute system information door-to-door, in exchange for credit on a charter trip(43). OATS in Missouri promotes its service with a newspaper, slide presentations and billboards, and with the sale of coffee cups, caps and T-shirts, toy buses and books of poems, all bearing OATS' logo or promotional

material(44). A system in Oregon is assessing the impact of the location of newspaper ads (on the front page, on inside pages, in the classified ads or near the obituaries)(45).

Promotion is an important element of good management. It requires manpower, dollars, imagination and training. However, the most effective promotion for a rural system is reliable, friendly service, and word-of-mouth promotion by satisfied patrons.

Conclusion

Innovation and coordination at the federal, state and local levels are important to the establishment of stable and effective rural public transportation systems. It is hoped that some of the ideas and innovations presented here will be transferable to other systems and other parts of the country.

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