

Providing Innovative Rural Transportation Services Under Severe Budget Constraints

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Economic conditions in many areas of the country have forced severe budget cuts for many government services. This is especially true in rural areas, where local governments have been forced to examine critically the types and extent of services they provide. Two services being examined carefully are public and social agency transportation services. Some recent experiences are presented for planning public transportation services in a rural, four-county region in North Central Wisconsin (which currently has little public transit). The counties involved are all experiencing budget cuts and, thus, an initiation of public transit services was being considered within the context of rising costs, shrinking budgets, and skeptical local politicians. Although basic conditions in the area are not unusual, this planning process was unique in that (a) a service was planned that will require no local government subsidy, (b) agency transportation services were considered as an integral part of the regional public transit service, and (c) transit services were tailored to the origin and destination densities of the local area being served. The final plan involved opening up agency services to the public and charging a fare, establishing a carpool/vanpool program, and establishing a subscription bus service. Some general observations concerning rural public transportation today are also drawn from the project.

One of the groups most affected by the recent economic conditions in this country has been local governmental units. In these times of growing personal distress--unemployment, loss of purchasing power, and inability to cope with excessive interest rates--many counties, cities, and towns have faced increasing demands for social services within the context of shrinking budgets and increasing costs.

In one way this predicament has helped by forcing local governments to look critically at the services they provide and to make hard decisions about whether the services are meeting the needs they intended. Funds often are unavailable, however, to cover all necessary services. This means that even services that can be considered vital to the welfare of some parts of society are being cut.

These economic conditions, coupled with the current uncertainty of future federal funding for rural transportation programs, have had a devastating effect on the initiation of local transportation programs in rural areas. Local decision makers are understandably reluctant to commit funds and political support for establishing public transit services in these austere and uncertain times. At the same time, these same decision makers are questioning the expenditure of scarce social service moneys on transportation (which is often seen as a secondary service). Local social service agencies are being asked to cut overall budgets, and transportation budgets often bear the brunt of these cuts.

The purpose of this paper is to share experiences in determining the feasibility of initiating public transportation services in a rural area in North Central Wisconsin (1). The area examined covers four rural counties, with a few small urban centers, that currently have little public transportation services. The counties do have social agency transportation services for elderly, handicapped, and low-income persons. All of the counties are experiencing budget cuts, and considerations of new public transit services took place within the context of the rising costs of other governmental services. Needless to say, the counties' participation in the project began (and in some cases continued) with skepticism. Nevertheless, needs were identified, palatable solutions devised, and progress made.

In this paper the project is described and some general observations on what can be learned from the experience are offered.

STUDY BACKGROUND

This study investigated the feasibility of initiating public transportation services in Forest, Langlade, Oneida, and Vilas Counties, Wisconsin. This North Central Wisconsin region is rural and has about 77,000 persons living in the 3,842 square mile area (approximately 20 persons per square mile) (2). The region has four small cities ranging in size from 1,326 persons to 8,653 persons (one in each county).

The study was initiated by and funded through the Madison and District No. 7 Offices of the Wisconsin Department of Transportation. Policy decisions for the study were made by the Study Policy Advisory Committee which was composed of three persons from each of the four counties (ten County Board members and two County Transportation Committee members). Additional input was solicited from local businesses, agencies, and citizens through a Technical Advisory Committee and through a series of public meetings on the study that were held in each county. In addition, a report on the study was made to each County Board during October and November 1981. County Board members were kept up to date on the study progress through their respective representatives on the Policy Advisory Committee. Because the study determined that it is feasible to provide public transportation in the region, a program for implementing the service was also produced.

STUDY GOALS

One of the first tasks in the project was to establish a set of goals for providing public transportation in the study region. The goals were developed using advice from the Policy Advisory Committee, data on existing travel and demographic characteristics in the region, and data on existing transportation services in the region. Goals were set by first soliciting views on the need for public transportation from the Policy Advisory Committee, collecting and analyzing the data described previously, and preparing a draft statement of goals for discussion. These goals were reviewed by the Policy Advisory Committee, discussed, and made final.

Goal setting for feasibility studies has been traditionally thought of as the identification and specification of priority needs for services in an area (3). For the purpose of this study, however, it became necessary to express goals separately in terms of (a) the need for public transportation in the region and (b) the need for intelligent and systematic use of existing transportation services and resources in the region. A review of the list of goals in Appendix A shows that most of the goals dealt with the latter set of needs.

In general all the goals identified for the study dealt with making transit services operationally effective and efficient. The first goal stipulated that transit services will be provided only in areas with high demand by those dependent on transit (to

fill up vehicles and make services efficient) and that these services will be targeted toward areas with the greatest need (to make services more effective). The second and third goals deal with making existing services more efficient and effective both by improving existing agency services and by minimizing capital investments by using existing public and private resources to the greatest extent possible.

But the goal that was considered by far the most important by the Policy Advisory Committee (and the goal that they would not consider compromising) was the stipulation that no additional local funds would be spent. Taking this into account from the onset of the project was important because it greatly affected how the remainder of the project was approached. The most significant effect on the study was that no alternatives were considered that would raise the level of local funding above that currently used to support the transportation efforts of local social service agencies. The study's final goal dealt with identifying and making recommendations for changing laws or regulations to remove constraints on making better use of existing resources.

DATA ANALYSIS

Data were collected on population and travel characteristics, existing transportation providers, characteristics of funding programs for transportation, and the local politics affecting public transportation in the study area. Based on the data analyzed, a number of major conclusions were drawn that influenced further development of the plan. These conclusions are given below.

First, in many parts of the region there is a demand for public transit to provide work trips during the peak hours. Additionally, there is a need to provide public transit to serve nonwork trips during off-peak hours in many parts of the region. Second, some areas have a higher density of origins and destinations which warrant fairly high-volume transit solutions (such as subscription bus services), whereas others have lower densities more suited to low-volume solutions (such as carpools).

Third, a wide variety of social service agencies are providing transportation services, primarily to their clients. Many of these agencies have excess capacity on their vehicles, and the hours and days they currently operate make them appropriate for the provision of nonwork trips during off-peak hours. Any provision of work trips by these agencies would entail starting new services. A number of private operators in the area can complement social agency services by providing services for work trips (some currently provide contract bus service to agencies in the region).

Fourth, funding was the only barrier to providing public transit in the region. The consensus of the Policy Advisory Committee was that no additional funds for public transportation will be available from county governments. Although this constraint did not preclude establishing public transit services in the region, it did limit the design of the services to (a) one within current subsidy levels contributed by the counties for specialized transportation services and (b) one in which the users bear the full cost of the service.

ALTERNATIVE SKETCH PLANS

Based on the data analysis, seven alternative sketch plans were developed for providing public transit services. The alternatives are nested and include four basic service concepts: (a) opening existing

agency services to the public and charging a fare, (b) modifying existing agency services, opening them to the public, and charging a fare, (c) establishing a carpool program, and (d) establishing a subscription bus service. The two alternatives that involved modifying the routes and schedules of current agency services were eliminated early in the development process. The remaining five alternatives were carried on into the assessment phase. The five alternatives are

1. Do nothing.
2. Open existing agency services to the public.
3. Open existing agency services to the public and establish a carpool/vanpool program.
4. Open existing agency services and establish a subscription bus service.
5. Open existing agency services, establish a subscription bus service, and establish a carpool/vanpool program.

ASSESSMENT OF ALTERNATIVE PLANS

The five alternative plans were assessed in terms of the following sets of characteristics: (a) goal attainment; (b) financial characteristics (additional costs and revenues); (c) service characteristics (additional passengers (4) and local, political, and community acceptance); and (d) regulatory feasibility.

After reviewing the assessment of alternative plans, alternative 5 was chosen for further development because it provided the most service, increased efficiency and effectiveness of existing services the most, encouraged involvement of private operators, and maintained current subsidy levels for transportation in the region. Following is a description of the service elements in the recommended plan.

DESCRIPTION OF THE PLAN

The plan to be implemented includes three service elements: (a) opening selected agency services to the public and charging a fare; (b) establishing a subscription bus service; and (c) establishing a carpool/vanpool program. For easy reference, summary sheets on overall management and institutional arrangements and the three basic plan elements have been included in Appendixes B, C, D, and E.

The plan will be implemented and operated by the Regional Transportation Committee for policy overview and the Regional Coordinator for day-to-day management. The Regional Coordinator will be housed in an existing agency that will supervise the Coordinator's activities. (It has not yet been determined which agency will house the Coordinator but possibilities being discussed include the Wisconsin DOT District No. 7 Office, the North Central Wisconsin Regional Planning Commission, and Nicolet College.) See Appendix B for a summary of the administrative characteristics of the plan.

The estimated operating costs of the plan are approximately \$177,000 per year (in 1982 dollars). These costs will be paid by the users of the service. The total costs include approximately \$155,000 for operation of the subscription bus service and \$22,000 for administrative costs (\$11,000 per year for administration of the carpool/vanpool program and for technical assistance to agencies opening services to the public, and \$11,000 per year for administration of the subscription bus service). Because the plan calls for subscription bus services to be provided under contract with a private operator or agency, operating costs for the

service are based on current charter and contract service rates charged by operators in the area.

Funding for the project would come from a number of sources. The ongoing funding sources for the plan are as follows:

- Opening of agency services: No additional costs will be incurred in opening agency services to the public.
- Subscription bus service: Fares from riders will cover administrative and operating costs.
- Carpool/vanpool program: Operating costs will be shared by carpool/vanpool members. Administrative costs for the Coordinator's work on the carpool program will be sought from private local businesses and foundations. When it is fully operational, revenue from the subscription bus service is also expected to cover the cost of the Coordinator administering the carpool program.

During the implementation period, when services are not yet generating revenues, most of these funding sources will not be available. Basic costs during implementation include the Regional Coordinator's salary and office expenses. It was proposed that during implementation the salary for the Regional Coordinator be provided by Wisconsin DOT through a Section 18 technical assistance grant. The agency housing the Regional Coordinator will provide the Coordinator with office space and support as an in-kind contribution.

In addition, during implementation of the subscription bus service, a reserve fund of approximately \$4,000 will be established to carry the project financing in case of an emergency. This amount would cover the average cost of operating three routes for 1 month. If these funds are not used during implementation, the fund will be continued as an emergency cash reserve. Moneys for the reserve fund will be solicited as contributions from businesses and local foundations.

Opening Agency Services to the Public

This element of the plan involves opening selected agency services to the public and charging a fare (from \$1.50 to \$1.75 per one-way trip depending on the county). Approximately 12 agencies, covering the entire region, have been identified as potential operators in this effort. The services will primarily accommodate the nonwork trip during off-peak hours and will have a county level geographical focus (because social service agencies are currently focused more on a county level). By opening services to the public, agencies will be able to generate revenues needed to keep agency services operating for their clients. See Appendix C for a summary of more specific characteristics of the plan element including detailed financial characteristics, the number of vehicles, and revenue characteristics.

Establishing a Subscription Bus Service

Concentrated demand for transportation to work and Nicolet College (the local technical college) will be served by a subscription bus service. Ten subscription bus routes are planned on a regional level to link high population concentrations with locations of major employment and Nicolet College. Services will be provided on prearranged routes with flag stops or checkpoints for passenger access or egress. Most riders will subscribe to the service on a monthly basis although extra riders will be picked up at flag stops for a fare (a passenger must make a reservation in advance to reserve a seat).

Fares from riders will cover the cost of service (fares will average approximately \$2.40 per trip depending on the length of the trip). Routes will be advertised in advance and only those routes with enough patronage to sustain themselves will be operated. See Appendix D for a more detailed summary description of the subscription bus service characteristics.

Establishing a Carpool Program

The implementation of the carpool program is based on the need for efficient transportation for long-distance trips and for trips from low-density origins. (The carpool program is intended to meet transit needs in areas of the region that do not have the density necessary to sustain the subscription bus service.) Low-density trips that occur in the four-county area are most often work trips, specialized medical trips, and school trips at off-peak hours.

For the carpool program, the Regional Coordinator will match riders and drivers with compatible origins, destinations, and travel schedules to form individual carpools on a regional basis. The Wisconsin DOT District No. 7 Office is currently engaged in promotional activities for the carpool program, but the Regional Coordinator will carry this a step further by actually matching riders to form the carpools. Once formed, carpools will be administered by their own members, who share the costs of operating the vehicles. For a more detailed summary of this element see Appendix E.

Summary of the Proposed System

The three components of the regional transportation program (opening selected agency services to the public, establishing a carpool program, and establishing a subscription bus service) provide a vastly improved level of transportation services for people in the four-county region. This is achieved without increasing taxes and without any new monetary commitment from local governments.

GENERAL OBSERVATIONS

Although it is impossible to generalize from one project, it is believed that a number of lessons can be learned from this project.

Specify Bottom Line Budget Early in Planning Process

Often when a planning study is initiated, services are designed based on the need or demand for such services. Little thought is given to either the cost or the financing of the services being planned until the alternative plans are evaluated or an implementation program developed. By this time, it may be too late. There is a great chance that no matter how good the designs are they will all be too costly for the community involved. It is important that some idea of what the community can afford be specified from the onset of any planning project. This will (a) prevent the designing of useless plans and (b) ensure that a feasible plan will emerge from the alternatives considered. (It is much easier to make adjustments to services and operations later on in the process than to have local communities magically conjure up funds they do not have.)

Gap Between Public Transit and Transportation for the Disadvantaged is Narrowing

Traditionally, public transit has meant fixed-route/fixed-schedule services with full-sized buses.

Transportation for many disadvantaged groups has meant specialized dial-a-ride or demand-responsive services. However, during the past few years a narrowing of the gap has occurred between these services, particularly in rural areas.

First, it has become apparent that whereas some disadvantaged groups need special service, many others just need transportation that is accessible to them. In many instances this service does not need to be as specialized (or as expensive) as it has been in the past. It has also become apparent that many of the so-called disadvantaged would be better off if they were not segregated from the rest of the population on a separate service.

Second, many newly developed public transportation services--particularly those in rural communities--are not the conventional type of fixed-route/fixed-schedule service seen in more urbanized areas. Services are often smaller, more flexible, and beginning to look more and more like many specialized services for the transportation disadvantaged.

Public transportation services provided by Section 147 and Section 18 projects (5,6) range from demand responsive to fixed route with numerous variations in between but with relatively few examples of either pure fixed-route or demand-responsive services. Thus, at least in rural areas, the operational gap between transportation services for the general public and special services for the transportation disadvantaged has narrowed considerably.

Unique Opportunity to be Innovative with Public Transit and Agency Transportation Services

Many transportation services (both for the general public and for special transportation groups) are facing major budget cuts. In rural areas where all resources are scarce there are unique opportunities to be innovative with public and agency transportation services. These experiences in Wisconsin showed that local decision makers are ready to make changes in the way they provide agency and public transit services. Because the scale of services is smaller, it is possible to look at specialized and general public transit services as a whole, examine whom and to what degree the services benefit, and how they complement each other. Often it will be possible to build new public transit services on existing specialized service provided by agencies--either by integrating the two or by sharing resources (including vehicles) among the services. In other instances it may be possible for social agencies to purchase services for their clients from public transit systems.

Use Ridesharing for Agency Services

Some of the most important transit services for the transportation disadvantaged, but also some of the most costly, are trips to medical facilities. In the four-county region, medical trips accounted for almost 37 percent of all money spent on agency transportation. One of the possibilities explored, which is being used in some areas of Wisconsin, is organized ridesharing for agency clients to medical facilities. This concept is particularly relevant in rural areas where distances to medical facilities are often quite long (much medical care is provided in regional medical facilities serving multiple counties).

The primary consideration in making this concept work is gaining the cooperation of the medical facility staff in scheduling appointments appropriately. In some areas an attempt has been made successfully to schedule appointments for persons from

one county to one day and persons from another county on another day (e.g., Monday is River County day, Tuesday is Greene County day). Because the cost per trip for clients using personal transportation in the four-county region ranges from \$25 to \$35, savings realized with this type of ridesharing can be quite significant.

Serving the General Public on Rural Specialized Services May Keep These Services Afloat

As mentioned earlier, many local communities are faced with severe budget cuts. Social service programs are being cut in many communities; and unfortunately agency transportation often appears to be a luxury. Because of the relaxing of federal regulations that required a project to provide transportation to and from social services, many agency transportation programs are being discontinued or cut back (in terms of the number of days and hours services are offered, the types of clients served, and so on).

Another primary issue being questioned is the exclusivity of specialized transportation services. Especially in rural areas the question is being asked: Why allow only the elderly or the handicapped to ride when vehicles are half-full? One of the concepts this study explored, and included in the plan, is to allow agency services that were previously serving only clients to serve anyone. Services to clients will still be subsidized by the agencies involved (fares charged to clients will range from \$.25 to \$.50 per one-way trip), but non-clients will be charged a fare to cover the full cost of providing the service. This concept has some obvious advantages.

1. Revenues from nonclient user fares can be used to keep services afloat or service levels high for clients.
2. Agency services are often already in areas of highest demand by the general public and thus can attract other riders, especially for the nonwork off-peak trips.
3. Agency clients are exposed to members of the general public and vice versa.

Unfortunately there are also a number of problems that surface when this concept is considered.

1. Some agency vehicles are full for the hours they operate (in particular vehicles that operate during peak hours to transport clients to education and training centers for the handicapped).
2. Services by agencies often are provided only during nonpeak hours which makes them unsuitable for most work trips.

The solution to these problems was to open existing agency transportation services to the public to serve nonwork, off-peak trips and to use that service as a base for expanding into work trips during the peak hours (through the subscription bus service). To the extent possible, agency vehicles and other resources will be used to provide the subscription bus service in the region. It may be possible eventually to cross-subsidize the agency client trips with trips on the subscription bus service.

CONCLUSION

These experiences in Northern Wisconsin led to a number of observations about the changing nature of rural transportation. First, economic hard times are making it necessary for many rural areas to ex-

amine their role in providing both public transportation and transportation to special user groups. Because of this, more attempts are being made to cut costs and provide more effective and efficient services both to the public and to the transportation disadvantaged. In particular, agency transportation services in rural areas can be opened to the public to generate additional revenues from nonclient fares, and ridesharing can be used for client trips to medical facilities. Second, in planning transit services, it is important to consider at the onset what the community can or is willing to spend so that unrealistic alternatives are not carried into design stages.

Finally, in rural areas the relationship between public transportation and agency services can be and is being strengthened. The traditional gap between public transit and agency transportation is narrowing considerably, and it is now being shown that in many instances both types of service can be provided in conjunction. This creates financial and operational advantages for both user groups.

APPENDIX A: GOAL STATEMENT

1. Target services first toward geographic areas both with high need demand by the transit dependent (for work and nonwork types) and with high potential demand by choice riders for work trips. Then, to target services toward areas with either high need or demand by the transit dependent or areas with high potential demand by choice riders for work trips.

2. Improve the efficiency and effectiveness of existing service providers in the region (regardless of whether they operate vehicles, purchase service, or reimburse volunteers or clients) within the context of providing public transportation.
 - a. Coordinate existing service providers to the maximum extent feasible and beneficial.
 - b. Improve the cost efficiency of existing providers (cost per mile, cost per trip, cost per hour).
 - c. Improve the operational efficiency and effectiveness of existing providers (trip per mile, persons serviced per service area population).

3. Promote the involvement of private operators in the provision of public transportation services in the region.
4. Minimize the operating deficit and required subsidy of the public transportation system by maintaining current subsidy levels (no additional local funds will be expended).
5. Initiate legislative or regulatory changes necessary to facilitate the accomplishment of other goals.

APPENDIX B: ADMINISTRATIVE CHARACTERISTICS

Regional Public Transportation Committee

The Committee will be responsible for overall policy decisions and direction of the regional transportation project and will be made up of two or three members from each of the four County Boards or County Board Subcommittees. Members of their Committees on transportation and social services would be the best choice.

Bi-monthly meetings will be held to review program activities, give policy level direction to the public transportation program in the region, and keep abreast of public transportation issues in the region. The Committee members also take information on regional transportation issues back to County Boards.

Regional Coordinator

The Coordinator is responsible for the implementation and administration of the regional transportation system including the subscription bus service, parts of the carpool/vanpool program, and assisting the agencies with opening their services to the public.

Duties of the Coordinator

1. Organize demand for the subscription bus, carpool, and vanpool services and assist agencies in attracting riders.
2. Promote the three services.
3. Select and manage the contract with the operator(s) of the subscription bus service.
4. Arrange for adequate maintenance, insurance, financing, record keeping, and accounting for the three services.

Organizational Placement and Supervision of the Coordinator

Coordinator will be sponsored by a consortium of the four counties (similar to the multicounty consortiums providing services to the developmentally disabled).

Coordinator ideally should be housed within an organization or agency with a regional focus that covers at least three counties. (Agencies being considered are the Wisconsin DOT District No. 7 Office, the Regional Planning Commission (RPC), and Nicolet College.) The actual placement of the Coordinator has not yet been decided.

Coordinator will be responsible to the Regional Public Transportation Committee.

Coordinator will be provided with overall supervision within the agency which houses this individual.

Financial Arrangements

The Coordinator function will cost approximately \$1,820 per month: \$1,580 in salary and fringe benefits plus \$240 housing. It is planned that the Coordinator would be housed in an existing agency, and it has been assumed that this agency would provide space and support as an in-kind contribution at no cost to the project.

The Coordinator function will be paid for in a variety of ways. After the service is operating, the entire cost of the Coordinator function will be paid from the fares received by the subscription bus service. It is hoped that during the implementation period the Wisconsin DOT will provide the project with a grant from Section 18 technical assistance funds.

APPENDIX C: ROLE OF SOCIAL SERVICE AGENCIES

Concept

1. Current agency services continue to be operated in the same manner.

2. Selected agencies in the region will open their services to the public and charge members of the general public a fare (12 to 14 agencies have been identified as being potentially appropriate for opening their services to the public).

3. Opening services to the public will generate revenues needed to keep agency services operating for their clients.

4. Serves primarily nonwork trips.

5. Focused at the county level because this is current orientation of agency services.

Institutional Context

1. Services continue to be administered by the individual agencies; however, the Regional Coordinator will provide assistance to the agencies as needed.

2. Services continue to be operated by the individual agencies.

3. Functions such as maintenance and purchasing may remain the same; however, the Regional Coordinator will also be responsible for exploring the possibility of performing some of these functions jointly to decrease costs or increase efficiency.

Service Characteristics

1. Service characteristics remain the same with the exception that more trips will be provided--those trips taken by the general public.

2. Provides approximately 3,583 additional one-way trips per month to the general public: 172 in Forest County, 510 in Langlade County, 2,007 in Oneida County, and 894 in Vilas County.

Operational Characteristics

1. Includes 16 vehicles: 9 vans (capacity: 120), 5 minibuses (capacity: 98), and two small buses (capacity: 65).

2. Includes 26,224 vehicle-miles per month.

3. Includes 1,340 vehicle-hours per month.

4. Efficiency is increased by improving more trips for the same costs. Monthly passenger trips per service area population will be 0.04, and monthly passenger trips per total county population will be 0.03.

Financial Characteristics

1. No additional costs will be incurred in opening agency service to the public. The only exception may be increased cost of record keeping and accounting.

2. Fares from general public riders have been estimated at \$5,717 per month: \$275 in Forest County, \$1,565 in Langlade County, \$1,358 in Oneida County, and \$867 in Vilas County.

3. Fares will be established on a county level based on the actual costs of providing the service.

APPENDIX D: SUBSCRIPTION BUS SERVICE COMPONENT

Concept

1. Serves work and Nicolet College trips.

2. Regional focus.

3. Links areas with high population concentrations with locations of major employment and college centers.

Institutional Context

1. Administered by the Regional Coordinator under the direction of the Regional Public Transportation Committee.

2. Housed with the Coordinator in a regionally oriented agency.

3. Operated by a private company or an existing social service agency with the appropriate capabilities.

4. Bus captains will be identified for each round trip route. In trade for reduced or free fares, captains will be responsible for fare collection from nonsubscribing riders and for relaying needed information to the Regional Coordinator.

Service Characteristics

1. Provides approximately 5,702 one-way trips per month.

2. Ten routes with checkpoints along each route.

3. Riders must subscribe or have an advanced reservation (preferably on a monthly basis) to ensure a seat.

4. Checkpoints or flag stops will also be established along each route and persons without a standing reservation will be picked up there (schedules for arrival at each checkpoint will be published).

5. Routes will be advertised before starting operation and only those with sufficient demand will be initiated.

Operational Characteristics

1. Requires 12 vehicles (probably small buses or vans with capacities of from 10 to 20 passengers).

2. Requires 22,600 vehicle-miles per month: 19,000 revenue-miles and 3,600 deadhead-miles.

3. Requires 662 vehicle-hours per month: 482 revenue-hours and 180 deadhead-hours.

4. Monthly passenger trips per service area population will be 0.09.

5. Monthly passenger trips per total county population will be 0.07.

Financial Characteristics

1. Service will cost approximately \$13,831 per month: \$12,923 for operations and \$908 for administration.

2. Fares from riders would cover administrative and operating costs.

3. Private company to operate the service would be chosen through a competitive bid process.

4. Fares will be established on the basis of a flat fare for origin-destination pairs.

APPENDIX E: CARPOOL/VANPOOL PROGRAM

Concept

1. Matches riders and drivers with similar origins, destinations, and travel schedules.

2. Serves work trips in sparsely populated areas or to small employers, school trips to Nicolet College, and intercounty medical trips.

3. Regional focus.

4. Serves trips in low-density areas, trips taken at off-peak hours, and long-distance trips with few people traveling at the same time.

Institutional Context

1. Partially administered by the Wisconsin DOT District No. 7 Office (primarily promotional activities).

2. Remainder of the functions administered by the Regional Coordinator under the direction of the Regional Public Transportation Committee (the actual rider matching, etc.).

3. Housed both within the Wisconsin DOT District No. 7 Office and with the Coordinator, ideally in a regionally oriented organization.

Service Characteristics

1. Services will be on a prearranged scheduled basis for ridesharing, the routes and schedules will be set up based on demand.

2. The number of trips will depend on need and demand for the service.

Operational Characteristics

1. Number of vehicles, vehicle-miles, vehicle-hours, and efficiency will depend on demand.

Financial Characteristics

1. Operating costs of the carpool/vanpool program will be borne by the users of the service.

2. Administration of the carpool/vanpool program will cost approximately \$11,000 annually.

3. Some of the administrative functions of the carpool/vanpool programs are currently being performed by the Wisconsin DOT District No. 7 Office-- these functions would continue to be funded in the same manner.

4. The portion of the Regional Coordinator's salary and overhead expenses that is attributable to the carpool/vanpool program will be sought from private local businesses and foundations, employers, and so on. Eventually it may be possible to cross subsidize these functions so that the Coordinator's

entire salary is paid out of fares from the subscription bus service.

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REFERENCES

1. S.F. Knapp, J.E. Burkhardt, S. Stevens, and J.I. Riese. Public Transit Feasibility Study for Forest, Langlade, Oneida and Vilas Counties, Wisconsin: Final Report. Ecosometrics, Inc.: Wisconsin DOT, July 20, 1982.
2. U.S. Census, Advance Counts. 1980.
3. D.W. Cravens, *et al.* Market Opportunity Analysis for Short Range Public Transportation Planning: Goals Development, Institutional Constraints and Alternative Organizational Arrangements. NCHRP, Rept. 211, Oct. 1979.
4. J.E. Burkhardt and A.M. Lago. Methods of Predicting Rural Transit Demand. Ecosometrics, Inc.: Pennsylvania DOT, April 1976.
5. R. McGillivray, U. Ernst, M. Olsson, and F. Tolson. Rural Public Transportation Services and Performance: A Section 147 Demonstration Program Technical Manual. Urban Institute: FHWA, Aug. 1979.
6. J.E. Burkhardt. Results of the Rural Highway Public Transportation Demonstration Program. Presented at the 59th Annual TRB Meeting, Jan. 1980.

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