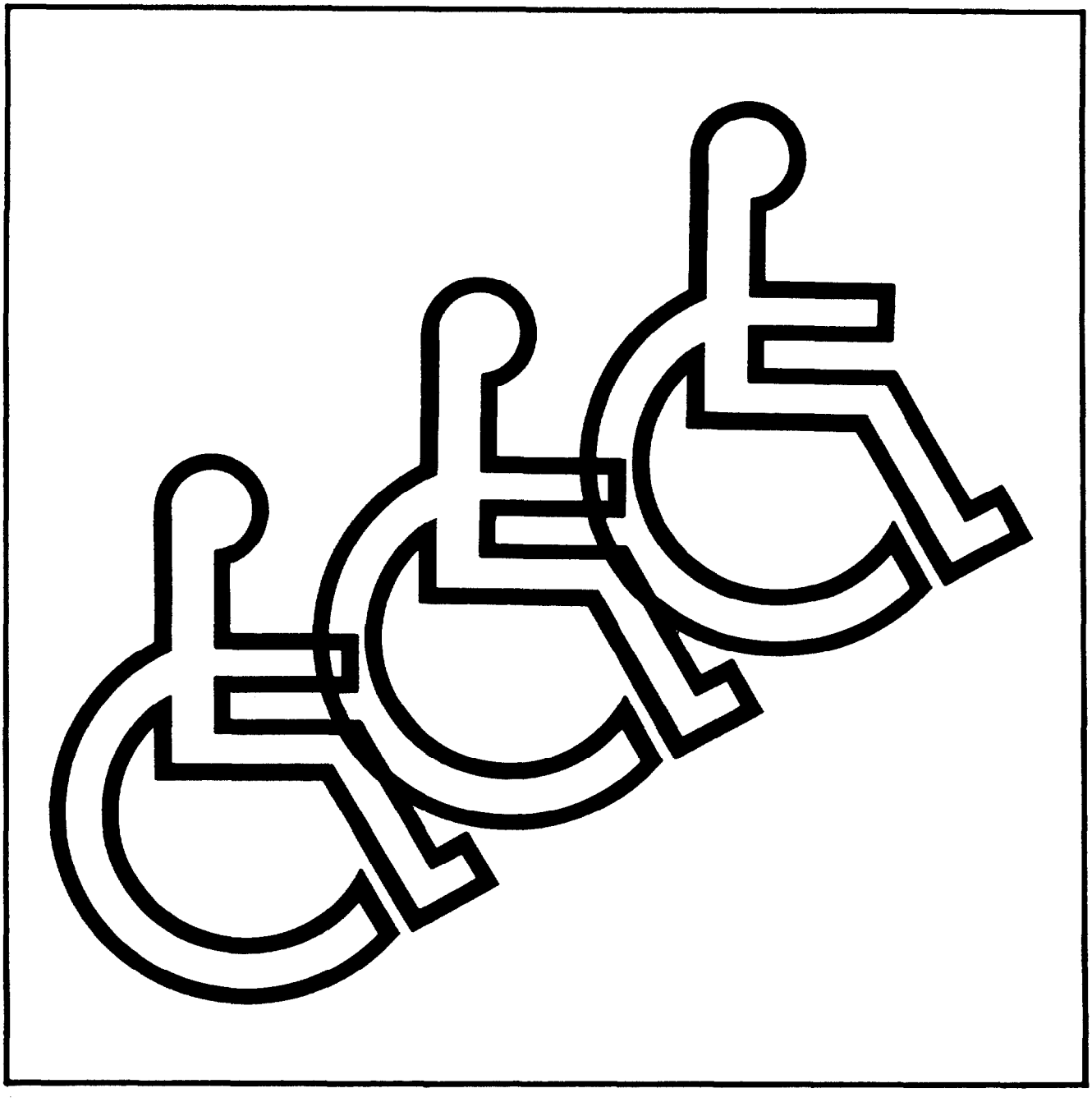
U.S. Department of Transportation

Evaluation of the Specialized, Volunteer Transportation Program of the Area IV Agency on Aging and Community Service

August 1987



UMTA Technical Assistance Program

Evaluation of the Specialized, Volunteer Transportation Program of the Area IV Agency on Aging and Community Service

Final Report
August 1987

Prepared by
Automative Transportation Center
Institute for Interdisciplinary
Engineering Studies
Purdue University
West Lafayette, Indiana 37590

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Office of Technical Assistance
Urban Mass Transportation Administration
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EXECUTIVE SUMMARY

This report contains an evaluation of a specialized volunteer, rural transportation program implemented in April of 1986. The Area IV Agency on Aging and Community Services received a grant from the Urban Mass Transit Administration for this project. The evaluation of these volunteer transportation systems focused on two major areas: the organizational framework of the operating boards, and the performance and impact of these transportation services. Five rural communities were selected to participate in these systems according to their population, distance from the greater Lafayette area, and the size of the elderly and low income population residing in them.

These transportation services were in operation for seven to nine months during 1986. In these first months of operation the five van services have carried nearly 4,000 passengers and travelled over 37,000 miles. The average occupancy per van trip is 8.69 persons representing 58% of capacity. The five systems make approximately 91 van trips per month varying over a range of 18.2 to 8.33. The average miles per van trip for the five systems is over 81 miles. This rather high average miles per van trip measure emphasizes the fact that these are rural transportation services, and tends to demonstrate that they are providing the type of service for which they were intended.

There were scheduled runs and non-scheduled runs for each of the systems. There was no fare charged for riding the van in any of the systems on the scheduled runs; however, passengers on non-scheduled runs were required to return the van with the gas tank full. In addition to rider donations, money was raised through different campaigns for each of the systems.

In order to adequately assess the financial characteristics of these volunteer transportation systems an estimate of the value for the volunteer aspect of these systems must be determined. Using a value of $4.00 per hour for the volunteer labor for both board members and drivers yields a value of $15,957.40 for the volunteer services supplied by the five communities, which averages nearly $3,200.00 per system. This represents a substantial commitment on the part of these five rural communities. The rider donations and in-kind contributions for these systems cover 77% of operating costs.

The Area IV Agency has kept monthly ridership records supplied by the boards for each of the five community van services which provided the basis for most of the trip information obtained. These data included total person trips, total passengers, "new" riders, trip purpose, and total mileage. The Area IV Agency then analyzes these data to determine where changes need to be made to improve the efficiency of any of the systems. Over 1300 different persons rode one of these van services during 1986 representing 29.2% of the total population served by these van services. Considering that these services do not

even attempt to serve the commuting trip, this is a remarkable figure and clearly demonstrates that these services are reaching significant portions of their respective service areas.

Two major areas were found where improvement would be desirable. First, the boards need to devise strategies to meet a greater number of routine household trips such as shopping and medical related trips. Secondly, there is a need for improved means of data collection in order to help identify more specific details of the trips being served.

The results of this evaluation clearly show that these rural volunteer transportation systems represent an intriguing means of providing low cost, high quality transportation, to rural communities. They appear to be ideally suited for these types of communities as they are not burdened with operating inefficient routes for unneeded trips and have the potential to be very responsive to the needs of the community. Based on the first nine months of performance, these systems are far superior in terms of classical performance measures than the demand response systems which are used in many rural areas.

Based upon the results of this evaluation the following recommendations (that have not already been implemented) are presented:

- The five volunteer van systems should continue to operate for at least two more years.
- During this period of operation more detailed data should be collected with respect to trip types served, donations received, and costs of operation.
- The Area IV Agency should continue in their role as project monitor.
- The future emphasis for operating board activities should focus on laying out achievable organizational goals and objectives, and planning activities to meet these goals.
- Using the data collected in the additional years of operation, begin to assess the impact these types of transportation systems may have on a wider scale.

1. INTRODUCTION

In response to the unique transportation needs of persons living in the rural regions of the eight counties comprising Area IV, the Area IV Agency on Aging and Community Services submitted a grant to the Urban Mass Transit Administration in April, 1985. The transportation program proposed in that grant application was modeled after a successful program operated in the Huntsville, Alabama area (Davis, no date). The Alabama project serves lower income areas and some rural areas that are similar to those of the eight counties of Area IV. This innovative program was noteworthy because of its volunteer component where the communities served supply drivers and local administration. It has proven to be both affordable and cost effective due to the fact that the participating communities share in the responsibility for providing the transportation and the costs involved.

The grant submitted by the Area IV Agency was for a two year demonstration project where the agency was to pay for five 15 passenger vans, all maintenance and insurance costs, and costs associated with coordination and monitoring activities. The grant was approved in September of 1985. By the end of that demonstration period, other funds are to be secured to continue the project. This specialized volunteer, transportation program began operation in April of 1986. Five rural communities were selected according to their population, distance from the greater Lafayette area, and the size of the elderly and low income population residing in them. Another factor in their selection was whether or not the demand response elderly transportation system operated by the Area IV Agency served that community (Figure 1). The town boards of these communities were designated as the legal entity within the community to operate the transportation program. However, in all cases the town boards have designated an operating board for the actual operation and administration of the service.

The participating communities have total responsibility for the operation of this program. They pay for all gasoline, ensure that qualified people drive the vans and attempt to meet the transportation needs of all people interested in using this service within each service boundary. All of this is done by volunteers and because of the volunteer aspect of this program, it is radically different from many rural transportation systems.

The Area IV Agency has the responsibility to purchase the vans, pay for license plates, and cover all maintenance and insurance costs. The Agency also supervises the project and assists the communities whenever needed. This cooperative partnership between the Agency and the local volunteers is another aspect which makes this program unique.

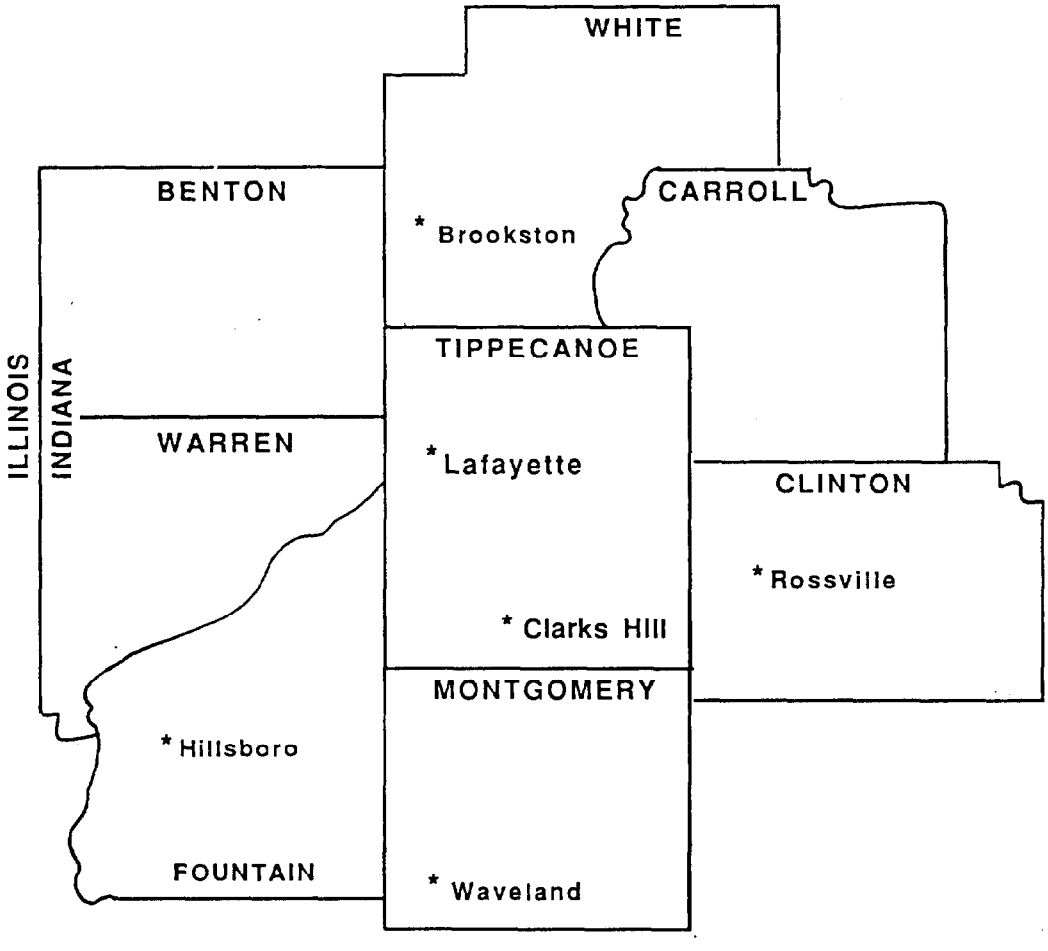

Figure 1. Map of the Area IV Region

In order to determine the impact of such innovative transportation demonstrations such as this project, the information and results from the first nine months of operation of these transportation programs were gathered and evaluated. The emphasis of this evaluation was to determine how well the systems satisfied their primary objectives of the grant. The operational objectives of these programs have been stated as:

1. To make affordable, cost effective, flexible, rural, public transportation to residents of communities that are willing to share the responsibilities for providing the transportation.
2. Reduce federal, state or local government operating subsidies for gasoline and drivers for this program by having each community pay for their own fuel use and to recruit volunteers to drive the van.
3. Enhance the dignity, participation, responsibility and sense of ownership of the public transportation user and the community served by the program.

In addition to evaluating the degree to which these systems satisfied these operational objectives, an examination of the potential such systems have for satisfying the transportation needs of rural communities was also performed. This work involved studying factors necessary for such systems to succeed, how transferable the concept is to other communities, and what the competitive advantages or disadvantages of such systems have when compared to other more widely used transportation systems.

2. METHODOLOGY

The evaluation of these volunteer transportation systems focused on two major areas: the organizational framework of the operating boards, and the performance and impact of these transportation services.

2.1 The Collection of Data Pertinent to the Operating Boards

During the months of February and March, 1987, each of the five operating boards was visited in order to observe their operation and management structures. After the completion of their normal business meeting, each board was asked a list of common questions related to their operation and management practices. These questions are presented in Table 1. Discussion and interaction was encouraged. Upon completion of these interviews the responses were reviewed for recurrent and significant themes, and the general impressions of the observer were recorded along with the boards' responses. These results were then analyzed according to the following dimensions:

- Type of leadership
- Adherence to organizational goals and objectives
- Fiscal responsibility/accountability
- Planning
- Problem solving abilities
- Approachability/responsiveness to community
- Efficiency of the overall management structure
- Commitment to service

A brief synopsis of the findings from these interviews is presented in Section 3. In addition to these impressions the monitor from the Area IV Agency was also asked to "grade" the operating boards according to the same criteria in order to gain the input from one who had worked over a long period of time with each board. Finally, the program monitor and the director of the Area IV Agency were interviewed to capture the agency perspective on what was expected of each of these boards and their estimation of the degree of progress each board has made in reaching the goals and objectives of the project.

2.2 The Collection of Field Data Related to System Performance

The Area IV Agency has kept monthly ridership records for each of the five community van services. This data includes total person trips, total trips, total passengers, "new" riders per month, trip purpose (in person trips), age distribution of riders, and total mileage. This monthly data, through December, 1986, provided the basis for most of the trip information obtained. An example of the type of data collected is presented in Table 2.

TABLE 1. Interview Questions for the Boards

Driver Related Questions:

--How many drivers are involved?
--How many drive regularly?
--How old are most of your drivers?
--How do you select drivers? What factors do you consider?
--How do you screen out bad risk drivers from those that apply?
--Have there been any accidents or near accidents involving the vans?

Operational Questions:

--What is your service area?
--What is the normal procedure by which an individual makes arrangements to ride in your van?
--How do organizations/groups make arrangements?
--How do you handle conflicting requests?
--Do you plan any service area expansions?
--What is the most common destination for your van service?
--Explain your trip distribution (from Area IV records).
--What type of publicity/PR efforts is the board engaged in?
--How do you collect rider donations?
--In what other ways do you raise money for the van service?
--What are the rules for van use?
--Have you purchased or obtained any additional equipment for the van?

These questions were asked in differing orders for most of the operating boards. Discussion was encouraged, and many times the answer for another question was given in the course of this discussion. Answers were evaluated not only for content, but for who seemed to have a knowledge of the various operating procedures. How knowledgeable was the board as a whole, was a question that was continuously evaluated. Observations were also made to attempt to determine if there were one or two individuals who seemed to "run" the organization or if the work was distributed among all board members.

Table 2. Example of Monthly Ridership Sheet

VOLUNTEER VAN PROGRAM TRIP SHEET DATA

Community Waveland
Calendar Year 1986

	No.of Undup.Persons	Age -20	Age -60	Age +60	Handicap	Shopping	Medical	Recreation	Other	Return	Total Trips		Mileage
January													
February													
March													
April													
May													
June	23	18	4	1	3	7	2	30	19	34	92		88
July	90	16	29	45	1	29		94	134	121	378		1398
August	73	47	17	9	3	20	3	129	110	124	386		2423
September													
October													
November													
December													
TOTALS													

This Program Data Trip Sheet is compiled monthly with copies sent to each operating board. At the end of the year, the column, "Unduplicated Persons" will mean the number of individuals who have ridden the van, one time, during the calendar year, Jan. 1 through Dec. 31. The number of "Total Trips" will show the number of person destinations made the calendar year.

A passenger survey was also conducted for each system in order to gather more information on trip purpose, past usage, rider satisfaction, user demographics, and how this service compares with other transportation options available to the riders. The exact form of this survey instrument was developed in cooperation with the Area IV Agency, and a copy of the final format agreed upon is presented in Table 3. This questionnaire was designed as a general survey, measuring the pertinent attitudes and opinions of the riders and was not constructed to have representative numbers of respondents in each potential subgroup of riders (e.g. by age category). The purpose of these surveys was to provide a more detailed picture of what a normal two week period of operation looks like from the rider's perspective.

Finally, financial data was obtained from each of the five operating boards which included both figures on donations received, and dollars spent on gasoline, extra equipment, and promotional efforts. This information was then supplemented from the financial records kept by the Area IV Agency with respect to the capital cost of the vans, maintenance costs, insurance costs, etc. This data was collected in order to arrive at some values for the total cost of operation for these transportation systems.

Table 3. Rider Survey Form

PLEASE ANSWER ALL OF THE QUESTIONS ON BOTH SIDES OF THIS FORM AND GIVE THE COMPLETED QUESTIONNAIRE TO THE DRIVER.

IF YOU HAVE FILLED OUT THIS QUESTIONNAIRE BEFORE, PLEASE DO NOT FILL OUT ANOTHER.

FIRST, TELL US ABOUT YOURSELF.

What is your age? _____

What is your sex? Male ☐ Female ☐

What is your marital status?

Married ☐ Single ☐ Widow/Widower ☐

Do you have any dependents living with you? Yes ☐ No ☐

If yes, how many? _____

What is your employment status?

- Employed Full Time ☐
- Employed Part Time ☐
- Seasonally Employed ☐
- Retired ☐
- Not Currently Employed ☐

NOW TELL US ABOUT THIS PARTICULAR TRIP.

What is the purpose of this trip?

- ☐ Grocery Shopping
- ☐ Shopping Other Than Grocery Shopping
- ☐ Personal Recreation
- ☐ An Outing with a Group
- ☐ Medical Visit
- ☐ Personal Business
- ☐ Other

If this service were not available, how would you be making this trip?

- ☐ Drive My Own Car
- ☐ Ride with a Friend or Relative
- ☐ Use a Taxi, Bus or Other Paid Service
- ☐ I Wouldn't Make This Trip

Please turn the questionnaire over and fill out the back.

Table 3. Rider Survey Form (Continued)

NOW TELL US ABOUT HOW OFTEN YOU USE THIS SERVICE AND HOW YOU FEEL ABOUT THIS VAN SERVICE

How much do you normally contribute for a ride on this van?

☐ 25 to 50 Cents ☐ One to Two Dollars
☐ 50 Cents to One Dollar ☐ More Than Two Dollars
☐ I Don't Contribute

About how many times do you use this van service per month?

☐ One or Fewer Times ☐ Two to Four Times
☐ More Than Four Times

What other types of trips have you used this service for in the past?
(PLEASE CHECK ALL THAT APPLY)

☐ Grocery Shopping ☐ Shopping Other Than Grocery Shopping
☐ Personal Recreation ☐ An Outing with a Group
☐ Medical Visit ☐ Personal Business
☐ Other

Have you ever wanted to use this van service, but found that it was not available when you needed it?

☐ Yes ☐ No If yes, how many times has this happened? ____

How did you find out about this service?

☐ Through flyers or letters ☐ I read about it in the newspaper.
☐ I saw a poster or announcement on a bulletin board. ☐ I heard about it from a friend.

Overall, how would you rate the quality of this van service?

☐ Excellent ☐ Very Good ☐ Fair or Satisfactory
☐ Somewhat Unsatisfactory ☐ Poor

Please use the space below for any comments or suggestions regarding this van service.

_____

_____

_____

3. A GENERAL ANALYSIS OF THE VOLUNTEER TRANSPORTATION SERVICES

3.1 General Characteristics of the Operating Boards

There were many similarities among the five systems studied. For example, none of the systems reported any accidents or near accidents in the first nine months, and all boards seemed to select drivers on the basis of good character and reputation within the community. All five systems operated a reservation based service which operated according to the flow presented in Figure 2. All systems required passengers to use their safety belts while riding in the van, had similar restrictions concerning eating, drinking or smoking in the van, and all systems required board approval prior to allowing any out of state travel. Van trips taken during non-scheduled time periods were administered in a manner similar to demand response systems. A passenger or passengers could reserve the van for a specific trip with the understanding that the van must be returned with a full tank of gas. It was also the case that anyone could ride the van during this trip, provided there were fewer than 15 passengers booked for the trip. In the case of regularly scheduled trips, the trips were only made if there were passengers (usually a minimum of one). Thus, scheduled trips were also subject to reservation.

The public relations and advertising efforts of all of the boards were quite similar. All boards have used informational flyers distributed on a door-to-door basis, and have had stories and announcements published in local newspapers. However, it is common for most information to travel via word of mouth in small communities, and most boards have approached churches and other local organizations with good success. This type of activity should be continued and further cultivated by attempting to reach more local groups and community organizations through public appearances and speakers. This type of activity lends itself well to a word-of-mouth, grapevine type of communication system and seems quite appropriate for these operating boards.

All of the operating boards conducted their business meetings in a professional and orderly manner, with regular reports from the officers and discussions of old and new business. However, most boards did not appear to be guided by any long term set of goals and objectives. The purpose of most of the business seemed to be centered around ridership figures (supplied by the Area IV representative), public relations efforts, and van logistics. This was to be expected since these boards are very new and the overall guiding principle for the first year of operation had been to get the services firmly established in each of the communities. In all cases, this seems to have been accomplished and it is now time for the boards to direct their efforts towards improving the service in terms of reaching more individuals, getting a wider cross section of their communities involved, and thereby increasing ridership. A board meeting dedicated to planning future activities towards reaching clearly defined goals and objectives should be the emphasis for the next phase of board activity.

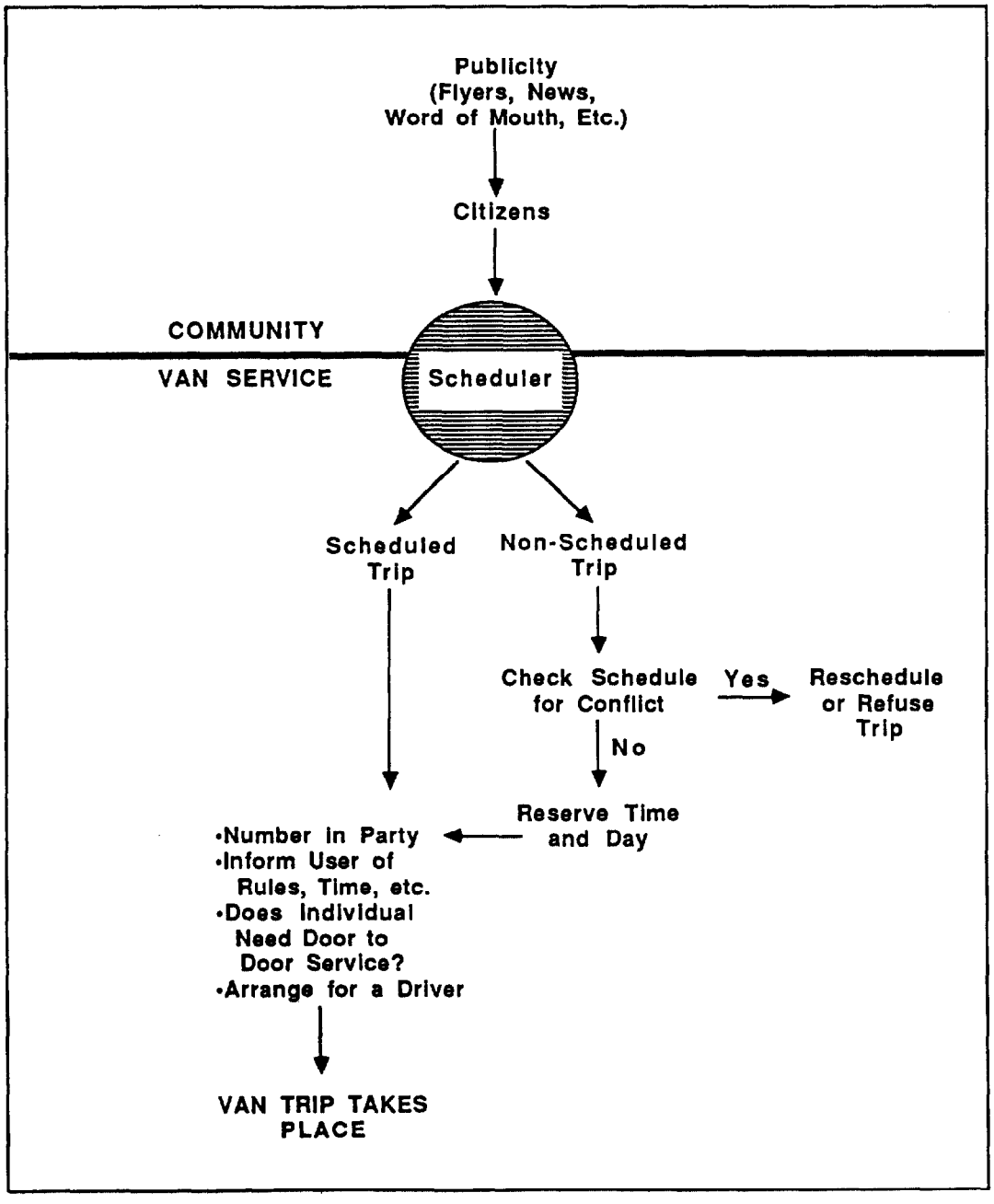

Figure 2. Flow of Reservation System for Community Van Service

It is difficult to obtain a detailed picture of volunteer organizations, such as these operating boards, solely from attendance at one business meeting. However, using the results of these interviews and the data provided from the Area IV Agency, it is possible to obtain a general impression with respect to the local management of these systems. Overall, these boards are comprised of responsible, hard working individuals who are clearly committed to the task of supplying a much needed transportation system to their communities. A potential problem with these boards lies in their volunteer nature. These boards represent very small communities which have a limitied number of persons willing to serve in such a volunteer capacity. In many cases these board members are also volunteers for other local organizations. Thus, due to other commitments, some board members are not as available for projects related to this operation as would be desired. As a result, many of the boards appeared to rely on the efforts of a few key individuals for "running" particular phases of the operation. This was especially evident with respect to the drivers, where in some cases, one or two persons were responsible for the vast majority of the van trips. This poses the potential problem of stagnation due to lack of energy or the the absence of a key actor. Indeed, in most cases, boards have experienced some problems with respect to over reliance on certain individuals when that individual becomes unavailable. Therefore, it is in each of the boards best interest to make every effort to include new individuals, as board members and drivers. Such an effort will only serve to solidify the boards and ensure their continued progress.

3.2 Evaluation of the Operating Boards with Respect to the Eight Dimensions for Analysis

This section contains a brief synopsis of the evaluation in general for all five operating boards according to the parameters listed in Section 2.1.

Type of Leadership

The local leadership of all boards could be characterized as relaxed and informal. This, however, is not inconsistent with the type of leadership needed for effective management of volunteer organizations. All boards have accomplished the primary task of organizing the transportation service. They are now in the position to address more specific problems associated with service, such as ridership, and market penetration. Therefore, it is felt that the leadership style for the next year should adopt more of a task orientation. Sub-committees designated for specific areas of operation should be organized and given individual goals. Thus, the

leadership in the future should be focused towards the accomplishment of the tasks needed to achieve these goals.

Adherence to Organizational Goals and Objectives

The major goal of the first year of operation was to get the transportation service established in each community. This was accomplished by all five communities. Most of the five communities experienced the normal "shakedown" periods associated with the establishment of a new service. In many of the communities there was a shift of responsibility from one individual to another as a measure to increase efficiency for a particular job or office. However, as of May, 1987, all of the van services seemed to have found the right combination of persons needed to smoothly operate their respective systems. As has been stated previously, there is a need to define new objectives for the coming year related to improving service and operation since the primary goal of establishing the service has already been met.

Fiscal Responsibility/Accountability

All boards kept regular records with respect to donations received, dollars spent on gasoline, and extra equipment purchased. In January ,1987, the Area IV Agency made standard bookkeeping forms available to all systems. While there have been no major problems to date with the local efforts at bookkeeping, aside from some officer changes, it is highly recommended that all the boards conform to the same system of bookkeeping by making use of the supplied forms. Such uniformity in reporting would make comparisons much easier and allow the Area IV Agency to monitor the progress of each system more easily.

Planning

This is the major area where all boards appeared to be in need of much improvement. Since the boards, for the most part, are comprised of non-technical volunteers, it is strongly suggested that some sort of training activity be made available to assist them in planning. Such training is an appropriate role for the Area IV Agency because that agency is actively engaged in preparing plans as a general course of business. Formation of an annual or three year plan would also be a necessary first step in the formulation of goals and objectives. While it is true that all of the boards had planned service expansions, or new trip offerings, these plans were for the most part disjoint and not part of any clearly defined guiding principle. Since these boards rely on volunteer labor, good planning is important in order to focus their limited resources on the achievement of specific objectives.

Problem Solving Abilities

Each board has been faced with various problems throughout the first nine months of operation, and have been able to solve those problems effectively. Most of these problems have been associated with personnel matters, i.e. placing the right person in the right job. These boards all operate in small, rather closed communities, where everyone knows everyone else, thus the removal of an individual from a specific area of responsibility can be a very delicate situation. For that reason, solving these types of problems may take more time than they would in a purely business environment. However, it is to the credit of these boards that they have effectively solved these types of problems at all, and serves to underscore their commitment to the project.

Approachability/Responsiveness to Community

It was difficult to assess this particular parameter during the evaluation period. Since the boards have been chiefly concerned with establishing the transportation service, the opportunities to be approached or respond to sub-groups in the community have been limited. In some of the service areas the boards have been approached or tried to respond to perceived needs in their respective communities, however, in others this circumstance has not arisen. In order to better respond to the transportation needs of their citizens, it should be emphasized in all communities that it is the boards' responsibility to actively approach groups in their communities.

Efficiency of the Overall Management Structure

The management structure of all boards appears to be adequate for the successful administration of these transportation services. There were no shortcomings observed that would necessitate any type of reorganization of the current structure.

Commitment to Service

All of the boards were committed to supplying a quality service to their respective communities. However, most of the boards could use some improvement in committing to specific types of service; such as addressing the trips specific to the rural poor (e.g. food stamps, social service visits, etc.). These would be appropriate goals for the next year of operation.

3.3 Operating Characteristics of the Volunteer Van Services

Table 4 presents the cumulative operational figures for each of the five volunteer van services operated in the Area IV region. The services were in operation for seven to nine months during 1986, the average months of operation for the these systems was 8.4 months. In these first months of operation the five vans services have carried nearly 4,000 passengers and traveled over 37,000 miles. The average occupancy per van trip is 8.69 persons representing 58% of capacity. The five systems make approximately 91 van trips per month varying over a range of 18.2 (Brookston) to 8.33 (Clarks Hill). Four of the five systems average in excess of 80 miles per van trip, with only the Brookston service differing significantly from this trend, averaging 46.3 miles per van trip. However, the Brookston service accumulated more than twice as many trips than any other service in 1986. Even the lowest of these average miles/trip figures underscores the fact that these are rural transportation services, and tend to demonstrate that they are providing the type of service they for which they were intended. Most of these communities offer limited goods and services, thus a rather high average miles per van trip figure would be indicative of efforts to provide the valuable transportation service of carrying their passengers to larger urban areas, usually located a considerable distance from these communities.

Regular ridership figures are reported to the Area IV Agency each month by the operating board. The Area IV Agency then analyzes this data for a number of factors, including; the number of new riders per month, the age distribution of new riders and the types of trips taken. Table 4 shows that over 1300 different persons rode one of these van services during 1986. This represents approximately 29% of the total population served by these van services. Considering that these services do not even attempt to serve the commuting trip, this is a remarkable figure and clearly demonstrates that these services are reaching significant portions of their respective service areas.

A summary of the age and trip distribution data for 1986 is presented in Table 5. The distribution over age category for the five systems is remarkably consistent, with each of the three age categories representing approximately one third of the total. However, these results must be interpreted with caution, since they only represent new, unduplicated riders. Since the total of all riders is nearly three times this total, these results do not necessarily represent the average age distribution for all passengers. It would be beneficial in the future to collect this data on all riders, if not for the entire year, at least for two or three two week periods throughout the year in order to determine changes in passenger demographics. This type of data could be important for planning activities related to reaching new markets for these services. The trip distribution pattern for these van services is heavily skewed towards recreational and "other" trip types. This is not surprising since work related trips are not served. Most of these communities offer very little in the way of recreational activities, and it is quite

Table 4. Performance Characteristics of the Five Van Systems

System	Person Trips[a]	Miles	Miles Per Trip	Persons	Persons Per Trip	New Riders[b]	Van Van[c]	Months Operation
Brookston	2969	7638	46.32	1143	6.98	292	164	9
Clarks Hill	2161	7792	109.39	751	10.16	168	75	9
Hillsboro	2019	6328	99.60	660	10.13	234	65	8
Rossville	2513	7971	111.12	677	8.90	327	77	9
Waveland	2200	7368	86.72	741	9.72	329	76	7
TOTAL	11862	37097	81.17	3972	8.69	1350	457	8.4[d]

a: Person-trips based on destination/person, many riders have multiple destinations.

b: New riders indicate unduplicated persons.

c: A van trip is one round trip of a van usually involving multiple stops.

d: Represents the average months of operation per system.

Table 5. Age and Trip Distributions for the Five Van Systems

System	Age Category*			Trip Type				
	under 20	20 to 59	60 and over	Shopping	Medical	Recreation	Other	Return
Brookston	91	99	102	573	29	546	741	1080
Clarks Hill	72	49	83	265	6	756	487	740
Hillsboro	93	61	80	128	41	570	607	607
Rossville	108	124	95	310	58	935	503	707
Waveland	142	94	93	274	12	594	642	678
TOTAL	506	427	453	1550	146	3401	2980	3812
Percent	36.5	30.8	32.6	13.0	1.2	28.6	25.1	32.1

* includes new riders only (unduplicated persons)

understandable that these types of services would demonstrate this type of trip distribution pattern. Therefore, one should view this finding as further evidence of meeting the transportation needs of their respective communities. However, these trip patterns do show two areas where improvement would be desirable. First, they illustrate the need on the part of the boards to devise strategies to meet a greater number of routine household trips such as shopping and medical related trips. Secondly, and equally important, these results indicate that there is a need for better means of data collection. For example, steps should be taken to further identify the "other" category, since it represents 25% of the total person-trips. The use of a catchall category such as "other" could serve to obscure some very important information regarding the dependence of riders on these services. As the trip summaries are now constructed the other category could include such diverse trip types as visiting relatives, taking elderly persons to the social security office, or transporting low income families to social service offices. Obviously, the liberal use of the "other" category, could inadvertently be masking some very important trip types.

Using the figures for the operational months for 1986, an estimate for the annual performance for each of the five systems is presented in Table 6. It is estimated that in twelve months of operation these five systems should carry slightly over 6000 passengers over a distance of nearly 57,000 miles. Such operating characteristics place this type of service into the lower end of figures reported for rural demand response transit systems in Indiana during 1986 (IDOT, 1986). However, as is pointed out in Section 3.7, these systems operate at a fraction of the cost of the typical demand response transit system.

3.4 Ridership Surveys

The results of the ridership surveys are presented in Table 7. The total for all five systems and subtotals for each system are presented. This discussion will center on the five system total, since for the most part there is an insufficient sample size to draw meaningful conclusions for any of the systems alone. The age distribution of passengers on these van systems comes very close to the results obtained via the regular monthly reports submitted to the Area IV offices. The ridership is mostly split between those under 20 years old and those over 60. This conforms very well with the data collected by the Area IV Agency prior to the start of this program which identified most transportation disadvantaged in these communities as the young and elderly. Rossville is the only system that carried a significant portion of middle-aged riders. For the survey period, Waveland carried the highest portion of young riders. For all systems, the sex of riders was dominated by female riders. This is not surprising since a large portion of transportation disadvantaged in these communities are female. The number of riders with dependents was universally low for all systems. This may be indicative of the

Table 6. Estimates of Annual Operating Characteristics

	Brookston	Clarks Hill	Hillsboro	Rossville	Waveland	Five Program Total
Miles/Year	10188	10392	10848	10632	14736	56796
Annual Trips	219	100	111	103	152	685
One Way Trips						
Per Year	438	200	222	206	304	1370
Per Month	36.5	16.7	18.5	17.2	25.3	114.2
Pass/Trip	6.98	10.15	10.13	8.90	9.72	8.69
Person-Trip/mo.	254.77	169.17	187.40	153.08	245.92	992.40
Passenger/mo.	127.55	83.44	94.28	74.55	123.50	503.32
Total Annual Ridership	1531	1001	1131	895	1482	6040

make up of rural communities; however, it does tend to illustrate an area where all systems could improve their efforts to reach young transportation disadvantaged families. As one could expect from the age make up of the riders, the employment distribution of riders tends to heavily favor retired persons.

Except for the Brookston system, all van operations seem to serve the recreational/outing type trip. This result is consistent with the monthly ridership reports, and is to be expected for these types of operations. Since these operations are not designed to serve the commuter, as is the case with most transit systems and van pool operations, they tend to be in the truest sense, community vans. However, this result again underscores the conclusion that these systems must all increase their efforts to meet the more routine trip demands of the transportation disadvantaged, such as shopping, personal business, and medical trips.

The variable entitled "other means", was designed to measure the dependency on the van systems in the various communities. For the survey period, a full one-third of the riders indicated that the trip taken would not have been made had the van service not been available. Only 27% of the riders indicated that a personal vehicle could have been used to satisfy the trip need. However, these results need to be viewed with respect to the types of trips these vans are satisfying. Recreational/outing trips are probably the easiest forestalled, and are least likely to be satisfied with a personal vehicle. Despite this, all communities seem to be satisfying the objective of providing a valuable transportation service to their respective communities. A weighted value of the responses obtained for the average donation made per ride on the van, is approximately $1.00 per rider. Individual systems varied greatly from this average and on the surface, the Rossville and Waveland services appeared to be subsidizing 46% and 64% of their riders, respectively. However, these two systems also carried the greatest proportion of very young riders (40% and 71% respectively) during the survey period.

The frequency of use between these systems for the riders seemed to be quite low, with a majority of riders indicating that they used the service one or fewer times per month. Again, this is indicative of the trip distribution pattern. The trip distribution pattern from past uses of this service compare very closely with the trip purposes for the particular ride measured. This pattern is again dominated by recreational and outing trip types which do not occur at a high frequency.

The number of times the van systems were unavailable when needed was extremely low (6%). This result is a credit to the organizations and shows that the schedules seem to meet the needs of the persons living in these communities. All systems seem to generate riders via word of mouth within the community. This finding is very common for small rural communities, where word of mouth is many times the only way local news is spread within the communities. The results of the

Table 7. Results of Ridership Survey

Variable	Category	Total	(%)	B	CH	H	R	W
SIZE OF SAMPLE		216	(100%)	33	52	11	68	52
AGE								
	less than 20 yrs	85	(39%)	3	18	0	27	37
	20 to 59 yrs	41	(19%)	7	5	2	22	5
	60+ yrs	90	(41%)	23	29	9	19	10
SEX								
	male	52	(24%)	6	8	0	26	12
	female	161	(76%)	26	44	11	40	40
MARITAL STATUS								
	married	74	(34%)	15	18	7	23	11
	single	87	(40%)	2	19	0	29	37
	widow(er)	54	(25%)	16	15	4	15	4
DEPENDENTS?								
	yes	28	(14%)	6	4	1	11	6
	no	178	(86%)	25	45	10	54	44
EMPLOYMENT								
	full time	27	(17%)	5	0	0	18	4
	part time	24	(15%)	1	2	1	10	10
	seasonal	14	(9%)	0	0	1	7	6
	retired	78	(50%)	21	29	8	17	3
	unemployed	14	(9%)	2	6	1	3	2
TRIP PURPOSE								
	grocery shop	10	(5%)	8	1	0	1	0
	recreation	29	(14%)	5	13	0	2	9
	medical	1	(.5%)	0	0	0	1	0
	shopping	8	(4%)	2	1	0	5	0
	group outing	92	(43%)	2	22	8	27	33
	personal bus.	8	(4%)	0	0	0	8	0
	other	30	(14%)	3	4	2	13	8
	multi-purpose	35	(16%)	13	11	0	9	2
OTHER MEANS								
	use family car	56	(27%)	9	14	5	18	10
	taxi, etc.	8	(4%)	1	1	0	6	0
	ride w/ friend	76	(36%)	14	23	2	10	27
	wouldn't make	70	(33%)	7	13	4	31	15
DONATION								
	$ .25 to .50	10	(5%)	3	7	0	0	0
	$ .50 to 1.00	28	(14%)	12	13	1	1	1
	$1.00 to 2.00	65	(33%)	17	20	4	14	10
	more than $2	37	(19%)	1	10	4	16	6
	don't contribute	56	(29%)	0	0	0	27	29

Table 7. Results of Ridership Surveys
(Continued)

Variable	Category	Total	(%)	B	CH	H	R	W
USE PER MONTH								
	one or fewer	129	(64%)	14	23	7	45	40
	two to four	58	(29%)	10	24	2	14	8
	more than four	15	(7%)	6	4	0	2	3
PAST USES **								
	grocery shop	28	(13%)	16	6	0	3	3
	recreation	52	(24%)	6	22	2	10	12
	medical	18	(8%)	9	4	0	3	2
	shopping	27	(12%)	9	3	2	8	5
	group outing	110	(51%)	15	29	6	31	29
	personal bus.	21	(10%)	5	3	0	12	1
	other	22	(12%)	5	1	0	8	8
NOT AVAILABLE								
	yes	12	(6%)	2	3	0	5	2
	no	186	(94%)	26	47	8	55	50
HOW FIND OUT?								
	flyers	13	(6%)	4	5	0	3	1
	posters	8	(4%)	0	0	0	6	2
	newspaper	10	(5%)	3	1	2	3	1
	from friend	156	(77%)	24	41	5	45	41
	combination	15	(7%)	0	4	2	4	5
OVERALL RATING								
	excellent	133	(64%)	19	34	7	51	22
	very good	61	(29%)	12	13	3	11	22
	fair	14	(7%)	2	4	0	1	7
	unsatisfactory	0	(0%)	0	0	0	0	0
	poor	1	(.5%)	0	0	0	0	1

**Percentages based on past uses divided by total responses (216)

B = Brookston
CH = Clarks Hill
H = Hillsboro
R = Rossville
W = Waveland

overall rating by the riders of their respective services was extremely high, indicating that those persons who use the service are quite satisfied with its performance. The most common complaint about the systems was voiced by very young riders who were not happy with rules prohibiting food and drink on the vans.

3.5 A Comparison of Operating Parameters

A closer look at these measures shows some interesting differences. Table 8 presents the major trends observed over the 1986 operations for each of these systems. Person-trips per month showed a steady or slight increase in rate except for the Waveland system, which was very erratic but slightly downward, and the Hillsboro system which was extremely erratic and displayed no particular trend. The total miles driven per month did not exhibit the growth expected for new transportation systems, except in the case of Rossville. The miles/trip measurement was fairly erratic for all systems (except Brookston), illustrating the effects of a predominance of recreational type trips. In the important category of total persons transported per month, again only the Rossville system has displayed a consistent growth pattern, but Rossville also had the lowest number of passengers transported per month. This was also the case in the passenger/trip measurement. The most disturbing trend was the almost uniform decrease in attracting new riders. Only Rossville showed an upward trend. While it is understood that these systems operate in small rural communities, it is felt that this trend is not so much a result of market saturation as it is a tapering off of efforts to reach new markets. All systems (except Rossville) appear to be slacking off with respect to exerting the energy needed to cultivate new markets. This is in line with the finding that these boards must recruit new members to maintain high levels of organizational energy. Finally, with respect to the parameter of trips per month only the Waveland system showed a slightly downward trend, with the other systems either showing steady or slightly upward trends.

3.6 The Overall Management of the Volunteer Van Services

The comparative results of the observations and interviews of the operating boards for the five communities are presented in Table 9. Each system was graded according to the eight dimensions for analysis on an eight point scale, where 8 = excellent and 1 = needs improvement. The grades shown in the table reflect an average of two scores, one from the evaluator and the other from the program monitor of the Area IV Agency. In addition to these scores, both the evaluator and the project monitor rated the relative importance of the various categories from 1 (least important) to 8 (most important). The average of these two ratings is presented in the table under the weight column (Wts.). The average ratings for each system were then multiplied by these weights and summed to arrive at a total score for each system and the overall score for all five systems. The highest

Table 8. 1986 Trends for Systems

Service Characteristic*	Brookston	Clarks Hill	Hillsboro	Rossville	Waveland
Person-Trips	Steady Slight Growth	Slight Up	Erratic	Growth	Eratic Slight Down
Miles	Downward Slight	Erratic Slight Up	Steady	Slight Up	Down Surge Aug
Miles/Trip	Steady	Erratic	Down Surge Aug	Erratic Steady	Steady
Persons	Steady	Upward Erratic	Upward	Growth	Erratic
Persons/Trip	Low Steady	Slight Downward	Steady(Wide Range)	Slight up	Steady Wide Range
New Riders	Downward	Steady	Downward	Upward	Down, Erratic
Trips	Steady	Erratic Slight Up	Slight Up	Upward	Erratic Slight Down

*All parameters examined on a per month basis

possible score was 288 (8's in all categories), and the lowest possible score was 36 (1's in all categories). These scores are not designed to be an absolute measure of efficiency, but rather should be used to measure the relative strengths and weaknesses of each system.

When reviewing Table 9, one must keep in mind that all of these boards are extremely new, and that these types of volunteer boards are a relatively new concept to these communities. Most volunteer boards are of fairly short duration and usually have a single short term goal (e.g. charities). The concept of a volunteer board completely administering an ongoing service is not only new to these communities, it is new in the field of rural public transportation. All of the boards have performed quite admirably and have achieved the goal of providing transportation services to their respective communities. The scores presented in Table 9 should not be used to rate these systems as much as they should be used as a tool, for planning activities which address the concerns in the table. Low ratings on this part of the evaluation do not necessarily represent stagnation or poor operation, but rather the need to improve in the various categories.

It is felt that one of the primary circumstances contributing to some of the problems on these boards stems from a lack of clear cut goals and objectives for each community. The current attitude seems to reflect a general willingness to "do good things" for the community, but there is no plan for reaching any clearly defined objectives. All of the boards would benefit greatly from a meeting where measurable goals or objectives are defined with subsequent activities aimed at reaching these objectives. The concept of an annual planning meeting, where such issues are addressed should be carefully considered by all of the operating boards. The organization and administration of such a meeting is a proper role for the Area IV Agency.

Many of the problems seen in these boards are commonplace among all types of volunteer organizations. For the most part they are run by a few energetic individuals, thus they tend to be over reliant on a few key persons. This was especially evident by the few number of drivers used for the majority of the trips in some systems. Since the boards are not made up of professionals or experts, individuals may be able to exert more influence than others by the sheer force of their personalities. Also, as is a problem with any volunteer organization, there are always conflicts between responsibility and authority. Finally, in communities such as the ones involved in this project, there is always the danger that the community perceives these organizations according to the experience and reputation of the individuals involved, rather than seeing these boards as serving all cross sections of the community.

Table 9. Comparison of the Five Operating Boards

Analysis Category	Wts	System B	CH	H	R	W	AVE
Type of leadership	6.0	5.5	4.0	4.5	8.0	5.5	5.5
Adherence to organizational goals and objectives	4.0	5.5	4.5	5.5	7.5	5.5	5.7
Fiscal responsibility or accountability	3.5	7.5	5.0	5.5	8.0	6.5	6.1
Planning	4.0	6.0	3.5	4.5	7.0	4.5	5.1
Problem solving abilities	3.0	4.5	4.0	4.5	7.5	5.0	5.1
Approachability or responsiveness to community	4.0	4.5	3.5	4.5	6.5	6.5	5.1
Overall management structure	3.5	5.0	4.5	2.5	8.0	6.5	5.3
Commitment to service	8.0	7.5	6.5	6.5	7.5	7.0	7.0
SCORE		214.2	167.2	178.5	270.5	215.5	207.8

B = Brookston
CH = Clarks Hill
H = Hillsboro
R = Rossville
W = Waveland

Rating System
8 = excellent
6-7 = above average
4-5 = average
2-3 = below average
1 = needs improvement

3.7 Financial Characteristics of the Volunteer Van Services

In order to adequately assess the financial characteristics for these volunteer transportation systems, an estimate of the value for the volunteer aspect of these systems must be determined. Using a value of $4.00 per hour for the volunteer labor for both board members and drivers, an estimate of this value is presented in Table 10. While it is recognized that the $4.00 per hour figure is a rather low value, it is one that is routinely used by the Area IV Agency for other types of volunteer programs. These calculations yield a value of $15,957.40 for the volunteer services supplied by the five communities, or an average of nearly $3,200.00 per system. This represents a substantial commitment on the part of these five rural communities.

Since the only monetary obligation of the five systems is that of fuel expenses, the average monthly fuel expenses and donations are presented in Table 11. Public donations appear to net approximately $265.00 per month for the five systems (approx. $53.00/system). Once again this would appear to demonstrate a good degree of commitment on the part of the participating communities. However, this figure can be misleading, since all of the donations received were not as a result of rider contributions. Some of the systems have been the recipient of relatively large donations from local civic organizations, while others have undertaken other forms of fund-raising activities. The financial records available did not adequately distinguish between these two types of contributions, but upon examination of the monthly logs for these communities, a net of +$20.00/mo. over fuel expenses per system would appear to be a reasonable estimate of surplus rider contributions. A proper use for this accumulation would be to aid the communities in subsidizing the fuel costs for transportation of low income groups, thus allowing them to better serve their total community.

Table 11 also presents a minor problem for the five van operations. When looking at Table 4, there is not a tremendous degree of variance among the five systems with respect to the number of miles driven per month, however, the cost for fuel shown in Table 11 shows a fairly large discrepancy. This may be due to improper bookkeeping techniques, i.e. other expenses listed as gasoline, full service prices versus "pump your own", or incredibly poor fuel economy. In any event this discrepancy should be investigated and corrected. Steps should be taken to better document the fuel costs, to ensure better data in the future, in order to track the effect of changing fuel prices on the operation of these van systems.

Table 12 presents the operating expenses for the entire five van operation as well as the sum of all locally derived income. At the bottom of Table 12 the data is presented in the form of several measures used to analyze transit system performance in Indiana. The values in parentheses represent the Statewide average and the average for demand response systems, respectively. As can be seen, the local

Table 10. The Value of Volunteer Services for the Five Van Systems

System	Miles per Trip	Driver Hours per Trip	Trips per Year *	Driver Cost per Year	Board Cost	Total Cost
Brookston	46.32	2.57	219	2251.32	720.00	$2971.32
Clarks Hill	109.39	6.08	100	2432.00	720.00	$3152.00
Hillsboro	99.60	5.53	111	2455.32	720.00	$3175.32
Rossville	111.12	6.17	103	2542.04	720.00	$3262.04
Waveland	86.72	4.82	152	2930.56	720.00	$3650.56
TOTAL	81.17	4.51	685	12357.40	3600.00	$15957.40

* round trips

Cost Factor Assumptions

Assume, average running speed of 45 m.p.h. and layover time equal to 1.5 times the total running time.

Assume local volunteer administrative time of 3 hours per meeting and six meetings per year and a 10 member board.

Assume wage rate of 4.00 per hour for drivers and board members.

Table 11. Local Monetary Support for the Five Van Systems

System	Ave. Monthly Fuel Expense	Ave. Monthly Donations	Ave. Net Accumulation
Brookston	$37.05	$111.69	$74.64+
Clarks Hill	$44.43	$111.06	$66.63+
Hillsboro	$31.03	$50.83	$19.80+
Rossville	$34.60	$91.79	$57.19+
Waveland	$64.07	$94.21	$30.14+
TOTAL *	$156.23	$420.33	$264.10+

* Total does not equal sum of column due to unequal number of months in service for the five systems.

Table 12. Total Operating Costs and Locally Derived Income for the Five Volunteer Van Systems

Expense Category	Monthly Cost	Annual Cost	Local Contribution
Insurance	$360.00	$4320.00	$0.00
Registration	$15.00	$180.00	$0.00
Maintenance(1)	89.93	$1079.12	$0.00
Fuel	$223.19	$2678.28	$2678.28
Labor	$1329.78	$15957.40	$15957.40
TOTAL	$2017.90	$24214.80	$18635.68

Performance Measures (2)

Total cost per person-trip = $24214.80/11908(3) = $2.03 (ST $2.03, DRT $4.70)

Locally Derived Income per person-trip = $1.56 (ST $0.99, DRT $1.59)

Operating Subsidy per person-trip = $0.47 (ST $1.35, DRT $3.68)

Locally Derived Income/Expense = 0.77 (ST 0.49, DRT 0.34)

1) calculated at the rate of $0.019 per mile, including tire replacement.

2) Values in parentheses, ST = statewide average, DRT = average for demand response systems in Indiana, from Indiana Dept. of Transportation, 1987.

3) 1370 one way trips at 8.69 passengers per trip.

contributions on the part of these communities make up a substantial portion of the operating costs. Examining the comparisons at the bottom of the table clearly illustrates the advantage of these types of volunteer transportation in rural areas. The expense per trip for these systems is only 43% of the expenses incurred by classical demand response systems in Indiana, and identical to the statewide average, which includes all fixed route systems. The advantage of these types of systems becomes even more dramatic when including the locally derived income (LDI). These systems show a locally derived income, as a result of volunteer labor, almost equal to that of demand response systems (at a fraction of the cost). The operating subsidy per person trip, of $0.47, is by far the lowest in the State, and finally the LDI/expense ratio is a healthy .77. This high ratio illustrates that these systems cover all but 23% of their costs, without set fares or local taxes. Certainly from a cost standpoint alone these systems deserve a closer look, and more time to reach equilibrium levels.

3.8 The Potential Impact of Rural Volunteer Van Services

Before examining the impacts these types of volunteer systems may have on rural transportation in general, it is necessary to look at some of the attributes which are unique to rural transit. Typical rural communities offer a limited variety of goods and services, and are usually located past a threshold distance to the nearest urban center, thus precluding many short, impromptu trip types. These factors make trip planning a more common practice among rural households than urban or suburban households. A related factor, involves trip postponement. Citizens of rural communities are almost uniformly wary of inclement weather, and often postpone trips due to weather conditions. Thus, despite the fact that many of their trips are planned, this planning does not imply a rigid schedule.

Another factor, important to rural transportation is the concept of relative distances. For the most part the majority of mileage accumulated in a rural trip is over the line haul portion of the trip. This factor tends to diminish the impact of minor route deviations at the destination city, or door to door collections at the origin community. Finally, despite the fact that these types of rural communities represent pockets of high population density relative to the surrounding areas, the community demand for travel is rather low. Normally, this would be a negative factor for most transportation systems. However, when combining this factor with the others, i.e. common destination, planned trips which are easily postponed or rescheduled, and a low resistance to route deviations associated with collection and dispersal, one has almost ideal conditions for operating a low frequency reservation based service.

These systems appear to be successful because they have the right combination of attributes and service to satisfy the typical travel demand for the communities they serve. They all operate a number of scheduled runs (subject to reservation) to the major urban area(s) in

their regions. These types of services are extremely efficient since they merely have to make sure a volunteer driver is available for a specific block of time over a fairly uniform route. Also, since many of the trips are easily rescheduled and planned, the individual trip demand within the community can be slightly shifted to meet this schedule. If there are no passengers for a scheduled trip it is not taken. This conserves fuel and makes proper use of the volunteer labor. The two major attributes of success for these systems are mutually related, the volunteer labor and the reservation based service. The reservation system ensures efficient use of the volunteer labor while volunteer drivers are more easily incorporated into a reservation based system.

Thus, it is a combination of the trip demand, the organization of the service, and the use of volunteers that give these types of systems such outstanding performance measures. The fact that these systems recover 77% of the cost of operation from locally derived income and in-kind contributions is a strong indication of the degree of community commitment, and the inherent efficiency of this type of operation. The next question, however, is how transferable is this concept or are these communities somehow unique?

The five systems studied as a part of this evaluation were all rather diverse in terms of size and specific details of operation. There was no evidence to conclude on the part of this sample, for example, that only highly independent, actively organized rural communities can operate this type of service. It appears that the only keys for success were: 1) the approval and verbal support of the local town boards; 2) the absence of any other transportation service in the proposed service area; 3) an operating board composed of people who know their community, and who are committed to the concept; 4) a program monitor and service agency willing to guide and assist the operating boards in setting up and running these services; and 5) the use of a reservation based/volunteer driver system for delivering the service.

There seem to be no barriers to the expansion of this type of program into other communities, other than the degree of local commitment. The impact of these programs is difficult to assess. These communities were not served by any other transit operation, thus the question of competition need not be addressed. With respect to costs, it is estimated that the five services could operate on a subsidy of $0.47 per person-trip, or roughly $5,600.00 per year, once they have been firmly established. So it appears that they represent a very low cost strategy for satisfying rural transportation needs. However, the total number of persons served and the volume of trips made by these types of systems is low, which would require a large number of these systems to be in place in order to achieve a significant cumulative statewide impact. Because one-third of Indiana's population resides in rural counties (Cornwell et al., 1987) and the potential for determining the impact of these types of services on a larger scale is feasible. However, it would be impractical to dramatically increase

the scope of these types of systems until they have been further studied. One year of initial data, though encouraging, is not sufficient enough evidence to affect transportation policy decisions. These systems should be maintained in their present form for two to three more years before trying to gauge their potential impact on the future of rural transportation. If, after this time, they continue to demonstrate excellent performance measures and high quality service the role these systems can play in the future of rural transportation in Indiana is a question that will require addressing.

4. CONCLUSIONS AND RECOMMENDATIONS

The results of this evaluation have been based upon the first nine months of operation for these five transportation systems. Thus, this evaluation has been based on results obtained over a relatively short period, during a time of organizational infancy, when changes and corrections are quite common. Indeed, many of the problems referred to in this report have already been addressed by the five operating boards during 1987 (These items are denoted with asterisks in the following list of recommendations).

The results of this evaluation indicate that these rural volunteer transportation systems represent an intriguing means of providing low cost, high quality transportation to rural communities. They appear to be ideally suited for these types of communities as they are not burdened with operating inefficient routes for unneeded trips and have the potential to be very responsive to the needs of the community. Based on the first nine months of performance, these systems are far superior in terms of classical performance measures than either the demand response systems, which are used in many rural areas or fixed route service, which for the most part are totally unsuited for rural transportation needs. Every effort should be made to continue these projects for the next two to three years under their present operational scheme.

Based upon the results of this evaluation the following recommendations are presented.

1. The five volunteer van systems should continue to operate for at least two more years.

2. During this period of operation more detailed data should be collected with respect to trip types served, donations received, and costs of operation.

3. The Area IV Agency which has provided the needed guidance and support necessary for these systems to flourish, should continue in their role as project monitor.

4. The future emphasis for operating board activities should focus on laying out achievable organizational goals and objectives, and planning activities to meet these goals.

5. All services should increase efforts to reach a wider cross section of their respective service areas, particularly the lower income groups.*

6. The operating boards should take steps to include new members, and continue to recruit new drivers.*

7. Using the data collected in the additional years of operation, begin to assess the impact these type of transportation systems may have on a wider scale.

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