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Huntsville, Alabama, Volunteer Van Demonstration

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Final Report
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15. Abstract The Huntsville Volunteer Van Demonstration, operational since November of 1980, provides transportation service to the traditional transit-dependent community in an unconventional way. The city of Huntsville is not served by a conventional public transit system; hence, various low-income neighborhoods are without basic transportation service. As an alternative, reconditioned used vans are purchased by the city of Huntsville and provided at no charge to groups organized as non-profit neighborhood organizations. How and when the van is used, drivers, the cost of gasoline, and all other operational and administrative responsibilities are assumed by the neighborhood organizations. The service has been successful, growing from one van serving one neighborhood late in 1980 to 14 vans serving 14 neighborhoods by mid-1983. Vans are presently in service in Huntsville and in the counties of Madison, Limestone, Jackson, DeKalb, and Marshall, all located in Northern Alabama.		
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PREFACE

This report summarizes an evaluation of the Huntsville Volunteer Van Demonstration Project. Originally funded solely by local funds, an UMTA grant was awarded allowing expansion and continued operation of the vans for a period of one year.

This report provides an overview of how the concept was started, how the system has evolved, how it operates, and attempts, using a limited data base, to evaluate the service in terms of level of service, demand, mobility, productivity, and economic issues. The data base was comprised of information gathered from interviews with local officials, visits by the author to observe the operation, and data supplied and collected by the Huntsville DOT. It therefore is limited, in that the consultant was not allowed by local officials to conduct interviews with users or to collect the data felt necessary for a more comprehensive evaluation.

The principal author of this report was Michael B. Clarke. The Transportation Systems Center technical monitors were David John and Bruce Spear. Other individuals who contributed significantly were Ira Doom and G.W. Jones of the city of Huntsville and Roger Tate of the Urban Mass Transportation Administration. Special thanks goes to Richard Kuzmyak of COMSIS Corporation and Beatrice Wing who did a notable job in editing the material.

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
sq in	square inches	6.5	square centimeters	cm ²
sq ft	square feet	0.09	square meters	m ²
sq yd	square yards	0.8	square meters	m ²
sq mi	square miles	2.6	square kilometers	km ²
acres	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
teaspoon	teaspoons	5	milliliters	ml
tablespoon	tablespoons	15	milliliters	ml
fluid ounce	fluid ounces	30	milliliters	ml
cup	cups	0.24	liters	l
quart	quarts	0.97	liters	l
gallon	gallons	3.8	liters	l
cu ft	cubic feet	0.03	cubic meters	m ³
cu yd	cubic yards	0.76	cubic meters	m ³

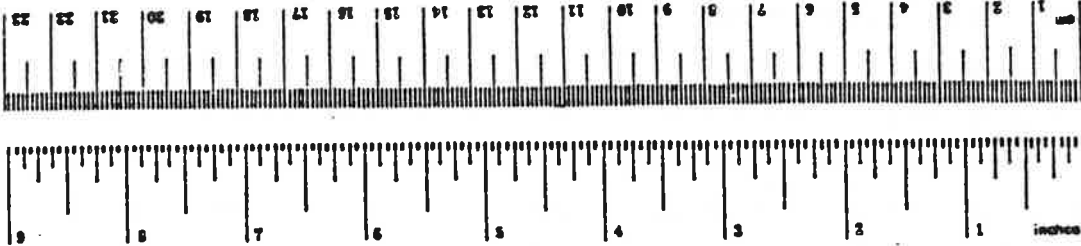
°F	Fahrenheit temperature	°C	Celsius temperature
			subtracting 32)

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	sq in
m ²	square meters	1.2	square yards	sq yd
km ²	square kilometers	0.4	square miles	sq mi
ha	hectares (10,000 m ²)	2.5	acres	acres
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	short tons
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³

TEMPERATURE (exact)

°C	Celsius temperature	°F	Fahrenheit temperature
			(above add 32)



* 1 in = 2.54 exactly. For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.1U 286.

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1. DEMONSTRATION BACKGROUND AND OBJECTIVES

1.1 INTRODUCTION

This document represents an evaluation of an UMTA-sponsored paratransit service which provides transportation for any group forming a responsible, non-profit neighborhood organization. Reconditioned, used vans are supplied to these groups to use as they see fit. Their use is monitored by the city of Huntsville, Alabama, which determines who will get the vans, provides safety training and help in setting up the non-profit neighborhood organization, and along with surrounding counties, supplies maintenance and insurance. Each neighborhood organization provides its own drivers, schedules and determines trips, and pays for gasoline. This project is highly relevant to UMTA since this service may encourage the efficient provision of transportation and cost-effective trips by enabling the communities themselves to determine the type, length, number and scheduling of trips.

The Huntsville Volunteer Transportation program originated in November 1980 as the result of a personal request made by Mr. J.W. Jones of Triana, Alabama to Mr. Ira F. Doom of the Huntsville Department of Transportation (HDOT) for assistance in obtaining a van that he could use to provide medical, shopping, recreational and other trips for members of his community of about 1,000 people. Huntsville does not maintain a conventional public transit operation.

Through the cooperation of the Huntsville-Madison County Senior Center, Mr. Doom, Public Transportation Coordinator for the city of Huntsville, acquired a used van and loaned it to the community of Triana on an experimental basis. The van was operated by the recipients on a "volunteer" basis: that is, with no residual operating costs accruing to the city of Huntsville.

Before the completion of the experiment, the Triana program became known to a neighboring community, Madison. Some interested Madison citizens asked for a van to meet their public transportation needs. As a result of this early popularity of

the volunteer transportation service, Mr. Jones and Mr. Doom anticipated that the experiment could develop into a neighborhood-based program providing basic transportation service to the transit dependent market segments. Operational principles and funding responsibilities were therefore required and developed as follows:

- o Each group/neighborhood would be required to incorporate into a non-profit community improvement association, or have an organization with similar attributes.
- o Mr. Jones, employed by the city of Huntsville as the Coordinator of Volunteer Transportation, would assist each group in fund raising activities, review safety practices, and provide programming and scheduling assistance when requested.
- o Defensive driving courses would be given to all volunteer drivers.
- o Emphasis would be placed on securing potential community leaders responsible for the program in each neighborhood.

Since volunteers might not have been able to support the program which would require them to purchase vans and insurance, the city of Huntsville would provide the neighborhoods and communities with an insured van in good condition, but each neighborhood would be responsible to pay for gas and furnish volunteer drivers.

Huntsville was informed by UMTA that the volunteer program was not eligible for Section 5 or 18 funding, designed to assist in public transportation for metropolitan (Section 5) and rural (Section 18) areas. It was decided that the city would acquire used vans and that the county would supply \$1,000 per van annually for preventive maintenance and insurance. At the same time, Mr. Doom purchased six used vans from the Tennessee Valley Authority for a total cost of \$18,000. The program there

grew--two of the vans replaced the Madison and Triana vans and the other four were assigned to:

- o Butler Terrace-Binford Court,
- o Council Court,
- o Northwoods, and
- o Sparkman Homes.

These four areas are low-income housing projects that had each formed a non-profit corporation with firm commitments from volunteer drivers.

At this stage, Huntsville's Department of Transportation submitted a description of the project to UMTA's Office of Service and Management Demonstrations. UMTA expressed interest and subsequently awarded HDOT a \$60,000 Service and Methods Demonstration (SMD) grant to perform an expanded test of the concept.

According to the HDOT project description submitted to UMTA, the program was to appropriate \$30,000 for the expansion of the Neighborhood Volunteer Van Transportation program, \$10,000 to support the Care Assurance System for the Aged and Homebound (CASA) in which a paid coordinator in each north Alabama county delivers services to the homebound, and \$20,000 to study possible operating innovations within the private taxi industry. These funds were, however, directed mostly to the volunteer van program, which was continued and enlarged. CASA received partial operating support from the grant, and no improvements were made to the taxi industry.

1.2 PROJECT INNOVATIONS

The demonstration project conducted in the Huntsville-Madison County area focused on a new approach to public transportation management in the form of an adaptable, volunteer, self-help transportation program. Specifically, the program consisted of supplying a reconditioned, used van to a responsible, non-profit neighborhood organization to use as needed. The neighborhood assumed the expense of supplying a driver and gasoline,

while free routine maintenance was furnished jointly by Madison County and by the Huntsville-Madison County Senior Center. The vans were used on a non-discriminatory basis to provide transportation to doctors, shops, governmental service offices, recreational areas, and schools.

This type of program is of paramount interest, since it could be progressively tailored to suit the transportation needs of the citizens of diverse communities by ultimately making the users responsible for its operation while promoting a government-community partnership. Thus, it is hypothesized that a community-based volunteer transportation program may provide greater incentives for efficient provision of transportation and cost-effective trips by enabling the community itself to determine the type, length, number and scheduling of regular trips.

A project innovation of secondary importance involved changes in the regulations governing the funding of public transportation. Prior to the demonstration project, federal funding was not available for neighborhood-operated volunteer transportation programs. In December 1982, the Alabama Highway Department and the Federal Highway Administration discussed the application of Section 18 funds, which were not at that time "project eligible." UMTA reviewed the use of Section 5 funds for comparable programs within metropolitan areas. Although obstacles still remained for using Section 18 funds, UMTA decided that the Huntsville-Madison County neighborhood transportation program was eligible for Section 5 funds--capital for the vans and insurance for operation--as of January 1983.

1.3 PROJECT OBJECTIVES AND EVALUATION ISSUES

The principal goal of the city of Huntsville DOT project (the implementation of the volunteer van program, CASA and taxi improvements) was to provide affordable cost-effective transportation to groups willing to share the responsibility of furnishing transportation to improve their mobility. Since the program was sponsored at the city and county level but run at the

community level, a second objective was to promote cooperation and good will between the city of Huntsville, Madison County and the communities therein. A third objective was to prove that volunteer transportation could be effective and adopted in other areas of the nation faced with similar problems. By reducing the price of travel to personal contributions, and designing it to meet individual neighborhood demand, the volunteer van program could be expected to lead to increased tripmaking by making more trips feasible. These, previously, would have been beyond an individual's budget limitations.

If the volunteer van program increased mobility, external effects on travel behavior (e.g., on employment possibilities) could also result from the program.

As has been mentioned, under the demonstration grant the City of Huntsville was to continue expansion and development of its ongoing volunteer van program and CASA. It would also aid the study of the potential for innovation within the conventional taxi service. Neither the volunteer van program nor the CASA program was likely to be fundamentally changed under the demonstration. The funds were to be used to increase the number of neighborhoods served, the number of vans in service for the volunteer van program, and to extend the range of CASA. The demonstration would thus provide greater application from which to examine a tried concept.

Overall, the purpose of this evaluation is to focus on the increases in mobility and service delivery that programs such as the volunteer van service can provide in a cost-efficient manner. Since the demonstration grant was not applied to the CASA program nor to the study of improvements and changes within the private taxi industry as intended, the evaluation does not include these.

The transferability of the programs also comprises a major part of this evaluation. The primary research issues addressed in the evaluation are:

- o the procedure for selecting recipients/participants;
- o the operational and administrative feasibility of the service at the neighborhood level;

- o the procedure for setting policies, administering them and modifying them by the city and by the association;
- o the formation of neighborhood organizations and their mode of function;
- o the responsibilities of the city vs. those of the neighborhood;
- o the impact of the volunteer van program on the mobility of the target group;
- o the basic cost and its effect on ridership; and
- o the factors that encourage ridership/non-ridership.

The answers to the key questions of this evaluation are based on on-board surveys and data collection efforts conducted by the city of Huntsville. In addition, information was obtained through limited interviews held with city officials. The data collection program could not be structured into a "before-and-after" framework to identify changes during the demonstration, since the program had operated for a year before the demonstration grant was awarded and the evaluation fielded.

1.4 ORGANIZATION ROLES

Organizations involved in the Huntsville Public Transportation Demonstration Project and its evaluation are described below:

- o **UMTA:** project sponsor; supervisory and management responsibility.
- o **TSC:** responsible for overall monitoring and evaluation of the demonstration project.
- o **Huntsville Department of Transportation, Public Transportation Division:** recipient of grant; determined where volunteer van service would be provided and policed its use; administered the program and was responsible for its results.

- o **City of Huntsville:** contributed used and reconditioned vans; along with Madison County, was mutually responsible for the vans' maintenance.
- o **Madison County:** contributed toward preventive maintenance and insurance costs.
- o **Huntsville-Madison County Senior Center:** provided accounting and preventive maintenance services.
- o **Neighborhood Associations:** target group for volunteer van services under the demonstration; each community's governing body formed a non-profit association, furnished drivers, gasoline, and program management including prescheduling of trips (hours of operation, trip type and purpose) to achieve described transportation at minimum costs through group ridesharing; also conducted fund-raising activities.
- o **COMSIS:** under contract to the Transportation Systems Center to conduct project evaluation.

2. DEMONSTRATION SETTING

Evaluation of the effects of the Huntsville-Madison County Volunteer Transportation Program Demonstration requires an understanding of the project's environment. Important background conditions including geographic, demographic, and transportation characteristics must be understood for interpretation of the project. This chapter describes the demonstration setting, along with external factors relevant to the project.

2.1 SITE DESCRIPTION

The Top of Alabama Regional Council of Governments (TARCOG) region is a 3,777 square mile, five-county area. The region is comprised of the five northeastern-most counties in Alabama (De Kalb, Jackson, Limestone, Madison, and Marshall), and is bordered to the north by Tennessee and to the east by Georgia.

The city of Huntsville is located in Madison County, approximately 15 miles south of Tennessee. To the east of Madison County lies Jackson County; to the south, Marshall and Morgan Counties; and to the west, Limestone County (see Figure 2-1).

Huntsville is a Standard Metropolitan Statistical Area (SMSA) that presently includes Madison, Marshall and Limestone Counties. Although these counties are part of an SMSA, most of the area can be considered rural. The Huntsville area is located at the base of the Appalachian region on a plateau comprised of Sand Mountain, Cumberland Plateau and Mountains, Brindlee Mountain, and Highland Rim.

Prior to 1960, the TARCOG region's population was primarily rural. By 1970, however, the urban population had exceeded the number living in rural areas. The major portion of the urbanization occurred in the Huntsville area, as the city underwent its development as a space and rocket center which made it the prime economic and population growth center in the area.

In 1950, the city of Huntsville had a population of 5,000; it presently numbers over 150,000. Madison County comprises an

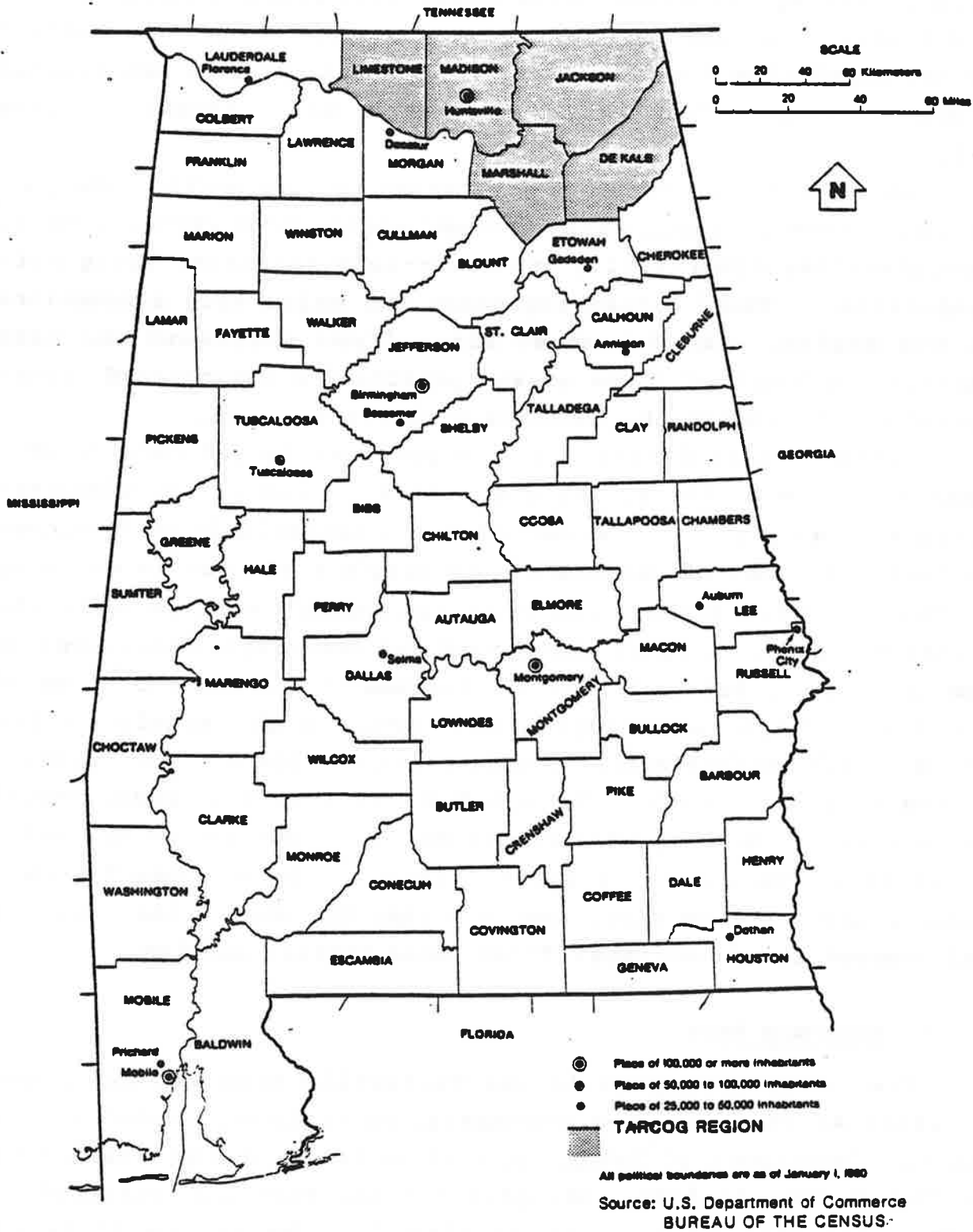


FIGURE 2-1. TARCOC REGION

area of 806 square miles, with Huntsville located in an area of 113.5 square miles. Approximately 74 percent of the Madison County population lives in the city of Huntsville. A demographic summary obtained from census statistics is presented in Table 2-1.

Local officials perceive the region as a primarily rural one in which several small cities--Scottsboro, Fort Payne, Athens, Guntersville, Albertville, and Boaz--have developed along with Huntsville. These cities represent the major trip attractions in the region. The Tennessee River flows southwest and west through the heart of these areas, providing a water-based transportation system for the counties with river access.

Huntsville is distinct in its low density and absence of a downtown core. The fact that Huntsville owes its development pattern primarily to the advent of the automobile is self-evident in that less than 15 percent of the city's workforce is employed in the downtown area, with most employment centers near the suburban fringe. A major employment and demographic influence on the city is the Redstone Arsenal, located on the southern side of the city. High technology industries, which largely employ white-collar professionals, are also responsible for the majority of the economic growth. While industrial growth is concentrated in a very low density area of the northeast section of the city, residential expansion is taking place in the southeast. As a result, there are no travel markets that the city feels would be well-served by conventional fixed-route transit service.

2.1.1 Economic Base

The major employers in the Huntsville area are NASA, the Redstone Arsenal, and the University of Alabama. According to the U.S. Department of Labor, Huntsville had an unemployment rate of 10.7 percent in 1982. Unemployment has been characterized by local officials as a major problem for the entire State of Alabama. As of 1984, the state had an unemployment rate of over 12 percent which, at that time, was the second highest in the nation.

TABLE 2-1. TARCOG CHARACTERISTICS

	<u>Huntsville</u>	<u>De Kalb</u>	<u>Limestone</u>	<u>Madison*</u>	<u>Jackson</u>	<u>Marshall</u>
1980 - Land Area (sq. mi.)	113.5	778	559	806	1,070	567
Population per sq. mi.						
1975	1196	62	79	228	43	103
1980	1256	69	82.3	244.5	48.1	115.7
Population 65+						
1975	7.0	12.3	9.7	6.0	9.7	11.1
1980		13.4	10.7	7.2	10.1	12.1
Population						
1970	139,282	44,200	41,699	186,540	39,202	54,211
1980	142,513	53,658	46,005	196,966	51,407	65,622
§ Urban						
1970	100.0	20.1	34.4	78.6	31.3	48.5
1980	100.0	28.7	31.6	78.1	39.5	48.5
§ Black						
1970	12.0	2.0	17.1	15.0	5.1	2.0
1980	20.68	1.8	13.3	19.8	4.1	1.5
Population Change 1970-1975	-2.18	16.18	4.38	-1.68	18.28	9.18
Population Change 1960-1970	92.58	1.48	14.28	59.08	6.98	12.98
Population Change 1970-1980	2.38	27.88	10.38	5.68	31.18	21.08
1970 - Civilian Labor Force	54,045	14,533	15,345	70,481	14,379	20,099
1982 - Unemployment Rate	10.78	13.48	13.78	10.78	20.48	14.88
1970 - Unemployed	NA	3.38	4.58	4.48	6.68	4.28
1969 - Median Family Income	4,887	5,320	6,820	10,437	6,371	6,593
§ Below Poverty Line						
1969	8.88	29.58	21.88	11.68	22.18	21.08
1979	12.88	19.58	17.08	13.88	15.78	16.68
1980 - Means of Getting to Work						
Drive Alone	73.8	63.9	61.8	70.8	64.3	68.6
Carpool	21.7	28.1	32.7	22.7	29.5	25.6
Public Transit	0.3	0.2	0.5	0.3	0.1	

*Madison County includes city of Huntsville data.

Source: 1983 City and County Data Book, U.S. Department of Commerce

2.1.2 Demographic Composition

As detailed in Table 2-1, the Huntsville region experienced major population growth in the 1960's (space industry). The city of Huntsville grew 92.5 percent between 1960 and 1970. Recent growth has been minimal in the region except for sharp increases in the surrounding counties of Jackson (31.1% increase 1970-80) and De Kalb (27.8% increase 1970-80). The majority of the counties in the TARCOG region--De Kalb, Limestone, Jackson, and Marshall--are classified as rural, with Madison County, which encompasses the city of Huntsville, being the only county with more than 50 percent of the population living in urban areas.

In terms of racial mix, the 1980 population of Limestone and Madison Counties were 13.3 percent and 19.8 percent black, respectively. In the city of Huntsville, blacks constituted 20.6 percent of the population in 1980. The three remaining counties, De Kalb, Jackson, and Marshall, had black populations which made up less than 5 percent of their population.

As of 1979, all five of the counties in the TARCOG region had at least 13 percent of their population living below the poverty line--De Kalb, 19.5 percent; Limestone, 17.0 percent; Madison, 13.8 percent; Jackson, 15.7 percent and Marshall, 16.6 percent.

2.1.3 Political/Institutional Environment

A factor in awarding Huntsville a grant for this demonstration was its strong local support for the project, stemming both from local leadership and the public whose needs it would fulfill. Huntsville's DOT supported the concept and pledged to seek the institutional changes necessary for its success. Enthusiasm spread throughout the community, and the residents of individual neighborhoods inquired about the program even before its implementation.

2.2 TRANSPORTATION CHARACTERISTICS

The city of Huntsville has no public transportation system. The last private bus operation terminated in 1977, leaving the city's transit-dependent population with no transportation alternatives other than private vehicle, private taxi (exclusive ride), occasional CASA transportation, or walking.

Because of the absence of mass transportation, the city and county rely heavily on the private automobile, causing dependence on the highways and road access. Automobile travel in the rural areas of the surrounding counties is even more difficult due to the area's narrow bridges, inadequate road widths, and unpaved or poorly paved roadways.

The city of Huntsville's DOT oversees the city's roadway system and technically has authority over any potential public transportation. It is estimated by city officials that, within the Huntsville region, 55 percent of the older population could make use of vehicles, but either do not know how to operate an automobile, cannot afford one, do not have access to one, or are incapacitated by a health problem. Since 40 percent of the region's elderly are near or below the poverty line, 24 percent live in relatively inaccessible rural areas and 24 percent are considered frail (75 years or older), the potential effectiveness of a demand-responsive transportation solution did appear promising.

3. DEMONSTRATION IMPLEMENTATION AND OPERATIONS

3.1 ADMINISTRATIVE ACTIVITIES

3.1.1 Planning and Operation

There was no preoperational planning stage for the volunteer van project. It developed as an experiment without any prior formal planning. Shortly after inception, needed guidelines were developed to safeguard its operation. The Huntsville DOT's Public Transportation Division was officially responsible for the implementation of the project for which UMTA awarded the grant. However, management services were also provided by: the senior center; the Huntsville DOT coordinator of Neighborhood Volunteer Transportation; the elected board of directors of each community; the participating communities themselves; the city of Huntsville; Madison County; the Huntsville Police Department; and the district county commissioners. The responsibilities of the project staff are outlined below.

- o **UMTA:** \$60,000 demonstration program grant provided funds for a number of used and reconditioned vans plus one year's insurance for communities in the northern Alabama counties of De Kalb, Jackson, Limestone, and Marshall; paid for expansion of the system within Madison County. Funds that were initially to be used for three interrelated programs were redirected to the volunteer van program.
- o **Huntsville DOT Public Transportation Division:** Administered the program and was responsible for its results. Recipient of demonstration grant. Responsible for volunteer van demonstration; aggregated daily trip reports into a single monthly report in order to establish a basis for describing services, analyzing costs, and consequently publicizing the program. Purchased used vehicles ranging in price from \$2,000 to \$5,000, depending on the condition of the vehicle. Initial sources for the purchase of the vans were other governmental agencies (such as Tennessee Valley Authority). If these sources could not supply a sufficient number of vans, the city anticipated it would explore private sources.
- o **Huntsville DOT, Public Transportation Coordinator:** Reported to the mayor and city council on the project's progress, maintained budgetary control, and hired the coordinator of Neighborhood Volunteer Transportation.

Worked with the neighborhood coordinator and secured needed state and federal funding; worked with the executive and legislative administration of the city of Huntsville and Madison County. Along with the neighborhood coordinator, met monthly with the presidents of the Huntsville and Madison County programs.

- o **Huntsville DOT, Coordinator of Neighborhood Volunteer Transportation:** Assisted each community with the following: establishing its non-profit association (a community improvement association); developing and carrying out fund-raising activities; reviewing safety practices; providing defensive driving instruction for volunteer drivers; coordinating group meetings within the community and joint meetings between the presidents of each association to discuss opportunities, progress and problems; and working with community boards and drivers. Had to be continually aware of "what was happening" in the area. Was responsible for identifying leadership potential in individuals and groups. Assisted with programming and scheduling when requested. Met monthly with the presidents of the Huntsville and Madison County programs and the Public Transportation Coordinator, and monthly with the board of directors of each participating community with the purpose of increasing community awareness and practical information relevant to transportation. Responsible for collecting the daily trip reports from all volunteer van drivers on/before the last day of each month and submitting them to the Huntsville DOT Public Transportation Division.
- o **Huntsville-Madison County Senior Center:** Sponsored the program. Performed preventive maintenance and van servicing activities, provided report summaries, financial and trip report summaries, and consultation about the program including assessment of senior citizen transportation needs in the neighborhoods. Provided accounting services. Mechanic of the senior center performed a quarterly oil and filter change, inspected and replaced spark plugs and air filter, lubrication, and greasing as needed.
- o **Community Non-Profit Associations/Community Improvement Associations:** Each was responsible for fund raising, some prescheduling of trips, and solicitation and utilization of volunteer drivers. Typical monthly gasoline costs were about \$70-\$100, or 1-1/2 to 2 tankfuls. These expenses were met either through rider contributions (which were minimal) or through neighborhood fund raising efforts. Typical fund raising efforts included bake sales, raffles, and yard sales. One community generated \$1,100 in one month on quilt and other sales, another \$1,000 was contributed by a local bank. Began incorporation necessary for

setting up a bank account, organizing fund raising projects, securing insurance, and any other activity that required incorporation. Elected a board of directors and appropriate officers according to two provisions of incorporation laws of the State of Alabama. The association was the decision maker as to the transportation in its neighborhood/community. Responsible for providing transportation to the people of their area on a non-discriminatory basis.

- o **Community Leader/President:** Responsible for making the volunteer van program operable and overseeing its day-to-day activities.
- o **Board of Directors:** A group from within the community or friends of the community elected to make by-laws and rules to carry out the successful operation of the program. Responsible for making decisions on major issues such as how the van should be scheduled and how operating funds for gasoline should be raised.
- o **Volunteer Van Drivers:** Standards for selection and encouragement to participate varied between the community associations. They were, basically, drivers considered to be competent and who were willing to volunteer their time. They often had the ultimate responsibility of interpreting their community's Board of Directors' policy since they would receive trip requests and schedule them from their own home, providing service as soon and as effectively as they could subject to resources, degree of emergency, and the established rules of their association. Responsible for filling out a daily trip report at the time they made each trip and describing the trip purpose. Retained trip reports until the end of the reporting period and then submitted them to the coordinator of the Neighborhood Volunteer Transportation program.
- o **The City of Huntsville:** Sponsor of the program. Secured used vans, reconditioned them, and contributed them to the volunteer van program. Equipped each reconditioned van with a fire extinguisher, a stool to assist elderly and disabled persons, warning cones to be used in case of breakdown, and a first aid kit.
- o **Madison County:** Sponsored the program and provided preventive maintenance and insurance costs. For volunteer van programs located in the city of Huntsville and Madison County, the county provided \$3,000 for each placed van. The funds were used to pay

for insurance* and preventive maintenance for three years at the rate of \$1,000 per year. Any balance in the account could be used to help cover any maintenance costs during the year.

- o **Huntsville Police Department:** Provided eight hours of free defensive driving training courses upon request and at the volunteer drivers' convenience and location.
- o **District County Commissioner:** Responsible for giving approval before a van could be placed in the district's community/neighborhood van program. Provided funds for insurance coverage for a volunteer van program located in his district.
- o **City Vehicle Repair Shop:** Conducted vehicle safety inspections and necessary repairs before the vans were issued to the neighborhoods/communities and annual vehicle safety inspections thereafter.
- o **Secretarial Assistant(s) of the Public Transportation Coordinator:** Responsible for project-related secretarial duties.
- o **Contributions:** Local contributions to community non-profit corporations to aid in the financing of operating their volunteer van programs were not uncommon. Churches contributed substantially as well as private enterprises. Sunbeam Bakers and local grocers contributed in order to encourage trips to their establishments.

3.1.2 Administrative Support

A variety of administrative activities were undertaken to provide support for the implementation and operation of the volunteer van program. These activities, which can be subdivided into project promotion, eligibility, and implementation/monitoring, are discussed in the following sections.

*Insurance coverage: Minimum insurance coverage for each van in the program is \$100,000 for personal injury to any one person, \$300,000 for any three or more people in one accident, and \$100,000 in property damage in any one accident. The insurance policy jointly protects the neighborhood/community associations, the City of Huntsville, and the Senior Center. A 30-day written notice of cancellation is included in each insurance agreement.

3.1.2.1 Project Promotion - As discussed in the introduction, the first volunteer van service in Triana was self-promotional by its popular appeal that led to the development of a program. Since the program "sold" itself, the Huntsville DOT needed no marketing guidelines. It operated on the principle of "first come, first served." A community/neighborhood would submit a request for a van and, pending availability, the city would furnish one. It is understood that the city and its DOT wished to meet the needs of the eligible communities/neighborhoods; however, if forced to choose between two or more eligible recipients, they would have had no established criteria to follow nor a party assigned the task of following those standards and making adjustments and unbiased selection. Huntsville and Madison County have not yet experienced a community/neighborhood request that they could not fill; however, as a program grows, so does its demand.

3.1.2.2 Program Eligibility - According to Huntsville DOT, any neighborhood, community, or organized group large enough to support a program located in Madison County was eligible for participation. The group had to demonstrate a need for supported transportation services and be willing to accept the responsibility of operating the program. Potentially eligible groups would include incorporated or unincorporated communities, common neighborhood areas, low income housing projects, senior citizens and retirement complexes, and other groups large enough to support the use of a vehicle. Prior to eligibility, the group had to incorporate as a non-profit organization to provide a coordinated and legal base for the operation of the program. As a corporation, the group had to elect a board of directors and an acting president who would, in turn, set the operational policy of that particular group's volunteer van program. Requirements were kept to a minimum and, in essence, the program was self-propelled by volunteer efforts.

3.1.2.3 Implementation/Monitoring - All neighborhoods/communities participating in the volunteer van program incorporated as community improvement associations to facilitate financial and legal procedures (i.e., funding, insurance). Nevertheless, these associations did not operate in a homogeneous or prescribed fashion, so as to guarantee flexibility and to assure a program tailored to their own community's transportation needs. Each association elected a board of directors that then devised an operating policy (including type of trip, trip purpose, trip length, prescheduling, fund raising, etc.) which it considered effective and efficient. In essence, the governing body of each association established policy as the need arose.

The volunteer van drivers, for example, would encounter situations in which they would have to interpret the policy of the board or act out of their own judgment for lack of such policy. The drivers' decisions were then discussed by the board, generally after the fact, with subsequent refinement in operating policy.

Although regulations developed from necessity permitting more flexibility, as the neighborhood communities developed or changed there were no guidelines to determine how and whether to modify or amend policy, nor guidelines as to who should introduce such a change.

Although the volunteer van program participants are expected to comply to formal/informal agreements between them and the Huntsville DOT (i.e., nondiscriminatory service, regular meetings, proper use and maintenance of the van), no monitoring system exists to verify that these agreements are honored and no remedial action has been established in the event that they are not. One reported incident of misuse was that of a president of an association who drove the van at night while drinking (no passengers were aboard). Members of the community contacted the Public Transportation Division requesting remedial action. Following a confirmatory investigation, the Public Transportation Division requested that the president resign for a least one year. In a second incident, a president used the van for personal rather than community benefit. When his community

became aware of the situation, they immediately elected a new president and no government administrative action was taken.

Both of these cases are isolated ones that demonstrate the communities' and Huntsville DOT's capacity for resolving problems as they arise. Nonetheless, the problems were only partially resolved since in both instances not only did a president misuse a van, he also managed to get access to a van that was not intended for him to drive. The fact that such situations occurred seem to indicate a weakness in the governing council of these two communities, neither of which was reprimanded by the Huntsville DOT. The trade-off for flexibility and self-government within these neighborhood/community associations, and between them and Huntsville DOT, is that they have no established uniform system for dealing with unforeseen situations. This could lead to bias, as in the different treatments of the presidents, or unnecessary complications.

3.2 FINANCING

The UMTA demonstration grant financed the purchase of four vans and insurance for one year, during which the city's Public Transportation Division furnished technical assistance. The funding of the majority of the volunteer van program, however, was basically undertaken by four principal participants--the city of Huntsville, Madison County, District County Commissioners, and the participating neighborhoods--and with service-related funding furnished by the city vehicle repair shop and Huntsville-Madison County Senior Center. Their financial responsibilities were described earlier.

3.3 PERCEPTION OF THE SERVICE

The volunteer van program is politically popular in Huntsville. It provides basic transportation service to needy populations, such as the elderly and those in low income brackets, that would normally depend on public transportation. It is a popular program because it does not impose the financial

liability of a fixed-route transit system, which the city asserts it does not have the market to support.

The residents of the neighborhoods served by the volunteer van program are pleased with the service, and expressed no disappointment in its operation other than the two isolated incidents of misuse (Section 3.1.2.3). The fact that the participants themselves publicized the program and were ultimately responsible for its demand, corroborates this.

There is no data to substantiate how the private taxi industry received the program. They have not voiced any objection and are not thought to have any, since the areas served by the volunteer van program are low-income neighborhoods which, according to Huntsville officials, were not believed to be heavy users of taxi service.

4. TRANSPORTATION LEVEL OF SERVICE ISSUES

4.1 COVERAGE AREA

Fourteen community/neighborhood volunteer vans are in operation. Five of these were assigned to low-income housing projects in Huntsville: Butler Terrace-Binford Court, Council Court, Northwoods, Searcy, and Sparkman Homes-Mason Court. One was assigned to the Huntsville neighborhood/community of Edmonton Heights, and another was designated for Harris Homes (the only program that paid its driver, who was a member of Harris Homes' existing staff), a home for children of troubled parents, located in Huntsville.

In Madison County the two original volunteer van programs were still in operation serving the neighborhood/communities of the town of Triana and Madison.

The remaining five vans and insurance were funded by UMTA's demonstration program, and were jointly administered by the Huntsville DOT's Public Transportation Division and the following groups: the senior center of the town of Elkmont (Limestone County), the Flat Rock Ruritan Club (Jackson County), the Upper Sand Mountain Parish (a consortium of 10 churches in De Kalb County), the neighborhood/community of the town of Geraldine (insurance only, De Kalb County), and the town of Union Grove (Marshall County).

4.2 SCHEDULING PROCEDURES

The board of directors of each participating group in the volunteer van program prescheduled trips that would meet the needs of the majority of its membership. The volunteer van service could only be cost-efficient if it encouraged group ridership; thus effective prescheduling was essential to the success of the program. Depending upon the neighborhood/community operating policy, prescheduling would try to generate blocks of common destinations on multi-destination trips. The program was tailored to balance the time limitations of the

service and the most pressing travel needs of its neighborhood/community. At times, return trips, which had been prescheduled, could involve a substantial waiting time.

4.3 TRIP PRIORITIZATION

Trip destinations, like trip scheduling, were decided upon by the board of directors in response to the greatest demand voiced by its ridership. The most common destinations requested were shopping centers, schools, medical buildings, and recreational areas. In two neighborhood operations, almost 70 percent of all trips were home-based school trips because the county had terminated their bus service due to a shortage of funds. The neighborhoods' respective associations responded to the transportation need by adopting the policy of furnishing school service from home to school only, since the van was either in use in the afternoons or it was not financially feasible for the neighborhoods to raise funds for return trips. Forced to choose, the neighborhood believed it was better to furnish dependable transportation from home to school rather than school to home, since inclement weather could discourage the children from going to school.

Although the vans are not equipped for school bus service according to the state's regulations, the city of Huntsville is more concerned with the spirit (and the intention) than with adherence to the letter of these regulations. The city maintains its philosophy that the volunteer van program is the domain of each participating neighborhood and that the neighborhood should operate it as they see fit.

4.4 SERVICE REQUEST LAG

Since it is imperative that the volunteer van program keep costs to a minimum, group ridership, prescheduling, and set destination(s) were important elements of the basic operational policy of the board of directors in all neighborhoods/communities. Service request lag, which is a factor in a demand-

responsive transportation service, is therefore not an issue to contend with in the Huntsville volunteer van program. Trip requests were scheduled and service was provided on schedule. There were instances when a volunteer van provided emergency transportation, which could be considered demand-responsive and where a service response measure would apply; however, this is not the way the van service was designed to run, and there are no data to support estimates of response lag.

4.5 FARE/REVENUE SOURCES

The neighborhood/community volunteer van program users did not finance their program through the payment of fares; therefore, no fare structure was implemented. Users were encouraged to make contributions, but, according to the Huntsville DOT and the councils, such contributions were minimal. The bulk of the revenue at the neighborhood level came from fund-raising activities and contributions from churches and private enterprises.

5. DEMAND AND MOBILITY ISSUES

The effect of the volunteer van program on the travel behavior of eligible user groups was an important question in this demonstration. The flexible, low-cost transportation service was expected to attract eligible groups to become participants in the program, and to increase the number and type of trips they made. In this section the characteristics of service users and their trips are described, and the effects of the program on their tripmaking are analyzed.

5.1 TRAVEL PATTERNS AND LEVEL OF USAGE

A representative sampling of travel patterns was to be obtained through the volunteer van drivers' logs, which would have provided the consultant with the distance of trips made. However, this information was not provided. Destination points of local vans were provided by the Huntsville DOT's Public Transportation Division. This information was insufficient to establish trip patterns since it did not furnish the point of departure along with the destination. Trips were commonly made to medical and nutrition sites, shopping areas, churches, and public service agencies.

Level of usage of the volunteer van service was analyzed using monthly summaries of drivers' daily logs. Records commenced with services at the three initial community/neighborhoods (Triana, Madison, and Sparkman Homes) in January 1982, and then extended to Council Court, Northwoods, and Butler Terrace-Brinford Court in April 1982; Harris Homes in September 1982; Upper Sand Mountain and Elkmont in January 1983; Flat Rock in March 1983; and Geraldine in April 1983.

Fourteen vans are in operation. The areas covered by non-demonstration vans are:

1. Butler Terrace-Binford Court
2. Council Court
3. Northwoods

4. Searcy
5. Sparkman Homes-Mason Court
6. Edmonton Heights
7. Harris Homes
8. The town of Madison
9. The town of Triana

The first five of these communities are low income housing projects located within the city of Huntsville. Edmonton Heights and Harris Homes are also within Huntsville.

Five vans were placed into service under the demonstration. These sites were all small towns and/or rural areas, and hence not directly comparable to the Huntsville services:

1. The town of Elkmont in Limestone County
2. The Flat Rock Ruritan Club in Jackson County
3. The town of Geraldine in De Kalb County
4. The town of Union Grove in Marshall County
5. The Upper Sand Mountain Parish (a consortium of 10 churches) in De Kalb County.

In general, van usage at all sites remained fairly constant, since the vans were operating at capacity most of the time. For the initial three-neighborhood program (Triana, Madison and Sparkman Homes), the system served an average of 245 person trips* (excluding school trips) per month, with monthly totals ranging from as low as 109 person trips per month to a high of 330. Total ridership increased from 336 person trips to 3,052 per month after the program expanded from 3 neighborhoods and 3 vans in January of 1982 to 11 neighborhoods and 11 vans in April 1983 (see Figure 5-1). The home-based/school trips were separated from the total trips in order to facilitate analysis of seasonal level usage; however, this analysis showed no consistent change in level of usage that could be attributed to season in the group

*Person trips are trips made by an individual; vehicle trips are trips made by a vehicle. That is, four people share a van from the neighborhood to the local supermarket--one vehicle trip and four person trips have been made.

——— TOTAL PERSON TRIPS
 - - - PERSON TRIPS PER VAN

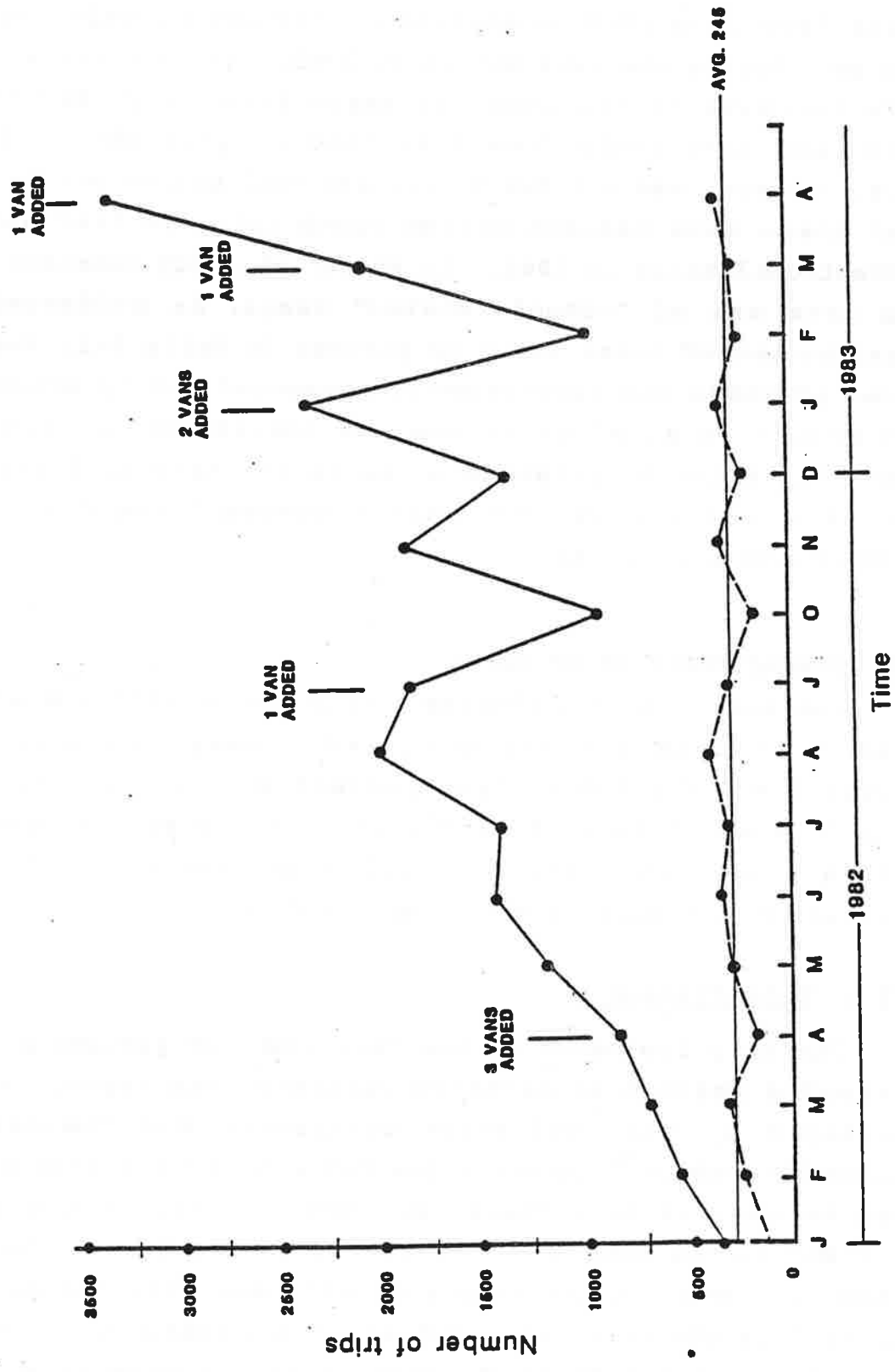


FIGURE 5-1. SUMMARY OF TRIP USAGE (EXCLUDES SCHOOL TRIPS)

of 14 programs studied. As detailed in the trip summaries in the appendix, Triana, for example, displayed an increase in level of usage from July 1982 to September 1982 but experienced no such increase during the same months in 1983. Madison had a considerable increase in the level of usage from July 1982 to August 1982, and then again from July 1983 to September 1983. This rise, however, was not due to the seasonal change but to the fact that there were Madison summer youth trips in 1982 and summer recreational trips in 1983. In short, the only constant noted in the data was of "school-related" usage. As evidenced in the distribution of total trips by purpose in Table 5-1, the highest level of usage was consistently accounted for by school trips. The actual level of usage was not continuous nor predictable since it varied by attendance, as in the case of Harris Homes, but it was the only perceptible seasonal trend in evidence (summer and school year).

5.2 CHARACTERISTICS OF TRIPS

The volunteer van program's trip characteristics were drawn from trip logs and the on-board survey conducted by the Huntsville DOT's Public Transportation Division. There is no data from which to analyze characteristics such as time of day and average trip length. Trip characteristics studied are limited to trip purpose and trip frequency.

5.2.1 Trip Frequency

The trip frequency of the volunteer van program's users was estimated through an on-board volunteer van survey, which was developed by the evaluation contractor and fielded by the Huntsville Public Transportation Division over a five-day period from October 26 to October 30, 1984. A copy of the survey is provided in the appendix. It should be noted that the level of usage was based on the user's recall, and that the surveys did not include the trip frequency of school children. One hundred and forty-one riders were surveyed on the demonstration vans. Four hundred and twenty-five riders were surveyed on the non-

TABLE 5-1. PERCENTAGES OF TOTAL TRIPS BY PURPOSE

Towns	Trip Purposes							Trips/Deliveries to Homebound
	Shopping	School	Medical	Recreational	Other	Nutrition Sites		
Triana	37%	0%	7%	23%	33%	N/A	N/A	
Madison	3	0	1	74 ^a	21 ^b	2%	0%	
Edmonton Heights	2	77	1	11	8	N/A	N/A	
Sparkman	14	47	5	14	20	N/A	N/A	
Council Court	7	90	1	0.4	2	N/A	N/A	
Northwoods	15	12	5	11	56	N/A	N/A	
Butler Terrace	3	84	1	3	8	N/A	N/A	
Searcy	2	92	1	2	4	N/A	N/A	
Harris Homes	1	62	0	32	6	N/A	N/A	
Upper Sand Mtn. Parish ^C	20	0	7	127	44	11%	0%	
Elkmont ^C	0	0	0	0	4	57%	39%	
Flat Rock Ruritan Club ^C	35	0	6	42	17	0%	0%	
Geraldine ^C	10	0	1	7	7	75%	0%	
Union Grove ^C	14	0	3	42	24	16%	0.4%	

^a63% of the recreational trips (4,473 out of the 7,075 trips) were summer recreational trips for children.

^b56% of other trips (1,120 out of 1,990) were Madison Summer Youth Program trips.

^CSignifies demonstration van sites.

Source: Project's monthly summaries of drivers' daily logs.

demonstration vans. A summary of the survey results is presented in Table 5-2.

As the figures demonstrate, there were some notable differences in travel frequency between the samples of users of the on-going volunteer van program and the demonstration van program. The programs are similar with respect to two groups using the vans: those who use it occasionally (1 to 2 times per week); and those showing a large dependence on the van (more than 15 times per week). While 36.5 percent of the on-going volunteer van program users took 1 to 2 round trips per week in the van, 1 to 2 trips were taken by 44.6 percent of the demonstration group sampling. Similarly, more than 15 round trips per week were taken by 20.2 percent of the on-going program, while the same amount was made by 15.3 percent of the demonstration program. The programs differ with respect to the proportion of infrequent users: 30.4 percent of the surveyed demonstration van users used the service less than once per week, compared to 0.5 percent for the non-demonstration van users. To compensate, 41.4 percent of the non-demonstration van users took between 3 and 9 trips per week, compared to 4.0 percent of the demonstration van users. Therefore, it appears that the non-demonstration van users showed a much higher rate of repetitive use. A plausible reason for this is that the demonstration vans are located in rural areas used primarily for visits to a doctor, shopping or to local senior centers, while the non-demonstration vans are located in the more urban areas and are used more on an everyday basis for shopping, bank visits and errands.

In the absence of the volunteer van program, 89 percent of the ridership of the on-going program claimed that they would not have been able to make the round trip, whereas 70 percent of the demonstration program's ridership felt they would not have been able to make their trips. Of those who stated that they had an alternate mode of transportation, 51.7 percent of the non-demonstration van users and slightly over 1 percent of the demonstration van users, respectively, would have walked. The demonstration van users' alternative is the automobile, with almost 100 percent of those users stating they had an auto

TABLE 5-2. RESULTS OF VOLUNTEER VAN ON-BOARD SURVEY

How many round trips do you make in the van per week?

	<u>Non-Demonstration Vans</u>	<u>Demonstration Vans</u>
< 1	0.5%	30.4%
1-2	36.5%	44.6%
3-4	12.9%	2.3%
5-9	28.5%	1.7%
10-14	1.4%	5.7%
≥ 15	20.2%	15.3%

Alternative Modes: Could you have made this trip at this particular time if you didn't have access to the volunteer van?

	<u>Non-Demonstration Vans</u>	<u>Demonstration Vans</u>
Yes	11.0%	30.0%
No	89.0%	70.0%

If you answered yes, how would you have made this trip?

	<u>Non-Demonstration Vans</u>	<u>Demonstration Vans</u>
Walk	51.7%	1.3%
Taxi	1.7%	0.0%
Friend's Car	12.1%	64.0%
Own Car	6.0%	34.7%
Bicycle	0.9%	0.0%
No Mode Given	27.6%	0.0%

Age: What is your age group?

	<u>Non-Demonstration Vans</u>	<u>Demonstration Vans</u>
Youth (13-21)	12.9%	13.0%
Adult (22-59)	38.6%	13.0%
Elderly (60+)	48.5%	74.0%

Did person require help getting on and off van?

	<u>Non-Demonstration Vans</u>	<u>Demonstration Vans</u>
Yes	22.6%	33.9%
No	77.4%	66.1%

alternative: 34.7 percent of those listed could drive their own car, while 64.0 percent could borrow a car or ride with a friend. These percentages are strongly related to the fact that the demonstration vans are located in much more rural areas where walking is much less convenient and the demonstration vans serve a more elderly (74% to 48.5%) and handicapped (33.9% to 22.6%) clientele than non-demonstration vans.

Because of data limitations, the specific effects of the volunteer van program on overall user travel could only be measured on a superficial level. The best evidence of effectiveness of the program is that, according to the two surveys, an average of 79.5 percent of the trips would not have been made without the existence of the volunteer van program. It must be kept in mind that the survey was a limited one and does not reflect the frequency rates by day, month, or season.

5.2.2 Trip Purpose

The data on trip purpose are extracted from the monthly Trip Logs kept by each volunteer van community for the Huntsville DOT. The distribution of trips by purpose for each neighborhood service are summarized in Table 5-1. In general, the vans carry a large number of school children, and serving school trips is the principal trip purpose in 6 of the 14 neighborhoods. Outside of school trips, the vans provide access to shopping, jobs, doctors, and to a variety of other sites. Many of the trips noted as "other" in the table are to the local senior center and nutrition sites. Four of the five areas which are low income housing projects--Butler Terrace, Council Court, Searly, and Sparkman Homes--use the van primarily for school trips. These vans are also used on a limited basis for shopping and recreational trips. Two of the remaining non-demonstration van communities, Edmonton Heights and Harris Homes, also use the van primarily for school trips, with the remainder dedicated largely to recreational travel. The towns of Madison and Triana use their vans for non-school trips. Thirty-seven percent of all trips made by the Triana van are for shopping, with the remainder of travel made up of other (33%) and recreational (23%) travel.

Much of Madison van travel has consisted of recreational trips (74%), which are effectively long-distance, charter-type arrangements for civic groups. Most of those trips (63%) were for the summer recreational travel by the town's children.

The demonstration vans sites--Elkmont, Flat Rock Ruritan Club, Geraldine, Union Grove, and Upper Sand Mountain Parish--do not use the vans for a consistent purpose. The Elkmont and Geraldine vans are used primarily by elderly populations, either to deliver meals to elderly residents or to transport them to nutrition sites. The Upper Sand Mountain Parish uses its van primarily for church-related trips, while the remaining two communities, Flat Rock Ruritan Club and Union Grove, use their van primarily for shopping and recreational travel.

5.3 USER AND NON-USER CHARACTERISTICS

Before any travel behavior changes can be understood and the effectiveness of the program analyzed, it is necessary to present some perspective on those who are eligible for the program and partake in it versus those who abstain from it.

A sample of data on "typical users" (Butler Terrace-Binford Court, Council Court, Northwoods, Sparkman Homes, Harris Homes, Madison, and Triana) was supplied to the evaluation contractor by the Huntsville DOT in summarized form. No objective conclusions can be made on the program as a whole from these data, since only half of the participating communities are represented. Moreover, the criteria used in the selection of the seven areas where data were collected, and whether these areas represent typical users, is questioned: trips in 3 of the 7 areas were largely school trips (Butler, 84%; Council Court, 90%; and Harris Homes, 62%), whereas over half of the 14 areas serviced by the volunteer van program experienced significantly lower school trip percentages.

School trip ridership is an important factor to consider. The volunteer van project did address the needs of the least mobile and most travel dependent segment (school children) of the respective communities, but if school bus service had not been

eliminated by the state, forcing the communities to assign the van to serve these trips, there is considerable question as to how much of what type of service would have been demanded and supplied by the community. It is impossible to know the character of "essential" trips that may have gone unserved because of the need of the community to provide its own school bus service.

The statistics provided by the Huntsville DOT, presented in Table 5-3, show that the largest number of users (42%) are school-aged children, 78 percent of whom do not own or have access to a car. The second most frequent users are elderly (60 and up), who, like 75 percent of all other users, do not own or have access to a car. Based on the data available, it is impossible to ascertain precisely why some residents chose the volunteer van program as their means of transportation while others did not. It is evident that the users' socioeconomic status limited their travel options.

The greatest proportion of tripmaking cited which was not school travel occurred in Northwoods. It is, therefore, important to study the factors that discourage individuals who are eligible from utilizing the volunteer van program, in order to determine how effectively the community's travel needs are met. Based on the data made available by Huntsville DOT, there is no way of determining the type of trips that were not made, and the reasons why they were not made.

TABLE 5-3. NEIGHBORHOOD VAN USERS--20% SAMPLE

Huntsville-Based Volunteer Van Users
(Partial Data Only)

<u>Age</u>	<u>Number Sampled</u>	<u>% of Sample Falling in Age Category</u>	<u>No. in Age Group Who Do Not Own/Have Access to Car</u>	<u>% of Age Group Who Do Not Own/Have Access to Car</u>	<u>% of Total Survey Group Who Do Not Own/Have Access to Car</u>
1-15	32	42	25	79	
16-30	11	15	8	73	
31-45	9	13	5	56	
46-60	8	10	7	88	
60-Up	15	20	14	93	
Total	75*	100	59		79

*Does not include data for Harris Homes, Northwoods, Searcy or rural counties.

6. PRODUCTIVITY AND ECONOMIC ISSUES

This section describes the costs of operating the volunteer van service. These costs are shared by the participating governmental bodies and by the neighborhoods, which operate the services.

The cost to each of the program's users was not a predetermined monetary amount (i.e., fares were not levied). While monetary contributions were accepted and encouraged, the major source of local support of the van was through contributions of direct labor or through fund-raising activities. The neighborhoods bore the operational costs of fuel for the vehicles, which were met through their own resources and cannot be quantified.

The capital costs of the vans, either new or used, were borne by the city of Huntsville. Administrative costs were also borne by the city, while insurance and maintenance were provided by the county. Aside from the assistance provided from the demonstration grant, these costs were met through local tax revenues.

The Huntsville DOT estimated its capital costs at approximately \$3,000 per year per van. This was based on purchasing arrangements of \$12,000 over a four-year period for a used van, or \$15,000 for a new van over a five-year period. Operating costs were estimated from the following data on the annual expenditures for a 10-van system:

Insurance (Fleet Insurance)	\$ 1,000
Salary and fringes of a coordinator of volunteer transportation (expected to monitor 25-50 vans in rural locations)	20,000
Other expenses	<u>2,000</u>
TOTAL	\$23,000

These figures suggest an average annual operating cost of about \$2,300 per van.

If it is assumed that the 11-van system provides about 3,000 person trips per month, this means that the average van would carry about 3272 person trips per year. Therefore, the taxpayer cost per trip for this service is approximately $(\$3,000 + \$2,300)$ divided by 3272, or \$1.62 per person trip. Factors which are not included and which could increase these estimates are the cost of major repairs (maintenance is included in capital costs) and the cost for two substitute vans available as backup in case of extensive repairs or other emergencies.

To gauge the effectiveness of its van program, the Huntsville DOT compared its operation with 1978 figures on transportation systems in the Atlanta region, which are considered to be cost-efficient programs for elderly, low-income rural users. The cost per trip of the Region IV (Atlanta) systems ranged from \$1.08 to \$4.49 per trip, but included also gasoline and driver wages. Inflating the Region IV costs to 1983 levels (comparable to the Huntsville data) using the Consumer Price Index would raise the costs for those systems to a range of \$1.65 to \$6.86 per trip.

Because the Huntsville system does not include fuel and labor expenses in its costs, the Huntsville and Region IV systems cannot be compared directly. Huntsville's costs fall into the lower range of the Region IV systems, but require a significant cost burden to be assumed by the users. The Huntsville unit costs also reflect a demand for the service which is inflated by the inclusion of school trips, which are normally not provided by these types of operations. However, from the standpoint of costs borne by the general public (taxpayers), the Huntsville system is one of the most cost-efficient methods for providing service to the transportation disadvantaged.

7. TRANSFERABILITY OF THE VOLUNTEER VAN PROGRAM AND CONCLUSIONS

The Huntsville Volunteer Van Program tested an innovative approach in providing largely self-regulated and self-administered transportation, increasing the mobility of particularly needy city and county residents. Numerous observations have been made concerning the operation and efforts of the program.

The volunteer van program was difficult to evaluate objectively given the data limitations. However, based on on-site observations, interviews conducted with Huntsville DOT, and other information provided by Huntsville DOT, the program seems to provide transportation to transit dependent segments of the community in a cost-effective manner. In addition, by giving neighborhoods financial, managerial and operational responsibilities for the service, it forces those neighborhoods to identify the most cost-effective uses for their equipment and the most efficient methods of operation. It also allows the community to decide what it really needs for service and where and how to provide that service--a flexibility typically not available with fixed-route public transit.

It is difficult to ascertain the actual efficiency of the program, since school trips cannot be readily separated from other trips, but it does appear that the program is cost competitive with similar types of services and offers savings over conventional fixed-route transit.

The key elements for the success of this project seem to have been:

- o Establishment of the position of Coordinator of Volunteer Transportation. The coordinator was recruited from the ranks of the users enabling users and the local government to have a good rapport.
- o Local government purchased the vans, provided maintenance and insurance, and held monthly coordination meetings with representatives of each neighborhood

board.

- o Huntsville allowed each neighborhood to operate the van as they saw fit, while instituting responsibility by requiring them to incorporate, elect a governing board, pay for gas, and provide drivers.
- o Huntsville provided defensive driving and safety instruction to all drivers.

Whether the volunteer van program could be successfully implemented in other areas cannot be evaluated with the available data. It does appear that potential users to be targeted would be the elderly, school age youth where local school bus service is not provided, those with limited access to automobile or conventional transit service, and those with a relatively low income. It does not seem to matter whether the volunteer van is used in an urban or rural area, since vans were operated successfully in both the city of Huntsville and in surrounding rural counties.

A factor not adequately evaluated in the study, but which could be significant in future application is whether certain users tend to dominate use of the van, eliminating other potential uses or users. In most of the communities studied, approximately 15 percent of the residents used the van. It is not known whether the remaining 85 percent did not use the van because of physical or economic differences, availability of other modes, lack of information about the service, unwillingness to endure a schedule delay, or possibly even political connections with the management. All of these are possibilities which could not be ascertained in Huntsville.

APPENDIX
ON-BOARD SURVEY FORM

ON-BOARD SURVEY FORM

VOLUNTEER VAN SURVEY

Please take a few minutes to answer the questions on this survey. Your answers will help improve the volunteer van program and will remain confidential.

1. Where are you going? (you may check more than one space)

- | | |
|--|--|
| <input type="checkbox"/> to shop | <input type="checkbox"/> to the bank |
| <input type="checkbox"/> to work | <input type="checkbox"/> to see a friend |
| <input type="checkbox"/> to school | <input type="checkbox"/> to see a doctor, |
| <input type="checkbox"/> to some other place | <input type="checkbox"/> dentist, or nurse |
- (please write where on the space below)
-

2. What is the name of the intersection, shopping center, or office building where you will get off the van?

3. How many times do you normally ride this van each week? _____

4. How would you have made this trip if the van was not available?

- | | |
|---|----------------------------------|
| <input type="checkbox"/> could not have made the trip | <input type="checkbox"/> walk |
| <input type="checkbox"/> taxi | <input type="checkbox"/> bicycle |
| <input type="checkbox"/> a friend's car | <input type="checkbox"/> own car |

5. How old are you?

- | |
|--|
| <input type="checkbox"/> between 13 and 21 |
| <input type="checkbox"/> between 22 and 60 |
| <input type="checkbox"/> over 60 |

Thank you for your time.

