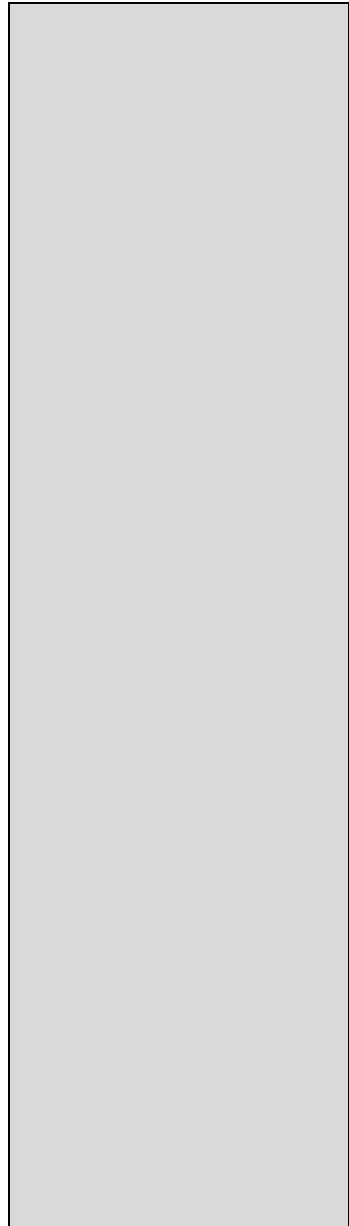


***Appendix A:  
The Rural Transportation  
Services Computer  
Program***

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## APPENDIX A

### THE RURAL TRANSPORTATION SERVICES COMPUTER PROGRAM

The Rural Transportation Services computer program is designed to be an advanced software tool that will be extremely useful to transportation system operators, planners, and analysts. Its users will need no programming skills whatsoever to be able to access the information in this program about communities and the rural public transportation systems that now exist in them.

This program is designed to allow you to review detailed information about localities and the public transportation systems, which have been created to serve the rural portions of those localities. You may begin using the program by starting with either community or transportation system information. Information about the localities is from U. S. Census Bureau data tapes for the 1990 Census. The rural transportation operators in this data file are those funded by the U. S. Department of Transportation through the Federal Transit Administration's Section 18 program, "Formula Grant Program for Areas Other than Urbanized Areas." The database in the Rural Transportation Services computer program provides general information on 1,100 of the 1,200 Section 18 systems now operating in the U. S., plus detailed information on 200 of those systems. Please note that, unless otherwise specified, **all facts and figures are those provided directly by the rural transportation operators**, some of whom employ unique accounting procedures. All information was reported to be current as of 1994, but because of the variations in accounting procedures, the validity of some data may be questionable.

#### Where the Program Starts

There are two basic paths open to the user for starting the program; looking at communities or looking at rural transportation systems. After starting on one path, the user can shift to the other. The first path is recommended for persons who are in rural communities in which **no public transportation services are now available**. You can use this computer program to find out how many counties there are like yours (according to statistics that you specify), which counties those are, which of them now have transportation services operating there, and what the characteristics of those services are. You would start by identifying your county, then asking the computer program to search for similar counties, and then asking the program to review the transit systems that serve those counties. This is the path taken by a community that is not currently operating a system and is interested in information about the transit systems operated by similar counties.

The second path is for persons in communities **which already have rural public transportation services and wish to improve them** by learning from other operations. This path is for the operator who is looking for a peer comparison for his or her system. This computer program will enable you to find other systems which are similar to yours, to review their operating results, to obtain contact information about those systems so that you can find more details about their operating procedures, and then to review information about the counties in which they operate.

## Kinds of Questions the Program Addresses

This software package enables rural transportation operators and planners to obtain highly specific demographic and transportation system data needed to address questions such as:

- What kinds of transportation systems operate in counties like mine? What is the range of possible choices?
- What are the operating characteristics of these systems?
- How does my system (now operating or being planned) compare to systems operating in similar areas?
- What kinds of governmental financial support do similar systems require to operate?

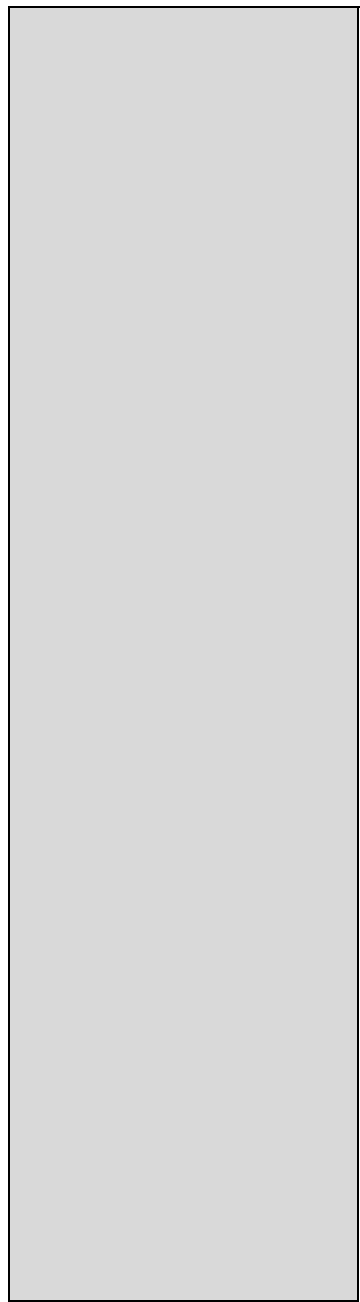
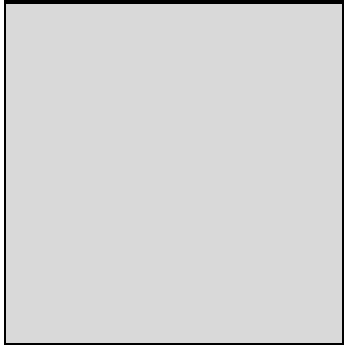
With information like this, you can test and retest wide ranges of alternative transportation systems, coming closer and closer to a service delivery system that really works for your community.

The manual that accompanies the Rural Transportation Services computer program contains all the information needed to install and operate the computer program. This manual contains the following sections:

- ***Background*** — the story of how this program came to be designed
- ***Program Objectives*** — what we're trying to make this information do for you
- ***Technical Program Details*** — programming information for those who are really interested in these matters
- ***System Requirements*** — the computer equipment, hardware and software, that you will need to operate this program
- ***Installation Procedures*** — steps you need to take to get this program running on your computer
- ***Operating Instructions*** — how to decide where to start  
— step-by-step procedures  
— what you will see on the program's computer screens
- ***What Do the Numbers Mean?*** — what you can do with this information.

These sections are designed as reference materials to be used as needed.

***Appendix B:  
List of Project Panel  
Members and  
Reviewers from Local  
Transportation Operations***



## LIST OF PROJECT PANEL MEMBERS

This manual was prepared under the guidance of the following persons:

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## **LIST OF REVIEWERS FROM LOCAL TRANSPORTATION OPERATIONS**

We are grateful for the assistance of the following individuals, who are associated with local transportation operations or other agencies as noted, for their review of this manual and the Rural Transportation Services Computer program.

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Kerr Area Rural Transit System  
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Chillicothe, Ohio

**Mitzi Teel**

Transportation Planning Services Manager  
Central Midlands Regional Planning Council  
Columbia, South Carolina

***Appendix C:  
The TCRP Rural  
Transportation  
Database***



## APPENDIX C

### THE TCRP RURAL TRANSPORTATION DATABASE

A major product of the project that created this manual is a database of information on rural communities and rural transportation systems. The database, containing demographic descriptors from the U. S. Census on a county level for each county in the country, plus the information provided directly to the research team by rural transportation providers, is now on file in the Rural Transportation Services computer program. This appendix describes the information on rural transportation systems that was collected specifically for this project.

#### TRANSPORTATION SYSTEMS DATA

Because data that were needed for analyses were not available from existing sources, original data collection efforts were required. A questionnaire was designed and distributed by mail to a random sample of Section 18 operators. Using the information provided by the operators, a data file of more than 360 variables has been created. The following types of information were requested from each service provider:

- identifying information about the transportation system,
- numbers and types of employees,
- annual revenue summary,
- annual operating expense summary,
- capital grants, and
- detailed information on types of services provided, including
  - fixed-route, fixed-schedule service,
  - demand-responsive service,
  - subscription service,
  - scheduled or routed services with deviations,
  - charter type services, and
  - other service types.

#### THE SAMPLE OF TRANSPORTATION SYSTEMS

##### Sample Design Considerations

Since approximately 200-300 respondent transit operations could satisfactorily represent the nearly 1,200 rural transit operators receiving funding through the U.S. Department of Transportation's Section 18 program for nonurbanized area transportation systems, a methodology that randomly selected 330 rural transit systems was developed, accounting for non-completions. The objective of the sampling process was to obtain a cross section of various characteristics including size, geographic location, population density, and income levels. The random sampling process accomplished these objectives.



The Community Transportation Association of America (CTAA) maintains a directory of Section 18-funded transit systems in the United States. A current publication is scheduled for printing in 1995. The records contain the agency name, address, contact person (if identified), and phone number. There are 1,196 agencies in the current database compared to 1,027 in the 1986 publication.

### **Sample Methodology**

The master agency database file maintaining the 1,196 agencies was sequenced in random order. Utilizing a computer program, 330 random numbers were generated between 1 and 1,196. For each random number selected, that sequential record in the master file (representing a specific rural transportation operation) was chosen.

The departments of transportation were contacted in many of the states to ask state representatives to verify that the selected systems provided a representative sample of the total systems in the state. The original selected listing was modified to reflect the results of the communications with the state representatives.

### **Results of the Data Collection Process**

Completed surveys were obtained from 197 rural transportation providers. They are identified in Table C-1. All of the states in the sample are represented in approximately the same proportion in which they were sampled, as shown in Table C-2 and C-3, so the surveys that were returned accurately represent the universe of Section 18-funded rural transportation providers. The expansion of the database to other Section 18 systems, Section 16 systems, and DHHS-funded systems is recommended.

Table C-1  
Rural Transportation Systems Currently Recorded  
in the TCRP Rural Systems Database

AGENCY	CITY	STATE
Chautauqua Area Rural Transit System	Falconer	NY
Pilot Club Of Starkville	Starkville	MS
Warren County Transit Authority	Warren	PA
Craven Area Rural Transit System	New Bern	NC
Mississippi County Transit System	East Prairie	MO
A & A Transport, Inc.	Lake Butler	FL
Valley County Council on Aging	Glasgow	MT
Harrison County Council Transit System	Bethany	MO
Pinedale Preschool	Pinedale	WY
Kerr Area Regional Transportation Authority	Creedmoor,	NC
Pratt County Transportation	Pratt	KS
Corvallis Transit System	Corvallis	OR
Lafourche Council On Aging, Inc./AA	Lockport	LA
Saline County Area Transit	Western	NE
Arcata and Mad River Transit System	Arcata	CA
Community Action Committee of Pike County, Inc.	Piketon	OH
Township Of West Milford	West Milford	NJ
Lower Columbia C A C	Longview	WA
Lawrence County Public Transportation	Moulton	AL
Indiana County Transit Authority	Indiana	PA
Grant County Handi Bus	Hyannis	NE
Roaring Fork Transit	Aspen	CO
Northwest Tennessee Human Resource Agency	Martin	TN
Claiborne Parish Police Jury Office of Community Service	Homer	LA
Lincoln Heartland Express	Ivanhoe	MN
Baldwin Rural Area Transportation	Robertsdale	AL
Arvin Transportation Service	Arvin	CA
Big Lakes Developmental Center, Inc.	Manhattan	KS
Frederick County Transportation Services	Fredrick	MD
B.R.A.D. Public Transit	Pocahontas	AR
Alma Dial-a-Ride	Alma	MI
Madison Volunteer Rural Transportation Program	Huntsville	AL
M C R C Rehabilitation Center	Macomb	IL
City Of Soledad	Soledad	CA
Ottumwa Transit Authority	Ottumwa	IA
Cabarrus County Planning Office	Concord	NC
City of Kingston - Citibus	Kingston	NY
Cottonwood Area Transit System	Cottonwood	AZ
Habersham County Transit	Clarksville	GA
Pasco County Public Transportation Division	New Port Richey	FL

AGENCY	CITY	STATE
Potomac Valley Transit Authority	Petersburg	WV
Kankakee-Iroquois Regional Planning Commission	Monon	IN
Winnebago Rural Transportation System	Winnebago	NE
City Of Nevada	Nevada	MO
Columbus Transit	Columbus	IN
Greenfield-Montague Transp. Area	Greenfield	MA
The Durango Lift	Durango	CO
City Of Belding Dial-a-Ride	Belding	MI
R.E.A.L.	Alice	TX
Show Bus	Chenoa	IL
Blacksburg Transit	Blacksburg	VA
Altran	Munising	MI
Henry Transit	McDonough	GA
Cape Girardeau County Transit, Inc.	Jackson	MO
City Of Hastings	Hastings	MN
Rides Mass Transit District	Rosiclare	IL
Rural Community Transportation	St. Johnsbury	VT
Lifestream Behavioral Center	Leesburg	FL
Northwest Community College	Powell	WY
Y V E D D I	Boonville	NC
Child Development Services of Fremont County	Lander	WY
Park City Transit	Park City	UT
James City County Transit System	Williamsburg	VA
Northwestern Connecticut Transit District	Torrington	CT
Bossier Office of Community Services	Bossier City	LA
Covington Area Transit System	Andalusia	AL
Lorain County Transit	Lorain	OH
Chase County Senior Services	Imperial	NE
Michigan City Municipal Coach	Michigan City	IN
Community Transportation Services	Claremont	NH
Cullman Area Rural Transportation System	Cullman	AL
Peach County Transit	Fort Valley	GA
Minneola District Hospital	Minneola	KS
Community Action Commission Of Fayette County	Washington Court	OH
Pawnee County	Larned	KS
Manatee County Community Service	Bradenton	FL
Ascension Council on Aging	Donaldsonville	LA
Mid-Florida Community Services, Inc.	Brooksville	FL
Murray Transportation System	Chatsworth	GA
Quincy Transit Lines	Quincy	IL
Acadia Council On Aging	Crowley	LA
Jo Daviess County Transit	Galena	IL
Marion Area Transit	Marion	OH
Key West Port And Transit Authority	Key West	FL
Lundberg Memorial Hospital	Creighton	NE

AGENCY	CITY	STATE
Clay County Council On Aging	Green Cove Spring	FL
Ten Sleep Senior Center Inc.	Ten Sleep	WY
Montgomery/Crawford Dial-a-bus	Walden	NY
Mountain Empire Older Citizens, Inc.	Big Stone Gap	VA
Town Of South Padre Island	South Padre Island	TX
Stanly County Umbrella Service Agency	Albemarle	NC
Teller County Transit	Woodland Park	CO
Chautauqua County Council On Aging	Sedan	KS
St. James Parish	Convent	LA
Palo Pinto Co. Transportation Council	Mineral Wells	TX
Town of Jackson	Jackson	WY
Clay County Council on Aging	Clay	WV
Mitchell Coounty Transportation Authority	Bakersville	NC
Sweetwater County Transit Authority	Rock Springs	WY
Mississippi Valley State University Mass Transit	Itta Bena	MS
Wilson Transit System	Wilson	NC
District Three Governmental Cooperative	Marion	VA
Dickey County Senior Citizens	Ellendale	ND
Liberty County C.O.A.	Chester	MT
Montachusett R.T.A.	Fitchburg	MA
Pearce-Sunsities Transportation Department	Pearce	AZ
Hubbard County Heartland Express	Park Rapids	MN
Elder Care	Dickinson	ND
Ionia Dial-a-ride	Ionia	MI
Jefferson Davis Council On Aging	Jennings	LA
Douglas County Senior Citizen Program	Alexandria	MN
County Of Lebanon Transit Authority	Lebanon	PA
Region XII Council of Governments	Carroll	IA
Bowling Green Taxi	Bowling Green	OH
Pee Dee Regional Transportation Authority	Florence	SC
Ripley County Transit Service	Doniphan	MO
Great River Bend Services	Davenport	IA
Pecos Trails Transit	Roswell	NM
Mid-County Transit Authority	Kittanning	PA
C E F S Economic Opportunity Corp.	Effingham	IL
Carbon County Senior Services	Rawlins	WY
City Of Ogallala Handibus	Ogallala	NE
Venango County Transportation	Franklin	PA
Berkeley County Transp. System	Moncks Corner	SC
Carver County Transportation	Chaska	MN
Northwest New Mexico Council Of Government	Gallup	NM
City Of Shafter Dial-a-Ride	Shafter	CA
Cooperative Alliance for Seacoast Transportation	Durham	NH
Fond Du Lac Area Transit	Fond Du Lac	WI
Tomtran	Ithaca	NY

AGENCY	CITY	STATE
York County Transportation Authority	York	PA
Englewood Senior Center	Englewood	KS
We Care, Inc.	Morton	IL
Northwest Alabama Council Of Local Governments	Muscle Shoals	AL
South Big Horn Senior Citizens Center	Greybull	WY
Arrowhead Transit	Virginia	MN
Assumption Council On Aging	Napoleonville	LA
Batavia Bus Service	Rochester	NY
Pulaski County Transit	Hawkinsville	GA
Southwest Senior Services	Bowman	ND
Mid America Nutrition Program	Ottawa	KS
City Transit Services	Lake Havasu Cit	AZ
City of Madera Dial-A-Ride	Madera	CA
Social Circle Area Transit	Social Circle	GA
Cecil County Dept Of Aging	Elkton	MD
Red Wing Transit Service	Red Wing	MN
The Transit System, Inc.	Glen Rose	TX
N E Iowa Comm Action Corp	Decorah	IA
Cape Cod Regional Transit Authority	Dennis	MA
Yellow Cab Company	Rhineland	WI
City Of Milan Public Transportation	Milan	MI
Fairmont-Marion County Transit Authority	Fairmont	WV
Reno County Department Of Aging	Hutchinson	KS
Merrill Transit System	Merrill	WI
Chattahoochee Transit	Cusseta	GA
Kimball Co. Handi-bus	Kimball	NE
NE Colorado Transportation Authority	Sterling	CO
Manitowoc Transit System	Manitowoc	WI
Tecumseh Handibus Program	Tecumseh	NE
Berkshire R.T.A.	Pittsfield	MA
North Central Planning Commission	Devil's Lake	ND
Harper County Dept On Aging	Anthony	KS
City Of Bath	Bath	ME
Scottsbluff Handi-bus Service	Gering	NE
Paratransit Services	Bremerton	WA
City Of Hutchinson	Hutchinson	MN
Tri-County Community Council	Bonifay	FL
Lee-Russell Council Of Governments	Opelika	AL
Farmville Area Bus	Farmville	VA
Garfield County C.O.A.	Jordan	MT
Central Florida Regional Planning Commission	Bartow	FL
Dufast Transit	Dubois	PA
Jackson Transit Authority	Jackson	MI
St. Johns Co. Council On Aging	St. Augustine	FL
Rolling Plains Management Corp.	Crowell	TX

<b>AGENCY</b>	<b>CITY</b>	<b>STATE</b>
Souris Basin Transportation Board	Minot	ND
Regional Transit Authority	Spencer	IA
City Cab Service	Portage	WI
Appalcart	Boone	NC
Laredo-Webb County Community Action	Laredo	TX
Marshalltown Municipal Transit	Marshalltown	IA
Care-a-van And Saint	Fort Collins	CO
Big Horn Enterprises, Inc. - T A C	Thermopolis	WY
10-15 Transit, Ottumwa Transit	Ottumwa	IA
Oregon Housing And Associated Services	Salem	OR
Muskogee County Transit	Muskogee	OK
Poposia Senior Center	Lander	WY
Warren County Community Service	Lebanon	OH
Thumb Area Transit	Bad Axe	MI
Lion's Club of Wakeeney	Wakeeney	KS
Washington Transit System	Washington	IN

Table C-2

## DISTRIBUTION OF SYSTEMS IN THE DATABASE

State	Frequency	Percent
Alabama	7	3.6%
Arkansas	1	0.5%
Arizona	3	1.5%
California	6	3.1%
Colorado	4	2.0%
Connecticut	1	0.5%
Florida	10	5.1%
Georgia	8	4.1%
Iowa	7	3.6%
Indiana	4	2.0%
Illinois	6	3.1%
Idaho	1	0.5%
Kansas	12	6.1%
Louisiana	7	3.6%
Massachusetts	4	2.0%
Maryland	2	1.0%
Maine	1	0.5%
Michigan	8	4.1%
Minnesota	8	4.1%
Missouri	5	2.6%
Mississippi	3	1.5%
Montana	3	1.5%
North Carolina	8	4.1%
North Dakota	5	2.6%
Nebraska	8	4.1%
New Hampshire	2	1.0%
New Jersey	1	0.5%
New Mexico	3	1.5%
New York	5	2.6%
Ohio	6	3.1%
Oklahoma	1	0.5%
Oregon	2	1.0%
Pennsylvania	7	3.6%
South Carolina	2	1.0%
Tennessee	1	0.5%
Texas	6	3.1%
Utah	1	0.5%
Virginia	5	2.6%
Vermont	1	0.5%
Washington	2	1.0%
Wisconsin	5	2.6%
West Virginia	4	2.0%
Wyoming	10	5.1%
<b>Total</b>	<b>196</b>	<b>100.0%</b>

Table C-3: RURAL SYSTEM SELECTIONS BY STATE

STATE	TOTAL SYSTEMS	DIRECT PROPORTION	RANDOM SELECTIONS	FINAL SELECTIONS
ALASKA	3	1	0	0
ALABAMA	26	7	9	9
ARKANSAS	10	3	1	1
ARIZONA	14	4	4	4
CALIFORNIA	70	19	14	14
COLORADO	16	4	7	7
CONNECTICUT	5	1	1	1
DELAWARE	1	0	0	0
FLORIDA	41	11	14	14
GEORGIA	59	16	14	14
HAWAII	3	1	0	0
IOWA	24	7	10	10
IDAHO	8	2	2	2
ILLINOIS	32	9	9	9
INDIANA	19	5	6	6
KANSAS	93	26	20	19
KENTUCKY	20	6	3	3
LOUISIANA	38	10	12	12
MASSACHUSETTS	12	3	5	5
MARYLAND	20	6	5	5
MAINE	14	4	3	3
MICHIGAN	60	17	18	18
MINNESOTA	53	15	13	15
MISSOURI	30	8	7	7
MISSISSIPPI	14	4	4	4
MONTANA	10	3	3	3
NORTH CAROLINA	28	8	9	9
NORTH DAKOTA	38	10	10	10
NEBRASKA	55	15	13	13
NEW HAMPSHIRE	5	1	3	3
NEW JERSEY	16	4	3	3
NEW MEXICO	12	3	3	3
NEVADA	3	1	0	0
NEW YORK	53	15	17	17
OHIO	33	9	10	10
OKLAHOMA	13	4	3	3
OREGON	17	5	4	4
PENNSYLVANIA	21	6	9	13
RHODE ISLAND	1	0	1	0
SOUTH CAROLINA	12	3	3	4
SOUTH DAKOTA	12	3	2	2
TENNESSEE	10	3	1	1
TEXAS	39	11	9	10
UTAH	4	1	2	1
VIRGINIA	12	3	8	8
VERMONT	7	2	3	3
WASHINGTON	19	5	5	5
WISCONSIN	36	10	8	8
WEST VIRGINIA	12	3	6	6
WYOMING	43	12	14	14
TOTAL	1196	329	330	335