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**MICHIGAN  
TRANSPORTATION SERVICES  
FOR**

**SENIORS  
AND  
HANDICAPPERS**

**MICHIGAN DEPARTMENT OF  
TRANSPORTATION LIBRARY  
LANSING 48909**

**Transportation: noun, a means to:  
employment, training, education, medical services,  
recreation, religious services, shopping and  
commercial opportunities, government services,  
cultural opportunities, etc.**



**BUREAU OF URBAN AND PUBLIC TRANSPORTATION**

MICHIGAN DEPARTMENT  
OF  
STATE HIGHWAYS AND TRANSPORTATION

MICHIGAN TRANSPORTATION SERVICES  
FOR  
SENIORS AND HANDICAPPERS

STATUS REPORT

PART I

By  
Bureau of Urban and Public Transportation  
Bus Transport Division  
Bus Development Section

March, 1978

MICHIGAN DEPARTMENT OF  
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LANSING 48909

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## I. Introduction

Since 1974, the State of Michigan has begun to plan, develop, and operationalize transportation services for seniors and handicappers.

Today there are over 50 projects throughout the State providing such services and more are planned in the future. These projects are now a reality for the following two reasons:

1. Individual seniors and handicappers, their advocates, and the State and local agencies and organizations that serve them have increased their efforts to establish such services, and
2. Those in the legislative and executive branches of State government have recognized the need and obligation to provide equitable and accessible transportation services to those persons often most in need of such services; namely, seniors and handicappers.

People are realizing that age or characteristics labeled handicaps are only part of what makes up a person, and that such a person is as much a part of the community as any so-called "average" or "normal" member of the population. With this in mind, it is easy to appreciate the need for equitable, accessible transit services for everyone. This realization has led the Urban Mass Transportation Administration to mandate total vehicle accessibility effective September 30, 1979.

While Michigan has made considerable progress, we recognize the need to do much more. Additional needs that are being addressed include:

- Establishing services for seniors and handicappers in those few counties that do not yet have any form of public transit.
- Adding additional equipment to existing projects.
- Converting existing projects into total public transportation programs that will meet everyone's needs.
- Coordinating the multitude of elderly, handicap and low income transportation projects in given areas to maximize effectiveness.
- Integrating these projects with accessible, fixed-route systems, particularly in metro areas.

It should be noted that this report (Part I) covers only non-urban outstate elderly and handicap operations. Part II covering urban operations will be completed at a later date.

## II. Background

Act 327 of the Public Acts of 1972 provided for a two cent increase in the State gas tax, from which one half cent was to be used for public transportation. This landmark legislation spurred the growth of public transportation including the development of outstate rural and small town demand-response systems. As this program was limited to starting eight systems the first year, it was apparent that many areas of the state were totally without even minimal transportation service. A special appropriation was thus enacted by the Legislature to provide small buses and some operating funds to implement 14 projects providing transportation service specifically designed for the elderly and transportation handicapped. These projects typically included one bus for a county and \$4,000 in operating funds for one year. The bus was generally operated by the County Council on Aging under the auspices of county government.

The State has subsequently incorporated the program into its yearly General Transportation Fund program providing buses and \$10,000 per bus in operating funds. The program emphasis has continued to be seniors and handicappers.

The entire cost of the bus is included in the grant, along with the cost of mobile radio, lift, snow tires, first aid kit, fire extinguisher, and farebox. Operating costs include the following items:

- a) Management
- b) Insurance
- c) Marketing

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- d) Office Supplies
- e) Rent and Utilities
- f) Telephone
- g) Dispatch Labor
- h) Driver Labor
- i) Vehicle Operations and Maintenance
- j) Radio Maintenance
- k) Training and Travel

In addition to the State's "elderly and handicap" transit program, funds have been received from the federal government to implement additional projects providing services specifically for seniors and handicappers. The Federal 16(b)(2) program provides capital equipment only, with 80 percent coming from Urban Mass Transportation Administration (UMTA) and 20 percent from the State. The operating funds must be raised locally by the operating agency. This program requires that the State contract directly with private, nonprofit agencies, whereas the State elderly and handicap program must be sponsored by a local unit of government. It is our general belief that if county and city governments are directly involved in these projects, they will feel some obligation to provide moral and, hopefully, financial support to better insure the longevity of these projects. Figure I indicates the location of all Elderly and Handicap and 16(b)(2) projects implemented since the inception of the program.

Ongoing funding especially for the 16(b)(2) projects is an acute problem. The State has now taken the position that some limited State operating assistance should be provided beyond the first year to both state elderly and handicap





projects and Federal 16(b)(2) projects. This policy is now in effect and provides up to a maximum of \$5,000 in State funds for the second year to match local funds generated to operate the service. Eligible local funds are farebox revenues, human service contracts, CETA, revenue sharing, county general funds, etc. If the local agency can generate only \$3,000, then the State will provide only \$3,000 in match funds.

Third year State assistance will be contingent on progress toward expansion of the service to provide full public transportation services to all citizens of the service area. If there is no progress, State assistance will terminate at the end of the second year. First year 100 percent State funds are available to expand E&H projects to full public transportation services. Ongoing State operating funds are guaranteed every year for all public transportation systems. It is our hope, therefore, to eventually convert all of these "special" services into public transportation services to build broad local support for the service, since it serves everyone and not just special groups, as well as insure ongoing State operating assistance.

The following discussion provides a system-by-system analysis of operational characteristics, ridership, and cost information.

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### III. General and System Characteristics

Between the State Elderly and Handicap and Federal 16(b)(2) programs, a wide variety of projects have been developed serving many different local needs and programs as indicated in Tables 1 and 2. Percentage of senior citizens and handicappers shown in Table 1 affords insight into the potential need for elderly and handicap transit services.

Table 2 displays the characteristics of each operating system. All provide fairly regular service Monday through Friday, but many give limited service on weekends or none at all. Most provide service either on a demand-response basis or on 24-hour notice or both.

All State elderly and handicap transit systems are under the auspices of a public body, usually a county or transportation authority, but are usually run by a private, nonprofit agency, as noted on the line titled "Operator" in Table 2. The 16(b)(2) projects are operated directly by a private, nonprofit agency.

Noteworthy are the "Special Services and Features" shown on the bottom of Table 2. These are developed by the individual system on the basis of its special needs.

Table 1. GENERAL POPULATION CHARACTERISTICS - 16(b)(2) Systems.

	Alpena County	Bay County	Cass County	Cheboygan County	Dickinson County	Emmet County	Gogebic- Ontonagon Counties	Houghton- Baraga- Keweenaw Cos.
Total Area Population	30,708	117,339	43,312	16,573	27,552	18,331	31,224	44,705
Service Area (Sq. Miles)	590	447	514	798	763	225	2,477	2,500
Population per Sq. Mile	52	263	84	21	36	81	13	18
Median Family Income	8,765	10,408	9,781	7,660	8,316	8,610	7,636	6,525
% Households with No Car	6.2	9.7	7.1	4.4	11.9	6.2	12.7	12.5
% Senior Citizens	8.5	8.1	9.8	11.8	15.8	12.1	14.1	13.6
% Handicappers	7.7	7.3	6.2	8.3	7.4	8.5	10.8	8.5
% Families Below Poverty Level	10.3	6.6	8.3	13.9	10.2	10.3	11.5	19.6

	Ingham- Clinton- Eaton Cos.	Iron County	Jackson- Hillsdale- Lenawee Cos.	Kalamazoo Co.		Kent County	Mason County	Muskegon County
				Comstock	Vicksburg			
Total Area Population	378,423	13,813	262,472	10,465	2,139	411,044	22,612	157,426
Service Area (Sq. Miles)	1,702	1,187	2,081	36	180	864	500	504
Population per Sq. Mile	222	12	126	291	12	476	45	312
Median Family Income	11,211	7,443	10,245	a) 11,037	a) 11,037	10,692	8,476	9,757
% Households with No Car	8.4	12.1	8.2	13.0	4.7	11.0	7.0	10.3
% Senior Citizens	6.9	16.6	9.5	33.4	79.5	9.3	13.1	8.5
% Handicappers	6.9	10.5	7.1	0.7	4.7	6.9	5.9	9.7
% Families Below Poverty Level	6.1	10.6	7.0	a) 5.8	a) 5.8	6.6	9.4	7.8

a) For Kalamazoo County

Table 1. GENERAL POPULATION CHARACTERISTICS - 16(b)(2) Systems.

	Presque Isle County	Saginaw County	St. Joseph County	School- craft County	Shiawassee County	Van Buren County	Washtenaw County	Wexford County
Total Area Population	12,836	219,755	47,392	8,226	63,627	56,173	5,900	19,717
Service Area (Sq. Miles)	678	814	506	1,229	480	748	54	563
Population per Sq. Mile	19	270	94	7	133	75	109	35
Median Family Income	7,889	10,878	9,686	7,692	10,540	8,735	12,294	8,024
% Households with No Car	9.1	10.3	8.2	7.3	8.6	8.5	8.3	10.2
% Senior Citizens	11.6	7.7	11.0	13.7	8.0	11.6	5.8	12.1
% Handicappers	8.1	7.3	8.6	6.9	7.2	7.6	5.4	7.0
% Families Below Poverty Level	15.9	7.7	8.0	13.5	7.0	11.2	5.1	12.4

Table 1. GENERAL POPULATION CHARACTERISTICS - State E&amp;H Systems.

	Alger County	Allegan County	Arenac County	Barry County	Benzie County	Berrien County	Branch County	Cass County	Charlevoix County
Total Area Population	8,568	66,575	11,149	38,166	8,593	94,725	37,983	43,312	16,541
Service Area (Sq. Miles)	913	880	367	571	342	386	517	505	400
Population per Sq. Mile	9	76	30	69	25	245	75	88	41
Median Family Income	8,014	9,309	8,320	9,704	7,760	10,056	9,325	9,781	8,535
% Households with No Car	8.2	6.7	7.1	6.2	3.6	9.2	9.6	7.1	5.2
% Senior Citizens	11.1	9.4	12.5	10.1	14.3	9.2	10.3	9.8	11.4
% Handicappers	9.5	7.3	8.4	9.5	10.3	7.3	6.7	6.2	10.2
% Families Below Poverty Level	11.1	9.5	12.2	8.7	11.2	9.5	9.0	8.3	10.7

	Clinton County	Delta Menominee Counties	Houghton County	Huron County	Iosco County	Ishpeming City	Jackson County	Kalkaska County
Total Area Population	48,492	60,511	34,652	34,083	24,905	15,465	143,274	5,372
Service Area (Sq. Miles)	572	2,246	1,047	822	563	92	717	578
Population per Sq. Mile	85	54	33	41	46	168	205	9
Median Family Income	11,014	D) 8,779 M) 7,703	6,300	7,785	7,165	8,986	10,726	6,686
% Households with No Car	4.7	9.3	14.1	6.1	3.7	17.0	8.8	7.0
% Senior Citizens	6.9	12.2	13.7	12.8	9.7	13.6	9.2	14.6
% Handicappers	5.9	7.4	8.5	8.8	7.1		7.1	9.5
% Families Below Poverty Level	5.2	D) 10.6 M) 12.9	21.0	15.0	13.3	7.3	6.6	18.5

Table 1. GENERAL POPULATION CHARACTERISTICS - State E&amp;H Systems.

	Lapeer County	Leelanau County	Lenawee County	Mecosta County	Missaukee County	Montcalm County	Montmorency County	Ogemaw County
Total Area Population	52,361	10,872	61,569	27,992	7,126	39,660	5,247	11,903
Service Area (Sq. Miles)	659	345	760	576	576	720	567	576
Population per Sq. Mile	79	32	81	49	12	56	9	21
Median Family Income	10,388	8,278	10,027	7,902	6,820	8,526	5,851	6,545
% Households with No Car	6.1	3.8	7.9	6.4	4.7	6.9	3.0	5.7
% Senior Citizens	7.7	12.2	9.2	8.7	12.9	11.2	15.8	15.0
% Handicappers	8.0	6.1	7.3	8.1	8.7	9.2	10.4	11.3
% Families Below Poverty Level	8.3	11.3	6.7	11.8	17.6	10.1	18.4	18.8

	Ontonagon County	Osceola County	Oscoda County	Otsego County	Saginaw County	Schoolcraft County
Total Area Population	10,548	14,838	4,726	10,422	219,743	8,226
Service Area (Sq. Miles)	1,331	576	576	540	800	1,229
Population per Sq. Mile	8	26	8	19	275	7
Median Family Income	8,421	7,961	6,411	9,413	10,878	7,692
% Households with No Car	9.0	6.5	3.4	5.3	10.3	7.3
% Senior Citizens	9.8	12.1	17.0	9.5	7.7	13.7
% Handicappers	10.9	7.8	13.3	6.3	7.4	7.0
% Families Below Poverty Level	8.2	13.3	18.8	9.0	7.7	13.5

Table 2. SYSTEM CHARACTERISTICS - 16(b)(2) Systems.

	Alpena County	Bay County	Cass County	Cheboygan County	Emmet County	Gogebic- Ontonagon Counties
Start of Service	8-20-76	7-11-76	6-21-76	8-9-76	8-2-76	7-6-76
Number of Buses						
Non-Lift	1	1	1	1	1	2
Lift	1	1	0	1	1	1
Fare Structure						
Children	.50-2.00			.50-2.00		NA
Adults	.50-2.00			.50-2.00		NA
Senior Citizens & Handicappers	.25-1.00	Donations	Funded	.25-1.00	Donations	.25-.75
System Hours						
Mon. - Fri.	9:00-5:00	7:00-4:00	8:00-4:00	10:00-6:00	9:00-4:30	8:00-5:00
Sat.	10:00-4:00	None	None	9:00-3:00	None	None
Sun.	10:00-4:00	None	None	9:00-3:00	None	None
Number of Employees						
Full time	1	1	0	1	1	1
Part time	1	3	4	1	1	3
Operator	Alpena Area S.C. Council	Bay Co.Reh. Industries Inc.	Westgate Center, Inc.	Cheboygan Co. Coun.on Aging	Friendship Center of Petoskey	Gog.-Ont. Com. Action Agency
First Year Costs						
Capital, \$	24,000	35,400	11,000	24,000	26,400	41,000
Operations, \$	28,266	29,057	4,029	32,608	23,938	23,468
Special Services & Features	By reservation.	Available to agencies on request. Veh. available to Metro T.A.	Door- to-Door.		24-hr.notice. Door-to-Door. Emergency ser. available.	Special trips on weekends.

Table 2. SYSTEM CHARACTERISTICS - 16(b)(2) Systems.

	Houghton- Baraga-Kew. Counties	Iron County	Jackson- Hillsdale- Lenawee Cos.	Kalamazoo County	
				Comstock	Vicksburg
Start of Service	9-1-76	11-8-76	11-8-76	6-28-76	6-14-76
Number of Buses					
Non-Lift	1	1	2	1	1
Lift	1	1	6	1	0
Fare Structure					
Children			.50		
Adults			.50		
Senior Citizens & Handicappers	Funded	Donations	.25	Funded	Donations
System Hours					
Mon. - Fri.	7:30-5:00	8:00-4:00	9:00-4:00	8:30-5:00	9:00-5:00
Sat.	None	None	By reservation	As needed	By appt.
Sun.	None	1 scheduled trip	By reservation	As needed	By appt.
Number of Employees					
Full time	0	0	6	1	1
Part time	3	3	8	2	0
Operator	Copper Country Workshop Inc.	Iron Co. Coun.on Aging	Region II C.A.A.	Comstock Comm. Center	Vicksburg Comm.Center
First Year Costs					
Capital, \$	34,400	26,400	38,000	27,600	11,000
Operations, \$	18,211	10,363	39,615	24,861	13,420
Special Services & Features	Scheduled & door-to-door.	Demand-response & route service.	24-hr.notice. Also rental & contract sched- uling 6:30am-9:30pm.	24-hr.notice. Emergency ser. available.	48-hr.notice.



Table 2. SYSTEM CHARACTERISTICS - 16(b)(2) Systems.

	Kent County	Mason County	Mecosta County	Muskegon County	Osceola County	Presque Isle County
Start of Service	7-1-76	6-14-76	Not in operation.	3-8-77	Not in operation.	7-29-76
Number of Buses						
Non-Lift	1	2		b) 3		1
Lift	1	0		1		1
Fare Structure						
Children	Some			1.00		.50-2.00
Adults	funding			per		.50-2.00
Senior Citizens & Handicappers	.20 per mi.	Funded		mile		.25-1.00
System Hours						
Mon. - Fri.	24 hours	7:00-5:00		8:00-5:00		9:00-9:00
Sat.	24 hours	As needed		a)		7:00am-10:00pm
Sun.	24 hours	As needed		a)		7:00am-10:00pm
Number of Employees						
Full time	2	Each agency using		1		1
Part time	As needed	bus staffs driver.		2		1
Operator	Pine Rest Chris. Rehab.Serv.	Mason Co.Youth Fac.,Inc.		W.Mich. Center for Handicapped, Inc.		P.I.Co. Council on Aging
First Year Costs						
Capital, \$	26,400	22,000		22,000		24,000
Operations, \$	58,155	18,910		21,229		31,929
Special Services & Features	24-hr.notice.	Individual door-to-door & agency reserv.		Call for reserv. a) Nursing homes & special groups. b) non-lifts owned by agency.		24-hr.notice.

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Table 2. SYSTEM CHARACTERISTICS - 16(b)(2) Systems.

	Saginaw County	St. Joseph County	Schoolcraft County	Shiawassee County	Van Buren County
Start of Service	11-15-76	12-16-76	12-15-76	6-24-76	7-1-76
Number of Buses					
Non-Lift	0	2	2	2	1
Lift	1	1	3	1	1
Fare Structure					
Children	Funded	Donations	NA	Funded	NA
Adults			NA		NA
Senior Citizens & Handicappers			.25-.75		.50
System Hours					
Mon. - Fri.	9:00-4:30	6:00-5:00	a) 8:00-5:00	8:00-4:30	9:00-4:00
Sat.	9:00-4:30	By appt.	None	By reserv.	By appt.
Sun.	9:00-4:30	By appt.	11:00-2:00	By reserv.	By appt.
Number of Employees					
Full time	2 (available)	2	0	5	2
Part time	1	1	10	3	0
Operator	Lutheran Home of Frankenmuth	Arch Wkshp., Inc.	Dick.-Iron Comm. Action Ag.,UP Sr.Cit.Center	ACKCO Ser. Inc. & Shiaw. Co.C.on Aging	Van Buren Co. Trans.Task Force
First Year Costs					
Capital, \$	13,000	39,000	79,500	35,000	26,400
Operations, \$	6,437	25,650	49,181	26,357	31,500
Special Services & Features	Reserv.bus-138 residents of Home.	24-hr.notice.	a) 8:00-4:00 in Iron Co. 24- hr.notice. Both scheduled trips & demand- response.	2 types of oper.: 1 door-to-door, 1 scheduled route.	Demand-response on wkdays. Reserv. on wkends, 24-hr. notice.

Table 2. SYSTEM CHARACTERISTICS - 16(b)(2) Systems.

	Washtenaw County	Wexford County
Start of Service	10-11-76	7-19-76
Number of Buses		
Non-Lift	0	1
Lift	1	1
Fare Structure		
Children	NA	1.00
Adults	NA	1.00
Senior Citizens & Handicappers	.25	.50
System Hours		
Mon. - Fri.	9:00-4:00	9:00-5:00
Sat.	None	None
Sun.	8:30am-12:00pm	None
Number of Employees		
Full time	1	3
Part time	1	0
Operator	Chelsea Area Trans.System	Wexford Co. Council on Aging
First Year Costs		
Capital, \$	14,500	26,400
Operations, \$	10,675	19,530
Special Services & Features	24-hr.notice. Door-to-door.	Demand-response & scheduled runs.

Table 2. SYSTEM CHARACTERISTICS - State E&amp;H Systems.

	Alger County	Allegan County	Arenac County	Barry County	Benzie County
State of Service	6-14-76	5-24-76	10-12-76	6-4-75	10-7-76
Number of Buses					
Non-Lift	1	1	1	1 + own car	0
Lift	0	0	1	0	1
Fare Structure					
Children	Donations	Donations	.50	-	Donations
Adults			.50	-	
Seniors Citizens & Handicappers			.25	Donations	
System Hours					
Mon. - Fri.	8:30-5:00	8:30-4:30	8:00-5:00	8:00-5:00	8:00-5:00
Sat.	None	None	None	None	None
Sun.	None	None	None	None	None
Number of Employees					
Full time	2	1	0	4	1
Part time	1	0	2	1	0 + 2 Volunteers
Operator	Alger-Marquette C.A. Board	Allegan Co. Resource Dev. Comm., Inc.	Arenac Co. Bd. of Comm.	Barry Co. Comm. on Aging	Benzie Co. Comm. on Aging
First Year Costs					
Capital, \$	12,789.62	10,560.62	23,350.34	4,000.00	12,789.62
Operations, \$	16,117.00	10,000.00	20,000.00	4,000.00	11,157.00
Special Services & Features	24-hr. notice. Scheduled routes.	24-hr. notice.	Demand-response & scheduled route service.	Escort ser. from door-to-veh., take groc. to home, "friendly arm" service.	24-hr. notice. Sched. route & demand-response.

Table 2. SYSTEM CHARACTERISTICS - State E&amp;H Systems.

	Berrien County	Branch County	Cass County	Charlevoix County	Delta/ Menominee Counties
Start of Service	9-1-75	10-1-75	10-1-75	6-1-76	7-1-75
Number of Buses					
Non-Lift	1	1	1	0	c) 12
Lift	1	0	0	1	0
Fare Structure					
Children	.25-.50			.60-2.50	
Adults	.50-1.00	None	None	.60-2.50	Donations
Senior Citizens & Handicappers	.25-.50			.30-1.25 Round trip	Round trip
System Hours					
Mon. - Fri.	6:45-5:00	9:00-5:00	8:30-4:30	8:30-5:00	a) 8:00-5:00
Sat.	None	None	None	a)	b)
Sun.	None	None	None	a)	b)
Number of Employees					
Full time	2	1	0	b) 2	12
Part time	4 + 8 volunteers	0	1	1 (Sun.)	20
Operator	Berrien Co. Coun.on Aging	Branch Co. Ser. for the Aging	Cass Co. Coun.on Aging	Char. Co. Comm.on Aging	Community Action Agency
First Year Costs					
Capital, \$	17,000	8,969.12	11,000.00	10,560.62	-0-
Operations, \$	37,000	2,697.19	4,029.21	11,100.00	22,322.11
Special Services & Features	3 sched.-swapping ser.with pri. system. Door-to- door on 24-hr. notice.		Door-to-door unlimited geog. area.	a) By group adv. req.even.& wkend.D/R &/or adv. reserv. b) 1 dispatcher works for 2 systems.	a) Some areas 9-4 b) Emer.ser.24 hrs. always. Sun.eve. gath. c) 4 fr.state grant & 8 leased veh. Shop & door-to door.

Table 2. SYSTEM CHARACTERISTICS - State E&amp;H Systems.

	Houghton County	Isoco County	Ishpeming City	Jackson County	Kalkaska County
Start of Service	6-1-75	5-7-75	3-6-75	3-17-75	10-15-76
Number of Buses					
Non-Lift	1	2	2	0	0
Lift	1	0	0	1	1
Fare Structure					
Children	None	.20-1.10	Donations	NA	.50
Adults		a).25-1.25		NA	.50
Senior Citizens & Handicappers		.20-1.10		.50	Donations
System Hours					
Mon. - Fri.	8:30-4:30	6:00-6:00	a)	a) 8:00-10:30	8:00-5:00
Sat.	None	None	As needed	b) 9:00-6:00	By appt.
Sun.	None	None	As needed	b) 9:00-6:00	By appt.
Number of Employees					
Full time	2	3	1	1	2
Part time	0	6 volun.	3 + 3 volun.	1 + 6 volun.	0
Operator	Bar.-Houg.-Kew. Com.Action	Isoco Public Transit	Ishpeming Sr.Cit.Center	Jackson Co. Coun.on Aging	Kalkaska Co. Comm.on Aging
First Year Costs					
Capital, \$	24,144.00	20,000.00	24,000.00	10,000.00	12,789.62
Operations, \$	24,750.00	b) 29,129.85	b) 15,873.47	16,240.00	13,755.00
Special Services & Features	Recreational rides for shut-in patients.	b) \$14,640 thru CETA. a) round trip reductions.	a) M&Th:8:30-11pm T&W:8:30-4:30, F:8:30-6:00. b) Low-cost oper. due to volun. drivers.	a) Fri.8:00-5:00 b) By demand.	Scheduled route & demand-response.

Table 2. SYSTEM CHARACTERISTICS - State E&amp;H Systems.

	Lapeer County	Lenawee County	Missaukee County	Montcalm County	Montmorency County
Start of Service	1-11-77	5-14-75	6-24-76	10-1-75	6-21-76
Number of Buses					
Non-Lift	0	a) 4	1	a) 1	1
Lift	1	0	0	0	0
Fare Structure					
Children	Donations	Donations	1.00-2.00	None	1.00
Adults			.50-1.00		1.00
Senior Citizens & Handicappers					.50
System Hours					
Mon. - Fri.	8:00-5:00	8:30-4:30	8:00-5:00	By demand	8:30-6:30
Sat.	8:00-5:00		a)	By demand	None
Sun.	8:00-5:00	By arrangement	a)	By demand	None
Number of Employees					
Full time	1	0	1 + 2 voluns.	0	1
Part time	0	2	0	1 + 2 voluns.	1
Operator	Lapeer Co. Comm.on Aging	Lenawee Co. Coun.on Aging	Missaukee Co. Coun.on Aging	Montcalm Co. Comm.on Aging	Montmorency Co. Comm.on Aging
First Year Costs					
Capital, \$	12,789.62	a)	10,560.62	6,000.00	10,562.62
Operations, \$	10,000.00	3,483	11,285.00	5,735.00	13,900.00
Special Services & Features	24-hr.notice.	a) \$7,200 for 3 veh.leased from Adrian.	a) Eve.&wkends on contract basis. 24-hr. notice.	On demand 24 hrs.daily. a) Formerly had add.vehs. on lease,but no funds now.	24-hr.notice

Table 2. SYSTEM CHARACTERISTICS - State E&amp;H Systems.

	Ogemaw County	Ontonagon County	Otsego County	Saginaw County	Schoolcraft County
Start of Service	6-8-76	7-1-76	11-16-76	7-21-75	4-9-75
Number of Buses					
Non-Lift	1	1	0	a) 4	1
Lift	0	0	1	0	0
Fare Structure					
Children					-
Adults	.25-3.00	.25-.60	1.00		-
Senior Citizens & Handicappers	.15-1.50	.25-.60	.50	Donations	.25
System Hours					
Mon. - Fri.	6:00-6:00	8:00-5:00	9:00-4:00	8:30-4:30	8:30-4:30
Sat.	None	a)	a)9:00-4:00	None	None
Sun.	None	a)	a)9:00-4:00	None	None
Number of Employees					
Full time	1	1	1	4	2
Part time	2	0	0	2	3
Operator	Trio Council on Aging	Gog-Onton. Comm.Action Agency	Otsego Co. Coun.on Aging	Saginaw Co. Coun.on Aging	Schoolcraft Co. Comm.on Aging
First Year Costs					
Capital, \$	10,560.62	10,560.62	12,789.62	5,417.70	45,000.00
Operations, \$	14,166.00	13,500.00	10,500.00	8,214.89	21,311.06
Special Services & Features	24-hr.notice & mo. subs.	a) Even.&wkend. on contract basis. D/R & adv. reserv.	Demand-response & contract basis. a) Optional	a) 2 from State grant, 1 donated, 1 leased.	Provide escort & assis.to Sen.Cit. as needed.



#### IV. Implementation Process

The initial application for transit service is submitted by the local unit of government or, in the case of 16(b)(2) requests, by the private nonprofit agency. After evaluation of the application, the Bureau of Urban and Public Transportation will:

1. Request funds for the project from Public Transportation Council and State Highway Commission.
2. Obtain Federal approval of 16(b)(2) projects.
3. Develop specifications for needed equipment.
4. Process purchase order for equipment.
5. Initiate contract process.
6. Check in equipment.
7. Process equipment payment.
8. Provide a one-day training session in Lansing for drivers and administrators.
9. Provide start-up field assistance.
10. Process quarterly operating assistance payments.
11. Collect ridership and financial data of first year operation.
12. Monitor and evaluate the project.

This process is graphically described in Figure 2.

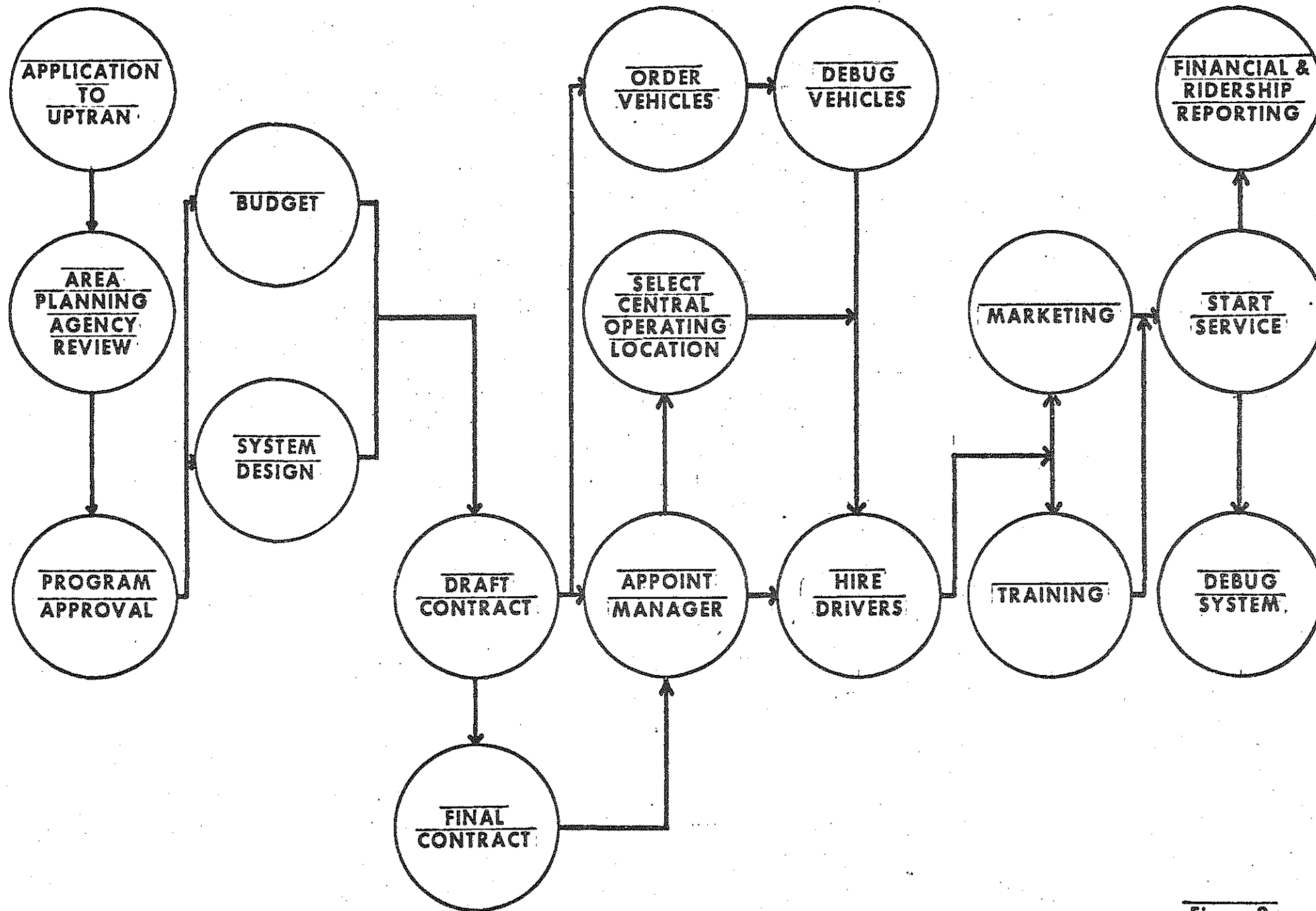


Figure 2

## V. Ridership Data

Tables 3 and 4 display ridership data for all systems for quarters ending March, 1976 and March, 1977, respectively. Total ridership averaged 76,000 per quarter.

The average monthly ridership per bus was about 365, but varied from as little as 12 in Saginaw County to as much as 1,268 in Allegan County. Approximately 85 percent, or about 310 riders per bus, were either seniors or handicappers.

Productivity (passengers per vehicle hour) varied from 0.3 for Otsego County to 7.9 for Allegan County. Lenawee and Muskegon Counties were close seconds, each with 7.8. Average productivity was 3.2.

Table 5 displays ridership statistics for the 16(b)(2) systems for January - March, 1977. Handicappers made up 30 percent of their ridership. Trip purpose data collected for these projects yielded the following breakdown:

<u>Trip Purpose</u>	<u>% of Rides</u>
Work	19.1
Shop/Personal	17.5
Rec./Social	10.6
Medical	6.8
Nutrition	30.1
Education	19.9
Other	25.5

Table 3. RIDERSHIP DATA - State E&amp;H Systems

Jan. - Mar. 1976	Barry County	Berrien County	Branch County	Cass County	Delta/ Menominee Counties	Houghton County	Iosco County	Ishpeming City
Total Ridership for Period	665	2,982	1,970	422	5,561	2,177	4,606	5,076
Average Monthly Ridership	222	994	657	141	1,854	726	1,535	1,692
Average Weekday Ridership	11	47	31	9	88	40	75	79
% Senior Citizens	96	66	21	100	94	100	25	100
% Handicappers (Under 65)	6	33	40	0	0.3	18	NA	NA
Passengers per Vehicle Hour	2.2	3.0	5.6	1.5	3.6	3.5	3.5	9.3
Passengers per 1,000 Pop. per month	5.8	10.5	17.3	3.3	30.6	21.0	61.6	109.4
Purpose of Trip			NA			NA	NA	NA
Work	0	1,010		0	74			
Shop	37	148		197	943			
Recreation/Social	51	154		94	1,090			
Personal Business	128	91		26	1,141			
Medical	102	447		92	836			
Other	21	701		13	144			
	325 (Home)							

Table 3. RIDERSHIP DATA - State E&amp;H Systems.

Page 2 of 2.

Jan. - Mar. 1976	Jackson County	Lenawee County	Montcalm County	Saginaw County	Schoolcraft County	Total
Total Ridership for Period	2,574	778	828	3,488	2,064	33,191
Average Monthly Ridership	858	259	276	1,163	688	
Average Weekday Ridership	40	13	20	62	34	
% Senior Citizens	66	100	100	100	100	
% Handicappers (Under 65)	55.3	5	NA	NA	48	
Passengers per Vehicle Hour	4.6	3.4	5.3	5.0	4.5	
Passengers per 1,000 Pop. per month	6.0	3.2	7.0	5.3	83.6	
Purpose of Trip:						
Work	NA	0	0	0	1	
Shop		16	320	180	504	
Recreation/Social		692	270	822	794	
Personal Business		17	0	0	439	
Medical		43	0	219	324	
Other		8	238	91	2	
				2,172 (Nutrition)		

Table 4. RIDERSHIP DATA - State Elderly and Handicap Systems

January - March 1977	Alger County	Allegan County	Arenac County	Barry County	Benzie County	Berrien County	Branch County	Cass County	Charlevoix County	Delta/ Menominee Counties
Total Ridership for Period	926	3,158	1,659	b) 508	348	2,933	989	NA	719	5,697
Average Monthly Ridership	309	1,053	553	254	116	978	330	NA	240	1,899
Average Weekday Ridership	15	52	26	14	6	48	19	NA	11	89
% Senior Citizens	98	100	28	97	89	66	100	NA	84	99
% Handicappers (Under 65)	2	0	67	3	11	31	0	NA	16	5
Passengers per Vehicle Hour	2.4	7.9	5.1	2.1	0.8	2.5	2.7	NA	1.4	3.6
Passengers per 1,000 Pop. per month	36.1	15.8	49.6	6.7	40.5	10.3	8.7	NA	14.5	31.4
Purpose of Trip:							NA	NA		
Work	25	28	1,021	0	0	882			117	96
Shop	366	1,440	9	54	156	597			152	1,049
Recreation/Social	78	1,382	106	58	64	42			395	1,349
Personal Business	17	174	0	59	113	103			9	815
Medical	99	96	3	69	196	375			46	852
Other	341	38	225	26	0	934			0	238
			(meals)							

b) Two months only

Table 4. RIDERSHIP DATA - State Elderly and Handicap Systems.

January - March 1977	Houghton County	Huron County	Iosco County	Ishpeming City	Jackson County	Kalkaska County	Lapeer County	Leelanau County	Lenawee County	Mecosta County
Total Ridership for Period	b) 1,257	a) 77	b) 3,036	b) 3,621	NA	1,268	314	a) 76	1,096	Not in Operation
Average Monthly Ridership	629	77	1,518	1,811	NA	423	105	76	365	
Average Weekday Ridership	37	5	70	79	NA	20	6	11	18	
% Senior Citizens	100	0	26	NA	NA	65	79	100	100	
% Handicappers (Under 65)	13	100	31	NA	NA	NA	21	0	15	
Passengers per Vehicle Hour	3.7	0.9	3.2	7.0	NA	2.5	1.6	1.9	7.8	
Passengers per 1,000 Pop. per month	18.2	2.3	61.0	117.1	NA	78.7	2.0	7.0	5.9	
Purpose of Trip:	NA	NA	NA	NA	NA	NA	NA			
Work								0	46	
Shop								16	27	
Recreation/Social								58	942	
Personal Business								0	27	
Medical								2	32	
Other								0	0	

- a) One month only  
b) Two months only

Table 4. RIDERSHIP DATA - State Elderly and Handicap Systems.

January - March 1977	Miss- aukee County	Mont- calm County	Mont- morency County	Ogemaw County	Onto- nagon County	Osceola County	Oscoda County	Otsego County	Saginaw County	School- craft County	Total
Total Ridership for Period	366	b) 386	951	1,486	782	Not in Operation	882	144	3,411	1,932	24,866
Average Monthly Ridership	122	193	317	495	261		294	48	1,137	644	
Average Weekday Ridership	7	23	21	24	13		13	3	58	39	
% Senior Citizens	100	100	100	57	100		90	60	100	100	
% Handicappers (Under 65)	0	0	0	15	0		9	22	0	35	
Passengers per Vehicle Hour	1.3	4.6	2.9	2.9	1.7		3.8	0.3	5.4	5.8	
Passenger per 1,000 Pop. per month	17.1	4.9	60.4	41.6	24.7		62.2	4.6	5.2	78.3	
Purpose of Trip:	NA			NA				NA			
Work		0	0		13		33		0	0	
Shop		176	115		275		170		81	425	
Recreation/Social		146	335		243		425		1,140	347	
Personal Business		0	16		25		143		0	366	
Medical		0	22		35		111		202	144	
Other		64	92		201		0		38	650	
									1,950		
									(meats)		

- a) One month only  
b) Two months only



Table 5. RIDERSHIP DATA - 16(b)(2) Systems.

Jan. - Mar. 1977	Alpena County	Bay County	Cass County	Cheboygan County	Emmet County	Gogebic/ Ontonagon Counties b)	Iron County	Jackson- Hillsdale- Lenawee Cos.
Total Ridership for Period	326	NA	1,230	106	1,522	2,306	2,372	7,150
Average Monthly Ridership	109	NA	410	35	507	1,153	791	2,383
Average Weekday Ridership	7	NA	22	6	29	83	45	122
% Senior Citizens	80	NA	0	100	99	68	99	69
% Handicappers (Under 65)	20	NA	100	0	1	32	1	31
Passengers per Vehicle Hour	1.6	NA	2.7	b) 9.5	2.6	3.5	3.4	2.0
Passengers per 1,000 Pop. per Month	3.5	NA	9.5	2.1	27.7	36.9	57.3	9.1
Purpose of Trip:	b)			b)				
Work	0	NA	609	0	23	6	33	1,437
Shop/Personal	45	NA	0	1	347	926	472	41
Recreation/Social	357	NA	6	79	698	505	190	363
Medical	145	NA	0	2	105	84	74	230
Nutrition	588	NA	0	79	514	332	652	4,946
Education	0	NA	0	0	47	94	41	4,454
Other	6	NA	615	0	651	359	910	2,725

- a) One month only.  
b) Two months only.

Table 5. RIDERSHIP DATA - 16(b)(2) Systems.

Jan. - Mar. 1977	<u>Kalamazoo County</u>		Kent County a)	Mason County	Muskegon County a)	Presque Isle County	Saginaw County	St. Joseph County
	Comstock	Vicksburg						
Total Ridership for Period	910	670	690	1,117	93	598	54	2,257
Average Monthly Ridership	303	223	690	372	93	199	18	752
Average Weekday Ridership	14	12	33	19	23	9	1	38
% Senior Citizens	86	97	23	15	100	100	89	14
% Handicappers (Under 65)	3	1	77	85	0	0	11	91
Passengers per Vehicle Hour	3.0	3.2	3.0	4.0	7.8	2.3	1.1	4.8
Passengers per 1,000 Pop. per Month	29.0	104.3	1.7	16.5	0.6	15.5	0.1	15.9
Purpose of Trip:				a)				
Work	2	0	663	144	93	0	0	524
Shop/Personal	7	6	0	0	0	175	1	0
Recreation/Social	22	11	15	56	0	12	0	202
Medical	125	33	12	0	0	130	81	0
Nutrition	642	618	0	0	0	290	0	15
Education	59	0	0	0	0	0	0	388
Other	53	2	0	0	0	482	0	1,133

(Meals del.)

- a) One month only.  
b) Two months only.

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Table 5. RIDERSHIP DATA - 16(b)(2) Systems.

Jan. - Mar. 1977	Schoolcraft County	Shiawassee County		Van Buren County	Washtenaw County	Wexford County	Total
		ACKCO	Shiawassee Council on Aging				
Total Ridership for Period	2,530	2,051	197	1,564	1,411	2,886	32,040
Average Monthly Ridership	843	684	66	521	470	962	
Average Weekday Ridership	43	35	9	31	22	46	
% Senior Citizens	57	0	100	74	92	53	
% Handicappers (Under 65)	43	100	0	26	7	47	
Passengers per Vehicle Hour	5.4	4.6	a) 1.3	2.8	3.1	2.8	
Passengers per 1,000 Pop. per Month	102.5	10.8	1.0	13.4	80.0	48.8	
Purpose of Trip:							
Work	1	1,994	0	0	0	421	
Shop/Personal	1,009	0	56	985	633	762	
Recreational/Social	115	57	174	0	139	319	
Medical	132	0	0	144	623	188	
Nutrition	178	0	205	60	3	273	
Education	97	0	2	95	13	920	
Other	998	0	2	0	0	3	

a) One month only.

The high work percentage results from 16(b)(2) agencies transporting people to sheltered workshops.

To show ridership fluctuations, four counties were selected from the outstate elderly and handicap transit systems: Branch, Lenawee, Schoolcraft, and Montcalm Counties. The average monthly ridership for each was plotted on Figure 3 for one year, from October, 1975 through September, 1976. These are all one-bus systems.

As one might expect, the ridership varies dramatically from system to system. We believe that the manager of the system is the key to success, and ridership is proportional to the amount of time and energy spent by the manager in developing the service. No amount of ongoing state technical assistance will do any good unless the local manager is actively promoting the system and upgrading the quality of service provided.

The same four counties were used to diagram the average number of passengers per vehicle hour (Figure 4). This is one index of the system's efficiency. All four counties are rural in character, with low densities and long distances; low productivity is the result. Our experience statewide indicates that it is reasonable to expect a productivity of eight passengers per vehicle hour in small town demand-response services, whereas in rural areas a productivity of four passengers per vehicle hour is a reasonable goal to obtain by the end of the first year. Figure 4 shows that while ridership varies considerably between systems, the productivity is averaging around four.

Figure 3

PASSENGERS PER MONTH

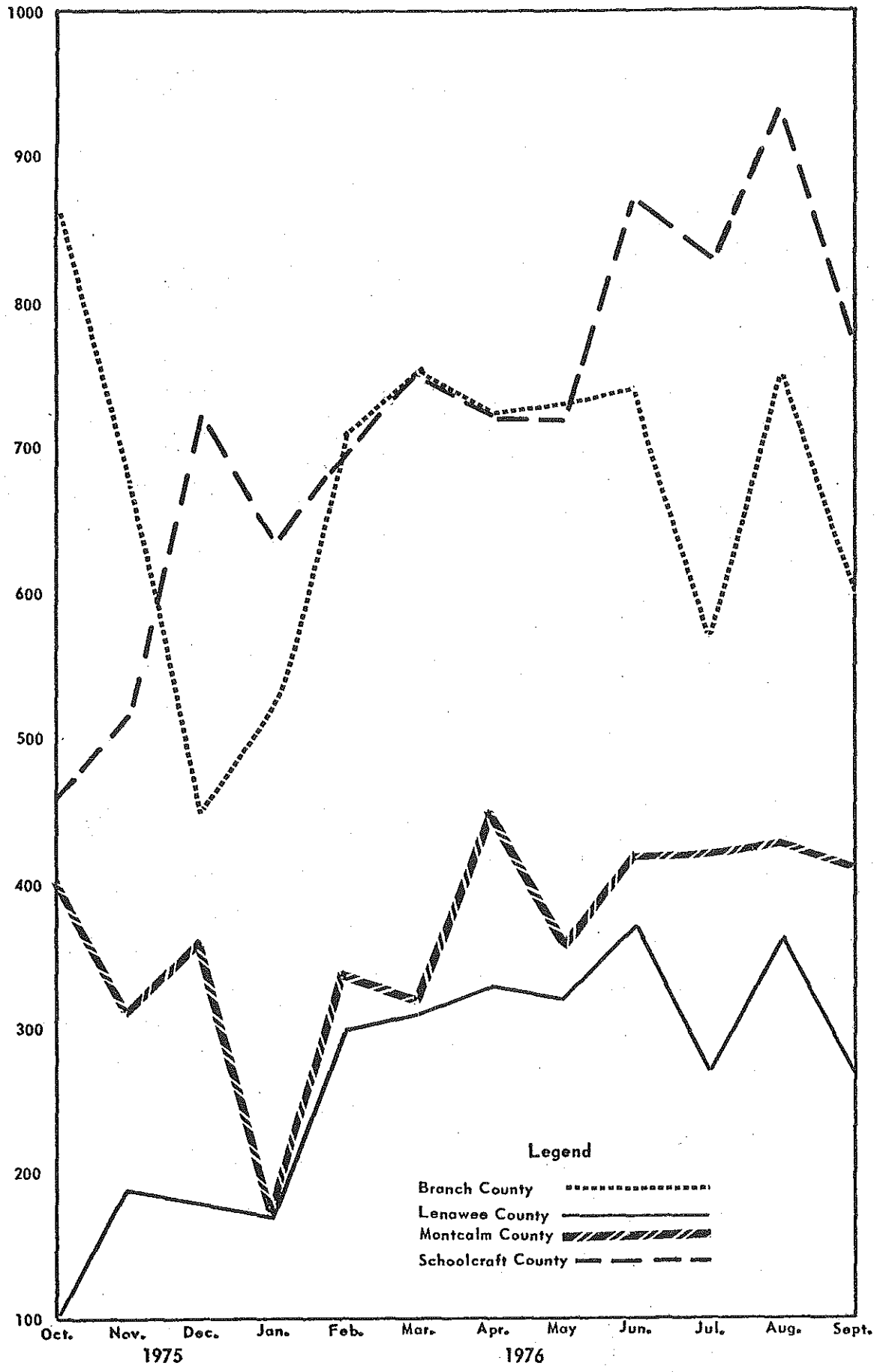
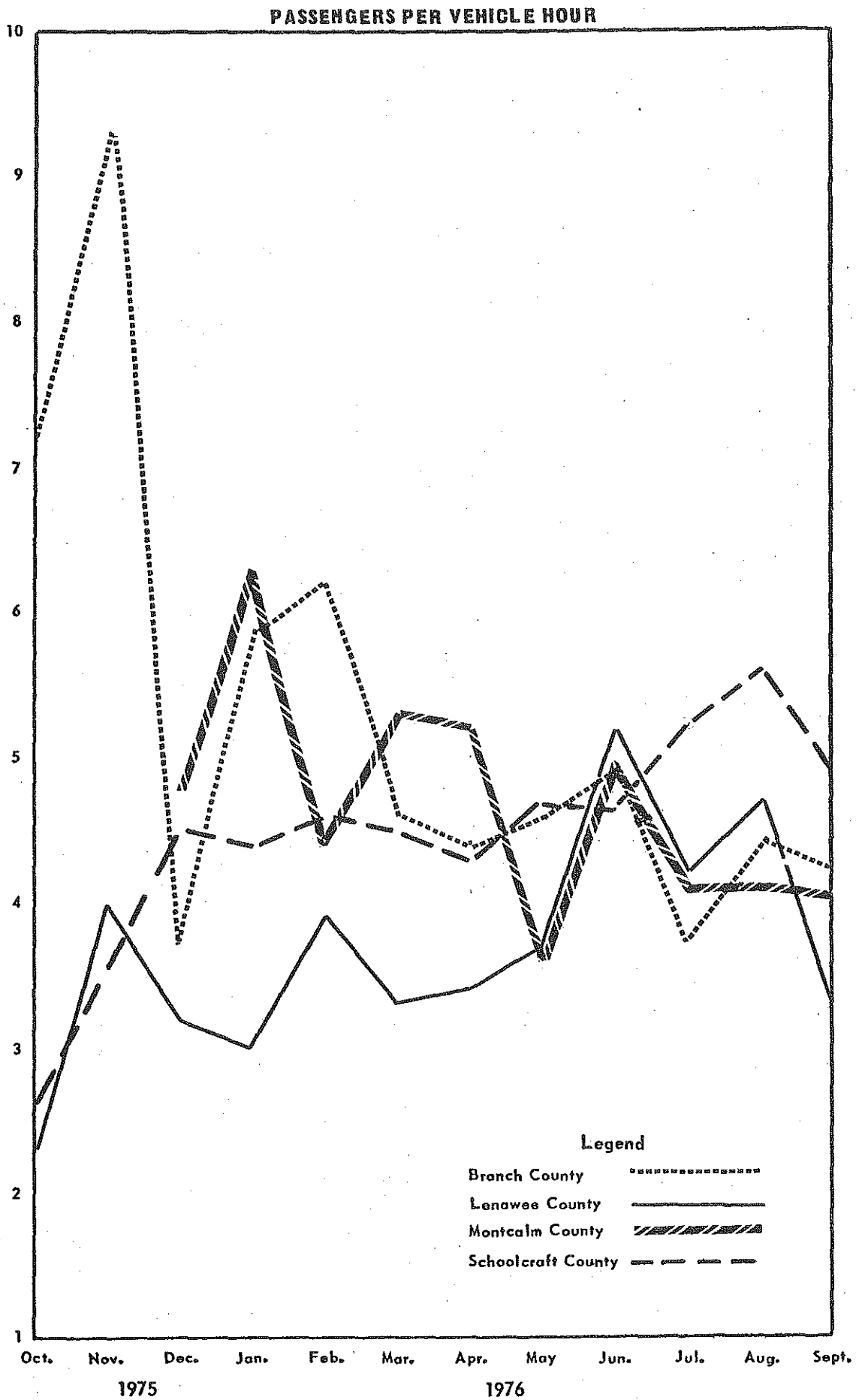


Figure 4



## VI. Cost and Revenue

While service provided as indicated by ridership levels is of major importance in any transportation system, the bottom line is the cost to provide that service. A service must be cost effective in relation to the services provided or chances are it will not survive. (See pages 3-5 for discussion of available State aid.)

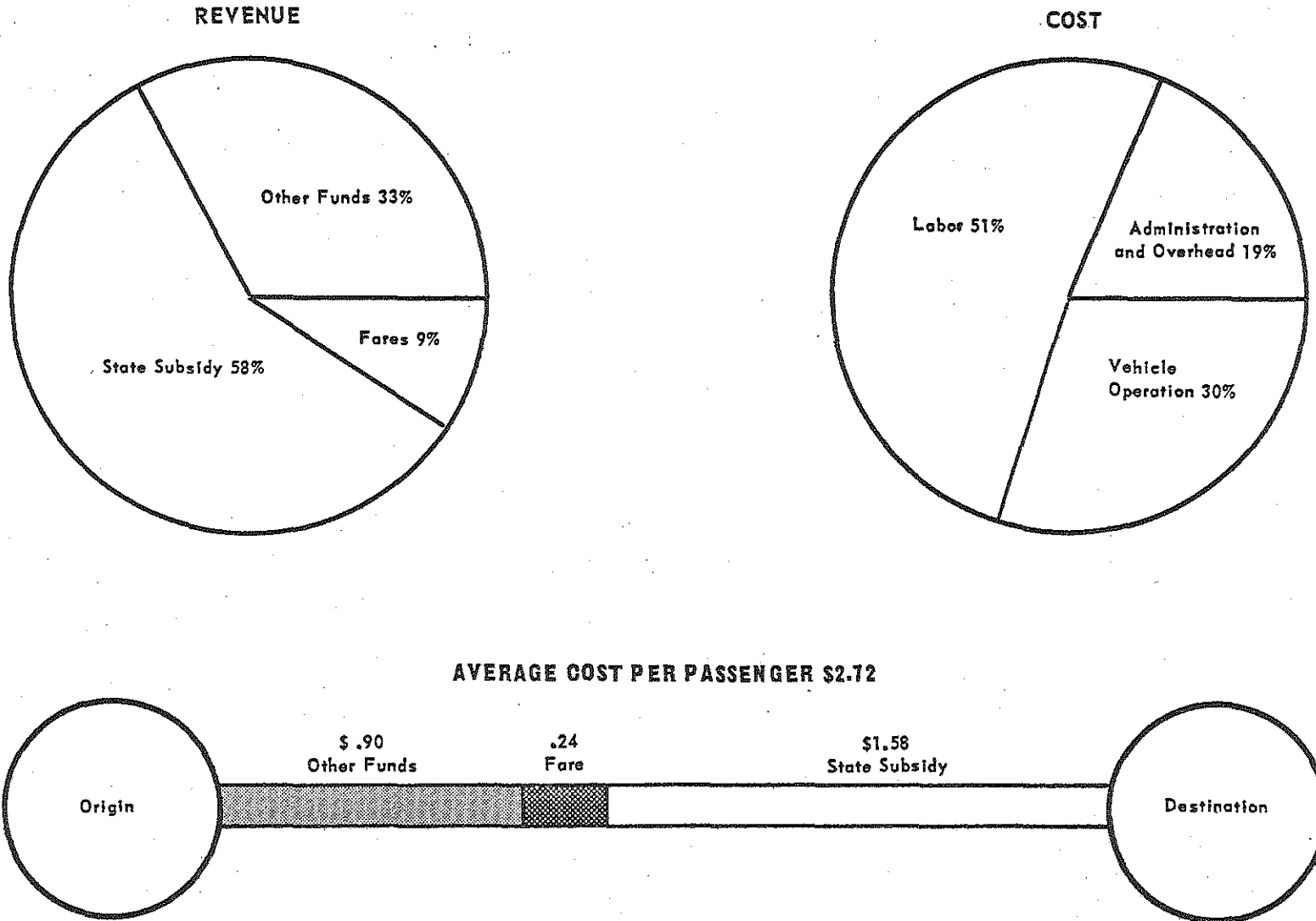
Some systems do not collect fares but permit voluntary donations. Others charge 25 cents or 50 cents. Fares average 5 percent to 12 percent (9 percent shown on Figure 5) of the cost of operation of all the elderly and handicap transit systems. State support for the State elderly and handicap programs constitutes 58 percent of the total. The local agency must then make up the remainder or 33 percent. With no State support, 86 percent must be raised for 16(b)(2) programs from other funding sources. Usual sources are revenue sharing funds, county general funds, community development funds, CETA funds, and human service agency funds.

A measure of a system's cost effectiveness is the operating cost per passenger and the subsidy per passenger. Figure 5 divides a hypothetical bus trip into its component costs and funding for State elderly and handicap transit projects, as follows:

Average fare per passenger	\$ .24
Average "other funds" per passenger	.90
Average State subsidy per passenger	<u>1.58</u>
Average cost per passenger	\$2.72

**ELDERLY AND HANDICAPPER OPERATIONS  
OUTSTATE SMALL BUS SYSTEMS**

**Figure 5**





The average<sup>1</sup> cost per passenger, \$2.72, may seem excessive. However, considering the personalized service needed by elderly and handicapped passengers and the distances covered in some areas, we believe the cost is reasonable.

In addition to representing revenue distribution, Figure 5 also shows the average cost distribution. As expected, labor accounts for most of the cost, 51 percent, of operating a bus. This includes cost of drivers, dispatchers, and their fringe benefits. Vehicle operation consumes 30 percent of the cost, which covers insurance, gasoline, oil, and vehicle and radio maintenance. Administration and overhead absorb 19 percent, embracing project manager's salary, secretarial and clerical salaries, rent, utilities, telephone, supplies, travel, training, etc.

Detailed cost and revenue data for the systems are shown in Table 6. This data must be used carefully as there are gaps in the reported information.

<sup>1</sup> Weighted average.

Table 6. COST AND REVENUE DATA - 16(b)(2) Systems.

Page 1 of 8.

Jan. - Mar. 1977	Alpena County	Bay County	Cass County	Cheboygan County b)	Emmet County	Gogebic Ontonagon Counties b)	Houghton Baraga Keweenaw Cos.
Average Monthly Operating Cost, \$	169.	NA	302.	44.	1,532.	2,618.	NA
% Administration and Fixed Overhead	NA	NA	12	NA	0	34	NA
% Labor	NA	NA	51	NA	87	53	NA
% Vehicle Operation	50	NA	37	50	13	13	NA
Cost per Vehicle Hour, \$	2.35	NA	2.01	1.05	7.60	7.32	NA
Cost Per Passenger, \$	1.68	NA	.74	1.10	3.01	2.28	NA
Cost Per Mile, \$	.09	NA	.24	.07	.89	.79	NA
Average Monthly Fares Collected, \$	68.	NA	0	40.	b) 102.	230.	NA
% Fares to Total Cost	40	NA	0	91	b) 7	9	NA
Fare Per Passenger, \$	.69	NA	0	1.00	b) .19	.20	NA
% Other Funds	60	NA	100	9	93	91	NA

a) One month only.

b) Two months only.

Table 6. COST AND REVENUE DATA - 16(b)(2) Systems

Jan. - Mar. 1977	Ingham Clinton Eaton Cos.	Iron County	Jackson Hillsdale Lenawee Cos.	Kalamazoo County		Kent County a)	Mason County b)
				Comstock	Vicksburg		
Average Monthly Operating Cost, \$	NA	940.	6,810.	1,439.	1,004.	1,924.	68.
% Administration and Fixed Overhead	NA	15	17	21	36	15	NA
% Labor	NA	63	63	71	55	64	NA
% Vehicle Operation	NA	22	20	8	9	21	5
Cost per Vehicle Hour, \$	NA	4.19	5.93	14.11	15.29	8.33	.77
Cost Per Passenger, \$	NA	1.19	2.92	4.71	5.09	2.79	.51
Cost Per Mile, \$	NA	.60	.48	1.16	1.49	.41	.06
Average Monthly Fares Collected, \$	NA	254.00	0	0	22.00	305.00	0
% Fares to Total Cost	NA	27	0	0	2	16	0
Fare per Passenger, \$	NA	.31	0	0	b) .15	.44	0
% Other Funds	NA	73	100	100	98	84	100

a) One month only.

b) Two months only.

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Table 6. COST AND REVENUE DATA - 16(b)(2) Systems.

Jan. - Mar. 1977	Muskegon	Presque	Saginaw	St. Joseph	Schoolcraft	Shiawassee County	
	County a)	Isle County	County	County	County	ACKCO	Council On Aging
Average Monthly Operating Cost, \$	57.	534.	130.	691.	1,386.	541.	417.
% Administration and Fixed Overhead	66	21	31	10	13	62	NA
% Labor	24	0	58	65	80	23	NA
% Vehicle Operation	10	79	11	25	7	15	NA
Cost per Vehicle Hour, \$	4.79	6.79	7.70	5.22	8.94	a) 8.29	NA
Cost per Passenger, \$	.62	3.46	7.66	.98	1.66	a) 2.11	NA
Cost per Mile, \$	.43	.30	.82	.21	1.18	a) .96	NA
Average Monthly Fares Collected, \$	134.	137.	0	0	102.	0	0
% Fares to Total Cost	235	26	0	0	7	0	0
Fare per Passenger, \$	1.44	.26	0	0	.12	0	0
% Other Funds	NA	74	100	NA	93	100	100

- a) One month only.  
b) Two months only.

Table 6. COST AND REVENUE DATA - 16(b)(2) Systems.

Page 4 of 8.

Jan. - Mar. 1977	Van Buren County	Washtenaw County	Wexford County
Average Monthly Operating Cost, \$	2,390.	901.	3,628.
% Administration and Fixed Overhead	44	10	56
% Labor	41	58	32
% Vehicle Operation	15	32	12
Cost per Vehicle Hour, \$	12.52	4.68	10.66
Cost Per Passenger, \$	4.53	1.66	3.82
Cost Per Mile, \$	a) .88	1.02	.50
Average Monthly Fares Collected, \$	282.	45.	684.
% Fares to Total Cost	12	5	19
Fare per Passenger, \$	.54	.09	.70
% Other Funds	88	NA	NA

a) One month only.

Table 6. COST AND REVENUE DATA - State Elderly and Handicap Systems.

First Year or Fraction of First Year	Alger County	Allegan County	Arenac County	Barry County	Benzie County	Berrien County	Branch County	Cass County
Average Monthly Operating Cost, \$	419.	194.	698.	442.	914.	2,695.	772.	358.
% Administration and Fixed overhead	4	8	14	15	1	23	29	20
% Labor	71	0	63	31	77	53	41	58
% Vehicle Operation	25	92	23	54	22	24	30	22
Cost per Vehicle Hour, \$	4.46	2.29	3.26	3.56	7.04	8.82	5.35	4.00
Cost per Passenger, \$	2.23	1.50	1.74	2.04	8.65	3.44	1.14	3.02
Cost per Mile, \$	.26	.11	.16	.26	.49	.40	.31	.27
Average Monthly Fares Collected, \$	98.55	11.29	119.35	75.07	70.38	64.57	10.04	62.85
% Fares to Total Cost	24	6	17	9	8	3	2	18
Fare per Passenger, \$	.51	.06	.25	.41	.64	.07	.03	.42
% Other Funds	0	0	0	13	76	47	55	0
% State Subsidy	76	94	83	78	16	50	43	82

Table 6. COST AND REVENUE DATA - State Elderly and Handicap Systems.

First Year or Fraction of First Year	Charlevoix County	Delta Menominee Counties	Houghton County	Huron County	Iosco County	Ishpeming City	Jackson County
Average Monthly Operating Cost, \$	1,347.	1,860.	1,551.	NA	2,063.	2,706.	1,325.
% Administration and Fixed Overhead	22	0	37	NA	15	50	55
% Labor	61	82	45	NA	47	41	25
% Vehicle Operation	17	18	18	NA	38	9	20
Cost per Vehicle Hour, \$	7.57	4.00	7.97	NA	3.27	20.59	8.06
Cost Per Passenger, \$	6.95	1.19	2.17	NA	1.99	2.33	1.72
Cost Per Mile, \$	.82	.34	.43	NA	.18	1.44	.39
Average Monthly Fares Collected, \$	107.72	0*	0*	NA	491.09	174.28	106.83
% Fares to Total Cost	8	0*	0*	NA	24	3	7
Fare per Passenger, \$	.57	0*	0*	NA	.37	.13	.13
% Other Funds	74	82	0	NA	40	85	70
% State Subsidy	18	18	100	NA	36	12	23

\*Fare is free.

Table 6. COST AND REVENUE DATA - State Elderly and Handicap Systems.

First Year or Fraction of First Year	Kankaska County	Lapeer County	Leelanau County	Lenawee County	Missaukee County	Montcalm County	Montmorency County
Average Monthly Operating Cost, \$	2,214.	NA	117.	728.	343.	450.	586.
% Administration and Fixed Overhead	4	NA	NA	30	9	11	25
% Labor	89	NA	NA	58	4	26	42
% Vehicle Operation	7	NA	6	12	87	63	33
Cost per Vehicle Hour, \$	NA	NA	2.40	12.15	2.77	6.55	6.13
Cost Per Passenger, \$	NA	NA	1.54	4.53	2.16	1.35	2.35
Cost Per Mile, \$	NA	NA	.14	.36	.11	.64	.39
Average Monthly Fares Collected, \$	111.65	NA	19.40	24.58	64.16	14.92	108.31
% Fares to Total Cost	5	NA	16	3	19	3	18
Fare per Passenger, \$	.22	NA	.26	.15	.65	.04	.43
% Other Funds	0	NA	0	52	0	23	0
% State Subsidy	95	NA	84	45	81	74	82



Table 6. COST AND REVENUE DATA - State Elderly and Handicap Systems.

First Year or Fraction of First Year	Ogemaw County	Ontonagon County	Oscoda County	Otsego County	Saginaw County	Schoolcraft County
Average Monthly Operating Cost, \$	1,094.	950.	2,019.	1,693.	4,207.	1,776.
% Administration and Fixed Overhead	21	22	NA	2	0	35
% Labor	54	66	NA	74	84	45
% Vehicle Operation	25	12	NA	24	16	20
Cost per Vehicle Hour, \$	6.55	6.04	NA	9.95	17.81	11.76
Cost Per Passenger, \$	4.68	3.57	NA	43.86	3.47	3.45
Cost Per Mile, \$	.47	.52	NA	.53	.89	1.86
Average Monthly Fares Collected, \$	107.	60.65	148.61	22.20	61.07	60.71
% Fares to Total Cost	10	6	7	1	1	4
Fare per Passenger, \$	.34	.27	.49	.53	.06	.13
% Other Funds	30	0	30	32	83	79
% State Subsidy	60	94	63	67	16	17

## VII. Vehicle Operating Data

The mainstay of any transportation system is, of course, the bus. The vehicles used in Michigan predominantly are the 8 - 12 passenger van conversions, with and without wheelchair lifts (See Figures 6 and 7). They are unobtrusive, comfortable, and very maneuverable. They cost \$12,000 to \$15,000 per unit plus \$2,000 for the lift. In some areas, larger buses (15 - 23 passenger) are also in service and cost \$13,000 to \$21,000 plus \$4,000 for a lift, depending on size.



Figure 6





Figure 7

## VIII. Community Impact

These elderly and handicap bus systems have been in operation only one or two years, less in some areas. Already their beneficial effects have been noted. Some comments from managers and passengers:

Antrim County: "... The Adult Foster Homes ... are serving some 83 people ... Some of the residents of these homes are in wheelchairs, as well as some of the people from the Medical Care Facility who are able to go out on rides or take part in small social events ... Many of these ... had not expected to ever go for a ride again, and with the bus that we now have ... they have been able to go on drives ... In our everyday life and those of us who have cars available and are not dependent on others, this seems a small thing, but for the some 200 people that this transportation system could service, means some independence in some small way for some life that they thought they would never be a part of again ..." (emphasis ours)

"... Another area is Vocational Rehabilitation and referral service. The counselors ... told me that they knew of 159 within our County and they are able to work with only 53."

Barry County: "... We have not stressed serving the handicapped in our news publications for fear the number we could serve would undoubtedly triple immediately ..."

"... each month we increase our ridership and our service has a fine reputation."

Delta/Menominee Counties: ". . . On behalf of the senior citizens . . . we would like to thank you for the delivery of the four vans for public transit in our areas . . . We do, however, feel that we have only begun to scratch the surface of our needs for technical assistance from your agency . . ."

Jackson County: ". . . The elderly and handicapped . . . need transportation, and the Senior Citizens Bus Service is successfully serving this need to the extent that we are able. Can you help us obtain the equipment necessary to continue serving our expanding ridership?" (emphasis ours)

Schoolcraft County: "Service is needed because 'There is no taxi service or public transportation in our entire county, and Schoolcraft County is fourth largest in size in the State of Michigan . . .'"

## IX. Conclusion

Since the first elderly and handicap bus systems began in 1975, they have served 631,000 passengers. Most of these people previously have had little or no access to public transportation. These projects are the first step in developing area-wide public transportation services.

Of the 50 systems now underway, none has discontinued service. Several have requested additional or improved equipment and expressed a desire to expand service.

As those now in operation complete their first year, the staff of the Michigan Department of State Highways and Transportation will be working closely with their managers, to hopefully expand the "essential service" systems to "full" transportation systems to serve all people in a given service area.

This particular program goal; namely, providing some level of individualized transportation service to every citizen in the State, has never before been attempted. The elderly and handicap transit program is the first step in reaching that goal. Revisions and improvements will have to be made as we continue to gain experience. It is costly at first, and perhaps will always be so. But, it may very likely prove to be more costly not to have the service; more costly in terms of loss of freedom of movement for employment, shopping trips, medical services, recreation, and self-esteem for the one person in ten who is elderly or has characteristics labeled handicaps.