

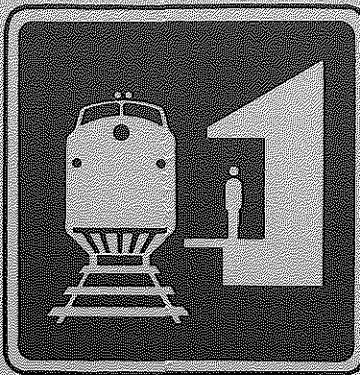
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PUBLIC TRANSPORTATION IN MICHIGAN

Report 1

BUSPOOLS IN MICHIGAN

May, 1982



PASSENGER TRANSPORTATION PLANNING SECTION
MICHIGAN DEPARTMENT OF TRANSPORTATION

MICHIGAN DEPARTMENT
OF
TRANSPORTATION

Report 1
BUSPOOLS IN MICHIGAN
May, 1982

Bureau of Transportation Planning
Modal Transportation Planning Division
Passenger Transportation Planning Section

This report represents the findings and/or professional opinions of the Michigan Department of Transportation staff and publication does not represent an official opinion of the State Transportation Commission.

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ACKNOWLEDGMENTS

This report was prepared by the Mass Transportation Planning Section, Modal Transportation Planning Division, Bureau of Transportation Planning. Major staff contributions were made by Russell P. Laverty, Kathy A. Hundt, and Robert L. Kuehne.

This document is the result of the cooperation and assistance of many individuals and organizations. These include the 13 buspool survey respondents listed in Appendix A, the Michigan Public Service Commission, and other parts of the Michigan Department of Transportation. These include the Bureau of Urban and Public Transportation (Intercity Division) and the Bureau of Administration (Mapping and Graphics Section).

If you desire additional information regarding the contents of Buspools in Michigan: An Inventory, please contact:

Mass Transportation Planning Section
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It should be noted that, at the present time, legislation is being considered by the Michigan legislature to transfer intercity bus regulatory functions to the Michigan Department of Transportation. These include entry, exit, insurance, and vehicle safety functions.

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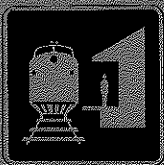
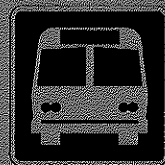
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PART I INTRODUCTION



I. INTRODUCTION

The work trip represents the largest single category of trip making. In Michigan, work trips represent about 1/3 of all trips or eight million trips each day. The tendency for many work trips to focus on a relatively small number of employment centers, offers an opportunity for higher occupancy transportation modes to provide efficient and cost effective transportation service. Several modes appear to be attractive alternatives in making the work trip. These include public transportation, carpooling, van-pooling, and buspooling. Buspooling is the focus of this document.

A. NEED FOR SURVEY

The primary reasons for conducting the Michigan Buspool Survey were to obtain data useful in planning for the transportation needs of Michigan residents, supporting existing buspools, and encouraging the formation of additional buspools where needed. At the time of the survey, little information existed regarding buspool operations, how an individual could start a buspool, and how one could join a buspool. Since buspooling appears to be a fuel efficient and cost effective mode of transportation and the Michigan Department of Transportation (MDOT) actively supports both public transportation and ridesharing, there existed a need to learn more about buspooling in Michigan.

B. DEFINITION OF A BUSPOOL

A buspool is defined as a privately-owned and operated transportation service intended primarily or exclusively to transport work trip commuters between their home and work areas in a bus-type vehicle. The bus operator agrees to provide daily bus transportation from a particular community along a route, usually picking up passengers at a limited number of points along the way, to one or more employment locations in a distant community. In exchange for this round trip service, the passengers agree to pay a specified fare. Other terms sometimes used when referring to buspools include subscription bus, custom bus, club bus, worker/commuter bus, contract bus and express bus service.

C. PURPOSE OF THE SURVEY

The purpose of this survey was to determine the level of work trip buspooling in Michigan. This included obtaining such information as number of pools operating, type of ownership, average trip length, vehicle type and occupancy, operating costs, average daily round trips, fares, and collection methods. The intended use of this data is to inform state and local officials and other interested parties regarding buspool operations. It is hoped that the information gathered will be used to enhance buspooling as a ridesharing mode.

1. Use by Respondents

All buspool operators participated in the survey and were most helpful in providing information regarding their operation.

The buspool operator may find the information useful in comparing their operation with other operations. The information collected has not been presented by individual operator out of respect for confidentiality. However, data has been summed for all operators and averages determined. This will allow the operator to compare his/her individual operation with the statewide average for all buspools. Items which may be of particular interest to buspool operators include cost per mile, passengers per trip, round trip mileage, and cost per round trip. This comparison may help an individual operator to make his/her service more effective.

2. Use by Local Ridesharing Offices

Local ridesharing offices are seeking innovative, low cost modes of ridesharing. There are 22 local ridesharing offices (LRO's) located in the State of Michigan. The purpose of the LRO's is to promote different modes of ridesharing, primarily vanpooling and carpooling. Buspooling also appears to be an efficient mode of travel serving the work trip. The LRO's should find the survey results both informative and useful in promoting buspools.

3. Use by MDOT

The information obtained from this survey is being used to update information regarding buspooling operations within the State of Michigan. Upon completion of this report, it will be distributed to the following organizations.

- o Michigan Department of Transportation
- o Regional Planning and Development Offices
- o Local Ridesharing Offices
- o Participating Buspool Operators
- o Any interested organization or individual

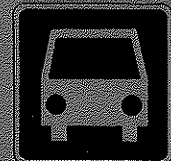
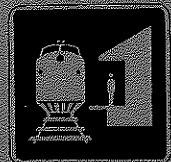
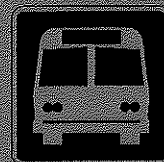
This report is intended for use by the above organizations and individuals to a) update and/or inform them regarding buspooling; b) provide useful information for either encouraging buspool expansion or promoting buspool startups; c) provide comparative data useful to operators for evaluating and possibly improving their service; d) provide information which may enable new buspool operators to begin service; e) assist MDOT in promoting legislation, State funding, and other actions supportive of buspooling should there be a proven need for such endeavors.

D. SCOPE OF SURVEY

The scope of this survey consisted of collecting information for all privately operated, work trip-oriented buspools in Michigan.

These buspools have resulted from independent or governmental initiative, and are operated primarily with private funds. Express bus and work tripper service provided by public transit agencies were not included. These services generally serve more than just the work trip and do not rely on an agreement or other arrangements between the passenger and bus operator. The survey was designed to obtain origin-destination, fleet, fare, cost, ridership, and other related information for each buspool.

PART II METHODOLOGY



II. SURVEY METHODOLOGY

A. IDENTIFY SURVEY GROUP

1. Used Michigan Public Service Commission Records

The Michigan Public Service Commission (MPSC) is the regulatory agency for passenger carriers in Michigan. Any passenger service charging a fare in exchange for transportation is required to be registered with MPSC. This does not include carpools, vanpools, taxis, or any service operating within a two mile radius of a municipality.

MPSC groups intercity and intrastate carriers into four classes based on average annual gross operating revenues. These are:

- Class I - Intercity bus carriers having average annual gross operating revenues from motor carrier operations of \$3 million or more for the three year period immediately preceding the current year.
- Class II - Intercity bus carriers having average annual gross operating revenues for motor carrier operations of \$500,000 or more, but less than \$3 million for the three year period immediately preceding the current year.
- Class III - Intercity bus carriers having average annual gross operating revenues from motor carrier operations of \$200,000 or more, but less than \$500,000 for the three year period immediately preceding the current year.
- Class IV - Intercity bus carriers having average annual gross operating revenues from motor carrier operations of less than \$200,000 for the three year period immediately preceding the current year.

2. Considered Interstate Commerce Commission Classifications

The Interstate Commerce Commission (ICC) classifications differ from those used by the MPSC. The ICC classes are as follows:

- Class I - Those carriers having average annual gross operating revenues from motor carrier operations of \$5 million or more for the three year period immediately preceding the current operating year.
- Class II - Those carriers having average annual gross operating revenues for motor carrier operations of \$1 million or more but less than \$5 million for the three year period immediately preceding the current year.
- Class III - Those carriers having average annual gross operating revenues for motor carrier operations of less than \$1 million for the three year period immediately preceding the current year.

A comparison of ICC and MPSC classifications is shown in Table 1.

TABLE 1
ICC & MPSC CLASSIFICATIONS AND GROSS OPERATING REVENUES LIMITS

	ICC	MPSC
Class I	\$5 million plus	\$3 million plus
Class II	\$1 million - \$5 million	\$500,000 - \$3 million
Class III	Less than \$1 million	\$200,000 - \$500,000
Class IV	Not used	Less than \$200,000

3. Developed List of Buspools

A list of 86 intercity passenger carriers was compiled from MPSC records. Of the operators contacted, 15 were identified as providers of buspool service. Information received from two of these buspools was not included with the remaining 13. One was a public transportation service provided by a publicly-owned operator and the other an intercity carrier operating a State-sponsored pilot buspool project designed to accommodate more than the work trip. The data used in this report reflects averages and totals based upon the data provided by the 13 private for-profit companies providing buspool service.

B. DESIGN QUESTIONNAIRE

The questionnaire used in this survey was divided into six sections designed to obtain information about trip origins and destinations, fleet size, fares charged, cost of operation, ridership, and other information of general interest. The questionnaire was designed to be administered by telephone and take an average of 15-20 minutes. A copy of the questionnaire is shown in Appendix B.

C. CONTACT BUSPOOL OPERATORS

The decision to use the telephone technique in contacting buspool operators was based on the following reasons.

1. Since most of the operators are employed in a full time occupation, it was desirable to minimize the inconvenience associated with participating in the survey.
2. While the questions on the survey were clear to the people who developed it, some may not have been clear to the operator. By using the telephone, clarification of any questions could be made by the person conducting the survey.
3. More can be learned through a one-to-one conversation because of the opportunity to discuss issues related to the data being collected.
4. Because the number of operators was small, a questionnaire completion rate near 100% was very important in establishing a valid data base.

A telephone survey of the operators was conducted during July and August of 1981. All carriers in MPSC classes I, II, and III were called. Because of the large number of Class IV carriers, (61), only those whose MPSC summary of authority indicated possible buspooling activity were called.

Of the operators contacted in the survey, 13 private for-profit companies were involved in some form of buspooling. Nine of these were Class IV carriers, one was Class III, two were Class II and one was a Class I carrier.

The respondents were grouped into two basic types of buspools: (1) those owned and operated by a single individual or small company as a sideline; and (2) those larger companies whose business is providing regular-route intercity bus service.

D. COMPLETE QUESTIONNAIRES

All 13 operators were contacted and questionnaires were completed.

A minor problem was that many of the operators work full time and were not at home when the first telephone call was made.

This necessitated calling some operators several times and a few in the early evening hours. There were some questions which a few operators could not answer. This pertained mainly to the questions regarding cost per mile and cost per round trip. One reason for this is that some operators are new and have not yet calculated their full costs in this manner.

E. VALIDATE DATA

After all buspool operators had been surveyed, the data for the 13 operators was tabulated and analyzed. It was clear that two distinct groups could be identified based on the level of expenditure, type of vehicles and organization of the 13 companies.

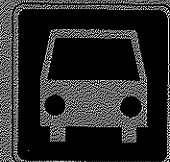
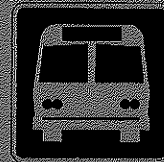
One group consisted of seven operators, who had started their service with the single intention of providing work trip service between residential areas and large employment centers. Statistically, these companies are characterized by lower operating

costs, smaller overhead, and slightly lower fares than the second group.

The second group consisted of six regular-route intercity bus companies. These companies began buspool service either as a new service or an extension of an existing route which could easily accommodate the new trip. Sometimes, adding a work trip segment to an existing route helped to reduce losses previously attributed to deadheading. The six intercity bus companies in this group differed from the first group because the operators had considerable experience in the business, a larger infrastructure, and more financial resources. This group also had higher operating costs.

The data was validated by checking parameters with national intercity bus service statistics and company-specific averages. The data provided by the buspool operators was divided into the two respective groupings and validated separately by group and collectively for all 13 buspools. Because the larger group is more representative of this service than either of the two groups alone, the data is presented in this report for the whole group as well as the two smaller groups.

PART III SURVEY FINDINGS AND CONCLUSIONS



III. SURVEY FINDINGS & CONCLUSIONS

The Michigan Buspool Survey identified 13 companies providing service on 20 routes to ten employment centers during the summer of 1981 (see Figure 1 and Table 2). Twenty-four vehicles are used in active service with an additional 15 used as back-up vehicles by buspool operators.

The average buspool exhibits several characteristics. The average round trip length is 104 miles and 2.2 hours. The average round trip seating capacity is 86 seats per vehicle (43 going to work and 43 returning home from work) with somewhat over half of these being occupied on the average trip. The average daily operating cost per vehicle is \$89 and revenues average \$80. These characteristics are generally reflected both by (1) companies solely in the business of buspooling and (2) carriers providing buspool service as one component of their total service with one major exception. The latter's operating costs are significantly higher and exceed revenues whereas the first group's costs are actually less than revenues.

Buspools are a cost effective and energy efficient means of transporting people compared to other modes of travel. The average round trip cost per passenger is \$3.62 for the average buspool. Only the 15 passenger van is lower. The average buspool accommodates 150 passenger miles per gallon compared to the nearest alternative mode, the 15 passenger vanpool, which achieves 140.

FIGURE 1

LOCATION OF BUSPOOLS IN MICHIGAN

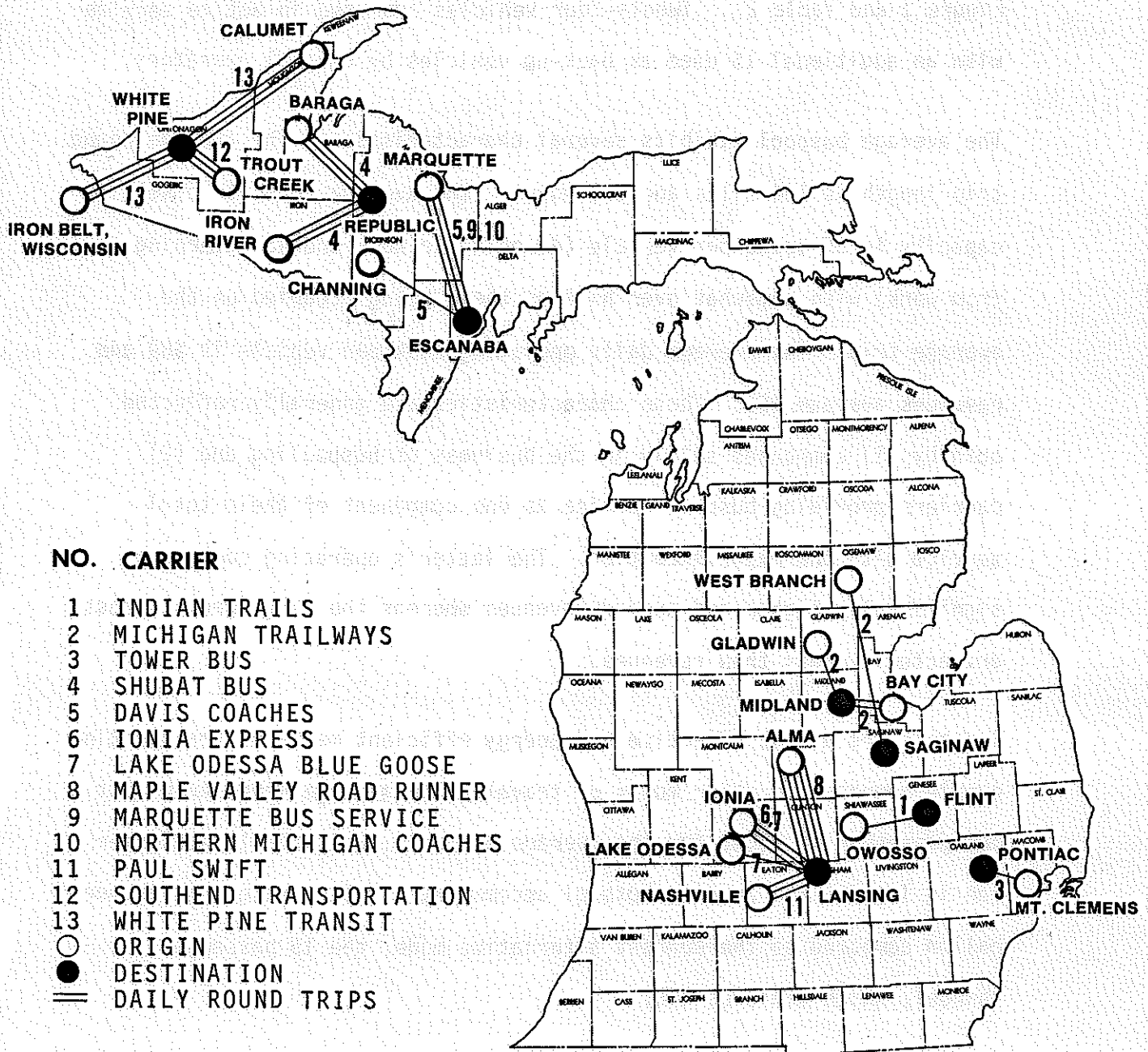


TABLE 2

MICHIGAN BUSPOOL LOCATIONS & DAILY ROUND TRIPS BY CARRIER, 1981

Carrier	Origin	Destination	Daily Round Trips	Employment Center
Indian Trails	Owosso	Flint	1	Buick
Michigan Trailways	Bay City	Midland	2	Dow Chemical
	Gladwin	Midland	1	Dow Chemical
	West Branch	Saginaw	1	Steering Gear
Tower Bus	Mt. Clemens	Pontiac	1	GMC Coach
Shubat Bus Company	Baraga	Republic	3	Republic Mine
	Iron River	Republic	3	Republic Mine
Davis Coaches	Marquette	Escanaba	1	Meade Paper
	Channing	Escanaba	1	Meade Paper
Ionia Express	Ionia	Lansing	1	Oldsmobile
Lake Odessa Blue Goose	Ionia	Lansing	2	Oldsmobile
	Lake Odessa	Lansing	1	Oldsmobile
Maple Valley Road Runner	Alma	Lansing	5	Oldsmobile
Marquette Bus Service	Marquette	Escanaba	1	Meade Paper
Northern Michigan Coaches	Marquette	Escanaba	1	Meade Paper
	Marquette	KI. Sawyer AFB	1	Federal Gov't.
Paul Swift	Nashville	Lansing	2	Oldsmobile
	Nashville	Lansing	1	GMC Parts
Southend Transportation	Trout Creek	White Pine	3	White Pine Mine
White Pine Transit Co.	Calumet	White Pine	3	White Pine Mine
	Iron Belt, WI	White Pine	3	White Pine Mine

Source: Michigan Department of Transportation, Mass Transportation Planning Section, "Michigan Buspool Survey" conducted in July and August 1981.

Detailed findings and conclusions follow under the categories of (1) buspool characteristics and use and (2) measures of effectiveness and efficiency.

A. BUSPOOL CHARACTERISTICS & USE

1. Location

- a. Thirteen buspool operators provide work trip service in the State of Michigan. These carriers are listed in Appendix A.
- b. Buspools identified in this survey operate on 20 routes serving 10 major employment locations in Michigan (see Figure 1 and Table 2).
- c. Buspools generally have four prerequisites: (1) a large employment center, (2) a long travel distance between the employment center and the place where many workers live, (3) willingness of workers to ride in the buspool, and (4) willingness of someone to provide buspool service.

2. Use

- a. Bus companies participating in this survey serve primarily the work trip. However, many of these services may be used by anyone for other trip purposes providing they can be accommodated by the carriers regular departure and arrival times.

b. Michigan buspools are primarily used by factory employees and miners.

c. The average number of people transported to and from work daily is 589. This represents 58 percent of total vehicle capacity.

d. The average number of passengers transported daily is 25 per vehicle per one-way trip.

3. Ownership and Fleet Composition

a. Buspool companies participating in this survey were of two different types. The first is that of a new company started to provide regularly-scheduled, round-trip service. This group consists of seven companies. The second is where an existing intercity bus company expanded its' service to provide regularly-scheduled, round-trip work trip service. Six companies comprise this group.

b. Thirty-nine buses are used to provide buspool service by the 13 companies; 24 buses are used to provide daily service and 15 are used as backup vehicles and during high demand periods. Of the 39, 20 are used school buses, 18 are intercity coaches, and one is an urban/suburban coach.

4. Service Characteristics

- a. Riders are picked up at designated collection points, such as carpool parking lots, along the route.
- b. Of the 13 buspools surveyed, 11 deliver riders to a single work location; the other two deliver riders to more than one work location, but within the same geographic area.
- c. The average round-trip length of a Michigan buspool is 104 miles. The round-trip mileage ranges between 52 and 185 miles.

5. Financial Considerations

- a. The average round-trip fare is \$3.26. Fares, usually collected weekly, commonly range from \$10.00 to \$20.00. In general, riders who are picked up along the route pay a reduced fare prorated according to the distance traveled.
- b. The average cost per bus mile is \$0.85 with fuel averaging \$0.23 per bus mile. For smaller systems formed primarily to provide work trip service, the average cost per bus mile is \$0.59 and revenues per bus mile is \$0.67.
- c. The intercity bus companies, providing work trip service incidental to their other operations, have operating costs which average \$1.28 per bus mile with revenues of \$0.93 per bus mile. This includes all costs except depreciation. Though it may seem illogical to continue a service which

loses money, these sections are part of longer routes or supported by other services. Generally, the service yields some revenue thereby reducing the amount that would have otherwise been lost.

6. Other Considerations

- a. Bus maintenance is usually provided by the operator. The larger companies have their own service garages, while the smaller operators do their work at home, often with the help of some of the riders. Repairs that cannot be done by the operator are done by a local garage.
- b. The 6 larger carriers employ full-time drivers. The 7 smaller carriers' buses are driven either by the owner or one of the workers with the vehicle being parked at the work site. For the return trip, the bus is driven either by the same person or a different worker. The driver is compensated by riding for a reduced or free fare. All drivers are required by the Secretary of State to have a valid chauffeur's license.

B. MEASURES OF EFFECTIVENESS & EFFICIENCY

1. Vehicle Productivity

- a. The vehicle productivity of the surveyed buspools is 23.3 passengers/vehicle hour (see Table 3). Since the buspool fleet is used at 58 percent of capacity, there is 42 percent

TABLE 3

MICHIGAN BUSPOOLS LEVEL OF SERVICE & USE, 1981^{5/}

Respondents	Daily Bus Miles	Daily Vehicle Hours	Number of Vehicles in Fleet	Fleet Capacity (Seats)	Daily ^{3/} Passengers	Vehicle Occupancy %	Passengers Per Vehicle Hour	Passenger ^{4/} Miles Per Bus Mile
Group 1 ^{1/}	1550	34	15	1278	660	51%	20	22
Round-Trip Average	103	2.3	1	85	44	51%	20	22
Group 2 ^{2/}	953	19	9	756	518	69%	29	28
Round-Trip Average	106	2.1	1	84	58	69%	29	28
Total	2503	53	24	2034	1178	58%	23	25
Round-Trip Average	104	2.2	1	85	44	58%	23	25

- Notes: ^{1/} Group 1 consists of 7 companies started for the purpose of providing work trip service by bus.
^{2/} Group 2 consists of 6 intercity bus companies providing work trip service incidental to regular-route intercity bus service.
^{3/} Daily passengers assumes one person going to and from work using a buspool should be counted as two passengers.
^{4/} Passenger miles per bus mile estimated assuming 80 percent of passengers ride entire trip and 20 percent ride 90 percent of trip.
^{5/} The top line for each group is the total for all buspools in the group. The second line is the round-trip average per vehicle.

Source: Michigan Department of Transportation, Mass Transportation Planning Section, "Michigan Buspool Survey" conducted in July and August 1981.

unused capacity. Should this be used, the vehicle productivity could rise to 40 passengers/vehicle hour.

- b. Passenger miles per bus is 25. This is somewhat higher occupancy rates characteristic of work trip buspools. If operated at capacity, the ratio would approach 43.

2. Cost Effectiveness

- a. The operating loss per passenger for all buspools is \$0.18 (see Table 4). Group 1 buspools realized a profit of \$0.19 per passenger whereas Group 2 buspools incurred a loss of \$0.65.
- b. The operating loss per bus mile is \$0.08. Group 1 buspools showed a profit of \$0.08 per bus mile whereas Group 2 buspools incurred a loss of \$0.35.
- c. A cost comparison of various modes of travel and trip lengths indicates that the buspool is one of the lower cost modes for the 20, 40, 80 and 120 mile round-trip. At capacity, the buspool is the lowest cost mode for all four round-trip distances (see Table 5).
- d. User revenue offsets most or all of the cost of supplying the service. Unlike most public transportation, very little subsidy is provided to the 13 companies for buspool service. The buspool business appears to be somewhat profitable, as some operations have respectable operating ratios which indicate they are doing fairly well.

TABLE 4

MICHIGAN BUSPOOLS OPERATING COSTS, REVENUES & ENERGY USE, 1981

Respondents	Daily Operating Cost	Daily Revenue	Operating Ratio	Operating Cost Per Bus Mile	Revenue Per Bus Mile	Operating Cost Per Passenger	Revenue ^{1/} Per Passenger	Passenger Miles Per Gallon
Group 1	\$ 912	\$1036	88.0	\$0.59	\$0.67	\$1.38	\$1.57	132
Round-Trip Average.	61	69	88.0	0.59	0.67	1.38	1.57	132
Group 2	\$1218	\$ 884	137.6	\$1.28	\$0.93	\$2.35	\$1.70	168
Round-Trip Average	135	98	137.8	1.28	0.93	2.35	1.70	168
Total	\$2130	\$1920	110.9	\$0.85	\$0.77	\$1.81	\$1.63	150
Round-Trip Average	89	80	110.9	0.85	0.77	1.81	1.63	150

Notes: ^{1/} Passengers per gallon was determined assuming a fuel consumption rate of 6 miles per gallon.

Source: Michigan Department of Transportation, Mass Transportation Planning Section, "Michigan Buspool Survey" conducted in July and August 1981.

TABLE 5

DAILY OPERATING COST PER PASSENGER^{1/} OF CARPOOLS, VANPOOLS & BUSPOOLS, 1981

Round Trip Distance (Miles)

Type of Pool	20	40	80	120
Carpool				
Drive Alone	\$2.90	\$5.05	\$8.78	\$12.50
Four Passenger	0.87	1.59	2.87	4.15
Vanpool				
12 Passenger	\$2.36	\$2.75	\$3.54	\$4.33
15 Passenger	1.88	2.18	2.77	3.36
Buspool				
Existing	\$2.30	\$2.60	\$3.20	\$3.80
Potential	1.35	1.50	1.85	2.20

Notes: ^{1/} See Appendix E for more detailed data and assumptions used to determine these cost figures.

Source: Michigan Department of Transportation, Mass Transportation Planning Section.

TABLE 6

COMPARATIVE ENERGY EFFICIENCIES OF CARPOOLS, VANPOOLS, & BUSPOOLS, 1981

Type of Pool	Passenger Miles/Gallon		Existing as % of Potential
	Existing	Potential	
Carpool ^{1/}			
Drive Alone	5/15	25/15	100.0%
Average Carpool	<u>4/</u> 8/23	100/60	38.0%
Vanpool ^{2/}			
12 Passenger	110	120	91.7%
15 Passenger	140	150	93.3%
Buspool ^{3/}	150	254	59.1%

Notes: ^{1/} The two carpool figures shown for each item are "sub-compact/standard." Fuel consumption rates of 25 mpg and 15 mpg have been used for subcompact and standard autos respectively.

^{2/} Vanpool existing passenger miles per gallon (pmg) assumes 1 driver and 10 passengers for a 12 passenger van, and 1 driver and 13 passengers for a 15 passenger van. A fuel consumption rate of 10 mpg was used for both vans.

^{3/} Buspool existing passenger miles per gallon is based on the buspool fleet surveyed and assumes a fuel consumption rate of 6 mpg.

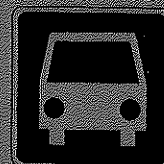
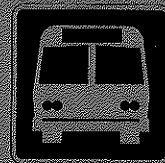
^{4/} The average existing carpool is assumed to be 1.5 persons per auto.

Source: Michigan Department of Transportation, Mass Transportation Planning Section.

3. Energy Efficiency

- a. The energy efficiency of Michigan buspools averages 150 passenger miles per gallon, with the range being 60 to 228.
- b. The potential energy efficiency is about 254 passenger miles per gallon. The range is 198 to to 282 for the different vehicles comprising the fleet.
- c. A comparison between buspool, single occupancy autos, two and four passenger carpools, and 12 and 15 passenger vanpools reveals that the buspool is the most energy efficient. The buspool at existing ridership levels achieves the highest passenger miles per gallon with the 150 passenger van being second at 140. The lowest is the single passenger standard automobile (see Table 6).

APPENDICES



APPENDIX A

MICHIGAN BUSPOOL SURVEY RESPONDENTS BY MPSC CLASS

Class I

1. Indian Trails, Inc., 109 E. Comstock, Owosso, MI 48869
Dave Hatfield (517) 725-5105

Class II

2. Michigan Trailways, Inc., 12154 N. Saginaw, Clio, MI 48420
Bob Mitchell (313) 687-2970
3. Tower Bus, Inc., 363 N. Gratiot, Mt. Clemens, MI 48403
Harry Shade (313) 469-2000

Class III

4. Shubat Bus Company, 117 E. Caspian Ave., Box 275, Caspian, MI 49915
Joe and Dorothy Shubat (906) 265-9556

Class IV

5. Davis Coaches, 4815 Lincoln, Box 494, Quinnisec, MI 49876
Gary Davis (906) 774-9140
6. Ionia Express, 2501 E. Main, Ionia, MI 48847
Leo Fisher (616) 527-9457
7. Lake Odessa Blue Goose, 7911 Velte, Lake Odessa, MI 48849
Jerry Newman (616) 374-8360
8. Maple Valley Road Runner, 7730 Allen Rd., Ashley, MI 48806
Robert Campbell (517) 847-3251
9. Marquette Bus Service, 1414 Garfield Ave., Marquette, MI 49855
Peg Braamse (906) 225-0294
10. Northern Michigan Coaches, Inc., 1922 Enterprise, Marquette, MI 49855
Dale Johnson (907) 226-7573
11. Paul Swift, Rte., #2, Vermontville, MI 49096
(517) 725-0043
12. Southend Transportation, Rte. #2, Box 110, Trout Creek, MI 49967
Arlene Olson (906) 852-3211
13. White Pine Transit Company, Inc., 400 E. Florence St., Ironwood, MI 49938
Rudy Grbavcich (906) 932-4731

B. Fleet Data

1. How many vehicles do you operate? _____. Are vehicles operated by employees who work at the plant? _____
2. What type of vehicles are being utilized?

<u>Vehicle Type</u>	<u>No. of Vehicles</u>	<u>No. of Seats/Vehicle</u>	<u>Mileage</u>	<u>New/Used/Rebuilt</u>
Intercity Coach	_____	_____	_____	_____
Urban/Suburban Coach	_____	_____	_____	_____
School Bus	_____	_____	_____	_____
Van	_____	_____	_____	_____

3. Problems obtaining vehicles? _____
4. Plans for service expansion? _____
5. How is vehicle maintenance achieved (self, local garage, dealer, other)? _____

C. Fares

1. Are drivers compensated (free fare or paid)? _____
2. Fare _____. Are weekly, biweekly, monthly passes available _____
If so, how much. _____
3. How is fare collected (paid to operator, billing or paid to driver)? _____
4. Are there any problems with obtaining insurance? _____
5. Average cost per vehicle for insurance? _____

D. Cost Data

1. Operator's estimate of cost/mile? _____.
2. Operator's estimate of total round trip cost? _____.

E. Ridership Information

1. Average number of passengers per round trip? _____. If full, is there a waiting list? _____.
2. Pickup and discharge. Are passengers picked up at home or at various pickup points? _____. How many? _____.
Are passengers dropped off at more than one work location? _____.
How many? _____.
3. Are there any problems obtaining passengers? _____
_____.

F. General

1. How would the operator feel about free advertising through local ridesharing offices? _____
_____.
2. What advice would you give others who might be thinking of starting a similar service somewhere else in Michigan? _____
_____.
3. Would you be willing to answer questions from others interested in starting a similar service? _____.
4. Based on your experience so far, is there anything that can be done by the state to make buspool service better or easier to operate?

_____.

5. Are there any problems not already mentioned? _____

Person doing survey _____

Date _____

APPENDIX C

LOCAL RIDESHARING AGENCIES, 1982

1. Kalamazoo Area Transportation Study
P.O. Box 2826
Kalamazoo, MI 49003
(616) 342-RIDE (7433)
2. Calhoun County
Dept. of Planning & Deve. Coordination
County Building
Marshall, MI 49068
(616) 781-0825
3. Jackson Commuter Pool
2350 E. High
Jackson, MI 49203
(517) 788-7844 or 787-8363 (Ext. 25)
4. Ann Arbor Transportation Authority
331 S. Fourth Avenue
Ann Arbor, MI 48104
(313) 973-6500
5. Southeastern Michigan Council of
Governments
RideMatch - Book Building
1249 Washington Blvd.
Detroit, MI 48226
(313) 961-4266 (Ext. 271)
6. Capital Area Transportation Authority
4615 Tranter Avenue
Lansing, MI 48910
(517) 394-1100
7. Genesee County Metropolitan Planning
Commission
1101 Beach Street
Flint, MI 48502
(313) 257-3010
8. Muskegon Area Ridesharing Service
923 Witham Drive
Muskegon, MI 49445
(616) 744-3333
9. West Michigan Regional Planning Commission
Commuter Connection
1204 Peoples Building
60 Monroe Ave., N.W.
Grand Rapids, MI 49503
(616) 458-SAVE (7283)
10. Commuter Connector
Isabella Co. Transportation Commission
P.O. Box 244
Mt. Pleasant, MI 48858
(517) 773-1677
11. Saginaw County Metropolitan Planning
Commission
County Administration Building
111 S. Michigan Avenue
Saginaw, MI 48602
(517) 790-5284
12. Bay County Metropolitan Transportation
Authority
1510 N. Johnson Street
Bay City, MI 48706
(517) 894-2909

LOCAL RIDESHARING AGENCIES, 1982 - (Cont.)

13. Southwestern Michigan Regional Planning Commission
2907 Division Street
St. Joseph, MI 49085
(616) 983-1529
14. Oakland County Road Commission
31101 Lahser Road
Birmingham, MI 48010
(313) 645-2000 (Ext. 277)
15. Northwest Michigan Regional Planning & Development Commission
160 E. State Street
Traverse City, MI 49684
(616) 946-5922
16. Northeast Michigan Community Service Agency, Inc.
Community Development Division
P.O. Box 297
Alpena, MI 49707
(517) 356-3474
17. Western Upper Peninsula Planning & Development Region
P.O. Box 365
Houghton, MI 49931
(906) 482-7205
18. Central Upper Peninsula Planning & Development Regional Commission
2415 14th Avenue South
Escanaba, MI 49829
(906) 786-9234
19. Eastern Upper Peninsula Regional Planning & Development Region
416 Ashmun
Sault Ste. Marie, MI 49783
(906) 635-1581
20. West Michigan Shoreline Regional Development Commission
500 Hackley Bank Building
Muskegon Mall
Muskegon, MI 49440
(616) 722-7878
21. East Central Michigan Planning & Development Region
500 Federal Avenue
P.O. Box 930
Saginaw, MI 48606
(517) 752-0100
22. South Central Michigan Planning Council
72 East Michigan
Galesburg, MI 49053
(616) 665-4221

APPENDIX D

COMPARATIVE COSTS PER PASSENGER COMMUTING BY CARPOOL, BUSPOOL AND VANPOOL (1981 \$'s)

Daily ^{4/} Round Trip	Drive Alone	CARPOOL ^{1/}				BUSPOOL ^{2/}		SEVP 12 Pass.	VANPOOLS ^{3/}		
		Shared Driving		Shared Riding		Actual	Potential		MichiVan 12 Pass.	SEVP 15 Pass.	MichiVan 15 Pass.
		2 Pass.	4 Pass.	2 Pass.	4 Pass.						
<u>Annual</u>											
20 Subcompact	\$ 726	\$ 398	\$ 217	\$ 363	\$ 182	\$575	338	\$462	\$590	\$403	\$471
Standard	1,062	582	316	531	266						
40 Subcompact	1,262	718	398	632	316	650	375	567	689	483	544
Standard	1,857	1,053	582	929	465						
80 Subcompact	2,194	1,250	718	1,097	549	800	463	775	885	643	692
Standard	3,251	1,844	1,053	1,626	813						
120 Subcompact	3,126	1,782	1,038	1,562	782	950	550	1,073	1,082	883	839
Standard	4,645	2,635	1,524	2,323	1,161						
<u>Monthly</u>											
20 Subcompact	\$ 61	\$ 34	\$ 18	\$ 31	\$ 16	\$ 48	28	\$ 39	\$ 49	\$ 34	\$ 39
Standard	89	49	27	45	23						
40 Subcompact	106	60	34	53	27	55	32	47	57	40	45
Standard	155	88	49	75	39						
80 Subcompact	183	105	60	92	46	67	39	65	74	54	58
Standard	271	154	88	136	68						
120 Subcompact	261	149	87	130	65	80	46	89	90	74	70
Standard	387	220	127	194	97						
<u>Daily</u>											
20 Subcompact	\$ 2.90	\$ 1.60	\$ 0.87	\$ 1.45	\$ 0.73	\$2.30	\$1.35	1.78	2.36	\$1.55	\$1.88
Standard	4.25	2.33	1.26	2.12	1.06						
40 Subcompact	5.05	2.87	1.59	2.53	1.26	2.60	1.50	2.18	2.75	1.86	2.18
Standard	7.43	4.21	2.33	3.72	1.86						
80 Subcompact	8.78	5.00	2.87	4.39	2.20	3.20	1.85	2.98	3.54	2.47	2.77
Standard	13.00	7.38	4.21	6.50	3.25						
120 Subcompact	12.50	7.13	4.15	6.25	3.13						
Standard	18.58	10.54	6.10	9.29	5.64	3.80	2.20	4.13	4.33	3.40	3.36

40

NOTES TO APPENDIX D

- Notes: 1/ Figures obtained from "Annual Costs of Commuting," FHWA, 1979 dollars. Total costs include estimates of oil, tires, maintenance, repairs, gasoline, insurance, depreciation, finance charges, taxes and license fees. Figures based on 25 mpg for subcompact, 15 mpg for standard, and 250 working days per year.
- 2/ Figures developed from survey of buspool operators in Michigan during July and August 1981 conducted by Mass Transportation Planning Section, Bureau of Transportation Planning, MDOT. Buspool figures are for the 24 vehicle fleet with an average use of 58% capacity. Potential figures are based on 100% capacity.
- 3/ Two sets of figures were used. The first set is for the Michigan State Employee Vanpool Program for both the 12 and 15 passenger vans. The second set is for the MichiVan Vanpool Program, for both the 12 and 15 passenger vans. Since both programs operate near capacity, passenger loadings on the 12 passenger van were computed based on one driver and 10 passengers and the 15 passenger van, one driver and 13 passengers. Figures for both programs are November 1981.
- 4/ Round-trip distances of 20, 40, and 80 miles that were used appear in "Annual Costs of Commuting," FHWA, U.S. DOT. The 120 mile round-trip was estimated by MDOT because 1/3 of all buspool trips were over 100 miles. Carpool figures were developed for the 120 mile trip by adding the same dollar value increase which occurred between 40 and 80 miles to the 80 mile round trip figure.

Source: Michigan Department of Transportation, Mass Transportation Planning Section.