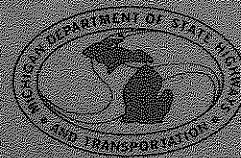


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# Ridership And Travel Characteristics ....



# Michigan Intercity Bus Study



MICHIGAN DEPARTMENT OF STATE  
HIGHWAYS AND TRANSPORTATION

MICHIGAN DEPARTMENT  
OF  
STATE HIGHWAYS AND TRANSPORTATION

MICHIGAN INTERCITY BUS STUDY  
RIDERSHIP AND TRAVEL  
CHARACTERISTICS

NOVEMBER 1977

Bureau of Transportation Planning  
Modal Planning Division  
Mass Transportation Planning Section

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If you desire additional detailed information on any aspect of the surveys, please contact the Mass Transportation Planning Section, Bureau of Transportation Planning, State Highways Building, P.O. Box 30050, Lansing, Michigan, 48909 -- telephone 517/373-1880.

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## EXECUTIVE SUMMARY

This report includes summary information obtained from May 1977 intercity bus on-board and ticket surveys conducted in selected locations throughout Michigan. The purpose of the report is to gain insight into the socio-economic and travel characteristics of Michigan's intercity bus passengers. The report complements a 1974 study conducted by the Michigan Department of State Highways and Transportation entitled "Michigan Intercity Bus Study, Phase I, Inventory and Analysis."

Section I of this report presents major findings from the on-board survey. This survey was conducted in twelve travel corridors and involved the distribution of 3,292 questionnaires to intercity bus passengers. A total of 2,454 or 75 percent were returned and are the basis of the analysis contained herein. Major findings of the study include the following:

- o 53 percent of the passengers traveled by automobile at the origin and destination ends of their bus trips.
- o 50 percent of the passengers were riding the bus to "visit friends or relatives" and another 17 percent reported "personal business" as their trip purpose.
- o 47 percent of the passengers were 18-29 years of age while 25 percent were 50 or older.
- o 23 percent of the passengers were college students followed by homemakers (14 percent), retired (13 percent) and professional/technical/managerial (11 percent).
- o Approximately 67 percent of the respondents had one or more automobiles or truck type vehicles in their household.
- o 27 percent of the passengers came from families having an annual income of \$6,000 or less while 27 percent came from families having an income of \$15,000 or over.
- o Approximately 60 percent of the passengers were females.

The results of the various corridor surveys were quite similar with the exception of corridors with college oriented stations. Stations located adjacent to a college campus had an above average number of riders who walked to the bus station. Friday ridership tended to be much higher than weekday (Monday-Thursday) ridership. College students reported an above average family income and above average number of automobiles or truck type vehicles in their household.

Section II of the report summarizes the results of the ticket survey. This survey was conducted at 36 intercity bus stations throughout the state. Tickets were counted and recorded by destination for at least seven consecutive days at each station. Round trip ticket information was obtained at eight of the stations.

Major findings of the survey include the following:

- o During the week of May 9-15, 1977, 14,233 total tickets were sold at the 36 surveyed stations for a daily average of 2,033 tickets.
- o Average daily ticket sales ranged from 695 at Detroit to 0.3 at Bad Axe.
- o Friday was the busiest day with 3,489 total ticket sales representing 25 percent of the total weekly sales.
- o Total weekly ticket sales at the smaller stations were very consistent for the four weeks in May ranging from 1,014 to 1,066.
- o Round trip ticket sales accounted for 33.2 percent of all tickets sold at the Detroit station and an average of 21.8 percent of total ticket sales at seven other surveyed stations.
- o The month of May typifies an average month for intercity bus patronage since it avoids both the low and high ridership periods experienced by the industry.
- o Approximately two-thirds of all tickets sold had a Michigan destination while one-third had an out-of-state destination.
- o Detroit was the most important Michigan destination generally followed by the larger urbanized areas in the state.
- o The largest out-of-state destination was Chicago with 116.2 trip destinations per day.
- o 406 or 58 percent of all daily trips with an out-of-state destination originated at the Detroit station.

## INTRODUCTION

The Michigan Department of State Highways and Transportation has an active program to assist the intercity bus industry in Michigan. These programs involve:

- o Planning Assistance - Statewide and regional studies and surveys.
- o Capital Equipment - Six year loans for certified carriers to purchase new equipment and upgrade bus fleets in the state.
- o Operating Assistance - Funding to assist in the establishment of new routes and services.
- o Passenger Terminal Facilities - Funds to develop intercity terminal facilities and improvements designed to provide better services to intercity rail and bus passengers and to integrate, where possible, all available public transportation services.

A major planning study entitled "Michigan Intercity Bus Study, Phase I, Inventory and Analysis" was published in July 1974. This study documented past and present trends experienced by the industry in Michigan and the nation. A major deficiency at that time was an absence of socio-economic and travel information for intercity bus passengers. The surveys documented in this report are designed to correct that deficiency and provide a more complete information base for Departmental programs.

This report presents summary information obtained from two surveys conducted in May 1977. Section I summarizes information obtained from an on-board survey of intercity bus passengers and Section II summarizes information obtained from a ticket survey. The appendices contain more detailed information on selected aspects of both surveys. All information obtained from the surveys has been keypunched and computer processed. The purpose of this report is to present and summarize the most important findings of the surveys.



## I. ON-BOARD SURVEY

### Purpose and Procedures

The major objectives of the on-board survey were to obtain data on the socio-economic and travel characteristics of intercity bus passengers.

Procedures utilized in conducting the on-board survey included the selection of two stations along the same intercity bus corridor. Passengers traveling on scheduled intercity buses between the two stations were given a questionnaire. The questionnaires were handed out at one station and collected at the other. The procedure was reversed for passengers traveling in the opposite direction. The East Lansing, Flint, and Detroit stations and the Benton Harbor, Kalamazoo, and Grand Rapids stations were treated as a triangle. Passengers traveling between any of the separate set of three stations were included in the survey. Questionnaires were handed out to all passengers boarding a bus at a particular station and also to those with origins at a previous station who remained on the bus. Pencils were supplied to all passengers.

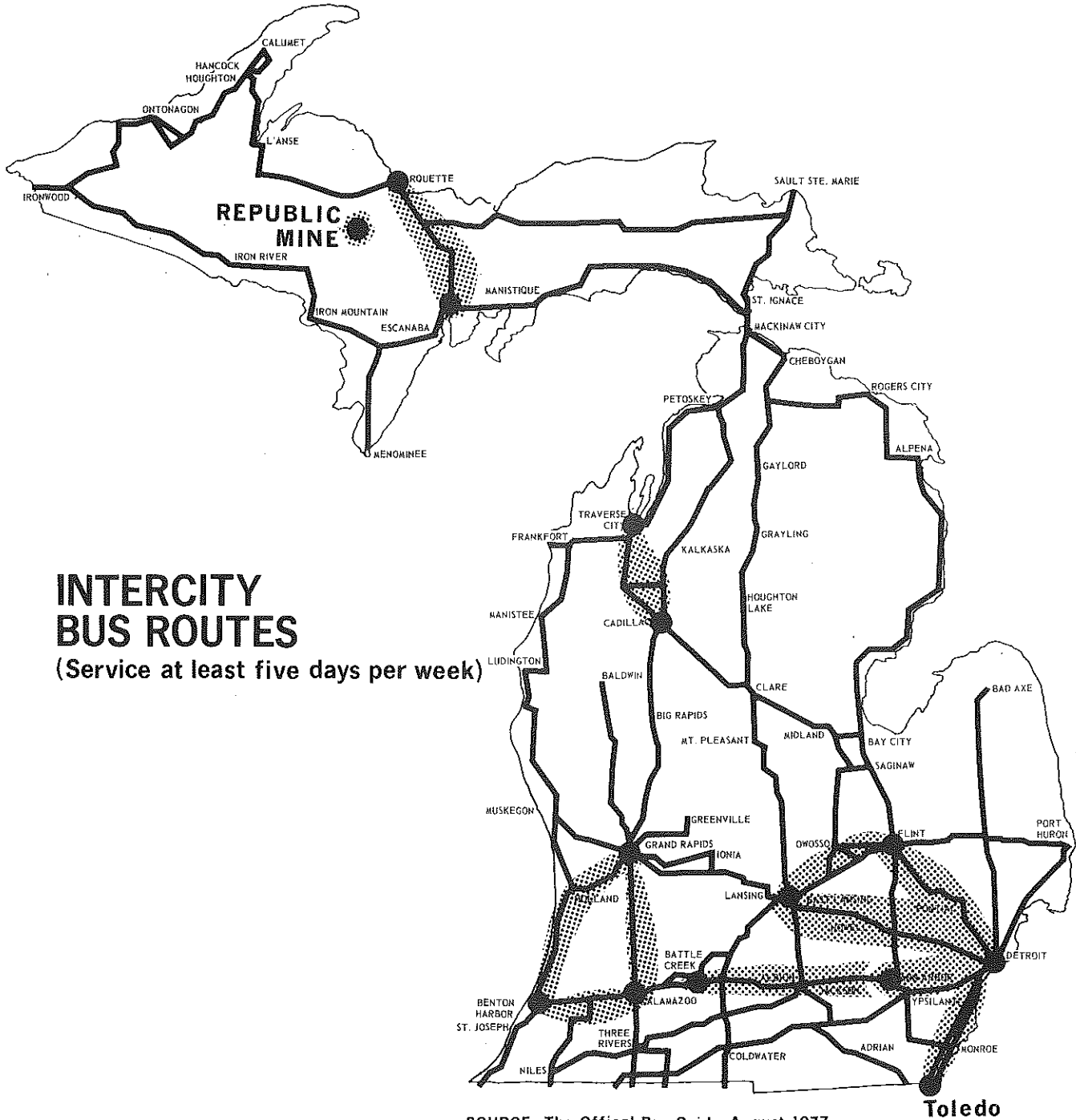
The questionnaires and procedures were finalized after a pretest conducted at the Lansing-East Lansing stations on April 6, 1977. A copy of the questionnaire is included as Appendix A. The survey was conducted by the Transportation Surveys Section of the Michigan Department of State Highways and Transportation. The primary responsibility of the Transportation Surveys Section is to conduct urbanized and urban area origin and destination studies, vehicle classification, speed, and rest area studies needed for the planning and development of Michigan's transportation system. The scheduling of the on-board survey during May avoided the survey crews peak work load starting in June and extending through the summer

months. The availability of the survey crew greatly simplified the training aspects of the survey. The crew is experienced in conducting surveys, meeting with the public and assigning work responsibilities and schedules. A bus schedule was developed for each survey station depicting the departures and arrivals by company for all buses included in the survey. The survey crew wore identification tags and carried letters from the Michigan Department of State Highways and Transportation and the major bus companies indicating that the survey was approved by all parties. The letters were shown to bus drivers when requested.

The survey crew handed out questionnaires after all passengers with a destination at the particular station had departed and all passengers with an origin at the station had boarded the bus. The public address system on the bus was used to briefly explain the purpose of the survey. Questionnaires and pencils were handed out to all passengers who were awake and mature enough to fill out the form. Passengers who left the bus at an intermediate station before the forms were picked up were requested to leave the completed form on their seats.

Map 1 outlines the stations included in the survey and shows their relationship to the major intercity bus routes in Michigan. Appendix B outlines the survey dates and the number of questionnaires handed out at each station. The surveys at several of the stations were conducted on two consecutive weekdays (Monday-Thursday). This allowed the field crew to survey as many buses as possible while allowing for convenient travel times between stations. The surveys, at these stations, were conducted during the afternoon of the first day and the morning of the second day. The only exception was the East Lansing, Flint, Detroit triangle. The survey for this triangle was conducted on Thursday, May

# INTERCITY BUS ON-BOARD SURVEY CORRIDOR LOCATION



**INTERCITY  
BUS ROUTES**  
(Service at least five days per week)

SOURCE: The Official Bus Guide, August 1977

Toledo

12, 1977 and Friday, May 13, 1977 to provide direct comparison between a normal weekday and a Friday.

Questionnaires were numbered consecutively to identify the station at which they were handed out. Station locations were chosen to obtain as many responses as possible while providing good statewide geographic coverage and good coverage of major intercity bus carriers. A total of 3,292 questionnaires were handed out with 2,454 or 75 percent being returned.

### Survey Results

The results of the individual corridor surveys are included in Appendix C. The East Lansing, Flint and Detroit corridor surveys include the overall results for both survey days plus the individual results of the Thursday, May 12, 1977 and Friday, May 13, 1977 surveys. A statewide summary for all questionnaires is also included in the Appendix. A separate statewide summary was also tabulated that excludes the survey conducted at the Republic Mine. Intercity bus service is provided to Republic Mine employees for their daily work trips. The work trip service differs substantially from the more typical service provided by the intercity bus industry.

Table 1 outlines the results for each corridor and the statewide summaries. It provides a convenient format for comparing the results among the various corridors and statewide summaries. The table also includes the return rate for each corridor. All percentages are based upon the total number of returned questionnaires including questionnaires with no responses for the particular question. A percentage is included for no responses. Figures 1 through 8 are bar graphs depicting the results of selected questions from the statewide

Table 1. Intercity Bus On-Board Survey Corridor Summary (Percent of Total Returned Questionnaires)

	Jackson-Ann Arbor	Detroit-Toledo	Traverse City-Cadillac	Detroit-Chicago	Escanaba-Marquette	Kalamazoo-Benton Harbor	Grand Rapids-Benton Harbor	Grand Rapids-Kalamazoo	Detroit-East Lansing Thursday, May 12	Detroit-East Lansing Friday, May 13	Detroit-East Lansing Total	Detroit-Flint Thursday, May 12	Detroit-Flint Friday, May 13	Detroit-Flint Total	East Lansing-Flint Thursday, May 12	East Lansing-Flint Friday, May 13	East Lansing-Flint Total	Republic Mine	Total State Minus Republic Mine	TOTAL STATE
3. Get to Bus																				
No Response	0	1	0	2	0	2	2	0	1	0	1	2	0	1	2	1	1	0	1	1
Walk	15	5	8	13	10	9	4	16	35	34	34	14	8	11	17	27	23	42	17	19
Auto	48	65	58	50	63	60	51	38	41	38	39	59	62	60	60	50	54	58	53	53
Taxi	18	13	17	13	11	8	9	11	6	7	7	9	9	9	8	5	7	0	10	10
Intercity Bus	6	5	8	5	4	7	4	11	3	5	4	2	3	3	6	1	3	0	5	4
Local Bus	10	6	8	12	6	10	22	22	11	14	13	9	14	11	5	12	9	0	10	10
Commuter Train	0	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amtrak Train	0	0	0	0	0	0	5	0	0	0	0	0	1	0	0	1	0	0	0	0
Other	3	4	0	1	4	3	4	3	2	2	2	4	5	4	3	3	3	0	3	3
4. Get to Destination																				
No Response	1	3	0	2	0	3	0	0	1	1	1	2	1	2	4	1	2	0	2	2
Walk	14	3	13	7	18	16	13	14	13	17	15	11	6	9	8	14	11	65	11	15
Auto	41	52	67	44	45	56	53	43	63	60	61	49	62	56	45	69	59	35	53	52
Taxi	21	25	8	19	18	11	15	14	9	9	9	16	16	16	25	6	14	0	16	15
Intercity Bus	6	3	4	4	4	4	13	0	3	3	3	9	3	6	6	1	3	0	4	4
Local Bus	13	9	0	20	7	4	0	24	8	7	8	8	8	8	4	4	4	0	9	9
Commuter Train	0	0	0	2	1	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0
Amtrak Train	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Other	4	3	8	3	8	3	5	3	3	4	3	5	3	4	8	4	6	0	4	4

Table 1. Intercity Bus On-Board Survey Corridor Summary (Percent of Total Returned Questionnaires) - continued

	Jackson-Ann Arbor	Detroit-Toledo	Traverse City-Cadillac	Detroit-Chicago	Escanaba-Marquette	Kalamazoo-Benton Harbor	Grand Rapids-Benton Harbor	Grand Rapids-Kalamazoo	Detroit-East Lansing Thursday, May 12	Detroit-East Lansing Friday, May 13	Detroit-East Lansing Total	Detroit-Flint Thursday, May 12	Detroit-Flint Friday, May 13	Detroit-Flint Total	East Lansing-Flint Thursday, May 12	East Lansing-Flint Friday, May 13	East Lansing-Flint Total	Republic Mine	Total State Minus Republic Mine	TOTAL STATE
<b>5. Trip Purpose</b>																				
No Response	1	4	0	1	2	3	2	0	1	0	1	4	3	3	4	1	2	1	2	2
Work	9	7	8	12	8	8	9	14	9	7	8	7	7	7	7	5	6	99	8	14
Shopping	1	1	0	0	2	0	4	3	0	2	1	2	1	1	1	2	2	0	1	1
Personal																				
Business	28	14	17	15	9	18	15	16	23	14	18	19	19	19	20	13	16	0	17	16
Visit Friends/Relatives	39	54	63	44	51	42	55	57	46	60	54	39	52	45	46	63	56	0	50	47
Vacation	5	7	4	16	13	12	9	5	3	4	4	5	5	5	5	3	4	0	7	6
Other Social																				
Recreation	3	2	0	1	4	0	0	0	5	4	5	1	3	2	2	5	4	0	3	2
Other	15	11	8	11	11	16	7	5	11	9	10	22	12	17	17	8	12	0	12	11
<b>6. Cars in Household</b>																				
No Response	3	9	8	6	3	4	2	3	3	1	2	7	7	7	5	3	4	1	5	5
None	43	37	25	35	40	39	35	38	25	24	25	33	36	34	43	29	35	7	34	32
One	29	30	33	21	32	29	31	30	23	22	23	33	24	29	18	23	21	26	26	26
Two	14	19	21	22	22	23	13	24	30	29	30	17	22	20	22	25	24	54	22	24
Three+	11	6	13	10	4	5	20	5	19	23	22	9	11	10	12	20	17	13	13	13

Table 1. Intercity Bus On-Board Survey Corridor Summary (Percent of Total Returned Questionnaires) - continued

	Jackson-Ann Arbor	Detroit-Toledo	Traverse City-Cadillac	Detroit-Chicago	Escanaba-Marquette	Kalamazoo-Benton Harbor	Grand Rapids-Benton Harbor	Grand Rapids-Kalamazoo	Detroit-East Lansing Thursday, May 12	Detroit-East Lansing Friday, May 13	Detroit-East Lansing Total	Detroit-Flint Thursday, May 12	Detroit-Flint Friday, May 13	Detroit-Flint Total	East Lansing-Flint Thursday, May 12	East Lansing-Flint Friday, May 13	East Lansing-Flint Total	Republic Mine	Total State Minus Republic Mine	TOTAL STATE
<b>7. Ride Last Year</b>																				
No Response	16	28	21	30	26	34	31	22	8	10	9	21	17	19	20	17	18	5	20	19
0-9	66	63	75	54	59	45	49	54	58	53	55	61	57	59	57	54	55	0	58	54
10-19	7	3	0	8	8	12	18	8	16	18	17	11	7	9	6	13	10	1	10	9
20-29	6	3	0	3	3	1	0	11	9	10	10	2	8	5	6	6	6	1	5	5
30-39	2	1	4	3	1	2	2	0	2	2	2	2	5	3	3	3	3	0	2	2
40-49	0	0	0	0	1	3	0	0	2	2	2	0	3	2	4	2	3	1	1	1
50-59	0	1	0	0	0	0	0	0	2	2	2	1	0	1	0	3	2	1	1	1
60-69	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
70-79	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0
80-89	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
90-99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100+	1	1	0	2	2	2	0	5	3	1	2	0	2	1	6	2	4	89	2	8
<b>8. Occupation</b>																				
No Response	2	7	4	3	3	4	0	0	1	1	1	4	5	5	3	2	2	1	3	3
Professional	12	9	13	20	11	8	9	22	13	10	11	9	7	8	11	5	8	6	11	11
Craftsman	7	6	4	5	1	7	4	11	2	4	3	5	3	4	3	3	3	84	5	10
Services	4	4	0	4	7	2	2	8	3	1	2	2	2	2	3	3	3	2	3	3
Office	4	4	0	8	5	3	0	3	1	5	3	4	4	4	6	5	5	0	4	4
Homemaker	14	24	21	14	14	16	22	11	7	7	7	2	16	14	16	8	11	0	14	13
Student	6	4	4	5	3	9	4	0	7	9	8	11	10	10	9	14	12	0	7	7
Student (college)	18	6	8	12	29	10	22	14	48	48	48	9	16	12	18	41	31	1	23	22
Retired	11	17	29	16	17	20	33	19	6	4	5	14	16	15	15	5	9	0	13	12
Unemployed	10	8	8	6	3	14	2	5	7	6	7	13	8	10	5	3	4	0	7	7
Other	11	11	8	7	8	5	4	8	5	6	5	17	13	15	12	12	12	7	9	9

Table 1. Intercity Bus On-Board Survey Corridor Summary (Percent of Total Returned Questionnaires) - continued

	Jackson-Ann Arbor	Detroit-Toledo	Traverse City-Cadillac	Detroit-Chicago	Escanaba-Marquette	Kalamazoo-Benton Harbor	Grand Rapids-Benton Harbor	Grand Rapids-Kalamazoo	Detroit-East Lansing Thursday, May 12	Detroit-East Lansing Friday, May 13	Detroit-East Lansing Total	Detroit-Flint Thursday, May 12	Detroit-Flint Friday, May 13	Detroit-Flint Total	East Lansing-Flint Thursday, May 12	East Lansing-Flint Friday, May 13	East Lansing-Flint Total	Republic Mine	Total State Minus Republic Mine	TOTAL STATE
<b>9. Family Income</b>																				
No Response	13	22	29	19	15	20	18	3	13	12	12	19	15	17	14	20	17	8	17	16
2,999 or less	11	16	8	14	19	15	11	30	13	7	9	14	12	13	19	14	16	1	13	13
3,000-5,999	22	15	8	10	20	18	9	16	9	8	8	15	22	18	13	8	10	0	14	13
6,000-8,999	15	13	25	9	13	10	18	8	8	11	10	14	10	12	15	10	12	0	12	11
9,000-11,999	12	10	13	11	10	8	13	8	7	6	6	9	10	9	9	5	7	4	9	9
12,000-14,999	6	9	4	8	9	7	4	5	9	12	11	9	14	11	5	10	8	27	9	10
15,000-24,999	10	11	8	18	10	10	25	14	17	21	19	15	10	12	16	18	17	59	15	18
25,000+	10	4	4	11	5	11	2	16	23	23	23	5	8	6	9	15	13	1	12	11
<b>10. Sex</b>																				
No Response	5	5	4	4	3	5	2	0	3	3	3	5	3	4	2	5	4	1	4	4
Male	45	32	50	39	42	37	38	49	35	35	35	43	39	41	36	32	33	98	37	41
Female	50	63	46	57	55	58	60	51	62	62	62	52	58	55	63	63	63	1	59	55
<b>11. Age Range</b>																				
No Response	2	5	4	4	2	3	2	0	1	1	1	2	1	2	3	3	3	0	3	2
17 or under	5	4	8	3	3	8	4	3	5	9	7	10	10	10	7	18	13	0	7	6
18-29	49	29	33	37	49	40	36	38	67	71	69	44	39	42	47	59	54	30	47	46
30-39	12	13	4	18	9	9	5	3	8	5	6	4	10	7	10	6	8	30	10	11
40-49	9	12	13	11	8	9	7	11	6	4	5	9	10	10	9	4	6	15	8	9
50-64	15	22	13	16	17	12	25	22	6	5	5	18	17	17	11	6	8	25	14	15
65+	9	16	25	12	13	18	20	24	7	4	6	12	13	12	13	5	8	1	11	11
<b>Total Returns</b>	218	416	24	226	101	97	55	37	230	312	542	161	154	315	107	147	254	168	2,286	2,454
<b>Total Hand-Outs</b>	268	608	33	308	111	127	64	43	301	500	801	201	211	412	134	201	335	182	3,110	3,292
<b>Percent Returned</b>	81	68	73	73	91	76	86	86	76	62	68	80	73	77	80	73	76	92	74	75



summary. The results from the Republic Mine survey are not included in the bar charts.

Slightly over one-half of the passengers returning questionnaires traveled in an automobile to get to the bus and to get to their destination after leaving the bus. The modes of travel at the origin and destination ends of the bus trips are very similar. Slightly fewer persons, however, walked or took a taxi to their destination than they did to get to the bus at the beginning of their trip. After the automobile mode, the next most important modes for getting to the bus or to the final destination were walk, taxi and local bus. Approximately 10 percent of the intercity bus passengers used local bus service to get to the bus or to get to their destination.

Approximately one-half of the passengers returning questionnaires had ridden an intercity bus up to nine times during the past twelve months. One-half of the passengers road the bus to visit friends or relatives. Personal business was the next most important trip purpose. The "visit friends or relatives" and "personal business" trip purposes combined accounted for over two-thirds of all trips.

Approximately 60 percent of the passengers were females. Almost one-half of the passengers were 18-29 years of age while 25 percent were 50 or older. Approximately 27 percent of the passengers come from families having an annual income of \$6,000 or less while approximately 27 percent came from families having an income of \$15,000 or more.

College students comprised the largest occupation category with 23 percent followed by homemakers with 14 percent, retired with 13 percent and professional with 11 percent.

FIGURE 1

# TRAVEL MODE TO AND FROM INTERCITY BUS

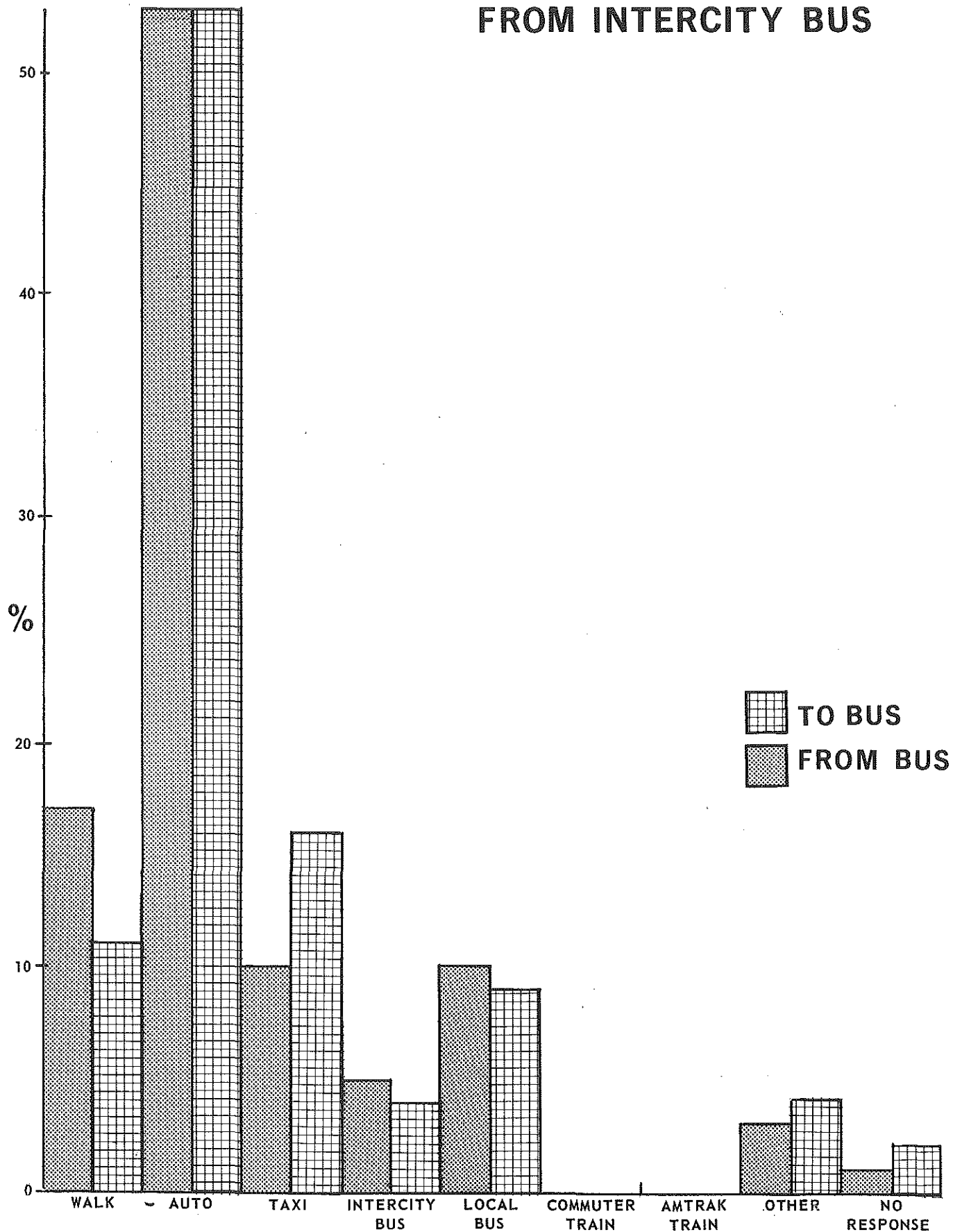


FIGURE 2

# TRIP PURPOSE

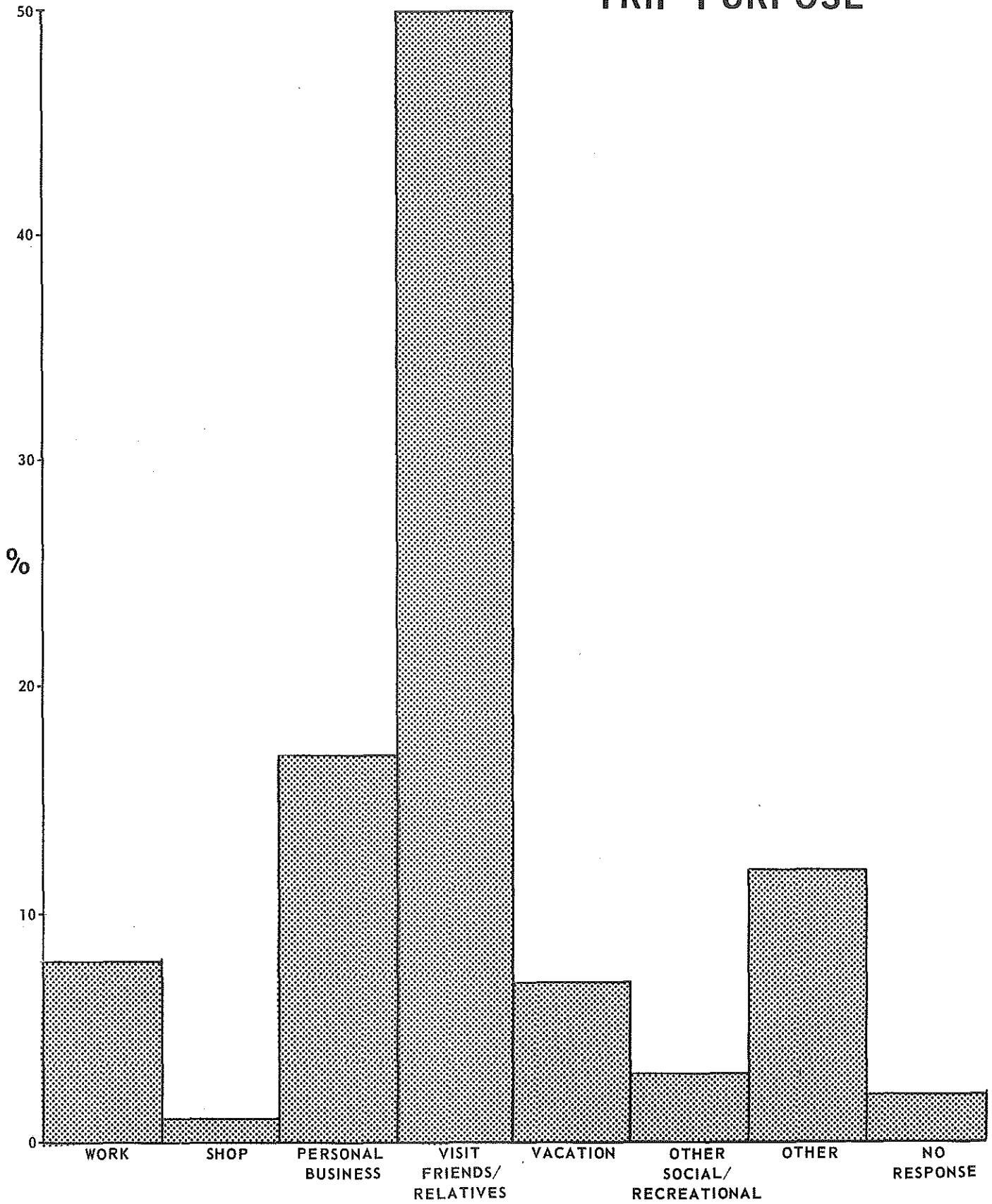


FIGURE 3

# CAR OR TRUCK TYPE VEHICLE OWNED BY HOUSEHOLD

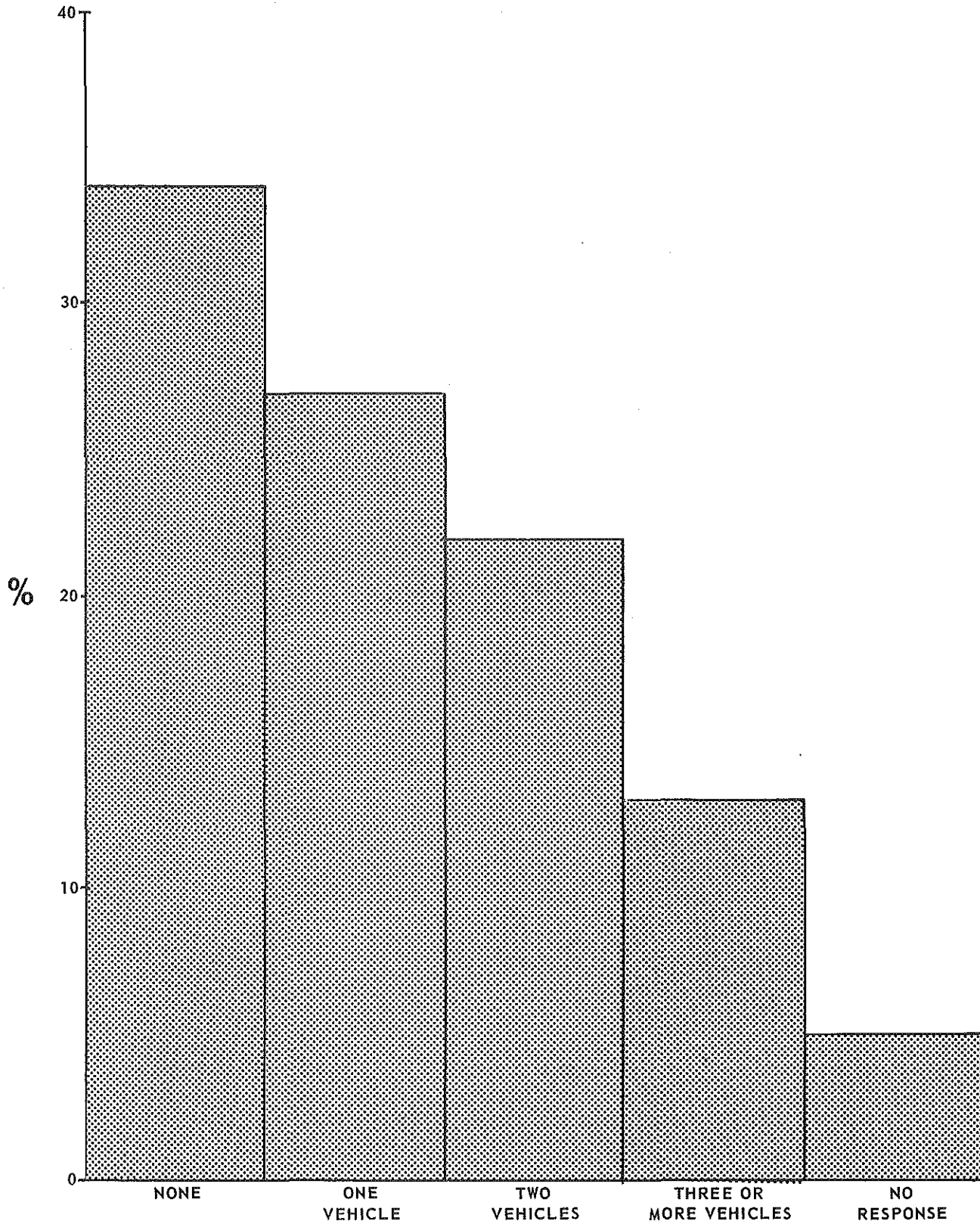


FIGURE 4

# NUMBER OF TRIPS IN PAST TWELVE MONTHS

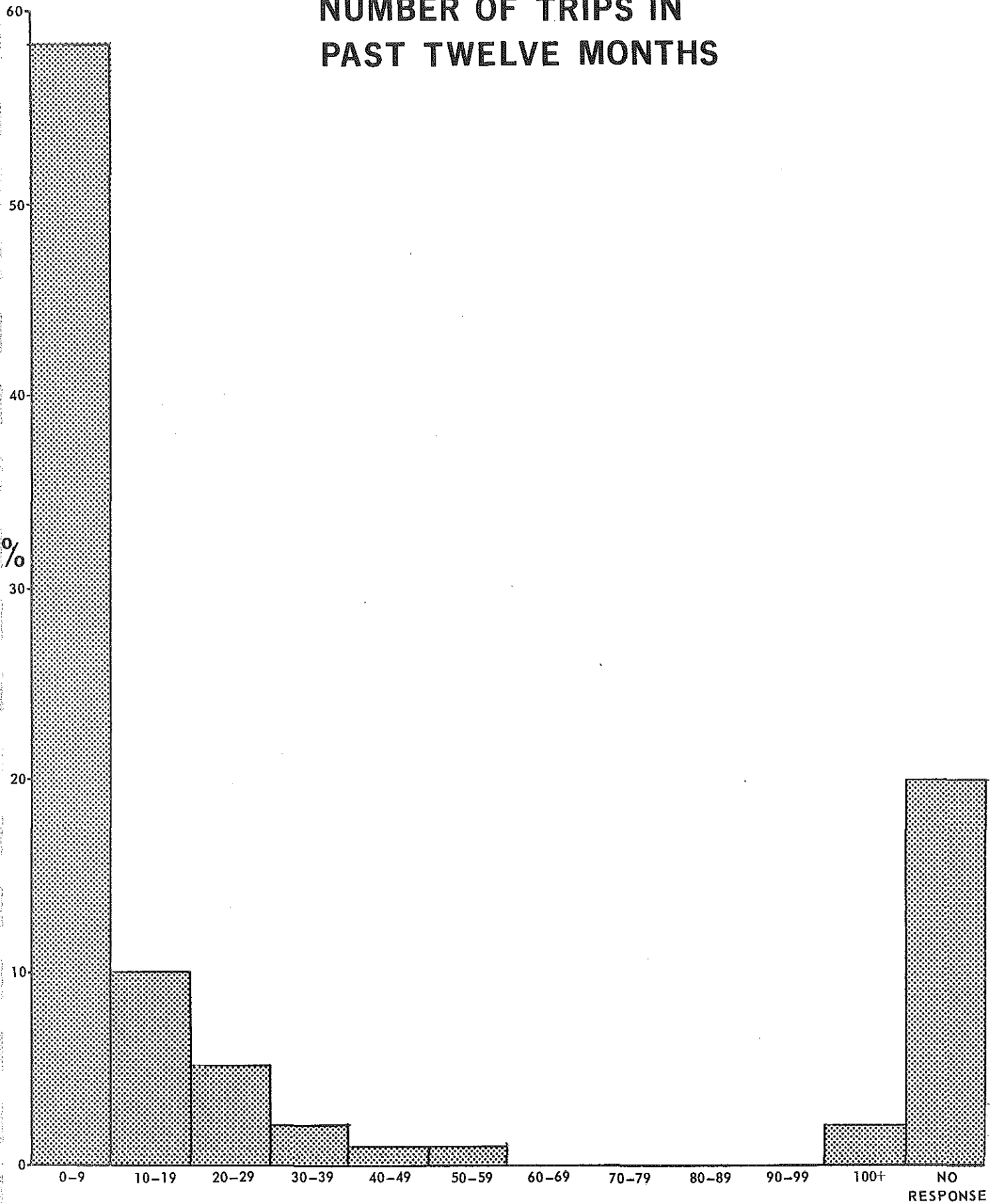
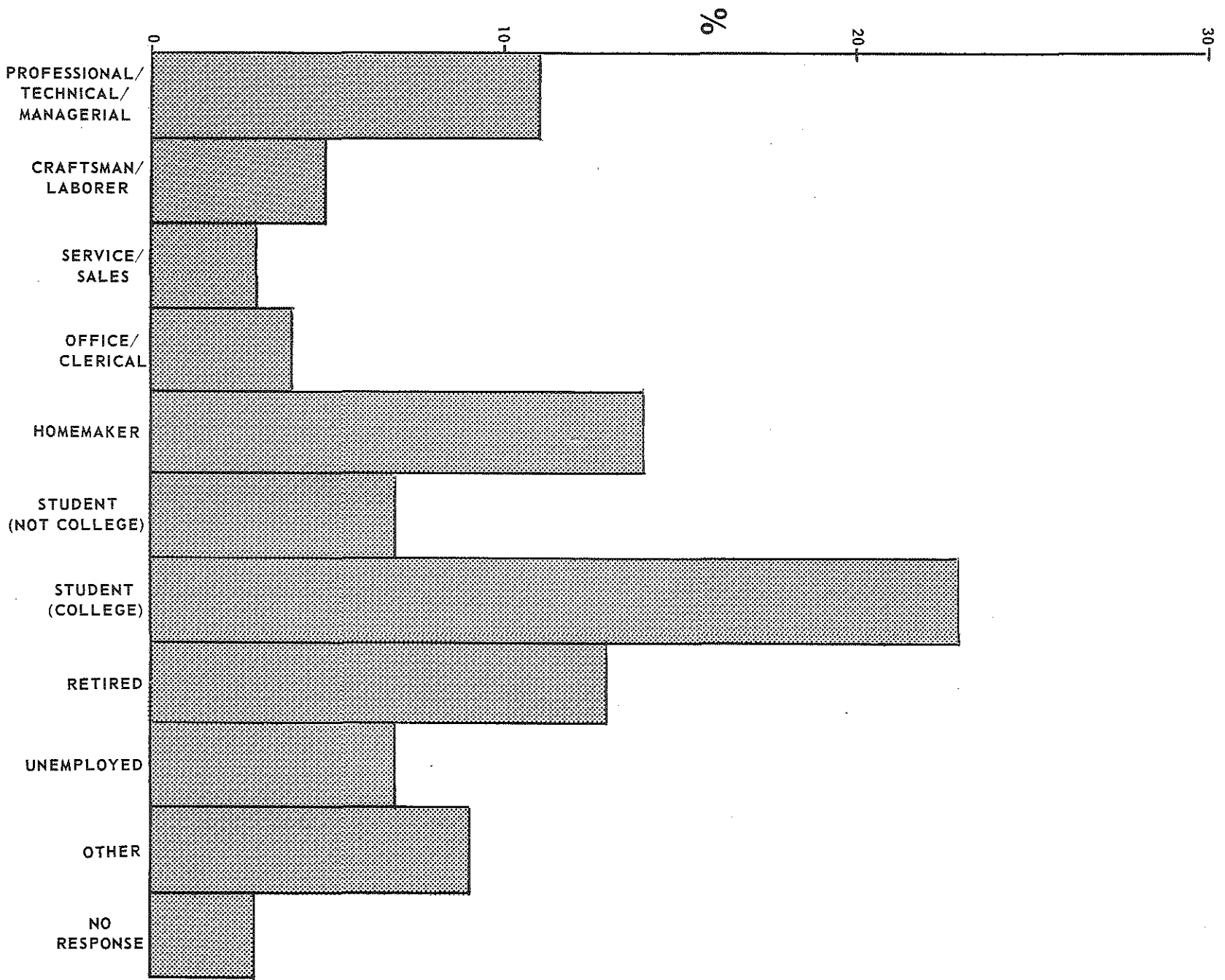


FIGURE 5

# PASSENGER OCCUPATION



# FAMILY INCOME

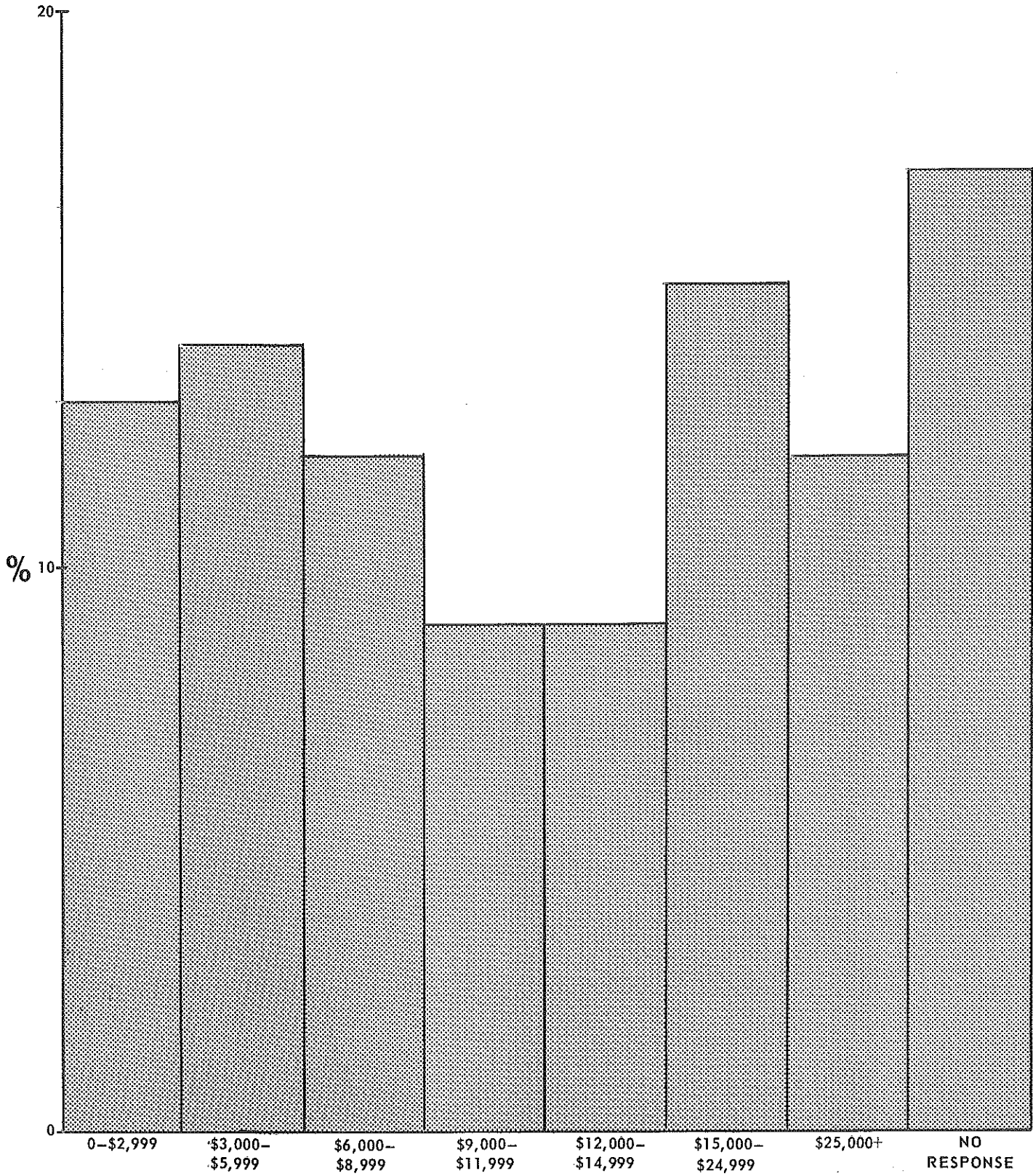
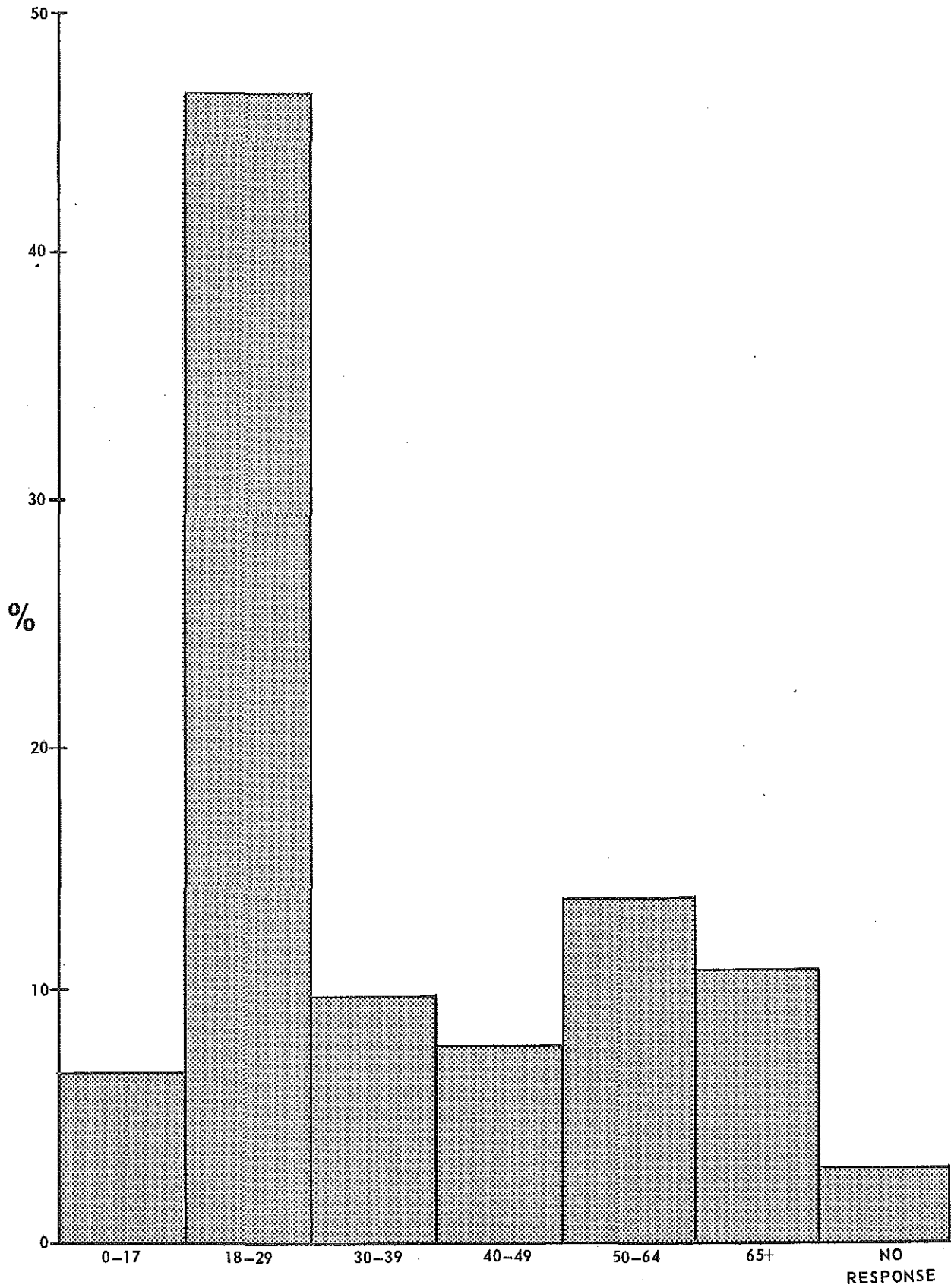


FIGURE 7

# PASSENGER AGE





Of the passengers who returned questionnaires, 62 percent had one or more automobile or truck type vehicles in their household. Of those who returned a questionnaire and answered question 6, 66.5 percent have one or more automobile or truck type vehicles in their household.

Overall, the answers to the individual questions among the various corridors have a high degree of similarity. The major exception was the Republic Mine survey. The uniqueness of the work trip service to the Republic Mine resulted in answers that varied from the typical responses. Almost all of the passengers at the mine were males who walked to the bus. They earned a higher income and had more cars per household than the statewide average. They also rode intercity buses a greater number of times during the last twelve months than the average intercity bus passenger.

Many of the responses for the East Lansing-Flint and East Lansing-Detroit corridors differed from the statewide average. These two corridors accounted for an above average percentage of college students and riders between 18-29 years of age who are more inclined to walk to the bus station. The close proximity of the East Lansing bus station to the Michigan State University campus and the large college student ridership strongly influence the survey results for the two corridors. The students reported an above average family income and corresponding larger number of automobiles in their household, especially in the East Lansing-Detroit corridor. The Escanaba-Marquette corridor also had an above average percentage of college students reflecting the influence of Northern Michigan University located in Marquette. Ferris State College was not in session during the survey period, thus, the Big Rapids survey results do not reflect the influence of the college riders.

There were several differences between the Thursday and Friday responses at the East Lansing-Detroit, East Lansing-Flint and the Detroit-Flint corridors. The percent of college students was highest for the East Lansing-Detroit corridor with a constant 48 percent. The East Lansing-Flint and Detroit-Flint corridors both had a larger percentage of college students on Friday than on Thursday. The percent of college students in the Detroit-Flint corridor was, however, below the statewide average.

#### Selected Cross Tabulations

To gain a better understanding of the characteristics of Michigan's intercity bus riders, the responses to selected questions were cross tabulated with the responses to the trip purpose question. Tables 2 through 5 show the results of the cross tabulations. Visiting friends or relatives accounted for 48 percent of all trip purposes. Passengers 65 and older, students (college and other), homemakers and retired persons accounted for an above average percentage of trips for visiting friends or relatives. Riders who were visiting friends or relatives tended to have more automobiles or truck type vehicles in their household and to use intercity bus service on a much more frequent basis than the average rider.

Personal business was the second most important trip purpose and attracted an above average percentage of professional/technical/managerial, service/sales, office/clerkical, college students and persons in the 18-29 age bracket. Work was the third most important trip purpose and attracted an above average percentage of professional/technical/managerial, service/sales, office/clerkical, college students and persons in the 30-39 age bracket.

Table 2. Trip Purpose by Age

Purpose	Age Groups						All Purposes
	0-17	18-29	30-39	40-49	50-64	65+	
Work	2.6	13.4	31.7	17.6	18.7	2.4	14.7
Shopping	0.7	0.9	0.8	0.0	1.1	3.1	1.1
Personal Business	14.6	19.9	15.1	17.6	11.9	7.5	16.3
Visit Friends/Relatives	51.7	45.6	34.3	45.3	49.1	70.5	47.9
Vacation	7.9	5.2	4.1	6.0	7.9	9.0	6.2
Other Social/Recreational	4.6	3.0	1.9	1.9	1.1	2.0	2.5
Other	17.9	12.0	12.1	11.6	10.2	5.5	11.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Percentage by Age	6.4	47.6	11.2	9.1	14.9	10.8	100.0

Table 3. Trip Purpose by Automobiles Available

Purpose	Automobiles				All Purposes
	0	1	2	3+	
Work	8.3	14.5	23.2	16.0	14.8
Shopping	1.3	1.2	0.8	1.3	1.2
Personal Business	15.4	15.4	16.4	22.1	16.6
Visit Friends/Relatives	53.6	48.4	42.5	39.1	47.4
Vacation	8.7	4.6	5.3	3.9	6.0
Other Social/Recreational	1.8	2.5	2.7	3.9	2.5
Other	10.9	13.4	9.1	13.7	11.5
Total	100.0	100.0	100.0	100.0	
All (Automobiles Available)	33.4	28.0	25.4	13.2	100.0

Table 4. Trip Purpose by Occupation

Purpose	Professional Technical Managerial	Craftsman Laborer	Service Sales	Office Clerical	Homemaker	Student (Other than College)	Student (College)	Retired	Unemployed	Other	All Purposes
Work	24.8	65.7	22.2	8.9	1.9	2.4	6.6	0.7	6.6	18.1	14.8
Shopping	0.8	0.4	1.4	0.0	1.3	0.6	1.5	2.4	0.6	0.5	1.1
Personal Business											
Business	22.8	9.0	22.2	21.0	9.8	14.9	21.4	13.7	16.7	15.4	16.4
Visit Friends/ Relatives	29.5	13.5	41.7	50.0	70.5	56.9	52.7	63.3	42.9	35.3	47.2
Vacation	8.9	3.7	6.9	7.8	5.4	7.8	4.2	10.1	7.1	5.9	6.4
Other Social/ Recreational	1.6	0.4	2.8	5.6	2.2	4.2	3.6	2.1	2.3	2.2	2.6
Other	11.6	7.3	2.8	6.7	8.9	13.2	10.0	7.7	23.8	22.6	11.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
All Occupations	11.0	10.4	3.1	3.8	13.4	7.1	22.5	12.2	7.1	9.4	100.0

Table 5. Trip Purpose by Trip Frequency (Last 12 Months)

Purpose	Trip Frequency											All Purposes
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	
Work	6.2	9.2	12.0	12.5	23.3	21.1	66.7	44.5	0.0	0.0	90.0	15.9
Shopping	0.5	2.2	3.2	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.5	0.9
Personal Business	17.8	17.5	13.6	25.0	26.7	26.3	32.3	11.1	0.0	0.0	3.7	16.5
Visit Friends/Relatives	54.5	50.2	52.8	43.8	40.0	31.5	0.0	33.3	50.0	100.0	2.1	47.9
Vacation	6.5	4.8	4.0	4.2	6.7	10.5	0.0	0.0	0.0	0.0	1.6	5.6
Other Social/Recreational	2.4	3.9	3.2	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.5	7.4
Other	12.1	12.2	11.2	14.5	0.0	5.3	0.0	11.1	50.0	0.0	1.6	10.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
All Frequencies	66.5	11.7	6.4	2.4	1.5	1.0	0.3	0.5	0.1	0.0	9.6	100.0

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## II. INTERCITY BUS TICKET SURVEY

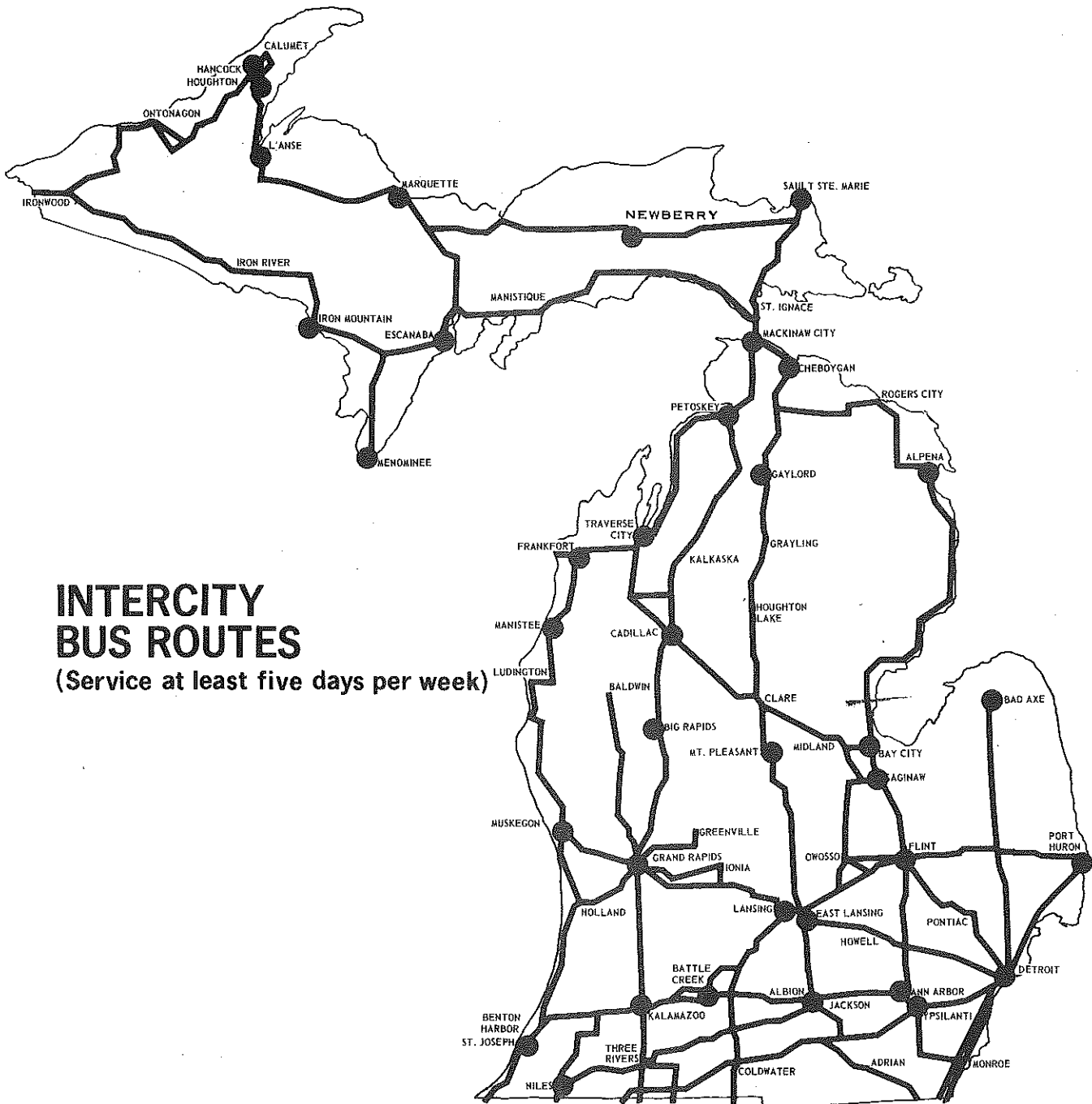
### Purpose and Procedures

The Michigan Department of State Highways and Transportation conducted an intercity bus ticket survey in May 1977 in conjunction with the on-board intercity bus survey. The purpose of the ticket survey was to obtain a comprehensive overview of intercity bus ridership levels and travel patterns. The data will be used to analyze the short term needs of the state's intercity bus system and as a base for developing a computerized intercity bus ridership demand model. Such a model would be a valuable tool in analyzing the desirability of providing new or improved intercity bus service.

Tickets were tabulated by destination at 36 stations throughout the state as shown on Map 2. Tickets were compiled by day for the week of May 9-15, 1977, for the larger stations and by day for the month of May 1977 for the smaller stations. The trip destinations were coded by specific locations for Michigan destinations and by major cities or states for out-of-state destinations.

The large number and geographic distribution of the survey stations presented a significant problem in obtaining the data since manpower and travel requirements prohibited the sole use of Department personnel. The individual state planning and development regions and urbanized area transportation planning agencies graciously offered their assistance in conducting most of the ticket surveys. This procedure greatly reduced travel times and spread out the manpower burden.

# INTERCITY BUS TICKET SURVEY LOCATIONS (May 1977)



**INTERCITY  
BUS ROUTES**  
(Service at least five days per week)



All survey personnel were given a standard work form. The form listed major potential destinations in Michigan and throughout the nation. Destinations were recorded by specific Michigan cities and major cities located in adjacent states. All other destinations were recorded by state. The work form included blank spaces to fill in additional Michigan destinations.

The time required to complete a daily ticket survey ranged from approximately fifteen minutes at a small station to one and one-half hours at Detroit. Other urbanized area ticket surveys averaged approximately one-half hour. The station managers proved to be extremely helpful -- answering questions and in some cases even volunteering to conduct the survey.

#### Daily Ticket Sales

Table 6 is a daily summary of all tickets sold at each of the 36 stations for the week of May 9-15, 1977. During the week, there were a total of 14,233 tickets sold at all surveyed stations or an overall average of 2,033 tickets per day. Average daily ticket sales at the individual stations ranged from 695 at Detroit to 0.3 at Bad Axe. The five most productive stations (Detroit, East Lansing, Grand Rapids, Flint and Kalamazoo) accounted for a daily average of 1,287 tickets or 63 percent of the 2,033 average daily tickets sold at the 36 stations. Friday was, by far, the busiest day with a total of 3,489 tickets or 25 percent of total weekly sales. The next highest sales day was Monday followed by Saturday. The Friday on-board survey conducted at East Lansing, Flint and Detroit indicated that many of the Friday riders were college students traveling to visit friends or relatives. An analysis of daily ticket destinations indicates that many of the Monday and Sunday riders are college students making their return trip to the campus.

Table 6. Intercity Bus Survey - Daily Ticket Sales, May 1977

Station	Monday May 9	Tuesday May 10	Wednesday May 11	Thursday May 12	Friday May 13	Saturday May 14	Sunday May 15	Total	Average
Ann Arbor	79	80	92	96	199	71	47	664	94.9
Battle Creek	117	73	71	94	124	99	76 <sup>1/</sup>	654	93.4
Bay City	24	24	17	10	12	40	NA <sup>1/</sup>	127	21.2
Benton Harbor	65	34	43	21	85	43	38	329	47.0
Detroit	727	598	570	585	1,042	669	674	4,865	695.0
East Lansing	73	63	99	228	581	181	151	1,376	196.6
Flint	134	90	76	100	212	138	127	877	125.3
Grand Rapids	130	122	115	161	287	153	135	1,103	157.6
Jackson	56	42	64	33	70	53	39	357	51.0
Kalamazoo	87	107	91	115	194	126	97	817	112.4
Lansing	64	62	54	87	197	74	93	631	90.1
Muskegon	86	43	40	42	56	56	48	371	53.0
Saginaw	57	42	51	43	86	46	71 <sup>1/</sup>	396	56.6
Ypsilanti	72	60	70	76	123	69	NA <sup>1/</sup>	470	78.3
Alpena	1	7	7	3	5	5	1	29	4.1
Bad Axe	0	0	1	1	0	0	0	2	0.3
Big Rapids <sup>2/</sup>	7	11	5	7	6	8	0	44	6.3
Cadillac	24	0	0	35	0	0	0	59	8.1
Escanaba	10	26	6	15	37	0	10	104	14.9
Frankfort	2	0	0	0	0	0	0	2	0.3
Gaylord	5	0	4	4	5	2	6	26	3.7
Hancock	20	4	0	24	10	25	0	83	11.9
Houghton	0	2	1	1	2	0	0	6	0.9
Iron Mountain	4	8	3	5	6	4	4	34	4.9
L'Anse	1	1	2	1	2	2	2	11	1.6
Mackinaw City	1	1	1	0	0	2	0	5	0.7
Manistee	1	3	3	1	0	2	2	12	1.7
Marquette	18	22	16	22	25	17	11	131	18.7
Menominee	8	7	13	26	29	18	14	112	16.4
Mt. Pleasant	NA	NA	NA	NA	NA	NA	NA	119	17.0
Newberry	1	0	1	2	4	0	0	8	1.1
Niles	10	1	1	5	11	1	7	36	5.1
Petoskey	8	1	2	5	5	5	2	28	4.0
Port Huron	14	10	10	19	38	17	16	124	17.7
Sault Ste. Marie	19	12	7	8	16	5	11	78	11.1
Traverse City	35	10	20	23	20	12	23	143	20.4
TOTAL	1,960	1,566	1,556	1,898	3,489	1,943	1,705	14,233	2,033.3

Notes: <sup>1/</sup>Station is not open on Sundays. Passengers buy tickets from driver.

<sup>2/</sup>Monday and Tuesday surveys conducted on June 6 and June 7 respectively. Wednesday through Sunday surveys were for June 1 through June 5 respectively.

### Weekly Ticket Sales

Tickets for many of the smaller stations were collected by day for the entire month of May. Table 7 shows the total weekly sales by station for each of the four weeks in May. Ticket sales by station varied from week to week. The variations were expected because of the relatively small number of tickets sold at the smaller stations. The overall weekly totals show, however, that ticket sales at the smaller stations on a statewide average were consistent ranging from 1,014 for the week of May 23-29 to 1,066 for the week of May 2-8, 1977.

### Monthly Ridership Trends

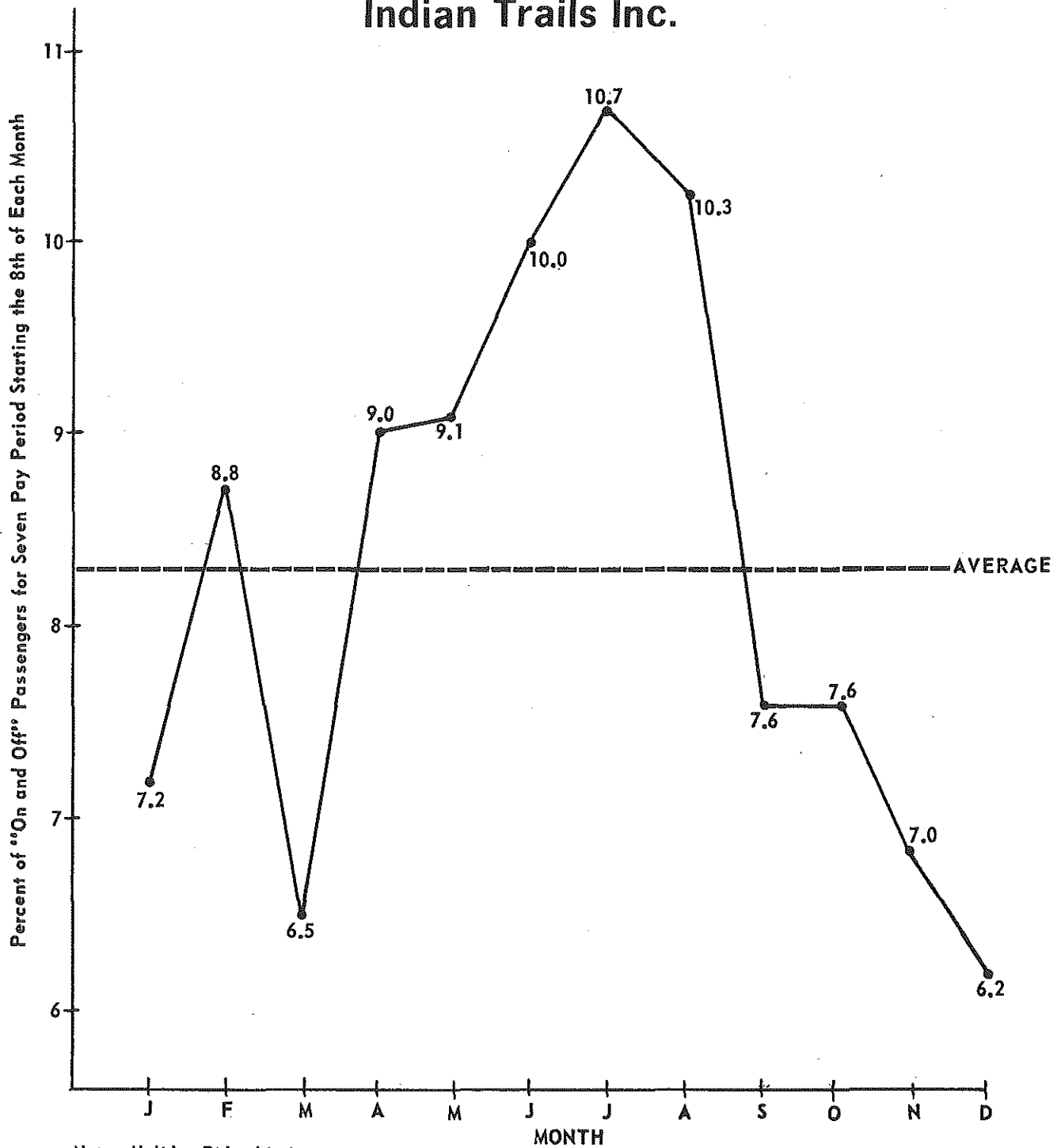
Data obtained from Indian Trails, Inc., and reflected in Figure 8, indicates that intercity bus travel is subject to seasonal trends characteristic of all travel modes. Figure 8 is based upon ridership data collected for a seven day period starting the eighth of each month of 1976. This seven day period was selected to avoid collecting data that was significantly influenced by holiday travel. The highest ridership period, as shown in Figure 8, occurs during the summer months peaking in July. Discussions with personnel from several intercity bus companies revealed that the next highest ridership period occurs in December due to the Christmas holiday season. The fourth of July holiday is also an important generator of intercity bus travel. This holiday is particularly significant to the intercity bus industry because it occurs during the peak summer ridership period. The first few months of the year are traditionally the lowest ridership months. The data in Figure 8 and the holiday ridership trends indicates that May should fairly well typify an average month for intercity bus patronage. May avoids the low ridership period of January and February and the high ridership periods of the summer months and the Christmas holiday season.

Table 7. Intercity Bus Weekly Sales - Selected Smaller Stations, May 1977

Station	May 2-8	May 9-15	May 16-22	May 23-29	Total
Alpena	42	29	30	37	138
Bad Axe	6	2	5	7	20
Cadillac	39	59	91	35	224
Escanaba	111	104	100	133	448
Frankfort	3	2	7	7	19
Gaylord	31	26	26	31	114
Hancock	117	83	104	57	361
Houghton	4	6	17	12	39
Iron Mountain	23	34	48	24	129
L'Anse	10	11	8	8	37
Mackinaw City	14	5	14	18	51
Manistee	18	12	8	14	52
Marquette	93	131	102	135	461
Menominee	101	112	125	99	437
Newberry	10	8	8	8	34
Niles	54	36	27	34	151
Petoskey	22	28	28	28	106
Sault Ste. Marie	76	78	72	90	316
Traverse City	168	143	107	142	560
<b>TOTAL</b>	<b>1,066</b>	<b>1,033</b>	<b>1,049</b>	<b>1,014</b>	<b>4,162</b>

# INTERCITY BUS MONTHLY RIDERSHIP TRENDS 1976

Indian Trails Inc.



Note: Holiday-Ridership is not Reflected on Graph

### Ticket Sales and Actual Ridership

The number of tickets sold at a particular station on a given day cannot be directly related to the number of passengers served by that station on the same day. Tickets can be purchased in advance. Also a passenger can purchase a round trip ticket. Advance purchase of tickets should not significantly affect the accuracy of the ticket survey for any given day since tickets purchased on previous days will tend to be discounted by tickets purchased that day for a trip to be taken at a later date. The ticket survey did not include the second trip of a round trip ticket. Table 8 includes data obtained from selected stations concerning the number and percent of round trip ticket sales. The Detroit station had the largest number (1,616) and highest percentage (33.2%) of round trips. The remaining stations had an overall average of 21.8 percent round trips.

Assuming a completely random distribution of round trip destination, the ticket survey should be increased by approximately 22-30 percent to more accurately account for total person trips.

### Trip Destination

Table 9 shows the average number of daily ticket sales by major destinations for each of the 36 intercity bus stations. Approximately 66 percent of the total 2,033 average daily ticket sales at all stations had a Michigan destination while 34 percent had an out-of-state destination. Detroit was the major in-state destination accounting for 227 trip destinations followed by Ann Arbor (111), Grand Rapids (84), Flint (82), East Lansing (74), Lansing (73), and Kalamazoo (68). The largest out-of-state destination was Chicago with 116 trip destinations. The Detroit station accounted for 406 out-of-state destinations or 58 percent of all out-of-state destinations.

Table 8. Intercity Bus Survey - Round Trip Tickets, May 1977

Station	9 Mon	10 Tues	11 Wed	12 Thur	13 Fri	14 Sat	15 Sun	Total
<b>Detroit</b>								
Number	213	181	201	203	432	243	143	1,616
Percent	29.3	50.3	35.3	34.7	41.5	36.3	21.2	33.2
<b>Ypsilanti</b>								
Number	18	13	17	16	23	20	N/A	107
Percent	25.0	21.7	24.3	21.1	18.7	29.0		22.8
<b>Ann Arbor</b>								
Number	17	16	17	16	32	7	12	117
Percent	22.4	19.3	21.8	15.5	31.4	12.3	10.1	18.9
<b>Lansing</b>								
Number	N/A	11	14	19	66	22	6	138
Percent		17.7	25.9	21.8	33.5	29.7	6.5	24.3
<b>Marquette</b>								
Number	3	3	3	4	4	3	2	22
Percent	16.7	13.6	18.8	18.2	16.0	17.7	18.2	16.8
<b>Iron Mountain</b>								
Number	0	3	1	0	1	0	0	5
Percent	0.0	37.5	33.3	0.0	16.7	0.0	0.0	15.2
<b>Menominee</b>								
Number	5	1	5	13	8	5	2	39
Percent	62.5	14.3	38.5	56.5	27.5	27.8	14.3	34.8
<b>Marquette</b>								
Number	3	3	3	4	4	3	2	22
Percent	16.7	13.6	18.8	18.2	16.0	17.7	18.2	16.8
<b>TOTAL</b>								
Number	259	231	261	275	570	303	167	2,066
Percent	28.1	26.8	31.8	29.8	36.8	32.7	18.1	29.8
<b>TOTAL (without Detroit Station)</b>								
Number	46	50	60	72	138	60	24	450
Percent	23.5	18.9	19.4	21.3	27.3	23.5	9.6	21.8

Source: Mass Transportation Planning Section, Michigan Department of State Highways and Transportation.

Table 9. Intercity Ticket Survey - Summary of Major Average Daily Trip Origins and Destinations (May 9-15, 1977)<sup>1/</sup>

FROM	TO																		TOTAL	
	Ann Arbor	Battle Creek	Bay City	Detroit	East Lansing	Flint	Grand Rapids	Jackson	Kalamazoo	Lansing	Muskegon	Niles	Saginaw	Ypsilanti	Other Michigan	Chicago	Cleveland	Toledo		Other Non-Michigan
Ann Arbor	--	1.0	0.7	23.1	5.0	4.1	5.0	4.9	3.9	2.9	1.0	1.0	1.4	4.7	19.3 <sup>4/</sup>	2.4	1.3	0.3	13.9	94.9
Battle Creek	2.0	--	0.1	10.1	3.3	1.9	3.3	4.0	10.7	11.9	0.4	0.0	0.9	0.6	33.0 <sup>4/</sup>	0.7	0.4	0.7	9.5	93.4
Bay City	0.3	0.2	--	2.2	0.2	1.0	1.0	0.0	0.3	1.7	0.2	0.0	2.7	0.0	8.2	0.3	0.0	0.0	2.9	21.2
Detroit	56.0	4.6	3.4	--	25.0	29.3	20.7	19.4	8.6	22.3	5.3	0.0	11.3	30.7	52.6	46.0	37.1	33.0	289.9 <sup>3/</sup>	695.0
East Lansing	11.3	4.0	0.4	34.1 <sup>1/</sup>	--	17.0	12.1	4.6	9.0	0.9	2.6	0.0	1.7	1.6	83.3	4.1	0.3	0.3	5.4	196.6
Flint	2.7	1.4	2.1	27.6	7.7	--	5.1	1.0	3.4	7.1	1.7	0.0	5.3	0.1	23.0	7.0	0.1	1.4	28.4	125.3
Grand Rapids	5.9	2.1	0.3	14.9	11.0	3.1	--	0.9	14.4	6.4	7.4	0.3	1.0	0.4	42.2	12.9	0.4	0.6	33.4	157.6
Jackson	5.9	5.9	0.0	8.3	1.1	1.4	2.0	--	1.0	4.0	1.1	0.0	0.0	1.7	11.0	1.3	0.0	0.9	5.5	51.0
Kalamazoo	4.4	9.0	0.1	7.0	6.4	2.9	9.4	1.4	--	4.7	1.9	0.0	1.0	0.6	41.4	5.1	0.4	0.3	10.5	112.4
Lansing	4.1	3.1	1.1	19.3	0.3	4.6	6.7	3.9	4.3	--	2.0	0.0	0.7	0.6	21.9	2.4	0.1	0.9	14.2	90.1
Muskegon	0.6	0.0	0.1	6.1	5.0	2.9	8.9	0.1	2.3	3.7	--	0.1	0.7	0.1	8.3	4.1	0.1	0.3	9.5	53.0
Niles	0.1	0.0	0.0	0.1	0.1	0.0	0.6	0.4	0.1	0.1	0.1	--	0.0	0.0	0.6	0.6	0.0	0.0	2.3	5.1
Saginaw	1.0	0.6	4.6	12.1	4.0	7.7	0.7	0.4	1.1	0.0	0.3	0.0	--	0.0	8.1	3.9	0.3	0.1	11.6	56.6
Ypsilanti	12.5	0.2	0.3	37.5	1.7	1.0	0.0	2.2	0.7	0.2	0.2	0.0	0.2	--	12.8	1.3	0.5	0.3	6.9	78.3
Alpena	0.4	0.1	0.3	0.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.4	0.0	0.0	0.0	0.7	4.1
Bad Axe	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Big Rapids <sup>2/</sup>	0.1	0.0	0.0	1.0	0.1	0.0	1.7	0.0	1.3	0.4	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	0.5	6.3
Cadillac	0.3	0.0	0.3	0.6	0.3	0.1	1.9	0.0	0.0	1.0	0.1	0.0	0.1	0.1	2.9	0.4	0.0	0.0	0.2	8.1
Escanaba	0.1	0.0	0.0	0.7	0.0	0.0	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	6.0	1.3	0.0	0.0	5.3	14.9
Frankfort	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Gaylord	0.0	0.0	0.0	0.3	0.3	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.1	1.7	0.0	0.0	0.0	0.4	3.7
Hancock	0.0	0.0	0.1	0.6	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.1	0.0	8.6	0.3	0.0	0.0	1.7	11.9
Houghton	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.9
Iron Mountain	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	2.0	4.9



Table 9. Intercity Ticket Survey - Summary of Major Average Daily Trip Origins and Destinations (May 9-15, 1977)<sup>1/</sup> (con't)

FROM	TO																		TOTAL	
	Ann Arbor	Battle Creek	Bay City	Detroit	East Lansing	Flint	Grand Rapids	Jackson	Kalamazoo	Lansing	Muskegon	Niles	Saginaw	Ypsilanti	Other Michigan	Chicago	Cleveland	Toledo		Other Non-Michigan
L'Anse	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.9	0.3	0.0	0.0	0.3	1.6
Manistee	0.1	0.0	0.0	0.1	0.0	0.1	0.4	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	1.7
Marquette	0.0	0.0	0.0	0.4	0.1	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	7.1	0.9	0.0	0.0	9.7	18.7
Menominee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.6	0.0	0.0	13.1	16.4
Mt. Pleasant	0.9	0.1	0.0	5.3	0.6	0.6	0.9	0.6	0.1	2.1	0.0	0.0	0.3	0.3	4.2	0.1	0.0	0.0	0.4	17.0
Newberry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.1	1.1
Petoskey	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.3	0.0	0.1	0.0	0.0	0.0	2.1	0.0	0.0	0.1	0.3	4.0
Port Huron	0.0	0.0	0.9	8.0	0.4	1.3	0.1	0.1	0.0	0.1	0.3	0.0	0.1	0.0	2.0	0.0	0.0	0.1	4.2	17.7
Sault Ste. Marie	0.4	0.1	0.7	0.7	0.0	0.7	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	3.3	0.1	0.0	0.1	4.7	11.1
Traverse City	1.3	0.0	0.6	3.7	0.4	0.6	0.2	0.4	0.3	1.3	1.3	0.0	0.0	0.0	7.3	0.4	0.0	0.1	0.7	20.4
Mackinaw City	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.7
Benton Harbor	0.6	0.4	0.0	2.4	1.1	1.0	2.3	0.0	5.7	1.0	0.7	0.6	0.1	0.3	2.8	17.0	0.0	0.1	11.2	47.0
TOTAL	111.1	32.8	16.2	227.3	74.1	82.1	83.8	45.0	68.2	72.7	26.9	2.0	28.2	41.9	423.3	116.2	41.0	39.6	500.4	2,033.3

Notes: <sup>1/</sup>The sum of the figures will not necessarily add to the total due to rounding.

<sup>2/</sup>Survey conducted June 1 through June 7, 1977.

<sup>3/</sup>Major out-of-state destinations were Ohio - 47.3, Indiana - 23.9, Southern States - 94.7 and Eastern States 32.4.

<sup>4/</sup>Fort Custer accounted for 19.7 of the "Other Michigan" trip destinations.

The top ten Michigan city pairs in terms of daily intercity bus origin-destinations had in excess of 20 tickets sold for trips between them as shown in the following table.

Table 10. Average Daily Number of Trips Between Ten Highest City Pairs

City Pairs	Trips Between Cities
Detroit-Ann Arbor	79.1
Detroit-Ypsilanti	68.2
Detroit-East Lansing	59.1
Detroit-Flint	56.9
Detroit-Lansing	41.6
Detroit-Grand Rapids	35.6
Detroit-Jackson	27.7
East Lansing-Flint	24.7
Grand Rapids-Kalamazoo	23.8
East Lansing-Grand Rapids	23.1

Appendix D includes a sample table and map for the Detroit station outlining the specific data available for each of the 36 surveyed stations. If you desire this information for other stations, please contact the Mass Transportation Planning Section.

APPENDIX



# MICHIGAN INTERCITY BUS SURVEY

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(1) (6)

1790 (5/77)

The Michigan Department of State Highways and Transportation is conducting this survey to plan future improvements in intercity bus service. Will you please take a few moments and fill out the following questionnaire. This data will be kept in strictest confidence and will only be used for statistical analysis.

PLEASE answer the first two questions by PRINTING THE CITY AND STATE NAMES in the squares provided. USE ONE SQUARE FOR EACH LETTER. SKIP A SQUARE between words. Print only the FIRST FOUR LETTERS OF THE STATE NAME.

1. At what city did you begin your bus trip?

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

(7) City (or nearest city) (20)

--	--	--	--

(21) State (24)

2. At what city will you end your bus trip?

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

(25) City (or nearest city) (38)

--	--	--	--

(39) State (42)

3. How did you get to this bus? (check only one)

- 1  walk
- 2  automobile
- 3  taxi
- 4  a connecting intercity bus
- 5  local bus or rapid transit
- 6  commuter train
- 7  AMTRAK train
- 8  other

(47-50) 7. How many times in the past 12 months have you ridden on a bus between cities? (IF EXACT NUMBER OF TIMES IS NOT KNOWN, PLEASE GIVE YOUR BEST ESTIMATE.)

\_\_\_\_\_ Number of Times

4. How will you get to where you are going after leaving this bus? (check only one)

- 1  walk
- 2  automobile
- 3  taxi
- 4  a connecting intercity bus
- 5  local bus or rapid transit
- 6  commuter train
- 7  AMTRAK train
- 8  other

(51) 8. What is your occupation? (Check only one)

- 1  professional/technical/managerial
- 2  craftsman/laborer
- 3  service/sales
- 4  office/clerical
- 5  homemaker
- 6  student (other than college)
- 7  student (college)
- 8  retired
- 9  unemployed
- 10  other

(45) 5. What is the purpose of your trip? (check only one)

- 1  work
- 2  shopping
- 3  personal business
- 4  visit friends or relatives
- 5  vacation
- 6  other social or recreational
- 7  other

(52) 9. What is your approximate family income range before taxes? (College students please answer for your legal residence) (check only one)

- 1  less than \$2,999
- 2  \$3,000 - \$5,999
- 3  \$6,000 - \$8,999
- 4  \$9,000 - \$11,999
- 5  \$12,000 - \$14,999
- 6  \$15,000 - \$24,999
- 7  \$25,000 or more

(46) 6. How many personal car or truck type vehicles are owned or leased (more than 30 days) by you, your spouse or a relative of either living as a family in one household? (College students please answer for your legal residence.) (Check only one)

- 1  none
- 2  1 vehicle
- 3  2 vehicles
- 4  3 or more vehicles

(53) 10. What is your sex?

- 1  male
- 2  female

(54) 11. What is your age range? (check only one)

- 1  17 or under
- 2  18 - 29 years
- 3  30 - 39 years
- 4  40 - 49 years
- 5  50 - 64 years
- 6  65 years or older

THANK YOU

APPENDIX B

INTERCITY BUS SURVEY  
FORM DISTRIBUTION

<u>Hand Out Station</u>	<u>Corridor</u>	<u>Date</u>	<u>Form Numbers</u>	<u>Total</u>
Jackson	Ann Arbor-Jackson	May 10 Tuesday	2001-2068	68
Jackson	Ann Arbor-Jackson	May 11 Wednesday	2069-2129	61
Ann Arbor	Ann Arbor-Jackson	May 10 Tuesday	1501-1544	
Ann Arbor	Ann Arbor-Jackson	May 10 Tuesday	1551-1569	63
Ann Arbor	Ann Arbor-Jackson	May 11 Wednesday	1570-1645	76
Toledo	Toledo-Detroit	May 16 Monday	4205-4439	234
Toledo	Toledo-Detroit	May 17 Tuesday	4440-4516	77
Toledo (Trailways)	Toledo-Detroit	May 17 Tuesday	5701-5715	15
Detroit	Toledo-Detroit	May 16 Monday	2569-2666	
Detroit	Toledo-Detroit	May 16 Monday	2669-2793	222
Detroit	Toledo-Detroit	May 17 Tuesday	2794-2817	
Detroit	Toledo-Detroit	May 17 Tuesday	2970-2994	49
Detroit (Trailways)	Toledo-Detroit	May 17 Tuesday	3700-3708	9
Detroit	East Lansing-Detroit-Flint	May 12 Thursday	2130-2314	185
Detroit	East Lansing-Detroit-Flint	May 13 Friday	2431-2499	
Detroit	East Lansing-Detroit-Flint	May 13 Friday	2315-2371	
Detroit	East Lansing-Detroit-Flint	May 13 Friday	2373-2430	
Detroit	East Lansing-Detroit-Flint	May 13 Friday	2500-2568	253
East Lansing	East Lansing-Detroit-Flint	May 12 Thursday	0200-0373	
East Lansing	East Lansing-Detroit-Flint	May 12 Thursday	0400-0500	275
East Lansing	East Lansing-Detroit-Flint	May 13 Friday	0501-0884	
East Lansing	East Lansing-Detroit-Flint	May 13 Friday	0374-0399	
East Lansing	East Lansing-Detroit-Flint	May 13 Friday	0926-0986	471
Flint	Lansing-Detroit-Flint	May 12 Thursday	4025-4037	
Flint	Lansing-Detroit-Flint	May 12 Thursday	0010-0173	177
Flint	Lansing-Detroit-Flint	May 13 Friday	0174-0196	
Flint	Lansing-Detroit-Flint	May 13 Friday	4038-4204	190
Traverse City	Traverse City-Cadillac	May 10 Tuesday	0001-0002	2
Traverse City	Traverse City-Cadillac	May 11 Wednesday	0003-0009	7
Cadillac	Traverse City-Cadillac	May 10 Tuesday	4001-4019	19
Cadillac	Traverse City-Cadillac	May 11 Wednesday	4020-4024	5
Benton Harbor	Benton Harbor-Kalamazoo-Grand Rapids	May 18 Wednesday	4517-4616	100
Kalamazoo	Benton Harbor-Kalamazoo-Grand Rapids	May 18 Wednesday	0884-0908	
Kalamazoo	Benton Harbor-Kalamazoo-Grand Rapids	May 18 Wednesday	0910-0924	
Kalamazoo	Benton Harbor-Kalamazoo-Grand Rapids	May 18 Wednesday	0987-1028	82
Grand Rapids	Benton Harbor-Kalamazoo-Grand Rapids	May 18 Wednesday	2818-2864	
Grand Rapids	Benton Harbor-Kalamazoo-Grand Rapids	May 18 Wednesday	2995-2998	51
Post House	Post House-Detroit	May 23 Monday	4617-4704	88
Post House	Post House-Detroit	May 24 Tuesday	4713-4793	81
Detroit	Post House-Detroit	May 23 Monday	1646-1710	65
Detroit	Post House-Detroit	May 24 Tuesday	1711-1784	74
Escanaba	Escanaba-Marquette	May 24 Tuesday	1200-1229	30
Escanaba	Escanaba-Marquette	May 25 Wednesday	1230-1272	43
Marquette	Escanaba-Marquette	May 24 Tuesday	1029-1066	38
<b>Subtotal</b>				<b>3,110</b>
Republic Mine	Negaunee-Ishpeming <sup>1/</sup>	June 22 Wednesday	4846-4865	20
Republic Mine	Negaunee-Ishpeming	June 23 Thursday	4881-4893	
Republic Mine	Negaunee-Ishpeming	June 23 Thursday	4938-4960	36
Republic Mine	L'Anse-Baraga <sup>1/</sup>	June 22 Wednesday	4827-4845	19
Republic Mine	L'Anse-Baraga	June 23 Thursday	4894-4907	
Republic Mine	L'Anse-Baraga	June 23 Thursday	4961-4977	
Republic Mine	L'Anse-Baraga	June 23 Thursday	1279-1289	42
Republic Mine	Shubat Transit	June 22 Wednesday	4866-4880	15
Republic Mine	Shubat Transit	June 23 Thursday	4907-4927	
Republic Mine	Shubat Transit	June 23 Thursday	1290-1318	50
<b>TOTAL</b>				<b>3,292</b>

<sup>1/</sup> Huron Bay Transit

APPENDIX C

NOTE: All percentages are included in parentheses. Numbers preceding the parentheses are the total number of returned questionnaires having that particular response. The number and percent of no responses are also included for each question.

ON BOARD INTERCITY BUS SURVEY

SUMMARY FOR ALL DAYS AT JACKSON=ANN ARBOR

218 SURVEYS

3. HOW DID YOU GET TO THIS BUS?  
 1( 0%)NO RESPONSE      33(15%)WALK      104(48%)AUTOMOBILE  
 40(18%)TAXI      12( 6%)INTERCITY BUS      22(10%)LOCAL BUS  
 0( 0%)COMMUTER TRAIN      0( 0%)AMTRAK TRAIN      6( 3%)OTHER
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?  
 3( 1%)NO RESPONSE      31(14%)WALK      89(41%)AUTOMOBILE  
 45(21%)TAXI      13( 6%)INTERCITY BUS      29(13%)LOCAL BUS  
 0( 0%)COMMUTER TRAIN      0( 0%)AMTRAK TRAIN      8( 4%)OTHER
5. WHAT IS THE PURPOSE OF YOUR TRIP?  
 3( 1%)NO RESPONSE      19( 9%)WORK      2( 1%)SHOPPING  
 60(28%)PERS. BUSINESS      85(39%)VISIT FRIENDS/  
     RELATIVES      10( 5%)VACATION  
 6( 3%)OTH SOCIAL/REC.      33(15%)OTHER
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?  
 6( 3%)NO RESPONSE      93(43%)NONE      64(29%)1 VEHICLE  
 31(14%)2 VEHICLES      24(11%)3+ VEHICLES
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?  
 35(16%)NO RESPONSE      144(66%) 0= 9 TIMES      16( 7%)10=19 TIMES  
 14( 6%)20=29 TIMES      4( 2%)30=39 TIMES      1( 0%)40=49 TIMES  
 0( 0%)50=59 TIMES      1( 0%)60=69 TIMES      0( 0%)70=79 TIMES  
 0( 0%)80=89 TIMES      0( 0%)90=99 TIMES      3( 1%)100+ TIMES
8. WHAT IS YOUR OCCUPATION?  
 4( 2%)NO REPNSE      27(12%)PROFESSIONAL/TECHNICAL/MANAGERIA  
 16( 7%)CRAFTSMAN/LABORER      9( 4%)SERVICE/SALES  
 9( 4%)OFFICE/CLERICAL      30(14%)HOMEMAKER  
 14( 6%)STUDENT(NOT COLLEGE)      39(18%)STUDENT(COLLEGE)  
 24(11%)RETIRED      21(10%)UNEMPLOYED  
 25(11%)OTHER
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?  
 28(13%)NO RESPONSE      25(11%)\$2,999 OR LESS      48(22%)\$ 3,000= 5,999  
 33(15%)\$ 6,000= 8,999      27(12%)\$ 9,000=11,999      14( 6%)\$12,000=14,999  
 21(10%)\$15,000=24,999      22(10%)\$25,000+
10. WHAT IS YOUR SEX?  
 11( 5%)NO RESPONSE      99(45%)MALE      108(50%)FEMALE
11. WHAT IS YOUR AGE RANGE?  
 4( 2%)NO REPNSE      10( 5%)17 OR UNDER      106(49%)18=29 YFARS  
 26(12%)30=39 YEARS      20( 9%)40=49 YEARS      32(15%)50=64 YEARS  
 20( 9%)65+ YFARS

O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT DETROIT-TOLEDO

416 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

5 (1%) NO RESPONSE	19 (5%) WALK	272 (65%) AUTOMOBILE
55 (13%) TAXI	22 (5%) INTERCITY BUS	27 (6%) LOCAL BUS
0 (0%) COMMUTER TRAIN	0 (0%) AMTRAK TRAIN	16 (4%) OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

14 (3%) NO RESPONSE	14 (3%) WALK	218 (52%) AUTOMOBILE
105 (25%) TAXI	13 (3%) INTERCITY BUS	39 (9%) LOCAL BUS
0 (0%) COMMUTER TRAIN	1 (0%) AMTRAK TRAIN	12 (3%) OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

18 (4%) NO RESPONSE	30 (7%) WORK	4 (1%) SHOPPING
58 (14%) PERS. BUSINESS	226 (54%) VISIT FRIENDS/ RELATIVES	29 (7%) VACATION
7 (2%) OTH SOCIAL/REC.		44 (11%) OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

37 (9%) NO RESPONSE	154 (37%) NONE	124 (30%) 1 VEHICLE
77 (19%) 2 VEHICLES	24 (6%) 3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?
 

118 (28%) NO RESPONSE	262 (63%) 0-9 TIMES	13 (3%) 10-19 TIMES
11 (3%) 20-29 TIMES	3 (1%) 30-39 TIMES	1 (0%) 40-49 TIMES
3 (1%) 50-59 TIMES	1 (0%) 60-69 TIMES	0 (0%) 70-79 TIMES
0 (0%) 80-89 TIMES	0 (0%) 90-99 TIMES	4 (1%) 100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

31 (7%) NO RESPONSE	39 (9%) PROFESSIONAL/TECHNICAL/MANAGERIA	
25 (6%) CRAFTSMAN/LABORER	17 (4%) SERVICE/SALES	
15 (4%) OFFICE/CLERICAL	98 (24%) HOMEMAKER	
16 (4%) STUDENT (NOT COLLEGE)	26 (6%) STUDENT (COLLEGE)	
71 (17%) RETIRED	34 (8%) UNEMPLOYED	
44 (11%) OTHER		
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

92 (22%) NO RESPONSE	66 (16%) \$2,999 OR LESS	64 (15%) \$3,000-5,999
53 (13%) \$6,000-8,999	41 (10%) \$9,000-11,999	38 (9%) \$12,000-14,999
45 (11%) \$15,000-24,999	17 (4%) \$25,000+	
  
10. WHAT IS YOUR SEX?
 

22 (5%) NO RESPONSE	132 (32%) MALE	262 (63%) FEMALE
---------------------	----------------	------------------
  
11. WHAT IS YOUR AGE RANGE?
 

20 (5%) NO RESPONSE	16 (4%) 17 OR UNDER	122 (29%) 18-29 YEARS
53 (13%) 30-39 YEARS	48 (12%) 40-49 YEARS	91 (22%) 50-64 YEARS
66 (16%) 65+ YEARS		



O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT TR. CITY-CADILLAC

24 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

0(0%)NO RESPONSE	2(8%)WALK	14(58%)AUTOMOBILE
4(17%)TAXI	2(8%)INTERCITY BUS	2(8%)LOCAL BUS
0(0%)COMMUTER TRAIN	0(0%)AMTRAK TRAIN	0(0%)OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

0(0%)NO RESPONSE	3(13%)WALK	16(67%)AUTOMOBILE
2(8%)TAXI	1(4%)INTERCITY BUS	0(0%)LOCAL BUS
0(0%)COMMUTER TRAIN	0(0%)AMTRAK TRAIN	2(8%)OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

0(0%)NO RESPONSE	2(8%)WORK	0(0%)SHOPPING
4(17%)PERS. BUSINESS	15(63%)VISIT FRIENDS/RELATIVES	1(4%)VACATION
0(0%)OTH SOCIAL/REC.		2(8%)OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

2(8%)NO RESPONSE	6(25%)NONE	8(33%)1 VEHICLE
5(21%)2 VEHICLES	3(13%)3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDDEN AN INTERCITY BUS?
 

5(21%)NO RESPONSE	18(75%)0-9 TIMES	0(0%)10-19 TIMES
0(0%)20-29 TIMES	1(4%)30-39 TIMES	0(0%)40-49 TIMES
0(0%)50-59 TIMES	0(0%)60-69 TIMES	0(0%)70-79 TIMES
0(0%)80-89 TIMES	0(0%)90-99 TIMES	0(0%)100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

1(4%)NO RESPONSE	3(13%)PROFESSIONAL/TECHNICAL/MANAGERIAL
1(4%)CRAFTSMAN/LABORER	0(0%)SERVICE/SALES
0(0%)OFFICE/CLERICAL	5(21%)HOMEMAKER
1(4%)STUDENT(NOT COLLEGE)	2(8%)STUDENT(COLLEGE)
7(29%)RETIRED	2(8%)UNEMPLOYED
2(8%)OTHER	
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

7(29%)NO RESPONSE	2(8%)\$2,999 OR LESS	2(8%)\$ 3,000-5,999
6(25%)\$ 6,000-8,999	3(13%)\$ 9,000-11,999	1(4%)\$12,000-14,999
2(8%)\$15,000-24,999	1(4%)\$25,000+	
  
10. WHAT IS YOUR SEX?
 

1(4%)NO RESPONSE	12(50%)MALE	11(46%)FFEMALE
------------------	-------------	----------------
  
11. WHAT IS YOUR AGE RANGE?
 

1(4%)NO RESPONSE	2(8%)17 OR UNDER	8(33%)18-29 YEARS
1(4%)30-39 YEARS	3(13%)40-49 YEARS	3(13%)50-64 YEARS
6(25%)65+ YEARS		

O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT DETROIT-CHICAGO

226 SURVEYS

3. HOW DID YOU GET TO THIS BUS?

4 ( 2%) NO RESPONSE	29 (13%) WALK	113 (50%) AUTOMOBILE
29 (13%) TAXI	12 ( 5%) INTERCITY BUS	28 (12%) LOCAL BUS
8 ( 4%) COMMUTER TRAIN	0 ( 0%) AMTRAK TRAIN	3 ( 1%) OTHER

4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?

4 ( 2%) NO RESPONSE	15 ( 7%) WALK	99 (44%) AUTOMOBILE
42 (19%) TAXI	9 ( 4%) INTERCITY BUS	45 (20%) LOCAL BUS
5 ( 2%) COMMUTER TRAIN	0 ( 0%) AMTRAK TRAIN	7 ( 3%) OTHER

5. WHAT IS THE PURPOSE OF YOUR TRIP?

2 ( 1%) NO RESPONSE	26 (12%) WORK	0 ( 0%) SHOPPING
34 (15%) PERS. BUSINESS	100 (44%) VISIT FRIENDS/ RELATIVES	37 (16%) VACATION
3 ( 1%) OTH SOCIAL/REC.		24 (11%) OTHER

6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?

14 ( 6%) NO RESPONSE	78 (35%) NONE	62 (27%) 1 VEHICLE
49 (22%) 2 VEHICLES	23 (10%) 3+ VEHICLES	

7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?

68 (30%) NO RESPONSE	121 (54%) 0-9 TIMES	18 ( 8%) 10-19 TIMES
7 ( 3%) 20-29 TIMES	6 ( 3%) 30-39 TIMES	0 ( 0%) 40-49 TIMES
0 ( 0%) 50-59 TIMES	0 ( 0%) 60-69 TIMES	1 ( 0%) 70-79 TIMES
0 ( 0%) 80-89 TIMES	0 ( 0%) 90-99 TIMES	5 ( 2%) 100+ TIMES

8. WHAT IS YOUR OCCUPATION?

7 ( 3%) NO RESPONSE	45 (20%) PROFESSIONAL/TECHNICAL/MANAGERIA
12 ( 5%) CRAFTSMAN/LABORER	8 ( 4%) SERVICE/SALES
17 ( 8%) OFFICE/CLERICAL	32 (14%) HOMEMAKER
12 ( 5%) STUDENT (NOT COLLEGE)	27 (12%) STUDENT (COLLEGE)
36 (16%) RETIRED	14 ( 6%) UNEMPLOYED
16 ( 7%) OTHER	

9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?

44 (19%) NO RESPONSE	32 (14%) \$2,999 OR LESS	23 (10%) \$ 3,000- 5,999
21 ( 9%) \$ 6,000- 8,999	24 (11%) \$ 9,000-11,999	17 ( 8%) \$12,000-14,999
41 (18%) \$15,000-24,999	24 (11%) \$25,000+	

10. WHAT IS YOUR SEX?

10 ( 4%) NO RESPONSE	88 (39%) MALE	128 (57%) FEMALE
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11. WHAT IS YOUR AGE RANGE?

8 ( 4%) NO RESPONSE	6 ( 3%) 17 OR UNDER	83 (37%) 18-29 YEARS
41 (18%) 30-39 YEARS	24 (11%) 40-49 YEARS	36 (16%) 50-64 YEARS
28 (12%) 65+ YEARS		



# O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT KALAMAZOO-B. HARBOR

97 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
- |                      |                     |                   |
|----------------------|---------------------|-------------------|
| 2( 2%)NO RESPONSE    | 0( 0%)WALK          | 58(60%)AUTOMOBILE |
| 8( 8%)TAXI           | 7( 7%)INTERCITY BUS | 10(10%)LOCAL BUS  |
| 0( 0%)COMMUTER TRAIN | 0( 0%)AMTRAK TRAIN  | 3( 3%)OTHER       |
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
- |                      |                     |                   |
|----------------------|---------------------|-------------------|
| 3( 3%)NO RESPONSE    | 16(16%)WALK         | 54(56%)AUTOMOBILE |
| 11(11%)TAXI          | 4( 4%)INTERCITY BUS | 4( 4%)LOCAL BUS   |
| 2( 2%)COMMUTER TRAIN | 0( 0%)AMTRAK TRAIN  | 3( 3%)OTHER       |
5. WHAT IS THE PURPOSE OF YOUR TRIP?
- |                       |                                    |                 |
|-----------------------|------------------------------------|-----------------|
| 3( 3%)NO RESPONSE     | 8( 8%)WORK                         | 0( 0%)SHOPPING  |
| 17(18%)PERS. BUSINESS | 41(42%)VISIT FRIENDS/<br>RELATIVES | 12(12%)VACATION |
| 0( 0%)OTH SOCIAL/REC. |                                    | 16(16%)OTHER    |
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
- |                   |                   |                  |
|-------------------|-------------------|------------------|
| 4( 4%)NO RESPONSE | 38(39%)NONE       | 28(29%)1 VEHICLE |
| 22(23%)2 VEHICLES | 5( 5%)3+ VEHICLES |                  |
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?
- |                    |                    |                    |
|--------------------|--------------------|--------------------|
| 33(34%)NO RESPONSE | 44(45%) 0= 9 TIMES | 12(12%)10=19 TIMES |
| 1( 1%)20=29 TIMES  | 2( 2%)30=39 TIMES  | 3( 3%)40=49 TIMES  |
| 0( 0%)50=59 TIMES  | 0( 0%)60=69 TIMES  | 0( 0%)70=79 TIMES  |
| 0( 0%)80=89 TIMES  | 0( 0%)90=99 TIMES  | 2( 2%)100+ TIMES   |
8. WHAT IS YOUR OCCUPATION?
- |                            |  |
|----------------------------|--|
| 4( 4%)NO REPOSE            | 8( 8%)PROFESSTONAL/TECHNICAL/MANAGERIA |
| 7( 7%)CRAFTSMAN/LABORER    | 2( 2%)SERVICE/SALES                    |
| 3( 3%)OFFICE/CLERICAL      | 16(16%)HOMEMAKER                       |
| 9( 9%)STUDENT(NOT COLLEGE) | 10(10%)STUDENT(COLLEGE)                |
| 19(20%)RETIRED             | 14(14%)UNEMPLOYED                      |
| 5( 5%)OTHER                |  |
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
- |                        |                        |                        |
|------------------------|------------------------|------------------------|
| 19(20%)NO RESPONSE     | 15(15%)\$2,999 OR LESS | 17(18%)\$ 3,000= 5,999 |
| 10(10%)\$ 6,000= 8,999 | 8( 8%)\$ 9,000=11,999  | 7( 7%)\$12,000=14,999  |
| 10(10%)\$15,000=24,999 | 11(11%)\$25,000+       |                        |
10. WHAT IS YOUR SEX?
- |                   |             |               |
|-------------------|-------------|---------------|
| 5( 5%)NO RESPONSE | 36(37%)MALE | 56(58%)FEMALE |
|-------------------|-------------|---------------|
11. WHAT IS YOUR AGE RANGE?
- |                   |                    |                    |
|-------------------|--------------------|--------------------|
| 3( 3%)NO REPOSE   | 8( 8%)17. OR UNDER | 39(40%)18=29 YEARS |
| 9( 9%)30=39 YEARS | 9( 9%)40=49 YEARS  | 12(12%)50=64 YEARS |
| 17(18%)65+ YEARS  |                    |                    |







# O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR FRI. MAY 13 AT E. LANSING-FLINT

147 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

1 ( 1%) NO RESPONSE	40 (27%) WALK	74 (50%) AUTOMOBILE
8 ( 5%) TAXI	2 ( 1%) INTERCITY BUS	17 (12%) LOCAL BUS
0 ( 0%) COMMUTER TRAIN	1 ( 1%) AMTRAK TRAIN	4 ( 3%) OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

2 ( 1%) NO RESPONSE	20 (14%) WALK	102 (69%) AUTOMOBILE
9 ( 6%) TAXI	2 ( 1%) INTERCITY BUS	6 ( 4%) LOCAL BUS
0 ( 0%) COMMUTER TRAIN	0 ( 0%) AMTRAK TRAIN	6 ( 4%) OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

2 ( 1%) NO RESPONSE	8 ( 5%) WORK	3 ( 2%) SHOPPING
19 (13%) PERS. BUSINESS	92 (63%) VISIT FRIENDS/ RELATIVES	4 ( 3%) VACATION
7 ( 5%) OTH SOCIAL/REC.		12 ( 8%) OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

4 ( 3%) NO RESPONSE	43 (29%) NONE	34 (23%) 1 VEHICLE
37 (25%) 2 VEHICLES	29 (20%) 3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDDEN AN INTERCITY BUS?
 

25 (17%) NO RESPONSE	79 (54%) 0-9 TIMES	19 (13%) 10-19 TIMES
9 ( 6%) 20-29 TIMES	4 ( 3%) 30-39 TIMES	3 ( 2%) 40-49 TIMES
4 ( 3%) 50-59 TIMES	1 ( 1%) 60-69 TIMES	0 ( 0%) 70-79 TIMES
0 ( 0%) 80-89 TIMES	0 ( 0%) 90-99 TIMES	3 ( 2%) 100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

3 ( 2%) NO RESPONSE	8 ( 5%) PROFESSIONAL/TECHNICAL/MANAGERIAL	
4 ( 3%) CRAFTSMAN/LABORER	4 ( 3%) SERVICE/SALES	
7 ( 5%) OFFICE/CLERICAL	12 ( 8%) HOMEMAKER	
21 (14%) STUDENT (NOT COLLEGE)	60 (41%) STUDENT (COLLEGE)	
7 ( 5%) RETIRED	4 ( 3%) UNEMPLOYED	
17 (12%) OTHER		
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

29 (20%) NO RESPONSE	20 (14%) \$2,999 OR LESS	12 ( 8%) \$ 3,000-5,999
14 (10%) \$ 6,000-8,999	8 ( 5%) \$ 9,000-11,999	15 (10%) \$12,000-14,999
27 (18%) \$15,000-24,999	22 (15%) \$25,000+	
  
10. WHAT IS YOUR SEX?
 

7 ( 5%) NO RESPONSE	47 (32%) MALE	93 (63%) FEMALE
---------------------	---------------	-----------------
  
11. WHAT IS YOUR AGE RANGE?
 

4 ( 3%) NO RESPONSE	26 (18%) 17 OR UNDER	86 (59%) 18-29 YEARS
9 ( 6%) 30-39 YEARS	6 ( 4%) 40-49 YEARS	9 ( 6%) 50-64 YEARS
7 ( 5%) 65+ YEARS		



O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT E. LANSING-FLINT

254 SURVEYS

3. HOW DID YOU GET TO THIS BUS?

3 ( 1%)NO RESPONSE	58 (23%)WALK	138 (54%)AUTOMOBILE
17 ( 7%)TAXI	8 ( 3%)INTERCITY BUS	22 ( 9%)LOCAL BUS
0 ( 0%)COMMUTER TRAIN	1 ( 0%)AMTRAK TRAIN	7 ( 3%)OTHER
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?

6 ( 2%)NO RESPONSE	29 (11%)WALK	150 (59%)AUTOMOBILE
36 (14%)TAXI	8 ( 3%)INTERCITY BUS	10 ( 4%)LOCAL BUS
0 ( 0%)COMMUTER TRAIN	0 ( 0%)AMTRAK TRAIN	15 ( 6%)OTHER
5. WHAT IS THE PURPOSE OF YOUR TRIP?

6 ( 2%)NO RESPONSE	15 ( 6%)WORK	4 ( 2%)SHOPPING
40 (16%)PERS. BUSINESS	141 (56%)VISIT FRIENDS/ RELATIVES	9 ( 4%)VACATION
9 ( 4%)OTH SOCIAL/REC.		30 (12%)OTHER
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?

9 ( 4%)NO RESPONSE	89 (35%)NONE	53 (21%)1 VEHICLE
61 (24%)2 VEHICLES	42 (17%)3+ VEHICLES	
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDDEN AN INTERCITY BUS?

46 (18%)NO RESPONSE	140 (55%) 0- 9 TIMES	25 (10%)10-19 TIMES
15 ( 6%)20-29 TIMES	7 ( 3%)30-39 TIMES	7 ( 3%)40-49 TIMES
4 ( 2%)50-59 TIMES	1 ( 0%)60-69 TIMES	0 ( 0%)70-79 TIMES
0 ( 0%)80-89 TIMES	0 ( 0%)90-99 TIMES	9 ( 4%)100+ TIMES
8. WHAT IS YOUR OCCUPATION?

6 ( 2%)NO RESPONSE	20 ( 8%)PROFESSIONAL/TECHNICAL/MANAGERIA
7 ( 3%)CRAFTSMAN/LABORER	7 ( 3%)SERVICE/SALES
13 ( 5%)OFFICE/CLERICAL	29 (11%)HOMEMAKER
31 (12%)STUDENT (NOT COLLEGE)	79 (31%)STUDENT (COLLEGE)
23 ( 9%)RETIRED	9 ( 4%)UNEMPLOYED
30 (12%)OTHER	
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?

44 (17%)NO RESPONSE	40 (16%)\$2,999 OR LESS	26 (10%)\$ 3,000- 5,999
30 (12%)\$ 6,000- 8,999	18 ( 7%)\$ 9,000-11,999	20 ( 8%)\$12,000-14,999
44 (17%)\$15,000-24,999	32 (13%)\$25,000+	
10. WHAT IS YOUR SEX?

9 ( 4%)NO RESPONSE	85 (33%)MALE	160 (63%)FEMALE
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11. WHAT IS YOUR AGE RANGE?

7 ( 3%)NO RESPONSE	33 (13%)17 OR UNDER	136 (54%)18-29 YEARS
20 ( 8%)30-39 YEARS	16 ( 6%)40-49 YEARS	21 ( 8%)50-64 YEARS
21 ( 8%)65+ YEARS		

ON BOARD INTERCITY BUS SURVEY

SUMMARY FOR ALL DAYS AT REPUBLIC MINE

168 SURVEYS

3. HOW DID YOU GET TO THIS BUS?

0( 0%)NO RESPONSE	70(42%)WALK	98(58%)AUTOMOBILE
0( 0%)TAXI	0( 0%)INTERCITY BUS	0( 0%)LOCAL BUS
0( 0%)COMMUTER TRAIN	0( 0%)AMTRAK TRAIN	0( 0%)OTHER

4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?

0( 0%)NO RESPONSE	110(65%)WALK	58(35%)AUTOMOBILE
0( 0%)TAXI	0( 0%)INTERCITY BUS	0( 0%)LOCAL BUS
0( 0%)COMMUTER TRAIN	0( 0%)AMTRAK TRAIN	0( 0%)OTHER

5. WHAT IS THE PURPOSE OF YOUR TRIP?

1( 1%)NO RESPONSE	167(99%)WORK	0( 0%)SHOPPING
0( 0%)PERS. BUSINESS	0( 0%)VISIT FRIENDS/ RELATIVES	0( 0%)VACATION
0( 0%)OTH SOCIAL/REC.		0( 0%)OTHER

6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?

1( 1%)NO RESPONSE	12( 7%)NONE	44(26%)1 VEHICLE
90(54%)2 VEHICLES	21(13%)3+ VEHICLES	

7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?

9( 5%)NO RESPONSE	0( 0%) 0= 9 TIMES	2( 1%)10=19 TIMES
2( 1%)20=29 TIMES	0( 0%)30=39 TIMES	2( 1%)40=49 TIMES
1( 1%)50=59 TIMES	2( 1%)60=69 TIMES	0( 0%)70=79 TIMES
0( 0%)80=89 TIMES	0( 0%)90=99 TIMES	150(89%)100+ TIMES

8. WHAT IS YOUR OCCUPATION?

1( 1%)NO REPNSE	10( 6%)PROFESSIONAL/TECHNICAL/MANAGERIA
141(84%)CRAFTSMAN/LABORER	3( 2%)SERVICE/SALES
0( 0%)OFFICE/CLERICAL	0( 0%)HOMEMAKER
0( 0%)STUDENT(NOT COLLEGE)	2( 1%)STUDENT(COLLEGE)
0( 0%)RETIRED	0( 0%)UNEMPLOYED
11( 7%)OTHER	

9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?

14( 8%)NO RESPONSE	1( 1%)\$2,999 OR LESS	0( 0%)\$ 3,000= 5,999
0( 0%)\$ 6,000= 8,999	7( 4%)\$ 9,000=11,999	45(27%)\$12,000=14,999
99(59%)\$15,000=24,999	2( 1%)\$25,000+	

10. WHAT IS YOUR SEX?

2( 1%)NO RESPONSE	165(98%)MALE	1( 1%)FEMALE
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11. WHAT IS YOUR AGE RANGE?

0( 0%)NO REPNSE	0( 0%)17 OR UNDER	50(30%)18=29 YEARS
50(30%)30=39 YEARS	25(15%)40=49 YEARS	42(25%)50=64 YEARS
1( 1%)65+ YEARS		

ON BOARD INTERCITY BUS SURVEY

SUMMARY FOR THU, MAY 12 AT DETROIT-E. LANSING

230 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
- |                      |                     |                   |
|----------------------|---------------------|-------------------|
| 3( 1%)NO RESPONSE    | 81(35%)WALK         | 95(41%)AUTOMOBILE |
| 13( 6%)TAXI          | 8( 3%)INTERCITY BUS | 25(11%)LOCAL BUS  |
| 0( 0%)COMMUTER TRAIN | 0( 0%)AMTRAK TRAIN  | 5( 2%)OTHER       |
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
- |                      |                     |                    |
|----------------------|---------------------|--------------------|
| 3( 1%)NO RESPONSE    | 30(13%)WALK         | 144(63%)AUTOMOBILE |
| 21( 9%)TAXI          | 6( 3%)INTERCITY BUS | 19( 8%)LOCAL BUS   |
| 0( 0%)COMMUTER TRAIN | 0( 0%)AMTRAK TRAIN  | 7( 3%)OTHER        |
5. WHAT IS THE PURPOSE OF YOUR TRIP?
- |                        |                                     |                |
|------------------------|-------------------------------------|----------------|
| 3( 1%)NO RESPONSE      | 21( 9%)WORK                         | 1( 0%)SHOPPING |
| 54(23%)PERS. BUSINESS  | 105(46%)VISIT FRIENDS/<br>RELATIVES | 8( 3%)VACATION |
| 12( 5%)OTH SOCIAL/REC. |                                     | 26(11%)OTHER   |
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
- |                   |                    |                  |
|-------------------|--------------------|------------------|
| 6( 3%)NO RESPONSE | 57(25%)NONE        | 53(23%)1 VEHICLE |
| 70(30%)2 VEHICLES | 44(19%)3+ VEHICLES |                  |
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?
- |                    |                    |                    |
|--------------------|--------------------|--------------------|
| 18( 8%)NO RESPONSE | 133(58%) 0-9 TIMES | 36(16%)10-19 TIMES |
| 20( 9%)20-29 TIMES | 5( 2%)30-39 TIMES  | 5( 2%)40-49 TIMES  |
| 4( 2%)50-59 TIMES  | 0( 0%)60-69 TIMES  | 3( 1%)70-79 TIMES  |
| 0( 0%)80-89 TIMES  | 0( 0%)90-99 TIMES  | 6( 3%)100+ TIMES   |
8. WHAT IS YOUR OCCUPATION?
- |                             |  |  |
|-----------------------------|--|--|
| 3( 1%)NO RESPONSE           | 30(13%)PROFESSIONAL/TECHNICAL/MANAGERIAL |  |
| 5( 2%)CRAFTSMAN/LABORER     | 6( 3%)SERVICE/SALES                      |  |
| 2( 1%)OFFICE/CLERICAL       | 16( 7%)HOMEMAKER                         |  |
| 17( 7%)STUDENT(NOT COLLEGE) | 110(48%)STUDENT(COLLEGE)                 |  |
| 13( 6%)RETIRED              | 17( 7%)UNEMPLOYED                        |  |
| 11( 5%)OTHER                |  |  |
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
- |                        |                        |                        |
|------------------------|------------------------|------------------------|
| 30(13%)NO RESPONSE     | 30(13%)\$2,999 OR LESS | 20( 9%)\$ 3,000-5,999  |
| 19( 8%)\$ 6,000-8,999  | 17( 7%)\$ 9,000-11,999 | 21( 9%)\$12,000-14,999 |
| 39(17%)\$15,000-24,999 | 54(23%)\$25,000+       |                        |
10. WHAT IS YOUR SEX?
- |                   |             |                |
|-------------------|-------------|----------------|
| 7( 3%)NO RESPONSE | 80(35%)MALE | 143(62%)FEMALE |
|-------------------|-------------|----------------|
11. WHAT IS YOUR AGE RANGE?
- |                    |                    |                     |
|--------------------|--------------------|---------------------|
| 3( 1%)NO RESPONSE  | 11( 5%)17 OR UNDER | 153(67%)18-29 YEARS |
| 19( 8%)30-39 YEARS | 14( 6%)40-49 YEARS | 13( 6%)50-64 YEARS  |
| 17( 7%)65+ YEARS   |                    |                     |

# ON BOARD INTERCITY BUS SURVEY

SUMMARY FOR FRI, MAY 13 AT DETROIT-E.LANSING

312 SURVEYS

3. HOW DID YOU GET TO THIS BUS?  
0( 0%)NO RESPONSE      105(34%)WALK      119(38%)AUTOMOBILE  
23( 7%)TAXI      16( 5%)INTERCITY BUS      43(14%)LOCAL BUS  
0( 0%)COMMUTER TRAIN      0( 0%)AMTRAK TRAIN      6( 2%)OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?  
2( 1%)NO RESPONSE      54(17%)WALK      186(60%)AUTOMOBILE  
28( 9%)TAXI      8( 3%)INTERCITY BUS      23( 7%)LOCAL BUS  
0( 0%)COMMUTER TRAIN      0( 0%)AMTRAK TRAIN      11( 4%)OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?  
0( 0%)NO RESPONSE      21( 7%)WORK      7( 2%)SHOPPING  
44(14%)PERS. BUSINESS      186(60%)VISIT FRIENDS/  
13( 4%)OTH SOCIAL/REC.      RELATIVES      12( 4%)VACATION  
29( 9%)OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?  
4( 1%)NO RESPONSE      76(24%)NONE      69(22%)1 VEHICLE  
90(29%)2 VEHICLES      73(23%)3+ VEHICLES
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?  
31(10%)NO RESPONSE      165(53%) 0- 9 TIMES      57(18%)10-19 TIMES  
32(10%)20-29 TIMES      7( 2%)30-39 TIMES      5( 2%)40-49 TIMES  
5( 2%)50-59 TIMES      0( 0%)60-69 TIMES      4( 1%)70-79 TIMES  
2( 1%)80-89 TIMES      1( 0%)90-99 TIMES      3( 1%)100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?  
2( 1%)NO REPOSE      30(10%)PROFESSIONAL/TECHNICAL/MANAGERIA  
12( 4%)CRAFTSMAN/LABORER      3( 1%)SERVICE/SALES  
15( 5%)OFFICE/CLERICAL      22( 7%)HOMEMAKER  
29( 9%)STUDENT (NOT COLLEGE)      150(48%)STUDENT (COLLEGE)  
12( 4%)RETIRED      19( 6%)UNEMPLOYED  
18( 6%)OTHER
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?  
36(12%)NO RESPONSE      21( 7%)\$2,999 OR LESS      26( 8%)\$ 3,000- 5,999  
35(11%)\$ 6,000- 8,999      18( 6%)\$ 9,000-11,999      38(12%)\$12,000-14,999  
65(21%)\$15,000-24,999      73(23%)\$25,000+
  
10. WHAT IS YOUR SEX?  
10( 3%)NO RESPONSE      110(35%)MALE      192(62%)FEMALE
  
11. WHAT IS YOUR AGE RANGE?  
3( 1%)NO REPOSE      28( 9%)17 OR UNDER      223(71%)18-29 YEARS  
15( 5%)30-39 YEARS      14( 4%)40-49 YEARS      15( 5%)50-64 YEARS  
14( 4%)65+ YEARS

O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR FRI. MAY 13 AT DETROIT-FLINT

154 SURVEYS

3. HOW DID YOU GET TO THIS BUS?  
 0(0%)NO RESPONSE      12(8%)WALK      95(62%)AUTOMOBILE  
 14(9%)TAXI      4(3%)INTERCITY BUS      21(14%)LOCAL BUS  
 0(0%)COMMUTER TRAIN      1(1%)AMTRAK TRAIN      7(5%)OTHER
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?  
 1(1%)NO RESPONSE      10(6%)WALK      96(62%)AUTOMOBILE,  
 24(16%)TAXI      5(3%)INTERCITY BUS      13(8%)LOCAL BUS  
 0(0%)COMMUTER TRAIN      1(1%)AMTRAK TRAIN      4(3%)OTHER
5. WHAT IS THE PURPOSE OF YOUR TRIP?  
 4(3%)NO RESPONSE      11(7%)WORK      1(1%)SHOPPING  
 29(19%)PERS. BUSINESS      80(52%)VISIT FRIENDS/  
 4(3%)OTH SOCIAL/REC.      RELATIVES      7(5%)VACATION  
 18(12%)OTHER
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?  
 11(7%)NO RESPONSE      55(36%)NONE      37(24%)1 VEHICLE  
 34(22%)2 VEHICLES      17(11%)3+ VEHICLES
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?  
 26(17%)NO RESPONSE      88(57%) 0-9 TIMES      11(7%)10-19 TIMES  
 13(8%)20-29 TIMES      8(5%)30-39 TIMES      5(3%)40-49 TIMES  
 0(0%)50-59 TIMES      0(0%)60-69 TIMES      0(0%)70-79 TIMES  
 0(0%)80-89 TIMES      0(0%)90-99 TIMES      3(2%)100+ TIMES
8. WHAT IS YOUR OCCUPATION?  
 8(5%)NO RESPONSE      11(7%)PROFESSIONAL/TECHNICAL/MANAGERIA  
 5(3%)CRAFTSMAN/LABORER      3(2%)SERVICE/SALES  
 6(4%)OFFICE/CLERICAL      24(16%)HOMEMAKER  
 16(10%)STUDENT(NOT COLLEGE)      24(16%)STUDENT(COLLEGE)  
 25(16%)RETIRED      12(8%)UNEMPLOYED  
 20(13%)OTHER
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?  
 23(15%)NO RESPONSE      19(12%)\$2,999 OR LESS      34(22%)\$ 3,000-5,999  
 15(10%)\$ 6,000-8,999      15(10%)\$ 9,000-11,999      21(14%)\$12,000-14,999  
 15(10%)\$15,000-24,999      12(8%)\$25,000+
10. WHAT IS YOUR SEX?  
 4(3%)NO RESPONSE      60(39%)MALE      90(58%)FEMALE
11. WHAT IS YOUR AGE RANGE?  
 2(1%)NO RESPONSE      15(10%)17 OR UNDER      60(39%)18-29 YEARS  
 16(10%)30-39 YEARS      15(10%)40-49 YEARS      26(17%)50-64 YEARS  
 20(13%)65+ YEARS

O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT DETROIT-FLINT

315 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

4 (1%) NO RESPONSE	35 (11%) WALK	190 (60%) AUTOMOBILE
28 (9%) TAXI	8 (3%) INTERCITY BUS	35 (11%) LOCAL BUS
0 (0%) COMMUTER TRAIN	1 (0%) AMTRAK TRAIN	14 (4%) OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

5 (2%) NO RESPONSE	27 (9%) WALK	175 (56%) AUTOMOBILE
50 (16%) TAXI	19 (6%) INTERCITY BUS	26 (8%) LOCAL BUS
0 (0%) COMMUTER TRAIN	1 (0%) AMTRAK TRAIN	12 (4%) OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

11 (3%) NO RESPONSE	23 (7%) WORK	4 (1%) SHOPPING
60 (19%) PERS. BUSINESS	142 (45%) VISIT FRIENDS/ RELATIVES	15 (5%) VACATION
6 (2%) OTH SOCIAL/REC.		54 (17%) OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

23 (7%) NO RESPONSE	108 (34%) NONE	90 (29%) 1 VEHICLE
62 (20%) 2 VEHICLES	32 (10%) 3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDDEN AN INTERCITY BUS?
 

60 (19%) NO RESPONSE	186 (59%) 0-9 TIMES	29 (9%) 10-19 TIMES
17 (5%) 20-29 TIMES	11 (3%) 30-39 TIMES	5 (2%) 40-49 TIMES
2 (1%) 50-59 TIMES	1 (0%) 60-69 TIMES	1 (0%) 70-79 TIMES
0 (0%) 80-89 TIMES	0 (0%) 90-99 TIMES	3 (1%) 100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

15 (5%) NO RESPONSE	25 (8%) PROFESSIONAL/TECHNICAL/MANAGERIA	
13 (4%) CRAFTSMAN/LABORER	6 (2%) SERVICE/SALES	
13 (4%) OFFICE/CLERICAL	44 (14%) HOMEMAKER	
33 (10%) STUDENT (NOT COLLEGE)	39 (12%) STUDENT (COLLEGE)	
47 (15%) RETIRED	33 (10%) UNEMPLOYED	
47 (15%) OTHER		
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

54 (17%) NO RESPONSE	41 (13%) \$2,999 OR LESS	58 (18%) \$ 3,000- 5,999
38 (12%) \$ 6,000- 8,999	29 (9%) \$ 9,000-11,999	36 (11%) \$12,000-14,999
39 (12%) \$15,000-24,999	20 (6%) \$25,000+	
  
10. WHAT IS YOUR SEX?
 

12 (4%) NO RESPONSE	130 (41%) MALE	173 (55%) FEMALE
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11. WHAT IS YOUR AGE RANGE?
 

6 (2%) NO RESPONSE	31 (10%) 17 OR UNDER	131 (42%) 18-29 YEARS
23 (7%) 30-39 YEARS	30 (10%) 40-49 YEARS	55 (17%) 50-64 YEARS
39 (12%) 65+ YEARS		

O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT DETROIT-E. LANSING

542 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

3( 1%)NO RESPONSE	186(34%)WALK	214(39%)AUTOMOBILE
36( 7%)TAXI	24( 4%)INTERCITY BUS	68(13%)LOCAL BUS
0( 0%)COMMUTER TRAIN	0( 0%)AMTRAK TRAIN	11( 2%)OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

5( 1%)NO RESPONSE	84(15%)WALK	330(61%)AUTOMOBILE
49( 9%)TAXI	14( 3%)INTERCITY BUS	42( 8%)LOCAL BUS
0( 0%)COMMUTER TRAIN	0( 0%)AMTRAK TRAIN	18( 3%)OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

3( 1%)NO RESPONSE	42( 8%)WORK	8( 1%)SHOPPING
98(18%)PERS. BUSINESS	291(54%)VISIT FRIENDS/ RELATIVES	20( 4%)VACATION
25( 5%)OTH SOCIAL/REC.		55(10%)OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

10( 2%)NO RESPONSE	133(25%)NONE	122(23%)1 VEHICLE
160(30%)2 VEHICLES	117(22%)3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?
 

49( 9%)NO RESPONSE	298(55%) 0- 9 TIMES	93(17%)10-19 TIMES
52(10%)20-29 TIMES	12( 2%)30-39 TIMES	10( 2%)40-49 TIMES
9( 2%)50-59 TIMES	0( 0%)60-69 TIMES	7( 1%)70-79 TIMES
2( 0%)80-89 TIMES	1( 0%)90-99 TIMES	9( 2%)100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

5( 1%)NO REPNSE	60(11%)PROFESSIONAL/TECHNICAL/MANAGERIA	
17( 3%)CRAFTSMAN/LABORER	9( 2%)SERVICE/SALES	
17( 3%)OFFICE/CLERICAL	38( 7%)HOMEMAKER	
46( 8%)STUDENT(NOT COLLEGE)	260(48%)STUDENT(COLLEGE)	
25( 5%)RETIRED	36( 7%)UNEMPLOYED	
29( 5%)OTHER		
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

66(12%)NO RESPONSE	51( 9%)\$2,999 OR LESS	46( 8%)\$ 3,000- 5,999
54(10%)\$ 6,000- 8,999	35( 6%)\$ 9,000-11,999	59(11%)\$12,000-14,999
104(19%)\$15,000-24,999	127(23%)\$25,000+	
  
10. WHAT IS YOUR SEX?
 

17( 3%)NO RESPONSE	190(35%)MALE	335(62%)FEMALE
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11. WHAT IS YOUR AGE RANGE?
 

6( 1%)NO REPNSE	39( 7%)17 OR UNDER	376(69%)18-29 YEARS
34( 6%)30-39 YEARS	28( 5%)40-49 YEARS	28( 5%)50-64 YEARS
31( 6%)65+ YEARS		

# O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR THU. MAY 12 AT DETROIT-FLINT

161 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

4( 2%)NO RESPONSE	23(14%)WALK	95(59%)AUTOMOBILE
14( 9%)TAXI	4( 2%)INTERCITY BUS	14( 9%)LOCAL BUS
0( 0%)COMMUTER TRAIN	0( 0%)AMTRAK TRAIN	7( 4%)OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

4( 2%)NO RESPONSE	17(11%)WALK	79(49%)AUTOMOBILE
26(16%)TAXI	14( 9%)INTERCITY BUS	13( 8%)LOCAL BUS
0( 0%)COMMUTER TRAIN	0( 0%)AMTRAK TRAIN	8( 5%)OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

7( 4%)NO RESPONSE	12( 7%)WORK	3( 2%)SHOPPING
31(19%)PERS. BUSINESS	62(39%)VISIT FRIENDS/ RELATIVES	8( 5%)VACATION
2( 1%)OTH SOCIAL/REC.		36(22%)OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

12( 7%)NO. RESPONSE	53(33%)NONE	53(33%)1 VEHICLE
28(17%)2 VEHICLES	15( 9%)3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?
 

34(21%)NO RESPONSE	98(61%) 0- 9 TIMES	18(11%)10-19 TIMES
4( 2%)20-29 TIMES	3( 2%)30-39 TIMES	0( 0%)40-49 TIMES
2( 1%)50-59 TIMES	1( 1%)60-69 TIMES	1( 1%)70-79 TIMES
0( 0%)80-89 TIMES	0( 0%)90-99 TIMES	0( 0%)100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

7( 4%)NO REPOSE	14( 9%)PROFESSIONAL/TECHNICAL/MANAGERIA	
8( 5%)CRAFTSMAN/LABORER	3( 2%)SERVICE/SALES	
7( 4%)OFFICE/CLERICAL	20(12%)HOMEMAKER	
17(11%)STUDENT(NOT COLLEGE)	15( 9%)STUDENT(COLLEGE)	
22(14%)RETIRED	21(13%)UNEMPLOYED	
27(17%)OTHER		
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

31(19%)NO RESPONSE	22(14%)\$2,999 OR LESS	24(15%)\$ 3,000- 5,999
23(14%)\$ 6,000- 8,999	14( 9%)\$ 9,000-11,999	15( 9%)\$12,000-14,999
24(15%)\$15,000-24,999	8( 5%)\$25,000+	
  
10. WHAT IS YOUR SEX?
 

8( 5%)NO RESPONSE	70(43%)MALE	83(52%)FEMALE
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11. WHAT IS YOUR AGE RANGE?
 

4( 2%)NO REPOSE	16(10%)17 OR UNDER	71(44%)18-29 YEARS
7( 4%)30-39 YEARS	15( 9%)40-49 YEARS	29(18%)50-64 YEARS
19(12%)65+ YEARS		



O N B O A R D I N T E R C I T Y B U S S U R V E Y

SUMMARY FOR ALL DAYS AT STATE NO REPUBLIC

2286 SURVEYS

3. HOW DID YOU GET TO THIS BUS?
 

23( 1%)NO RESPONSE	389(17%)WALK	1210(53%)AUTOMOBILE
237(10%)TAXI	105( 5%)INTERCITY BUS	240(10%)LOCAL BUS
10( 0%)COMMUTER TRAIN	5( 0%)AMTRAK TRAIN	67( 3%)OTHER
  
4. HOW WILL YOU GET TO YOUR DESTINATION AFTER LEAVING THIS BUS?
 

41( 2%)NO RESPONSE	249(11%)WALK	1221(53%)AUTOMOBILE
371(16%)TAXI	92( 4%)INTERCITY BUS	211( 9%)LOCAL BUS
10( 0%)COMMUTER TRAIN	2( 0%)AMTRAK TRAIN	89( 4%)OTHER
  
5. WHAT IS THE PURPOSE OF YOUR TRIP?
 

50( 2%)NO RESPONSE	183( 8%)WORK	27( 1%)SHOPPING
394(17%)PERS. BUSINESS	1144(50%)VISIT FRIENDS/ RELATIVES	153( 7%)VACATION
60( 3%)OTH SOCIAL/REC.		275(12%)OTHER
  
6. HOW MANY CAR OR TRUCK TYPE VEHICLES ARE OWNED BY YOUR HOUSEHOLD?
 

110( 5%)NO. RESPONSE	773(34%)NONE	611(27%)1 VEHICLE
505(22%)2 VEHICLES	287(13%)3+ VEHICLES	
  
7. HOW MANY TIMES IN THE PAST YEAR HAVE YOU RIDEN AN INTERCITY BUS?
 

465(20%)NO RESPONSE	1321(58%) 0- 9 TIMES	227(10%)10-19 TIMES
124( 5%)20-29 TIMES	48( 2%)30-39 TIMES	28( 1%)40-49 TIMES
18( 1%)50-59 TIMES	4( 0%)60-69 TIMES	9( 0%)70-79 TIMES
2( 0%)80-89 TIMES	1( 0%)90-99 TIMES	39( 2%)100+ TIMES
  
8. WHAT IS YOUR OCCUPATION?
 

76( 3%)NO REPONSE	251(11%)PROFESSIONAL/TECHNICAL/MANAGERIA	
105( 5%)CRAFTSMAN/LABORER	69( 3%)SERVICE/SALES	
93( 4%)OFFICE/CLERICAL	322(14%)HOMEMAKER	
167( 7%)STUDENT(NOT COLLEGE)	528(23%)STUDENT(COLLEGE)	
295(13%)RETIRED	169( 7%)UNEMPLOYED	
211( 9%)OTHER		
  
9. WHAT IS YOUR APPROXIMATE FAMILY INCOME BEFORE TAXES?
 

381(17%)NO RESPONSE	308(13%)\$2,999 OR LESS	315(14%)\$ 3,000- 5,999
271(12%)\$ 6,000- 8,999	205( 9%)\$ 9,000-11,999	205( 9%)\$12,000-14,999
335(15%)\$15,000-24,999	266(12%)\$25,000+	
  
10. WHAT IS YOUR SEX?
 

91( 4%)NO RESPONSE	853(37%)MALE	1342(59%)FEMALE
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11. WHAT IS YOUR AGE RANGE?
 

58( 3%)NO REPONSE	151( 7%)17 OR UNDER	1084(47%)18-29 YEARS
220(10%)30-39 YEARS	194( 8%)40-49 YEARS	317(14%)50-64 YEARS
262(11%)65+ YEARS		



## APPENDIX D

Detroit  
Origin City

May 1977  
Month

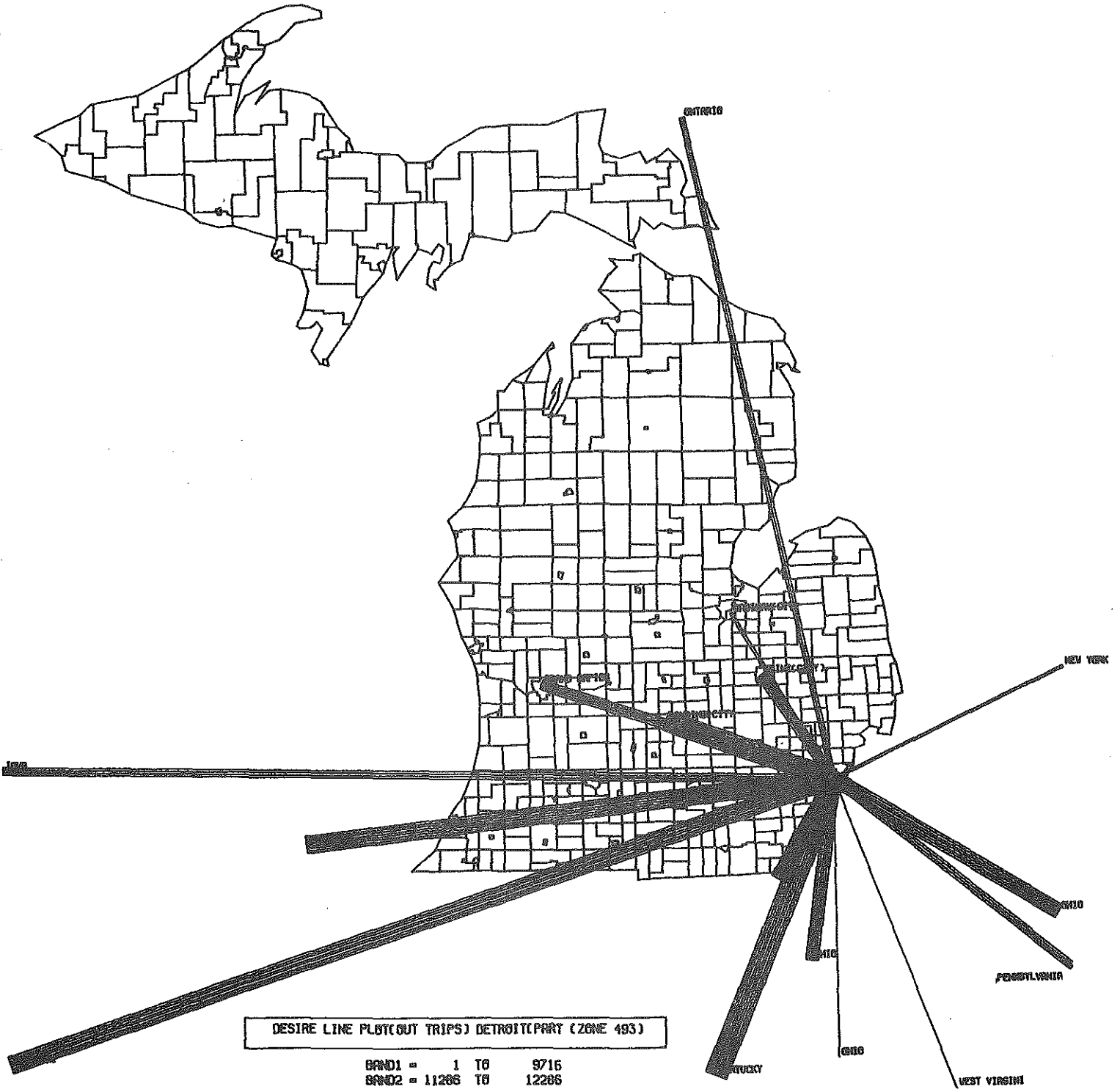
Destination	9 Mon	10 Tues	11 Wed	12 Thur	13 Fri	14 Sat	15 Sun	Total	Average Total
Ann Arbor	79	57	57	46	65	36	52	392	56.0
Battle Creek	2	5	4	3	7	4	7	32	4.6
Bay City	1	2	8	5	3	3	2	24	3.4
Adrian						2		2	0.3
East Lansing	58	8	4	8	27	22	48	175	25.0
Flint	19	17	20	27	45	45	32	205	29.3
Grand Rapids	34	23	14	8	36	12	18	145	20.7
Jackson	24	21	24	4	25	17	21	136	19.4
Kalamazoo	16	3	7	5	10	11	8	60	8.6
Lansing	18	27	8	23	46	11	23	156	22.3
Muskegon	2	2	1	5	11	7	9	37	5.3
Port Huron	6		2	4	10	15	2	39	5.6
Saginaw	6	19	9	6	18	14	7	79	11.3
Ypsilanti	56	25	24	23	31	21	35	215	30.7
Other Michigan	24	38	47	38	57	52	70	326	46.6
Total Michigan	345	247	229	205	391	272	334	2,023	289.0

## APPENDIX D (con't)

MICHIGAN INTERCITY BUS SURVEY  
ORIGIN-DESTINATION INFORMATION

Destination	9 Mon	10 Tues	11 Wed	12 Thur	13 Fri	14 Sat	15 Sun	Total	Average Total
Illinois	5	2	4	10	3	2	6	32	4.6
Chicago	43	34	31	41	77	52	44	322	46.0
Indiana	28	23	22	20	39	21	14	167	23.9
Minnesota				1	2	1	3	7	1.0
Ohio	43	29	37	42	84	50	46	331	47.3
Cleveland	25	34	31	24	75	47	24	260	37.1
Toledo	33	25	22	25	55	39	32	231	33.0
Wisconsin	4	1	2	5	4	4	3	23	3.3
Ontario	21	20	19	18	35	36	16	165	23.6
Other West	48	60	57	86	74	45	44	414	59.1
Other South	95	95	100	83	152	69	69	663	94.7
Other East	37	28	16	25	51	31	39	227	32.4
Total Non-Michigan	382	351	341	380	651	397	340	2,842	406.0
GRAND TOTAL	727	598	570	585	1,042	669	674	4,865	695.0

APPENDIX D (con't)



DESIRE LINE PLOT(OUT TRIPS) DETROIT(PART) (ZONE 493)

BRAND1	=	1	TO	9716
BRAND2	=	11286	TO	12286
BRAND3	=	13429	TO	19429
BRAND4	=	20286	TO	20572
BRAND5	=	20714	TO	29286
BRAND6	=	30715	TO	32867
BRAND7	=	33000	TO	37143
BRAND8	=	39428	TO	48000
BRAND9	=	47286	TO	68142
BRAND10	=	74000	TO	9999999