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# MICHIGAN PUBLIC TRANSIT ATTITUDE AND AWARENESS SURVEY

Initial and Follow-up Report for the:

Kalamazoo



# Metro Transit

By  
Marketing and Consumer Services Section  
Governmental Relations and Consumer Affairs Division  
Bureau of Urban and Public Transportation  
Michigan Department of Transportation

September, 1982



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16. Abstract  This report summarizes the results of an initial and follow-up telephone survey of the general public in KALAMAZOO, Michigan. The purpose of the initial survey was to determine public attitudes toward, and awareness of, the Kalamazoo Metro Transit System. The purpose of the follow-up survey was to evaluate the effectiveness of Metro Transit marketing efforts during the time from the initial survey to the follow-up survey. This report compares the results from the follow-up survey conducted in 1981 with those of the initial survey conducted in 1980. The comparison indicates which marketing efforts have been most successful and highlights significant changes in attitude and awareness levels.  The major objectives of this research were threefold:  1. To develop and implement a methodology that could be used by other state transportation departments to survey public attitude and awareness levels regarding transit systems in their states.  2. To provide relevant market data to Metro Transit for use in developing effective marketing efforts for public transportation services.  3. To assist the Michigan Department of Transportation in determining the type of marketing efforts which might be appropriate at the state level.					
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## INTRODUCTION

The major objective of this research was to develop and implement a methodology that could be used by other state transportation departments to measure public attitudes toward, and awareness of, fixed-route public transit systems. The information gathered would be used to assist these systems in developing effective marketing efforts for public transportation services, as well as determine the type of marketing efforts which might be appropriate at the state level. This project involved five selected Michigan communities with transit systems receiving assistance under terms of Section 5 of the Urban Mass Transportation Act.

In order to design public transportation services to better meet the public's needs, it was necessary first to collect market data which identified these needs. With this information it would then be possible to design service to meet these needs and to prepare promotional material to inform and persuade the public about existing service. A methodology was necessary to collect this information.

The initial survey results on a particular community were provided to the transit system in that community. The transit system was encouraged to use these results in planning and developing its marketing efforts, e.g., the definition of target markets and formulation of goals and strategies for each target segment. Each system was encouraged to develop marketing projects based on this information. The effectiveness of these projects was evaluated by a follow-up survey conducted approximately 21 months after the initial survey to determine the extent to which attitudes and awareness had changed.

The intent of the methodology developed and employed in this project is that it will be adaptable to other state transportation departments' marketing efforts throughout the country. Special Report 181 of the Transportation Research Board suggests that "some agency with an overview capability" develop "a common set of survey questions." It states that "some uniformity along these lines would help develop a common data base that could be used by all



systems in further research." It suggests that a state department of transportation is one of the "most likely collection centers."

While some Michigan transit systems already are doing some type of telephone marketing research, the value of this type of research conducted at the state level is primarily that of standardization, similar to that developed for what is now the Federal Highway Administration in highway travel surveys during the 1940s. Current efforts to compare marketing research conducted in different communities throughout the country have been severely hampered by the fact that each urbanized area used different questionnaires and techniques. This approach ensures that questions are uniform, that the administration of the survey is consistent in its quality, and that other factors remain stable from community to community.

The approach taken in this research project, to the best of our knowledge, has not been undertaken to date. It is, thus, intended to contribute to the development of a research methodology which is applicable to other state transportation departments throughout the country, as well as provide information which will benefit the State of Michigan and the marketing efforts of Michigan transit systems. Further, this procedure should be relatively easy to implement, given the existence of similar transportation departments throughout the United States.

## SURVEY METHODOLOGY

In preparing for this project, several alternative survey methods were considered. One of the most direct surveys would have been to conduct a home interview of residents in the study areas. However, setting up offices in five different cities, training personnel, and incurring travel-related expenses made this option impractical for the time allotted. Instead, it was decided that a telephone interview survey would be best.

The goal for each community was to collect 1,000 interviews. It was estimated that meeting this goal would require about twice as many telephone calls to account for number changes, no answers, interview refusals, etc. Each interview solicited responses to a 38-item questionnaire (Appendix A) regarding attitudes and awareness of local public transportation services. In order to ensure that the interviews were adequately distributed throughout the transit service area, a systematic sample selection process was used. This process established a sample universe made up of those telephone exchanges that correspond geographically with the existing transit service area. A copy of the telephone exchanges used for drawing the sample for Kalamazoo is provided in Appendix B of this report.

The actual telephone numbers were selected by using a separate ratio developed for each city. This ratio was determined by counting the total number of directory pages containing the universe exchanges and then multiplying this amount by the average number of residential telephone numbers per page (businesses, governmental agencies and other nonresidential services were excluded). This latter figure was then divided by 2,000 and produced the ratio of 1:34 for Kalamazoo.

This ratio meant that one telephone number was selected for each of 34 numbers on the telephone directory page. The results of this selection process produced both an alphabetical and geographical distribution of samples. Results of this selection process, indicating how many telephone numbers were called for each exchange prefix, are shown for Kalamazoo in Appendix B.

Appendix C provides a breakdown of the actual number of interviews completed versus the number attempted.

All interviews were conducted from the Lansing office over state leased lines. Additional telephone lines were installed with special headset attachments to aid the interviewer in recording citizen responses. Because the questionnaire was quite extensive, experimental interviews were conducted prior to starting the initial survey. Modifications were made and interviewing commenced January 23, 1980, and ended June 6, 1980. The interviews were conducted during the hours of 12 noon - 8 p.m., Monday through Thursday. Post-survey interviewing started October 12, 1981, and ended December 8, 1981, during the hours of 9 a.m. to 6 p.m., Monday through Thursday and 9 a.m. to 4:30 p.m. on Friday. Each interview took about five minutes to complete and, in general, the public was very cooperative with this effort.

Data from completed questionnaires were edited and coded on to special coding forms designed especially for this survey. Data from the coding forms were keydisked onto a magnetic tape. Quantitative data, read from the magnetic tape, were entered onto a disk file. The editing program was run and data were read to determine if any data were invalid. Corrections were made to invalid data in an effort to obtain as many valid interviews as possible. The report program was run on validated data, and frequency distributions were established for the total sample. The frequency distributions indicate the number and percentage of respondents answering in each specific way to a specific question. (Computer printouts of data are available for inspection at the Bureau of Urban and Public Transportation, Michigan Department of Transportation, Transportation Building, Lansing, Michigan.)

The data in this report are analyzed by demographic factors and frequency of bus usage. As used in this report, the terms heavy user, moderate user, light user, other user, and nonriders are defined as follows:

- Heavy user - Daily or almost every day
- Moderate user - Once a week
- Light user - Once a month or once a year
- Other user - A frequency mentioned other than the above frequencies
- Nonriders - Respondents who have not used the bus service during the past year

The Statistical Package for the Social Sciences (SPSS) was used for the analysis of the quantitative data. This statistical computer package was used in conjunction with the Burroughs 7700 computer. The data were crosstabulated into contingency tables and subsequently statistically analyzed by means of the chi-square test. Crosstabulation provides a joint frequency distribution of cases according to two or more classificatory variables. The chi-square test determines the significance of deviations from the expected frequencies. Given the nature of a pre- and post-survey, and because the number of interviews taken differed, pre to post, this type of statistical analysis was deemed appropriate to test the data.

Throughout this report many tables summarize the crosstabulations, basically by ridership groups. Only in areas of significant crosstabulations are the findings discussed in detail.

## SUMMARY OF MAJOR FINDINGS

The major findings of the study are summarized below. Each is discussed more fully in the body of the report and is accompanied by tables displaying the relevant data.

### Transit Awareness

Awareness of a bus system in the Kalamazoo area among respondents was at 90 percent in both pre- and post-surveys.

Eighteen percent (18%) of the pre-survey respondents and 33 percent of the post-survey respondents correctly identified the Metro Transit name. Recognition increased nearly 100 percent from pre- to post-survey.

The majority of bus riders were aware of the cost to ride the bus. Most nonriders, however, did not know the cost for a ride on the bus.

The majority of bus riders knew how often the bus came by. Most nonriders, though, indicated "no" or "don't know" to this question.

Both bus riders and nonriders reported they knew how to obtain bus information.

The majority of bus riders and nonriders were aware of special bus services for elderly people and handicapped people.

### Transportation Patterns

Most respondents, pre (64 percent) and post (62 percent), had not used the bus service during the preceding year.

Of those who had used the bus service, light users comprised 46 percent of pre-survey riders and 35 percent in the post-survey.

Heavy users rode the bus mainly for work purposes, whereas moderate and light users rode basically to go shopping.

Other household members of bus riders and nonriders rode for shopping and work needs.

Most bus riders and nonriders live within one or two blocks of the nearest bus route.

"Car" was cited as the usual means of transportation. The highest percentage occurred for nonriders, followed by other, light, moderate and, heavy users.

The number of automobiles in a household varied by bus rider groups:

1 car -	40%, post-survey heavy users
	42%, pre-survey moderate users
2 or more cars -	44%, pre-survey heavy users
	42%, post-survey moderate users
	57%, pre- and post-survey light users
	67%, pre-survey nonriders
	62%, post-survey nonriders

The majority of bus riders and nonriders normally have a vehicle available to them.

#### Transportation Attitudes

The most frequently mentioned reason nonriders cited for not riding the bus was "don't need to, I have a car."

Overall, most bus riders and nonriders believed the bus fare was just right.

The majority of bus riders and nonriders indicated they would not use the bus more if the bus routes were closer or if the bus came by more frequently.

Bus riders, and to a lesser extent, nonriders, believed the bus system serves the areas to which they most frequently travel.

Most pre- and post-survey bus riders had considered riding the bus more because of rising gasoline prices. The reverse was true for nonriders.

Most bus riders and nonriders indicated they had not considered getting in a carpool because of rising gasoline prices.

Most bus riders and nonriders had considered driving less with the rising gasoline prices.

Gasoline prices apparently affected both bus riders and nonriders.

An overwhelming majority of pre- and post-survey bus riders and nonriders view the bus service as a viable, valuable energy conservation measure.

The opinion of most bus riders and nonriders toward improvements in Metro Transit's bus service is that no changes were needed. Opinions regarding four improvements showed an overall decline in the follow-up survey. Only three improvements showed an increased need.

#### Demographics

##### Sex:

In general, female bus riders and nonriders outnumbered male bus riders and nonriders in both surveys.

Pre- and post-survey males and females traveled by bus, primarily for shopping and work purposes.

##### Age:

-16-20 year-old riders used the bus primarily for shopping purposes

-21-39 year-old riders rode for shopping and work needs.

-40-60 year-old riders also rode for shopping and work needs.

-Older than 60 years riders used the bus primarily for shopping purposes.

As the age groups increased in years, the percentage of males comprising each age group tended to decrease. The reverse was true for females; as the age groups increased in years, so did the percentage of females comprising each age group.

The 21-39 year-old age group contained the highest percentage of bus riders and nonriders. The only exception was for pre-survey moderate users, where nearly a third comprised the older than 60 years age group.

#### Occupation:

Nineteen percent (19%) of the pre-survey males were retired, followed by the professional, and skilled/semi-skilled categories. Twenty-five percent (25%) of the post-survey males indicated they were students, followed by retired and skilled/semi-skilled.

Thirty-two percent (32%) of the females in both surveys were homemakers, followed by a second and third ranking of retired and professional.

-Students comprised most of the respondents between the ages of 16-20.

-Homemakers comprised the following age groups:

24 percent, pre- and post-survey 21-39 years old

33 percent, pre-survey 40-60 years old

42 percent, post-survey 40-60 years old

-Retirees were reflected more in the older than 60 age group.



Student, homemaker, and retired were the three most frequently mentioned occupations by bus riders. Nonriders basically reported homemaker, retired, and professional categories.

## ADVERTISING AWARENESS

Note: Please see specific sections on "Advertising Awareness" (pg. 40) and "Conclusions" (pg. 51) for more detailed findings.

Radio - Even though the majority of bus riders and nonriders indicated they regularly listen to the radio, most reported that they had not heard any Metro Transit radio announcements. (Pre-survey other users were the only exception.)

Those bus riders and nonriders who did hear Metro Transit radio announcements heard them more frequently on WKZO and WKMI.

Television - Even though the majority of bus riders and nonriders indicated they regularly watch TV, most reported that they had not seen any Metro Transit television announcements.

Those bus riders and nonriders who did see Metro Transit TV announcements reported WKZO-TV more than any other TV station.

WKZO-TV also reported public service announcements regarding Metro Transit service information.

Newspapers - The majority of bus riders and nonriders indicated they regularly read a local newspaper. When asked if they had seen any Metro Transit newspaper ads, most of the pre-survey bus riders and nonriders replied "yes or think so." The reverse was true for the post-survey; with the exception of moderate users.

Those bus riders and nonriders who did see Metro Transit newspaper ads reported the Kalamazoo Gazette more than any other newspaper.

Other Media

Exposure - When respondents were asked if there were any other places they had seen, heard or read advertisements or otherwise obtained information about Metro Transit, "billboards," "displays" "other" media, and "news articles" were the most common sources given. "Displays" and "news articles" were the two mediums showing an overall increase in pre to post recognition.

## TRANSIT AWARENESS

### Bus System Awareness

The first question in the survey asked respondents, "Is there a city bus system in the Kalamazoo area?" An overwhelming majority of respondents in both the initial and follow-up survey were aware of the existence of a bus system in the Kalamazoo area. Responses are summarized below:

<u>City Bus System?</u>	<u>Total Respondents</u>	
		<u>%</u>
Yes or think so	Pre	90
	Post	90
No	Pre	10
	Post	6
Don't Know	Pre	-
	Post	<u>4</u>
Totals	Pre	100% (N = 1,138)
	Post	100% (N = 1,001)

Bus System Name

The second question asked respondents to name the bus system in the Kalamazoo area. Summarized below are the responses to this question.

<u>Response</u>		<u>Total Respondents*</u>
		<u>%</u>
Metro	Pre	20
	Post	21
Metro Transit	Pre	18
	Post	33
Metro Transit System	Pre	17
	Post	8
MT	Pre	5
	Post	-
Kalamazoo Metro Transit	Pre	-
	Post	3
Other responses (included names which sound similar to Metro Transit, route destination names and incorrect responses)	Pre	14
	Post	8
Don't Know	Pre	26
	Post	<u>27</u>
Totals	Pre	100% (N = 1,019)
	Post	100% (N = 900)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of responses. Post-survey recognition of Metro Transit was nearly double that of pre-survey recall. The transit system had in fact been advertising "Metro Transit" in all their electronic and print media.

Cost for Bus Ride

The following table summarizes responses to the question, "How much does it cost for a ride on the bus?" The results indicate the majority of bus riders were aware of the cost to ride the bus. At the time of the initial survey, February and March 1980, the cash fare was 25¢. Subsequently, the fare was raised to 35¢. This was also the cash fare when the follow-up survey was conducted in November 1981. The post-survey results show a larger percentage of heavy, moderate and light bus riders who knew the current cash fare as compared to pre-survey results.

Among nonriders, 46 percent in the pre-survey and 58 percent in the post-survey did not know the cost for a ride on the bus.

<u>Cost</u>		<u>Bus Rider Usage</u>					<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy*</u>	<u>Moderate*</u>	<u>Light</u>	<u>Other*</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
More than 25¢	Pre	0	1	2	0	4	3	
More than 35¢	Post	0	2	2	3	4	3	
25¢	Pre	51	42	51	92	35	41	
35¢	Post	69	65	55	52	20*	34	
Less than 25¢	Pre	34	32	33	4	14	20	
Less than 35¢	Post	9	18	22	26	17	18	
Senior Citizen Rate	Pre	9	21	4	0	1	4	
	Post	11	7	2	8	0	3	
Pass/Punch Card	Pre	4	3	2	0	0	1	
	Post	8	2	2	2	0	2	
Don't know	Pre	1	0	8	4	46	31	
	Post	3	4	16	9	58	39	
Other	Pre	1	1	0	0	0	0	
	Post	0	2	1	0	1	1	
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)	
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 100)	100% (N = 550)	100% (N = 886)	

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of heavy, moderate, and other user responses. Among nonriders there is a significant difference at the .001 level between the pre and post current cash fare response.

## Bus Frequency

Respondents were asked if they knew how often the bus came by. The majority of bus riders indicated "yes" to this question. Most nonriders, though, indicated "no" or "don't know."

<u>Bus Frequency</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light*</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	96	92	63	70	27	45
	Post	83	87	65	76	32	49
No	Pre	3	4	21	30	50	37
	Post	2	2	9	1	10*	8
Don't know	Pre	1	4	16	0	22	18
	Post	15	7	25	22	57*	42
Doesn't seem to follow schedule/it varies	Pre	0	0	0	0	1	0
	Post	0	4	1	1	1	1
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 54)	100% (N = 116)	100% (N = 101)	100% (N = 549)	100% (N = 885)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of light user responses. Post-survey results show a slight increase in bus frequency awareness.

Nonriders, pre to post, reported a decrease in the percentage of "no" responses, and an increase in "don't know" responses. Both response categories are significant at the .001 level.

## Bus Information

The item "Do you know how to obtain bus information?" produced the following results. The majority of the bus rider groups indicated they knew how to obtain bus information with the amount of usage not an issue.

<u>Bus Information</u>		<u>Bus Rider Usage</u>					<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>Non-riders</u>	
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	97	90	85	81	68	76
	Post	99	95	89	86	76	82
No	Pre	3	9	13	15	28	21
	Post	1	5	9	11	20*	15
Don't know	Pre	0	1	2	4	4	3
	Post	0	0	2	3	4	3
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 648)	100% (N = 1,010)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 114)	100% (N = 101)	100% (N = 551)	100% (N = 886)

\*There is a significant difference between the pre and post "no" response for nonriders (.05 level). Most pre-survey nonriders (68 percent) and significantly more post-survey nonriders (76 percent) replied they knew how to obtain bus information, yet chose not to use their local bus service.



## Special Services for the Elderly

Respondents were asked if Metro Transit had special bus services for elderly people. The majority of bus riders and nonriders were aware of these services as the following table indicates:

<u>Elderly Services</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	86	81	83	70	76	75
	Post	85	91*	85	81	69*	70
No	Pre	7	8	6	11	8	9
	Post	5	4	4	0	5	5
Don't know	Pre	7	11	11	19	16	16
	Post	<u>10</u>	<u>5</u>	<u>11</u>	<u>19</u>	<u>26*</u>	<u>25</u>
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 90)	(N = 77)	(N = 166)	(N = 27)	(N = 646)	(N = 1,006)
	Post	100%	100%	100%	100%	100%	100%
		(N = 65)	(N = 55)	(N = 116)	(N = 101)	(N = 552)	(N = 889)

\*Among the moderate users there is a significant difference between the pre and post "yes or think so" response (.05 level). Significantly more post-survey moderate users were aware of special bus services for elderly people.

Nonriders, however, recorded a percentage decrease, pre to post, in the "yes or think so" response (.05 level), and an increase in "don't know" responses (.005 level). Compared to pre-survey results, significantly fewer post-survey nonriders were aware of special bus services for elderly people.

## Special Services for Handicappers

As with elderly services, respondents were asked if Metro Transit had special bus services for handicapped people. The pattern of responses is about the same as the previous question. The majority of bus riders and nonriders were aware of these services as the following table indicates:

<u>Handicapper Services</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate*</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	86	81	82	63	78	76
	Post	90	93	85	80	75	73
No	Pre	7	9	7	11	8	9
	Post	4	4	4	1	5	5
Don't know	Pre	7	10	11	26	14	15
	Post	<u>6</u>	<u>3</u>	<u>11</u>	<u>19</u>	<u>20</u>	<u>22</u>
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 552)	100% (N = 889)

\*Among moderate users, there is a significant difference at the .05 level between the two surveys due to a change in the distribution of responses. More post-survey moderate users were aware of special bus services for handicapped people, compared to pre-survey results. This may be due to the fact that Metro Transit increased its advertising of handicapped services.

## TRANSPORTATION PATTERNS

### Transit Usage

In response to the statement, "Have you personally used the bus service during the past year?" the majority of respondents said "no" in both the pre- and post-surveys.

<u>Used Bus Service?</u>	<u>Total Respondents</u>	
	Pre	<u>%</u>
Yes	36	
	Post	38
No	Pre	64
	Post	<u>62</u>
Totals	Pre	100%
		(N = 1,016)
	Post	100%
		(N = 893)

Those respondents who indicated they had used the bus service during the past year were characterized as heavy, moderate, light or other users based upon their frequency of using bus services. Following is a breakdown of bus usage patterns:

<u>Usage</u>		<u>%</u>
Heavy - Daily or almost every day	Pre	25
	Post	19
Moderate - Once a week	Pre	21
	Post	16
Light - Once a month or once a year	Pre	46
	Post	35
Other - A frequency mentioned other than the above frequencies	Pre	8
	Post	<u>30*</u>
Totals	Pre	100%
		(N = 362)
	Post	100%
		(N = 337)

\*Differences between the pre- and post-survey results for other users is significant at the .001 level.

Trip Purpose

Question No. 6, "For what purpose(s) do you use the bus service?" provided for four choices. The major (first choice) trip categories for travel by public transit bus are shown in the following table:

(First Choice) Purpose		Bus Rider Usage				Total Respondents
		Heavy %	Moderate %	Light %	Other %	
Work	Pre	50	11	9	34	22
	Post	46	18	9	9	17
Personal Business	Pre	5	4	9	0	6
	Post	15	16	10	13	13
Shopping	Pre	22	52	48	31	41
	Post	23	53	50	47	45
School	Pre	11	12	3	0	7
	Post	12	6	3	4	6
Visits or Recreation	Pre	7	8	3	8	5
	Post	2	2	11	9	7
Medical	Pre	2	5	2	0	2
	Post	0	0	0	4	1
When I don't have a car/ when car is in garage	Pre	1	4	20	23	12
	Post	2	5	15	13	10
Other	Pre	2	4	6	4	5
	Post	0	0	2	1	1
Totals	Pre	100% (N = 90)	100% (N = 74)	100% (N = 163)	100% (N = 26)	100% (N = 353)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 115)	100% (N = 101)	100% (N = 336)

Fifty percent (50%) of the pre-survey heavy users rode the bus for work purposes, although less so during the post-survey (46 percent). Most moderate and light users rode the bus mainly for shopping uses.

### Other Members Transit Usage

Given that a respondent rides the bus, is it likely that other household members also ride? Responses to the question relating to transit usage by other members of the household are summarized in Appendix D. Most bus riders and nonriders reported a higher percentage of "no" responses in both the pre- and post-survey. Post-survey other users were the only exception.

Those respondents who indicated that other members of their household had used the bus service during the past year were asked "who" this member was. Bus riders and nonriders more often reported children and spouses (see Appendix E).

Respondents were then asked "How often do other members use the bus service?" Pre-survey heavy and moderate users reported a higher percentage of moderate usage by other household members, but changed to heavy usage during the post-survey. Light users indicated primarily light usage by other household members, and results for nonriders show a tendency towards light and heavy usage (see Appendix F).

### Other Members Trip Purpose

Question No. 9, "For what purpose(s) do the other members use the bus service?" provide for four choices. Appendix G shows the major (first choice) trip categories for travel by public transit bus. Other household members of bus riders and nonriders rode basically for shopping and work purposes in both surveys.

Nearness of Bus Route

The item, "How far do you live from the nearest bus route?" revealed the following distances:

<u>Distance</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
1 or 2 blocks	Pre	80	82	69	59	48	57
	Post	74	82	72	73	48	58
3 or 4 blocks	Pre	8	5	13	8	9	9
	Post	17	4	9	10	9	9
1/4 to 1/2 mile	Pre	7	5	3	11	6	5
	Post	3	5	8	5	7	6
1/2 - 1 mile	Pre	0	4	5	7	4	4
	Post	0	2	5	3	4	4
1 mile or more	Pre	3	4	7	15	24	18
	Post	6	5	5	7	20	15
Don't know	Pre	2	0	3	0	9	7
	Post	<u>0</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>12</u>	<u>8</u>
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 550)	100% (N = 887)

Overall, the majority of bus riders live within one or two blocks of the nearest bus route. Despite the fact that 48 percent of the pre- and post-survey nonriders also live within one or two blocks of the nearest bus route, they had not used the bus service during the previous year.

Usual Transportation Mode

Question No. 34, "What is your usual means of transportation?" provided for two choices. The major (first choice) responses are shown below. "Car" was cited as the usual means of transportation. The highest percentage occurred for nonriders, followed by other, light, moderate, and heavy users.

Heavy users, pre and post, were about evenly distributed between "car" and "bus" responses.

<u>(First Choice)</u> <u>Usual Mode</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u> <u>%</u>	<u>Total Respondents</u> <u>%</u>
		<u>Heavy</u> <u>%</u>	<u>Moderate</u> <u>%</u>	<u>Light</u> <u>%</u>	<u>Other</u> <u>%</u>		
Car	Pre	45	62	88	89	94	86
	Post	48	51	90	78	93	84
Bus	Pre	45	21	2	0	0	6
	Post	45	42	2	11	0	7
Friends or relatives take me	Pre	5	7	5	4	4	4
	Post	3	3	4	4	4	5
Bike, motorcycle	Pre	0	0	1	0	0	0
	Post	3	2	1	0	1	1
Senior Citizen's or Handicapper Van	Pre	0	1	0	0	0	0
	Post	0	0	0	2	0	1
Usually walk	Pre	1	4	4	7	1	2
	Post	1	2	3	4	2	2
I go a variety of ways	Pre	4	5	0	0	0	1
	Post	0	0	0	0	0	0
Other	Pre	0	0	0	0	1	1
	Post	0	0	0	1	0	0
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 552)	100% (N = 889)

## Number of Automobiles

The item, "How many automobiles does your household have?" resulted in the following breakdown:

<u>Number of Automobiles</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
1	Pre	37	42	40	41	30	34
	Post	40	31	40	37	35	36
2	Pre	34	29	41	44	48	43
	Post	28	29	41	41	47	42
3	Pre	9	6	7	11	13	11
	Post	6	6	11	8	12	11
4 or more	Pre	1	2	9	4	6	6
	Post	0	7	5	1	3	3
0	Pre	19	21	3	0	3	6
	Post	26	27	3	13	3	8
Totals	Pre	100% (N = 89)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 647)	100% (N = 1,006)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 552)	100% (N = 889)

Forty-four percent (44%) of the pre-survey heavy users reported two or more cars, decreasing to 34 percent in the post-survey.

Forty-two percent (42%) of the pre-survey moderate users reported only one automobile; however, post-survey results (42 percent) show two or more cars.

Both light users and nonriders primarily reported two or more cars.



## Availability of Vehicle

The question, "Is a vehicle normally available for your use?" produced the following results:

<u>Vehicle Available</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	58	65	85	92	93	86
	Post	43	62	87	70	92	83
No	Pre	32	26	10	4	5	10
	Post	46	34	8	23	5	13
Sometimes	Pre	6	3	1	4	1	2
	Post	9	4	3	7	2	3
Other	Pre	4	6	4	0	1	2
	Post	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>1</u>
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 552)	100% (N = 889)

Even though the majority of the four bus rider groups indicated they did normally have a vehicle available for their use, the percentage was lower for heavy users and moderate users, compared to light users and other users. The percentage of "no" responses was reported more by heavy and moderate users than for light or other users.

As expected, most nonriders normally have a vehicle available to them.

## TRANSPORTATION ATTITUDES

### Reasons for Not Riding the Bus

The respondents classified as nonriders, i.e., those who had not used the bus service during the previous year, were asked, "Is there any particular reason why you don't ride the bus?" Pre- and post-survey results indicate "don't need to, have a car" as the primary reason for not riding the bus by nonriders.

Pre-survey second ranking was tied between "doesn't stop near me or I live in the country," and "no reason." Post-survey second ranking was "doesn't stop near me or I live in the country," followed by "no reason."

This question provided for four choices. The following table summarizes the responses for nonriders first choice:

(First Choice) <u>Reasons for Not Riding the Bus</u>	<u>Pre %*</u>	<u>Post %*</u>
Don't need to, have a car	40	51
No reason	21	13
Doesn't stop near me or I live in the country	21	19
It's inconvenient	7	4
Doesn't go <u>where</u> I want to go	5	4
Other	4	6
Just never thought about it or got around to it	1	1
Takes too long	1	1
Doesn't go <u>when</u> I want to go	<u>0</u>	<u>1</u>
Totals	100% (N = 645)	100% (N = 545)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of nonrider responses. Pre. to post results show a significant increase in "don't need to, have a car" responses, and a decrease in "no reason" responses.

Fairness of Cost

The following results are from the question asking respondents their opinions regarding the cost for a bus ride. Overall, most bus riders and nonriders believed the fare was "just right."

Do You Think This Fare is:		Bus Rider Usage				Non- riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
Too Much	Pre	4	5	0	0	1	2
	Post	5	6	3	9	1	4
Not Enough	Pre	6	2	3	4	5	4
	Post	9	4	4	4	4	5
Just Right	Pre	90	88	94	92	91	91
	Post	81	86	87	78	85	83
Don't Know	Pre	0	1	2	4	2	2
	Post	0	0	2	7	8*	5
Other	Pre	0	4	1	0	1	1
	Post	5	4	4	2	2	3
Totals	Pre	100% (N = 88)	100% (N = 76)	100% (N = 152)	100% (N = 26)	100% (N = 347)	100% (N = 689)
	Post	100% (N = 63)	100% (N = 52)	100% (N = 95)	100% (N = 91)	100% (N = 234)	100% (N = 535)

\*There is a significant difference at the .05 level between the pre and post "don't know" response for nonriders. Significantly more post-survey nonriders are uncertain about their opinion of the bus fare, compared to pre-survey results.

Closer Routes

Question 13 asked respondents, "Would you use the bus more if the bus routes were closer?" The table below highlights the results:

<u>Closer Routes</u>		<u>Bus Rider Usage</u>					<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Yes	Pre	6	12	11	18	15	14	
	Post	11	15	8	8	14	12	
No	Pre	78	71	72	67	60	65	
	Post	80	78	75	70	63	68	
Don't Know	Pre	0	0	0	0	2	1	
	Post	0	0	0	0	2	1	
Maybe	Pre	0	1	5	11	9	7	
	Post	1	0	4	2	9	7	
Probably Not	Pre	15	16	11	4	12	12	
	Post	3	7	10	16	10	10	
Other	Pre	1	0	1	0	2	1	
	Post	5	0	3	4	2	2	
Totals	Pre	100% (N = 90)	100% (N = 77)	100% (N = 160)	100% (N = 27)	100% (N = 587)	100% (N = 941)	
	Post	100% (N = 65)	100% (N = 54)	100% (N = 115)	100% (N = 99)	100% (N = 481)	100% (N = 814)	

Considering the response categories of "no" and "probably not" together, the majority of bus riders and nonriders indicated that closer bus routes would not induce them to use the bus more.

## Frequency of Service

Respondents were asked if they would use the bus more if it came by more frequently. The results, as shown below, indicate that bus riders and nonriders would not use the bus more if it came by more frequently:

<u>More Frequent Service</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	14	7	4	5	5	7
	Post	11	6	1	13	5	6
No	Pre	53	58	67	90	73	66
	Post	72	80	80	61	74	73
Don't Know	Pre	0	1	2	0	1	1
	Post	2	0	1	1	3	2
Maybe	Pre	8	16	4	5	4	7
	Post	4	4	1	6	6	5
Probably Not	Pre	24	18	22	0	16	18
	Post	9	10	17	19	11	13
Other	Pre	1	0	1	0	1	1
	Post	2	0	0	0	1	1
Totals	Pre	100%	100%	100%	100%	100%	100%
	Post	100%	100%	100%	100%	100%	100%
		(N = 89)	(N = 71)	(N = 105)	(N = 19)	(N = 180)	(N = 464)
		(N = 53)	(N = 48)	(N = 84)	(N = 79)	(N = 220)	(N = 484)

## Travel Areas Served

The item, "Does the bus system serve the areas to which you most frequently travel?" revealed the following results. There is a difference in response between riders and nonriders. The majority of riders replied that the bus system served the areas they frequently traveled (pre = 83% - 97%; post = 87% - 98%), whereas this was only true for 55 percent of the pre-survey nonriders and 66 percent of the post-survey nonriders.

<u>Serve Areas</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light*</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	97	95	83	89	55	68
	Post	98	94	92	87	66	76
No	Pre	3	5	14	11	30	22
	Post	2	4	4	12	18*	14
Don't Know	Pre	0	0	3	0	15	10
	Post	0	2	4	1	16	10
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 648)	100% (N = 1,010)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 550)	100% (N = 887)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of light user responses. Among nonriders there is a significant difference at the .001 level between the pre and post "no" response.

Significantly more post-survey light users and nonriders indicated that the bus system served the areas they frequently traveled.

## Effects of Gasoline Prices

Question 18 was a four-part question relating to the rising gasoline prices of the last few weeks before each survey. Respondents were asked if they had considered: a) riding the bus, b) getting in a carpool, c) driving less, or d) if gas prices affect them?

The attitude of most pre- and post-survey bus riders was that they had considered riding the bus more because of rising gasoline prices. (Those bus riders who indicated "no" to this question had evidently not considered riding the bus more than their current riding patterns.) Most nonriders, however, replied "no" to this question (see Appendix H).

Most bus riders and nonriders indicated they had not considered getting in a carpool because of rising gasoline prices (see Appendix I).

In general, bus riders and nonriders had considered driving less with the rising gasoline prices (see Appendix J).

The results indicate that gasoline prices apparently affected both bus riders and nonriders. Those bus riders who indicated "no" to this question may depend on Metro Transit for their primary transportation needs (see Appendix K).

## Energy Conservation Measure

Respondents were asked if they thought of the bus service as a viable, valuable energy conservation measure. The table, as shown in Appendix L, indicates an overwhelming majority of bus riders and nonriders view the bus service as a viable, valuable energy conservation measure.

## Improvements

Question 20 asked respondents what improvements they would like to see in the city bus system that would cause them to use the bus more often. This

question provided for four choices. The results, as shown below, indicate "no changes needed" for most bus riders and nonriders.

Overall, four improvements in Metro Transit since the initial survey appear to be meeting the needs of Kalamazoo's residents. Opinions regarding closer stops, expanded service hours, better transfer system, and better route and schedule information declined in the follow-up survey. More convenient routes, more courteous drivers, and "other" improvements were the only areas showing an increased need among Kalamazoo's residents.



Bus Rider Usage

<u>(First Choice) Improvements</u>		<u>Heavy</u> <u>%</u>	<u>Moderate</u> <u>%</u>	<u>Light</u> <u>%</u>	<u>Other</u> <u>%</u>	<u>Non-riders*</u> <u>%</u>	<u>Total Respondents</u> <u>%</u>
Lower fares	Pre	0	0	0	0	0	0
	Post	0	2	0	2	0	0
More convenient routes	Pre	0	3	7	0	3	3
	Post	5	2	2	1	5	4
Closer stops	Pre	2	6	8	0	8	7
	Post	3	4	3	3	8	6
More frequent service	Pre	6	3	0	0	2	2
	Post	5	3	1	4	2	2
More bus shelters	Pre	0	0	0	0	0	0
	Post	3	0	0	0	0	0
Faster service	Pre	2	1	1	0	0	1
	Post	1	0	2	1	1	1
More courteous drivers	Pre	0	0	0	0	0	0
	Post	1	2	0	1	0	1
Expanded service hours	Pre	8	5	6	11	3	5
	Post	8	5	6	3	2	4
Better transfer system	Pre	7	3	4	0	2	3
	Post	2	0	2	6	1	1
Better route and schedule information	Pre	1	8	4	4	2	3
	Post	1	2	4	0	2	2
Other	Pre	20	17	10	26	8	10
	Post	8	16	15	12	13	13
No changes needed	Pre	54	54	60	59	71	66
	Post	63	64	64	66	59	61
I would not use the bus in any case	Pre	0	0	0	0	1	0
	Post	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>7</u>	<u>5</u>
Totals	Pre	100% (N = 90)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,009)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Significant changes, pre to post, were noted in regard to the "other," "no changes needed," and "I would not use the bus in any case" responses.

DEMOGRAPHICS

Sex

In general, female bus riders and nonriders outnumbered male bus riders and nonriders in both surveys (see Appendix M).

The table below shows the percentage of male and female bus riders and their first choice for purpose of using the bus service:

<u>(First Choice)</u> <u>Purpose</u>	<u>Bus Riders</u>			
	<u>Pre (%)</u>	<u>Male</u> <u>Post (%)</u>	<u>Pre (%)</u>	<u>Female</u> <u>Post (%)</u>
Shopping	29	24	46	52
Work	22	25	21	15
When I don't have a car/ when car is in garage	19	21	9	6
Visits or recreation	9	8	4	7
Other	9	0	3	1
Personal business	5	12	7	13
School	5	10	7	4
Medical	<u>2</u>	<u>0</u>	<u>3</u>	<u>2</u>
Totals	100% (N = 102)	100% (N = 89)	100% (N = 251)	100% (N = 250)

Males, pre to post, reported an increase in "work," "personal business," "school," and "when I don't have a car/when car is in garage" purposes. Females, pre to post, reported an increase in "personal business," "shopping," and "visits or recreation" uses.

"Shopping" was the most frequently mentioned purpose for using the bus service by pre-survey males and females from both surveys. This was followed by "work." Post-survey males reversed this trend, and mentioned "work" first, closely followed by "shopping" uses.

Age

By purpose, the following distribution of age groups was found for all respondents in the surveys:

(First Choice) Purpose		Age Groups				No Response
		16-20 Years	21-39 Years	40-60 Years	Older Than 60 Years	
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Work	Pre	11	26	27	13	0
	Post	13	24	19	7	33
Personal Business	Pre	0	6	9	9	0
	Post	11	7	16	24	0
Shopping	Pre	48	33	44	52	100
	Post	55	37	51	49	0
School	Pre	15	9	1	1	0
	Post	11	8	0	0	33
Visits or recreation	Pre	18	4	4	3	0
	Post	5	9	5	5	34
Medical	Pre	2	1	1	7	0
	Post	0	1	2	3	0
When I don't have a car/ when car is in garage	Pre	4	17	8	9	0
	Post	5	13	7	10	0
Other	Pre	2	4	6	6	0
	Post	<u>0</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>
Totals	Pre	100% (N = 46)	100% (N = 159)	100% (N = 78)	100% (N = 69)	100% (N = 1)
	Post	100% (N = 56)	100% (N = 147)	100% (N = 57)	100% (N = 76)	100% (N = 3)

Sixteen to 20 year-old riders used the bus primarily for shopping purposes. Twenty-one to 39 year-old riders rode for shopping and work needs. Forty to 60 year-old riders also rode for shopping and work needs. The older than 60 years group used the bus primarily for shopping purposes.

As the age groups increased in years (through the first three categories), the percentage of males comprising each age group tended to decrease. For example, 42 percent of the pre-survey males were in the 16-20 year-old age group compared with 27 percent, 40-60 years. The reverse was true for females, i.e., as the age groups increased in years (through the first three categories), so did the percentage of females comprising each age group (see Appendix N).

Appendix O lists the various age groups with the percentage of bus riders and nonriders comprising each age group. The 21-39 year-old age group contained the highest percentage of bus riders and nonriders. The only exception was for pre-survey moderate users, where 34 percent comprised the older than 60 years age group.

### Occupation

By sex, the distribution of occupations is shown in Appendix P. Nineteen percent (19%) of the pre-survey males were retired, followed by the professional, and skilled/semi-skilled categories. Twenty-five percent (25%) of the post-survey males indicated they were students, followed by retired, and skilled/semi-skilled. Thirty-two percent (32%) of the females in both surveys were homemakers, followed by a second and third ranking of retired, and professional.

By age groups, the distribution of occupations is shown in Appendix Q. As expected, the table indicates the majority of respondents between the ages of 16-20 were students. Twenty-four percent (24%) of the pre- and post-survey 21-39 year-old respondents were homemakers. The second ranking was the professional category. First ranking for 40-60 year-old respondents also was homemakers, followed by the professional category. Seventy-nine percent (79%) of the pre- and post-survey older than 60 years respondents were retired.

Based upon ridership groups, the distribution of occupations was found as follows:

Students, homemakers, and retired were the three most frequently mentioned occupations by bus riders. Nonriders basically reported homemaker, retired, and the professional categories.

Bus Rider Usage

(First Choice) Occupation		Heavy	Moderate	Light	Other	Non-riders*	Total Respondents
		%	%	%	%	%	%
General office/ clerical	Pre	11	9	5	15	6	7
	Post	8	4	3	5	5	4
Management	Pre	2	0	4	0	2	2
	Post	0	0	2	2	4	3
Government	Pre	1	0	3	11	2	2
	Post	0	0	1	1	0	0
University	Pre	4	1	0	0	1	1
	Post	1	0	0	0	1	0
Proprietor	Pre	0	0	2	0	1	1
	Post	1	4	1	3	1	2
Professional	Pre	10	5	12	11	16	13
	Post	11	11	13	5	12	11
Sales	Pre	5	3	4	4	6	5
	Post	5	5	3	4	4	3
Skilled/semi- skilled	Pre	7	4	4	4	6	6
	Post	5	2	5	3	6	5
Technical	Pre	2	1	2	4	4	3
	Post	3	4	3	0	3	3
Service worker	Pre	7	1	5	7	6	6
	Post	5	2	5	9	5	5
Unskilled labor	Pre	0	1	2	0	4	3
	Post	5	0	2	1	2	2
High school or college student	Pre	19	24	14	22	4	9
	Post	17	26	19	17	8	13
Homemaker	Pre	12	19	26	7	23	22
	Post	12	15	25	19	24	23
Retired	Pre	15	32	15	15	17	18
	Post	19	21	14	27	20	21
Not employed	Pre	5	0	2	0	2	2
	Post	8	6	4	4	5	5
Totals	Pre	100% (N = 89)	100% (N = 76)	100% (N = 162)	100% (N = 27)	100% (N = 639)	100% (N = 993)
	Post	100% (N = 64)	100% (N = 53)	100% (N = 112)	100% (N = 96)	100% (N = 526)	100% (N = 851)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Compared to pre-survey results, post-survey nonriders show a decrease in governmental occupations, and an increase in student and not employed categories.

## ADVERTISING AWARENESS

Note: Prior to post-survey interviewing there was a 50 percent reduction in available advertising funds. As a result, Metro Transit made use of a variety of other media, thereby reducing the funds normally spent on radio and TV.

### Radio Station Listening

Respondents were asked if they had heard any Metro Transit radio announcements. The majority of bus riders and nonriders indicated they had not heard any Metro Transit radio announcements. Pre-survey other users were the only exception, as shown in the following table:

<u>Heard Announcements?</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light*</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	25	23	46	59	39	38
	Post	23	27	27	26*	30*	28
No	Pre	71	74	51	41	60	60
	Post	68	71	71	70	63	66
Don't know	Pre	4	3	3	0	1	2
	Post	9	2	2	4	7*	6
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)

\*There is a significant difference at the .005 level between the two surveys due to a change in the distribution of responses for light users. There also is a pre to post change in the "yes or think so" response for other users (.05 level) and nonriders (.05 level). The pre to post change in the "don't know" response for nonriders is significant at the .001 level. The results indicate a pre to post decrease in the percentage of respondents who heard Metro Transit radio announcements.

Listed below are Kalamazoo radio stations with the percentages of respondents who heard announcements on specific radio stations.

The most frequently mentioned station by pre-survey heavy users was WKZO; post-survey heavy users more often reported WKMI. As above, 28 percent of the pre-survey moderate users reported WKZO, but 33 percent of the post-survey moderate users indicated WKMI. Pre-survey light users reported two stations, WKMI and WKZO; 36 percent of the post-survey light users indicated WKMI.

Radio Stations		Bus Rider Usage					Non-riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %			
WBUK	Pre	0	0	1	0	0	0	
	Post	0	0	0	0	2	1	
WIDR	Pre	0	0	0	0	0	0	
	Post	0	7	3	0	2	2	
WKMI	Pre	26	22	32	25	30	29	
	Post	29	33	36	8	17	20	
WKPR	Pre	0	0	2	0	1	2	
	Post	0	0	3	0	1	1	
WKZO	Pre	35	28	37	44	34	35	
	Post	7	20	16	46	25	26	
WMUK	Pre	0	0	0	6	0	0	
	Post	0	0	0	0	0	0	
WQLR	Pre	0	0	4	0	2	2	
	Post	7	0	3	0	2	2	
WYYY	Pre	0	0	0	0	2	1	
	Post	0	0	0	0	0	0	
Other	Pre	9	0	0	0	2	2	
	Post	7	7	0	11	9	8	
Don't know	Pre	30	50	24	25	29	29	
	Post	50	33	39	35	42	40	
Totals	Pre	100% (N = 23)	100% (N = 18)	100% (N = 76)	100% (N = 16)	100% (N = 255)	100% (N = 388)	
	Post	100% (N = 14)	100% (N = 15)	100% (N = 31)	100% (N = 26)	100% (N = 149)	100% (N = 235)	

\*There is a significant difference at the .005 level between the two surveys due to a change in the distribution of nonrider responses. Compared to pre-survey results, fewer post-survey nonriders reported WKMI and more reported "other" and "don't know."

Respondents were asked if they regularly listen to the radio. The majority of bus riders and nonriders replied "yes," as indicated in the table below:

		Bus Rider Usage				Non-riders*	Total Respondents
		Heavy %	Moderate %	Light* %	Other %		
Yes	Pre	71	69	83	85	75	76
	Post	59	65	52	58	57	57
No	Pre	28	30	17	15	25	24
	Post	41	31	46	38	40	40
Radio is broken or don't have radio	Pre	1	1	0	0	0	0
	Post	0	0	0	0	0	0
Other	Pre	0	0	0	0	0	0
	Post	0	4	2	4	3	3
Totals	Pre	100% (N = 91)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 648)	100% (N = 1,009)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of light user and nonrider responses. Compared to pre-survey results, post-survey results indicate a decrease in "yes" responses and an increase in "no" responses. Fewer post-survey light users and nonriders are regular radio listeners.



Television Station Viewing

As with radio, respondents were asked if they had seen any Metro Transit television announcements. Most bus riders and nonriders had not seen any Metro Transit television announcements.

The following table lists the responses to this question:

<u>Seen Announcements?</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light*</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	20	25	29	26	31	29
	Post	22	20	15	16	17*	17
No	Pre	79	69	66	74	67	68
	Post	75	78	80	74	75	76
Don't know	Pre	1	6	5	0	2	3
	Post	3	2	5	10	8*	7
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of light users responses. Nonriders recorded a pre to post change for the "yes or think so" response (.001 level) and the "don't know" response (.001 level). The results indicate that fewer post-survey respondents saw any Metro Transit television announcements.

Listed below are Kalamazoo TV stations with the percentage of respondents who saw announcements on specific TV stations.

TV Stations		Bus Rider Usage				Non-riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
WKZO Ch. 3	Pre	72	58	76	71	74	73
	Post	60	63	42	43	53	54
WUHQ Ch. 41	Pre	0	0	2	0	2	2
	Post	0	0	8	0	6	4
WOTV Ch. 8	Pre	6	0	0	0	4	3
	Post	0	12	8	14	3	5
Other	Pre	0	0	0	0	0	0
	Post	0	0	8	14	1	3
Don't know	Pre	22	42	22	29	20	22
	Post	40	25	34	29	37	34
Totals	Pre	100% (N = 18)	100% (N = 19)	100% (N = 49)	100% (N = 7)	100% (N = 197)	100% (N = 290)
	Post	100% (N = 10)	100% (N = 8)	100% (N = 12)	100% (N = 14)	100% (N = 73)	100% (N = 117)

An overwhelming majority of bus riders and nonriders reported WKZO-TV as the TV station where they saw Metro Transit announcements. WKZO-TV also reported public service announcements regarding Metro Transit service information.

Respondents were asked if they regularly watch television. As with radio, the majority of bus riders and nonriders indicated they regularly watch TV. The responses to this question are tabulated as follows:

<u>Regularly Watch?</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	69	85	75	70	81	79
	Post	69	67	71	73	66*	68
No	Pre	30	14	23	30	19	20
	Post	26	29	26	24	32*	30
TV is broken or don't have TV	Pre	1	1	1	0	0	1
	Post	2	2	1	0	0	0
Other	Pre	0	0	1	0	0	0
	Post	<u>3</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>
Totals	Pre	100% (N = 91)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 648)	100% (N = 1,009)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 550)	100% (N = 887)

\*There is a significant difference between the pre and post "yes" response (.05 level) and "no" response (.001 level) for nonriders. The results indicate that fewer post-survey nonriders watched TV on a regular basis.

## Newspaper Readership

Respondents were asked if they had seen any Metro Transit newspaper ads. Most of the pre-survey bus riders and nonriders said "yes or think so;" however, post-survey results show a higher incidence of "no" responses. The only exception was for post-survey moderate users. The following table shows the responses to this question.

<u>Seen Ads?</u>		<u>Bus Rider Usage</u>					<u>Non-riders*</u>	<u>Total Respondents</u>
		<u>Heavy*</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Yes or think so	Pre	64	52	57	52	54	55	
	Post	34	47	44	41	41	41	
No	Pre	34	40	40	44	44	42	
	Post	61	46	52	51	54	54	
Don't know	Pre	2	5	3	4	2	3	
	Post	5	7	4	8	5	5	
Other	Pre	0	3	0	0	0	0	
	Post	0	0	0	0	0	0	
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)	
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 549)	100% (N = 886)	

\*There is a significant difference between the two surveys due to a change in the distribution of heavy user and nonrider responses. Heavy users, pre to post, recorded a significant decrease (.005 level) in "yes or think so" responses and an increase in "no" responses. The same pattern was recorded for nonriders (significance - .001 level) accompanied by a significant increase in "don't know" responses.

Listed below are Kalamazoo area newspapers with the percentages of respondents who saw ads in specific newspapers:

		Bus Rider Usage				Non-riders	Total Respondents
Newspapers		Heavy	Moderate	Light	Other		
		%	%	%	%	%	%
Kalamazoo Gazette	Pre	97	95	98	100	95	96
	Post	90	92	100	95	96	96
Portage Headliner	Pre	0	0	0	0	0	0
	Post	0	0	0	3	1	0
Other	Pre	0	0	1	0	1	1
	Post	5	0	0	2	2	2
Don't know	Pre	3	5	1	0	4	3
	Post	5	8	0	0	1	2
Totals	Pre	100% (N = 59)	100% (N = 40)	100% (N = 94)	100% (N = 14)	100% (N = 348)	100% (N = 555)
	Post	100% (N = 21)	100% (N = 26)	100% (N = 50)	100% (N = 39)	100% (N = 214)	100% (N = 350)

An overwhelming majority of bus riders and nonriders saw Metro Transit newspaper ads more often in The Kalamazoo Gazette than in any other newspaper.

Respondents were asked if they regularly read a local newspaper. The majority of bus riders and nonriders replied "yes," as indicated in the table below:

		Bus Rider Usage				Non-riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
Yes	Pre	71	67	68	63	77	73
	Post	57	62	67	66	69	67
No	Pre	22	17	22	26	16	18
	Post	26	29	23	16	22	22
Sometimes	Pre	7	13	8	11	5	7
	Post	17	9	9	17	9	10
Other	Pre	0	3	2	0	2	2
	Post	0	0	1	1	0	1
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)

\*There is a significant difference at the .005 level between the two surveys due to a change in the distribution of nonrider responses. Significant changes, pre to post, were an increase in the percentage of "no" and "sometimes" responses.

Other Media Exposure

Respondents were asked if there were any other places they had seen, heard, or read advertisements or otherwise obtained information about Metro Transit. Most of the bus riders and nonriders indicated they had not obtained information about Metro Transit from any other source than those previously listed. Of those respondents who said "yes," more was recorded from the post-survey compared to the pre-survey. The only exception was for post-survey light users.

The following table shows the responses to this question:

<u>Other Places?</u>		<u>Bus Rider Usage</u>				<u>Non-riders*</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light*</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	36	26	33	29	27	29
	Post	41	29	30	40	29	31
No	Pre	55	66	65	67	69	67
	Post	51	56	55	54	59	57
Don't know	Pre	8	8	2	0	4	4
	Post	8	15	15	6	12	12
Other	Pre	1	0	0	4	0	0
	Post	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 54)	100% (N = 114)	100% (N = 101)	100% (N = 550)	100% (N = 884)

\*There is a significant difference between the two surveys due to a change in the distribution of light user and nonrider responses. Compared to pre-survey results, significantly more light users (.001 level) and nonriders (.001 level) replied "don't know" to this question.

Of those who had obtained information from another place, "billboards," "displays," "other" media, and "news articles" were the most common source given. "Displays" and "news articles" were the two mediums showing an overall increase in pre to post recognition.

Bus Rider Usage

<u>Places?</u>		<u>Heavy*</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>Non-riders</u>	<u>Total Respondents</u>
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Billboards	Pre	46	45	34	11	37	37
	Post	12	19	19	20	30	25
Bulletin boards	Pre	9	0	0	0	2	2
	Post	8	12	0	2	3	3
Displays	Pre	3	5	2	0	2	3
	Post	46	44	28*	38	27*	32
News Articles	Pre	6	10	6	0	13	10
	Post	11	6	19	20	16	16
Other	Pre	27	35	53	67	42	43
	Post	15	19	34	18	20*	21
Ad for stores/ institutions which mention that they can be reached by bus	Pre	9	5	5	22	4	5
	Post	<u>8</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>4</u>	<u>3</u>
Totals	Pre	100% (N = 33)	100% (N = 20)	100% (N = 53)	100% (N = 9)	100% (N = 175)	100% (N = 290)
	Post	100% (N = 26)	100% (N = 16)	100% (N = 32)	100% (N = 40)	100% (N = 155)	100% (N = 269)

\*There is a significant difference at the .005 level between the two surveys due to a change in the distribution of responses for heavy users. Significant changes were recorded for the "billboards" and "displays" responses.

There also is a pre to post change in the percentage of "displays" responses for light users (.05 level) and nonriders (.001 level). Nonriders also recorded a change in the percentage of "other" responses (.05 level).



## CONCLUSIONS

The main purpose of the follow-up survey was to evaluate the effectiveness of Metro Transit marketing efforts during the time from the initial survey to the follow-up survey. The section on "Advertising Awareness" clearly shows that newspapers were remembered by more bus riders and nonriders, followed by radio, "other" media and television. Inspection of the Total Respondents column in the table below, shows that pre-survey recall of newspaper ads was 55 percent, decreasing to 41 percent in the post-survey. Radio followed with 38 percent recall in the pre-survey, decreasing to 28 percent in the post-survey. "Other" media witnessed a slight increase in recognition from 29 percent in the pre-survey to 31 percent in the post-survey. Television recall during the pre-survey was 29 percent, decreasing to 17 percent in the post-survey.

The medium which received the most increase in recognition, pre to post, varied depending on the ridership group reporting. Follow-up results for other media show a higher percentage of recall over initial survey results for heavy and other users and nonriders. For heavy users there was a 5 percent increase; other users, 11 percent; and nonriders, 2 percent. Follow-up results for radio show a higher percentage of recall over initial survey results for moderate users (4 percent increase). Results for light users show a decrease, pre to post, for all mediums.

The table below highlights these findings and summarizes parts from four tables in the section on "Advertising Awareness:"

MEDIUM Respondents Who Heard, Saw or Read Ads		Bus Rider Usage				Non- riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
RADIO							
"Yes or think so"	Pre	25	23	46	59	39	38
	Post	23	27	27	26	30	28
TELEVISION							
"Yes or think so"	Pre	20	25	29	26	31	29
	Post	22	20	15	16	17	17
NEWSPAPER							
"Yes or think so"	Pre	64	52	57	52	54	55
	Post	34	47	44	41	41	41
"OTHER"							
"Yes or think so"	Pre	36	26	33	29	27	29
	Post	41	29	30	40	29	31

"Other" media may have received more recognition, pre to post, from heavy and other users and nonriders because it was used extensively as part of Metro Transit's marketing efforts. When questioned further, respondents indicated a higher recall of billboards, displays, and "other" media.

Metro Transit implemented an aggressive marketing program during the interim from pre-survey to post-survey interviewing. In addition to radio, television, and newspapers, they also made use of a variety of other mediums. These include the following:

Outdoor (billboards and posters)

Interior and exterior bus cards

Magazine ads

Fliers

Bus schedules

Schedule racks

Indoor kiosks

Bus stop signs

Educational films

Directory advertising

- Kalamazoo Area Telephone Directory
- Western Michigan University Faculty, staff and student directory

Special promotions and displays

- Downtown Kalamazoo Association - Merchants "Token" Program
- Ads in Chamber of Commerce Maps
- System Route Map
- "Super Pass" promotion (bus ticket vending machines at Western Michigan University)

To increase public awareness and ultimate usage of Metro Transit service, ads were placed in the following brochures:

Kalamazoo Wings Promotional Brochure

Kalamazoo Apartment Guide Brochure

Michigan Municipal League Convention brochures

Kalamazoo Air Show brochures.

## RECOMMENDATIONS

It is recommended that Metro Transit use the survey results when planning their marketing efforts. The results identified five major target market groups. The ideal method would be to write copy that is specifically tailored to each group. In general, people use a service for the benefits they believe will result from using the service. Therefore, benefit segmentation should be combined with other segmentation bases, demographic data, for example, in order to provide Metro Transit with a greater understanding of each customer group.

The five target market groups, promotional appeal and appropriate media choices are as follows:

1. The first is the manager/professional group. The benefits this group seeks are easy access getting to and from the bus stops, travel time savings from origin to destination and the number of alternative travel times available to the user for a given transit trip. Medium importance is attached to dependability, i.e., the increase in the likelihood that the user's expected departure and arrival times coincide with the actual service provided. Little importance is attached to the cost savings from using transit services.

The promotional appeal to the manager/professional group should stress service benefits--accessible bus stops, travel time savings and options and comfortable vehicles--since this group is likely to be more sensitive to such benefits. Also, the intangible benefits as relief from the stress and strain of daily driving and the opportunity to work while commuting may appeal to this segment and should be communicated in promotional themes.

Appropriate media choices are spot television, business papers and local radio.

2. The second is the clerical group. The benefits this group seeks are slightly different from that of the manager/professional in that more importance is attached to cost savings.

Promotion of transit services to the clerical group should place greater emphasis on cost savings from using public transit, i.e., reduced car maintenance costs and elimination of parking fees. The intangible benefit of socializing may also be promoted.

Appropriate media choices are spot television and local radio.

3. The third is the student group. The main benefits this group seeks are cost savings and easy access getting to and from the bus stops.

The promotional appeal to the student group should stress low price and ease of getting to and from transit stops.

Appropriate media choices are local radio, college and local newspapers.

4. The fourth customer group is the elderly. Traditionally, this segment has been ignored by transit companies; however, this segment is large, growing and increasingly concentrated in urban areas. This group would rate highly the benefits of easy access getting to and from the bus stops and the cost savings from using transit services. Medium levels of importance are attached to dependability (the increase in the likelihood that the user's expected departure and arrival times coincide with the actual service provided) and the number of alternative travel times available to the user for a given transit trip. Rated low are travel time savings from origin to destination. Metro Transit's elderly and handicapped passengers are eligible for free fares during nonpeak hours, three times a week.

The promotional appeal to the elderly group should stress free fare periods, low price, time flexibility, and the intangible benefit of peer group interaction. It is to the elderly's benefit to know

about free fare periods or reduced fares, given their economic constraints.

Appropriate media choices are direct mail and spot television.

5. The fifth customer group consists of homemakers. Highly rated by this group is easy access getting to and from the bus stops. Moderate benefits are travel time savings, dependability and travel time options. Low in importance is the cost savings from using transit services.

Promotion of transit services to the homemakers group should place greater emphasis on time flexibility, trip flexibility and reduced auto use.

Appropriate media choices are spot television and local radio.

Finally, efforts should be made to appeal to the nonriders who lack information and experience about riding the bus but have not ruled out the mode entirely. How can Metro Transit motivate these nonriders to try riding the bus for the first time, provide the opportunity to evaluate the system on its merits and, thereby, place the bus system within the nonriders consideration? Certainly some form of occasional use should be advertised. Some incentives are as follows:

Free tickets, which could promote some usage by nonriders. It has the advantage of being a low-cost incentive.

Ride-and-shop programs are effective and also low cost.

Amenities on board the bus may also be considered. Amenities may not be low cost, but they may be effective in retaining riders in the long run.

## IMPLICATIONS FOR FUTURE RESEARCH

The first objective of this research was to develop and implement a methodology that could be used by other state transportation departments to survey public attitude and awareness levels regarding transit systems in their states. In light of this, it appears appropriate to identify the following limitations of this marketing research survey in an effort to assist these departments, should they attempt to replicate this study:

1. It is suggested that the follow-up survey be conducted during the same time of year as the initial survey. This would prevent any seasonal fluctuation from affecting the results, such as a heavier expenditure of advertising dollars in one part of the year over another.

The original intention of this study was that the follow-up survey be conducted one year after the initial survey; however, a lapse of approximately 21 months occurred. This was due to departmental personnel cuts in the Surveys Section and the longer than expected lead time to install additional temporary telephone lines.

2. The initial and follow-up telephoning should be conducted on the same days, and during the same time of day, i.e., consistent interviewing days and hours from pre-survey to post-survey. Interviews for the initial survey were conducted during the hours of 12 noon - 8 p.m., Monday through Thursday. Post-survey interviewing was conducted during the hours of 9 a.m. to 6 p.m., Monday through Thursday and 9 a.m. to 4:30 p.m. on Friday. Again, this was due to scheduling problems in the Surveys Section.
3. Use of a closed-end questionnaire, one in which the possible answers are prescribed for the respondents, limits valuable information that could be gained if an open-end questionnaire had been used. An open-end questionnaire is one to which the respondent is free to answer in his own words. (Question 2., which asks for the specific



name of the transit system in each city, was the only open-end question; all other questions were closed-end.) The sheer size of the sample and scope of the study precluded the use of an open-end questionnaire.

4. The marketing efforts from the initial survey to the follow-up survey were not consistent among the five transit systems. This also was due to personnel cuts, budget cutbacks and the independent marketing efforts of each transit system. If the marketing efforts had been consistent, a comparison could be made among the transit systems in an attempt to obtain insights about transit marketing effectiveness. Nevertheless, each transit system was provided with the reports of the other four systems. In this way, an exchange of information took place, which led to a sharing of strengths and weaknesses among the systems. Improvement in awareness, image, and ridership are goals shared by all transit systems.

APPENDICES

APPENDIX A

2nd 3rd 4th PUBLIC TRANSIT "ATTITUDE AND AWARENESS" SURVEY

RESPONDENT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ REFUSAL:

PHONE NUMBER: \_\_\_\_\_ COMPLETION:

INTERVIEWER INITIALS:

\*\* INSTRUCTIONS TO INTERVIEWERS \*\* RESCHEDULE:

ALL INSTRUCTIONS TO INTERVIEWERS ARE 1.  
CAPITALIZED. DO NOT READ THESE 2.  
THINGS TO THE RESPONDENT. EVERY- 3.  
THING PRINTED IN this typeface IS TO  
BE READ TO THE RESPONDENT. BELOW  
THE RESPONDENT IS INDICATED BY "R."

\* \* \* \* \*

EACH TIME YOU TRY A PHONE NUMBER, NOTE IN THE BOXES (UPPER LEFT) THE DAY AND THE HOUR OF THE DAY. IF NO ONE ANSWERS, GO ON TO THE NEXT PERSON TO BE CALLED. IF THE PHONE IS ANSWERED, BUT NO "R" WHO IS OLD ENOUGH (I.E., OLDER THAN 16) IS THERE, ATTEMPT TO FIND OUT THE BEST TIME TO CALL AGAIN AND NOTE THAT TIME AND DAY DOWN IN THE RESCHEDULE BOX (MID-RIGHT).

IF AN APPROPRIATE "R" DOES ANSWER, INTRODUCE YOURSELF AS A REPRESENTATIVE OF THE STATE OF MICHIGAN - AND SAY . . .

Hello, my name is \_\_\_\_\_, with the Department of Transportation. The Department of Transportation is conducting a survey to help in planning bus service in the \_\_\_\_\_ area. Your assistance will be greatly appreciated. The questions will take a few minutes of your time. Is this a convenient time for me to speak with you? IF "YES," CONTINUE. IF "NO," ASK FOR RESCHEDULE TIME AND NOTE ABOVE. My first question is: (DETERMINE WITHOUT ASKING) "R" is \_\_\_\_\_ MALE, \_\_\_\_\_ FEMALE):

1. Is there a city bus system in the \_\_\_\_\_ area?

A \_\_\_\_\_ YES OR THINK SO

B \_\_\_\_\_ NO (IF NO, GO TO QUESTION 32)

C \_\_\_\_\_ DON'T KNOW (GO TO QUESTION 32)

2. What is the name of it?

\_\_\_\_\_

3. Have you personally used the bus service in \_\_\_\_\_ during the past year?

A \_\_\_\_\_ YES (IF YES, GO TO 5)

B \_\_\_\_\_ NO (IF NO, GO TO 4 THEN 7)

C \_\_\_\_\_ DON'T KNOW (GO TO 4 THEN 7)

4. Is there any particular reason why you don't ride the bus?

A \_\_\_\_\_ NO

B \_\_\_\_\_ DON'T NEED TO, HAVE A CAR

C \_\_\_\_\_ DOESN'T STOP NEAR ME, (OR) I LIVE IN THE COUNTRY

D \_\_\_\_\_ DOESN'T GO WHERE I WANT TO GO

E \_\_\_\_\_ DOESN'T GO WHEN I WANT TO GO

F \_\_\_\_\_ TAKES TOO LONG

G \_\_\_\_\_ COSTS TOO MUCH

H \_\_\_\_\_ IT'S INCONVENIENT

I \_\_\_\_\_ IT'S UNRELIABLE

J \_\_\_\_\_ IT'S UNCOMFORTABLE

K \_\_\_\_\_ IT'S NOT SAFE

L \_\_\_\_\_ I DON'T LIKE BUSES

M \_\_\_\_\_ I DON'T LIKE THE PEOPLE WHO RIDE BUSES

N \_\_\_\_\_ JUST NEVER THOUGHT ABOUT IT OR GOT AROUND TO IT

O \_\_\_\_\_ OTHER

5. How often do you use the bus service? (MENTION THE 5 OPTIONS)

- A \_\_\_\_\_ ONCE A YEAR
- B \_\_\_\_\_ ONCE A MONTH
- C \_\_\_\_\_ ONCE A WEEK
- D \_\_\_\_\_ ALMOST EVERY DAY
- E \_\_\_\_\_ DAILY
- F \_\_\_\_\_ OTHER

6. For what purpose(s) do you use the bus service?

- A \_\_\_\_\_ WORK
- B \_\_\_\_\_ PERSONAL BUSINESS
- C \_\_\_\_\_ SHOPPING
- D \_\_\_\_\_ SCHOOL
- E \_\_\_\_\_ VISITS OR RECREATION
- F \_\_\_\_\_ DINING
- G \_\_\_\_\_ MEDICAL
- H \_\_\_\_\_ WHEN I DON'T HAVE A CAR/WHEN CAR IS IN GARAGE
- I \_\_\_\_\_ OTHER (SPECIFY \_\_\_\_\_)

7. Have any other members of your household used the bus service during the past year?

- A \_\_\_\_\_ YES
- B \_\_\_\_\_ NO (IF NO, GO TO 10)
- C \_\_\_\_\_ DON'T KNOW (GO TO 10)

IF THEY MENTION WHO, CHECK:

- 7a.
- A \_\_\_\_\_ HUSBAND/WIFE
  - B \_\_\_\_\_ SON/DAUGHTER/CHILDREN
  - C \_\_\_\_\_ MOTHER/FATHER
  - D \_\_\_\_\_ ROOMMATE
  - E \_\_\_\_\_ OTHER (SPECIFY \_\_\_\_\_)

8. How often do other members use the bus service? (MENTION THE 5 OPTIONS)

- A \_\_\_\_\_ ONCE A YEAR
- B \_\_\_\_\_ ONCE A MONTH
- C \_\_\_\_\_ ONCE A WEEK
- D \_\_\_\_\_ ALMOST EVERY DAY
- E \_\_\_\_\_ DAILY
- F \_\_\_\_\_ OTHER

9. For what purpose(s) do the other members use the bus service?

- A \_\_\_\_\_ WORK
- B \_\_\_\_\_ PERSONAL BUSINESS
- C \_\_\_\_\_ SHOPPING
- D \_\_\_\_\_ SCHOOL
- E \_\_\_\_\_ VISITS OR RECREATION
- F \_\_\_\_\_ DINING
- G \_\_\_\_\_ MEDICAL
- H \_\_\_\_\_ WHEN I DON'T HAVE A CAR/WHEN CAR IS IN GARAGE
- I \_\_\_\_\_ OTHER (SPECIFY \_\_\_\_\_)

10. How much does it cost for a ride on the bus?

- A \_\_\_\_\_ MORE THAN \_\_\_\_¢
- B \_\_\_\_\_ ¢
- C \_\_\_\_\_ LESS THAN \_\_\_\_¢
- D \_\_\_\_\_ SENIOR CITIZEN RATE
- E \_\_\_\_\_ PASS/PUNCH CARD
- F \_\_\_\_\_ DON'T KNOW (GO TO 12)
- G \_\_\_\_\_ OTHER (GO TO 12)

11. Do you think this fare is:

- A \_\_\_\_\_ TOO MUCH
- B \_\_\_\_\_ NOT ENOUGH
- C \_\_\_\_\_ JUST RIGHT
- D \_\_\_\_\_ DON'T KNOW
- E \_\_\_\_\_ OTHER

12. How far do you live from the nearest bus route?

- A  ONE OR TWO BLOCKS
- B  THREE OR FOUR BLOCKS
- C  QUARTER MILE TO HALF MILE
- D  HALF MILE TO ONE MILE
- E  ONE MILE OR MORE
- F  DON'T KNOW (GO TO 14)

13. Would you use the bus more if the bus routes were closer?

- A  YES
- B  NO
- C  DON'T KNOW
- D  MAYBE
- E  PROBABLY NOT
- F  OTHER

14. Do you know how often the bus comes by?

- A  YES
- B  NO
- C  DON'T KNOW (GO TO 16)
- D  DOESN'T SEEM TO FOLLOW SCHEDULE/IT VARIES
- E  OTHER (GO TO 16)

15. Would you use the bus more if it came by more frequently?

- A  YES
- B  NO
- C  DON'T KNOW
- D  MAYBE
- E  PROBABLY NOT
- F  OTHER

16. Does the bus system serve the areas to which you most frequently travel?

- A  YES
- B  NO
- C  DON'T KNOW

17. Do you know how to obtain bus information?

- A  YES
- B  NO
- C  DON'T KNOW

18. With the rising gas prices of the last few weeks, have you considered:

- A  RIDING THE BUS?
- B  GETTING IN A CARPOOL?
- C  DRIVING LESS?
- D  DO GAS PRICES AFFECT YOU?

Response:

- A  DON'T KNOW
- B  HAVEN'T THOUGHT ABOUT IT
- C  OTHER
- D  YES
- E  NO

19. Do you think of the bus service as a viable, valuable energy conservation measure?

- A  YES
- B  NO
- C  DON'T KNOW

20. What improvements would you like to see in the city bus system that would cause you to use the bus more often?

- A  LOWER FARES



- B  MORE CONVENIENT ROUTES
- C  CLOSER STOPS
- D  MORE FREQUENT SERVICE
- E  MORE BUS SHELTERS
- F  FASTER SERVICE
- G  MORE COURTEOUS DRIVERS
- H  EXPANDED SERVICE HOURS
- I  AVAILABLE CHANGE
- J  BETTER TRANSFER SYSTEM
- K  BETTER ROUTE AND SCHEDULE INFORMATION
- L  OTHER
- M  NO CHANGES NEEDED
- N  I WOULD NOT USE THE BUS IN ANY CASE

21. During the past year the transit authority has advertised its service in local newspapers and on radio stations:

Have you heard any \_\_\_\_\_ radio announcements?

- A  YES (GO TO QUESTION 22) OR THINK SO
- B  NO (GO TO QUESTION 23)
- C  DON'T KNOW (GO TO QUESTION 23)
- D  OTHER

("R" MAY ALSO ANSWER Q.23 HERE. IF SO, COMPLETE 23 AND GO TO Q.24.)

22. On which station(s) did you hear the announcements? (CHECK ALL THAT APPLY)

<u>LANSING</u>		<u>GR</u>		<u>KZOO</u>		<u>AA</u>		<u>SAGINAW</u>	
A	_____	WCER							
B	_____	WFMK							
C	_____	WILS							
D	_____	WITL							
E	_____	WJIM							
F	_____	WKAR							
G	_____	WUNN							
H	_____	WVIC							
I	_____	OTHER							
J	_____	DON'T							
	_____	KNOW							
A	_____	WCUZ							
B	_____	WFFX							
C	_____	WFUR							
D	_____	WCSG							
E	_____	WEHB							
F	_____	WGRD							
G	_____	WJBL							
H	_____	WJFM							
I	_____	WJPW							
J	_____	WKWM							
K	_____	WLAV							
L	_____	WMAX							
M	_____	WOOD							
N	_____	WVGR							
O	_____	WYGR							
P	_____	WZZM							
Q	_____	OTHER							
R	_____	DON'T							
	_____	KNOW							
A	_____	WAOP							
B	_____	WBUK							
C	_____	WIDR							
D	_____	WKMI							
E	_____	WKPR							
F	_____	WKZO							
G	_____	WMUK							
H	_____	WQLR							
I	_____	WYYY							
J	_____	OTHER							
K	_____	DON'T							
	_____	KNOW							
A	_____	WAAM							
B	_____	WCBN							
C	_____	WEMU							
D	_____	WIQB							
E	_____	WNRS							
F	_____	WPAG							
G	_____	WRCN							
H	_____	WSDS							
I	_____	WYFC							
J	_____	OTHER							
K	_____	DON'T							
	_____	KNOW							
A	_____	W106							
B	_____	WGER							
C	_____	WHNN							
D	_____	WKCQ							
E	_____	WKNX							
F	_____	WMPX							
G	_____	WRCI							
H	_____	WRDD							
I	_____	WSAM							
J	_____	WSGW							
K	_____	WWWS							
L	_____	WXOX							
M	_____	OTHER							
N	_____	DON'T							
	_____	KNOW							

23. Do you regularly listen to the radio?

- A \_\_\_\_\_ YES
- B \_\_\_\_\_ NO
- C \_\_\_\_\_ RADIO IS BROKEN OR DON'T HAVE RADIO
- D \_\_\_\_\_ OTHER

24. Have you seen any \_\_\_\_\_ TV announcements?

- A \_\_\_\_\_ YES (GO TO QUESTION 25) OR THINK SO
- B \_\_\_\_\_ NO (GO TO QUESTION 26)
- C \_\_\_\_\_ DON'T KNOW (GO TO QUESTION 26)

("R" MAY ALSO ANSWER Q.26 HERE. IF SO, COMPLETE 26 AND GO TO Q.27.)

25. On which station(s) did you see the announcements? (CHECK ALL THAT APPLY)

LANSING

- A  WILX (Ch.10)  
 B  WJIM (Ch.6)  
 C  WJRT (Ch.12)  
 D  WKAR (Ch. 23)  
 E  WUHQ (Ch. 41)  
 F  OTHER  
 G  DON'T KNOW

GR

- A  WOTV (Ch.8)  
 B  WKZO (Ch. 3)  
 C  WUHQ (Ch.41)  
 D  WZZM (Ch. 13)  
 E  OTHER  
 F  DON'T KNOW

KZOO

- A  WKZO (Ch.3)  
 B  WUHQ (Ch.41)  
 C  WOTV (Ch.8)  
 D  WZZM (Ch.13)  
 E  OTHER  
 F  DON'T KNOW

AA

- A  WTVS (Ch. 56)  
 B  WJIM (Ch. 6)  
 C  WILX (Ch. 10)  
 D  WJBK (Ch. 2)  
 E  WDIV (Ch. 4)  
 F  WXYZ (Ch. 7)  
 G  OTHER  
 H  DON'T KNOW

SAGINAW

- A  WEYI (Ch.25)  
 B  WJRT (Ch.12)  
 C  WUCM (Ch.19)  
 D  WNEM (Ch.5)  
 E  OTHER  
 F  DON'T KNOW

26. Do you regularly watch TV?

- A  YES  
 B  NO  
 C  TV IS BROKEN OR DON'T HAVE TV  
 D  OTHER

27. Have you seen any \_\_\_\_\_ newspaper ads?

- A  YES (GO TO QUESTION 28) OR THINK SO  
 B  NO (GO TO QUESTION 29)  
 C  DON'T KNOW (GO TO QUESTION 29)  
 D  OTHER

("R" MAY ALSO ANSWER Q.29 HERE. IF SO, COMPLETE 29 AND GO TO Q.30.)

28. In which of the papers did you see the ads? (CHECK ALL THAT APPLY)

LANSING

- A \_\_\_\_\_ STATE JOURNAL
- B \_\_\_\_\_ MSU STATE NEWS
- C \_\_\_\_\_ E.L. TOWNE COURIER
- D \_\_\_\_\_ LANSING STAR
- E \_\_\_\_\_ WHEELER DEALER
- F \_\_\_\_\_ OTHER
- G \_\_\_\_\_ DON'T KNOW

KZOO

- A \_\_\_\_\_ KZOO GAZETTE
- B \_\_\_\_\_ PORTAGE HERALD-HEADLINER
- C \_\_\_\_\_ THREE RIVERS COMMERCIAL
- D \_\_\_\_\_ OTHER
- E \_\_\_\_\_ DON'T KNOW

SAGINAW

- A \_\_\_\_\_ SAGINAW NEWS
- B \_\_\_\_\_ OTHER
- C \_\_\_\_\_ DON'T KNOW

GR

- A \_\_\_\_\_ GRAND RAPIDS PRESS
- B \_\_\_\_\_ GRAND RAPIDS TIMES
- C \_\_\_\_\_ GRAND VALLEY SHOPPERS' GUIDE
- D \_\_\_\_\_ NORTH KENT LEADER
- E \_\_\_\_\_ THE PHOTO REPORTER
- F \_\_\_\_\_ OTHER
- G \_\_\_\_\_ DON'T KNOW

AA

- A \_\_\_\_\_ A.A. NEWS
- B \_\_\_\_\_ E.M.U. EASTERN ECHO
- C \_\_\_\_\_ MICHIGAN DAILY
- D \_\_\_\_\_ YPSILANTI PRESS
- E \_\_\_\_\_ OTHER
- F \_\_\_\_\_ DON'T KNOW

29. Do you regularly read a local newspaper?

- A \_\_\_\_\_ YES
- B \_\_\_\_\_ NO
- C \_\_\_\_\_ SOMETIMES
- D \_\_\_\_\_ OTHER

30. Are there any other places that you have seen, heard or read advertisements or information about the transit system?

- A \_\_\_\_\_ YES (GO TO QUESTION 31) OR THINK SO
- B \_\_\_\_\_ NO (GO TO QUESTION 32)
- C \_\_\_\_\_ DON'T KNOW (GO TO QUESTION 32)
- D \_\_\_\_\_ OTHER

31. Where?

- A \_\_\_\_\_ BILLBOARDS
- B \_\_\_\_\_ BULLETIN BOARDS
- C \_\_\_\_\_ DISPLAYS
- D \_\_\_\_\_ NEWS ARTICLES

E \_\_\_\_\_ OTHER \_\_\_\_\_  
F \_\_\_\_\_ AD FOR STORES/INSTITUTIONS WHICH MENTION THAT THEY CAN BE REACHED  
BY BUS

32. Does \_\_\_\_\_ have special bus services for elderly people?

- A \_\_\_\_\_ YES
- B \_\_\_\_\_ NO
- C \_\_\_\_\_ THINK SO
- D \_\_\_\_\_ DON'T KNOW

33. Does \_\_\_\_\_ have special bus services for handicapped people?

- A \_\_\_\_\_ YES
- B \_\_\_\_\_ NO
- C \_\_\_\_\_ THINK SO
- D \_\_\_\_\_ DON'T KNOW

34. What is your usual means of transportation?

- A \_\_\_\_\_ CAR
- B \_\_\_\_\_ BUS
- C \_\_\_\_\_ DART
- D \_\_\_\_\_ TAXI
- E \_\_\_\_\_ FRIENDS OR RELATIVES TAKE ME
- F \_\_\_\_\_ BIKE, MOTORCYCLE
- G \_\_\_\_\_ SENIOR CITIZEN'S OR HANDICAPPER VAN
- H \_\_\_\_\_ USUALLY WALK
- I \_\_\_\_\_ HITCHHIKE
- J \_\_\_\_\_ OTHER \_\_\_\_\_
- K \_\_\_\_\_ I GO A VARIETY OF WAYS

35. How many automobiles does your household have?

- A \_\_\_\_\_ 1
- B \_\_\_\_\_ 2

- C  3
- D  4 or more
- E  0

36. Is a vehicle normally available for your use?

- A  YES
- B  NO
- C  SOMETIMES
- D  OTHER

37. Which of these age groups are you in?

- A  OLDER THAN 60 YEARS
- B  BETWEEN 40 AND 60 YEARS
- C  BETWEEN 21 AND 39 YEARS
- D  BETWEEN 16 AND 20 YEARS
- E  NO RESPONSE

38. What is your occupation?

- A  GENERAL OFFICE/CLERICAL
- B  MANAGEMENT
- C  GOVERNMENT
- D  UNIVERSITY
- E  PROPRIETOR
- F  PROFESSIONAL
- G  SALES
- H  SKILLED/SEMI-SKILLED
- I  TECHNICAL
- J  SERVICE WORKER
- K  UNSKILLED LABOR
- L  HIGH SCHOOL OR COLLEGE STUDENT
- M  HOMEMAKER
- N  RETIRED
- O  NOT EMPLOYED

P \_\_\_\_\_ OTHER

Q \_\_\_\_\_ REFUSED

That was my last question . . . thank you so much for your time! Good-bye!

APPENDIX B  
 KALAMAZOO  
 TELEPHONE EXCHANGES SURVEYED

<u>Exchange Prefix</u>	<u>Numbers Called</u>	
	<u>Pre-Survey</u>	<u>Post-Survey</u>
323	121	160
327	240	281
342	160	193
343	200	200
344	240	240
345	200	200
349	160	200
372	40	33
375	239	275
381	102	174
382	106	167
385	80	96
679	40	
	1,928	2,219



APPENDIX C

KALAMAZOO  
INTERVIEW SAMPLING RESULTS

	<u>Pre-Survey</u>	<u>Post-Survey</u>
Start Date	February 21, 1980	November 3, 1981
Finish Date	March 6, 1980	November 13, 1981
Ratio	1:34	1:34
Interviews Taken	1,200	1,001
Disconnected or Changed	80	269
Refusals	176	200
Businesses*	32	70
No Answer**	<u>440</u>	<u>679</u>
Numbers Called	1,928	2,219

\*Businesses were not included in the surveys.

\*\*Numbers tried three times with no answer.

APPENDIX D  
OTHER MEMBERS' TRANSIT USAGE

Other Members' Transit Usage		Bus Rider Usage				Non-riders	Total Respondents
		Heavy %	Moderate %	Light %	Other* %		
Yes	Pre	48	44	41	30	16	25
	Post	48	47	46	55	20	31
No	Pre	52	53	59	70	84	74
	Post	50	53	52	44	79	68
Don't know	Pre	0	3	0	0	0	1
	Post	<u>2</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 165)	100% (N = 27)	100% (N = 645)	100% (N = 1,006)
	Post	100% (N = 64)	100% (N = 55)	100% (N = 115)	100% (N = 101)	100% (N = 548)	100% (N = 883)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of responses for other users. Post-survey reporting that household members had used the bus service was nearly double that of pre-survey results.

APPENDIX E  
WHO OTHER MEMBER?

Who Other Member?		<u>Bus Rider Usage</u>					Non-riders	Total Respondents
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Husband/wife	Pre	27	34	37	50	27	32	
	Post	23	30	36	30	24	28	
Son/daughter/ children	Pre	34	27	41	25	60	45	
	Post	46	35	42	49	58	50	
Mother/father	Pre	7	6	0	0	2	3	
	Post	12	9	2	2	3	4	
Roommate	Pre	5	3	7	0	2	4	
	Post	11	9	4	7	7	7	
Other	Pre	27	30	15	25	9	16	
	Post	<u>8</u>	<u>17</u>	<u>16</u>	<u>12</u>	<u>8</u>	<u>11</u>	
Totals	Pre	100% (N = 44)	100% (N = 33)	100% (N = 68)	100% (N = 8)	100% (N = 100)	100% (N = 253)	
	Post	100% (N = 26)	100% (N = 23)	100% (N = 50)	100% (N = 43)	100% (N = 99)	100% (N = 241)	

APPENDIX F  
OFTEN OTHER MEMBERS?

<u>Oftentimes Other Members?</u>		<u>Bus Rider Usage</u>					<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Heavy usage	Pre	39	38	22	13	28	29	
	Post	47	50	21	20	32	30	
Moderate usage	Pre	45	41	22	37	18	27	
	Post	38	35	8	20	17	20	
Light usage	Pre	16	21	50	13	39	35	
	Post	0	8	50	4	28	23	
Other usage	Pre	0	0	6	37	15	9	
	Post	<u>15</u>	<u>7</u>	<u>21</u>	<u>56</u>	<u>23</u>	<u>27</u>	
Totals	Pre	100%	100%	100%	100%	100%	100%	
		(N = 44)	(N = 34)	(N = 68)	(N = 8)	(N = 100)	(N = 254)	
	Post	100%	100%	100%	100%	100%	100%	
		(N = 32)	(N = 26)	(N = 53)	(N = 54)	(N = 111)	(N = 276)	

APPENDIX G

OTHER MEMBERS' TRIP PURPOSE

(First Choice) Other Members' Trip Purpose		Bus Rider Usage				Non- riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
Work	Pre	25	20	22	13	20	21
	Post	31	42	21	28	20	25
Personal business	Pre	9	3	7	0	2	5
	Post	6	4	8	11	8	8
Shopping	Pre	41	44	40	25	51	44
	Post	32	27	45	34	39	37
School	Pre	12	12	8	12	12	11
	Post	25	12	7	14	15	14
Visits or recreation	Pre	9	12	10	25	11	11
	Post	3	11	11	9	10	10
Medical	Pre	2	3	3	0	0	2
	Post	0	0	2	0	1	1
When I don't have a car/ When car is in garage	Pre	2	3	7	25	4	5
	Post	3	0	4	2	5	3
Other	Pre	0	3	3	0	0	1
	Post	0	4	2	2	2	2
Totals	Pre	100% (N = 44)	100% (N = 34)	100% (N = 68)	100% (N = 8)	100% (N = 100)	100% (N = 254)
	Post	100% (N = 32)	100% (N = 26)	100% (N = 53)	100% (N = 56)	100% (N = 113)	100% (N = 280)

APPENDIX H

CONSIDERED RIDING THE BUS?

Considered Riding the Bus?		Bus Rider Usage					Non- riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %			
Don't know	Pre	1	1	0	0	0	1	
	Post	0	0	2	0	0	1	
Haven't thought about it	Pre	0	2	2	4	1	1	
	Post	5	5	6	9	6	6	
Other	Pre	15	9	6	4	5	6	
	Post	5	6	2	2	1	2	
Yes	Pre	73	73	65	55	33	46	
	Post	78	69	55	61	31	44	
No	Pre	11	15	27	37	61	46	
	Post	<u>12</u>	<u>20</u>	<u>35</u>	<u>28</u>	<u>62</u>	<u>47</u>	
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)	
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)	

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Pre to post results show an increase in "haven't thought about it" responses and a decrease in "other" responses.

APPENDIX I  
CONSIDERED GETTING IN A CARPOOL?

<u>Considered Getting in a Carpool?</u>		<u>Bus Rider Usage</u>				<u>Non- riders*</u>	<u>Total Respondents</u>
		<u>Heavy</u> %	<u>Moderate</u> %	<u>Light</u> %	<u>Other</u> %		
Don't know	Pre	1	1	1	0	0	1
	Post	0	0	0	0	0	0
Haven't thought about it	Pre	2	5	3	4	2	2
	Post	14	11	3	17	6	8
Other	Pre	12	16	3	0	4	5
	Post	0	4	2	0	1	1
Yes	Pre	18	14	39	29	37	34
	Post	26	25	39	36	29	31
No	Pre	67	64	54	67	57	58
	Post	60	60	56	47	64	60
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 551)	100% (N = 888)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Pre to post results show an increase in "haven't thought about it" responses and a decrease in "other" responses.

APPENDIX J  
CONSIDERED DRIVING LESS?

Considered Driving Less?		Bus Rider Usage					Non-riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %	%		
Don't know	Pre	0	1	0	0	0	1	
	Post	2	0	0	0	1	1	
Haven't thought about it	Pre	0	0	1	4	1	1	
	Post	15	9	3	8	2	4	
Other	Pre	14	16	3	0	3	5	
	Post	2	0	2	1	1	1	
Yes	Pre	62	64	76	48	74	71	
	Post	55	64	73	61	73	70	
No	Pre	24	19	20	48	22	22	
	Post	26	27	22	30	23	24	
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)	
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 550)	100% (N = 887)	

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of nonrider responses. As in the previous two questions, significantly more post-survey nonriders reported "haven't thought about it" and fewer reported "other," compared to pre-survey results.



APPENDIX K

DO GAS PRICES AFFECT YOU?

<u>Do Gas Prices Affect You?</u>		<u>Bus Rider Usage</u>				<u>Non-riders*</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Don't know	Pre	0	0	0	0	0	0
	Post	0	0	0	2	0	0
Haven't thought about it	Pre	1	1	0	0	2	1
	Post	8	7	1	2	1	2
Other	Pre	2	9	1	0	2	2
	Post	2	0	3	0	1	1
Yes	Pre	73	65	93	85	86	85
	Post	58	71	81	67	78	76
No	Pre	24	25	6	15	10	12
	Post	<u>32</u>	<u>22</u>	<u>15</u>	<u>29</u>	<u>20</u>	<u>21</u>
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 92)	(N = 77)	(N = 166)	(N = 27)	(N = 649)	(N = 1,011)
	Post	100%	100%	100%	100%	100%	100%
		(N = 65)	(N = 55)	(N = 116)	(N = 101)	(N = 549)	(N = 886)

\*There is significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Compared to pre-survey results, significantly more post-survey nonriders indicated that they are not affected by gas prices.

APPENDIX L  
ENERGY CONSERVATION MEASURE

<u>Energy Measure</u>		<u>Bus Rider Usage</u>					<u>Non-riders*</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Yes	Pre	98	96	99	100	95	96	
	Post	92	93	93	94	88	90	
No	Pre	0	1	0	0	2	2	
	Post	3	2	3	4	5	4	
Don't know	Pre	2	3	1	0	3	2	
	Post	5	5	4	2	7	6	
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 648)	100% (N = 1,010)	
	Post	100% (N = 65)	100% (N = 54)	100% (N = 115)	100% (N = 101)	100% (N = 551)	100% (N = 886)	

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Pre to post results show an increase in the percentage of "don't know" responses. Fewer post-survey nonriders believe the bus service is an energy conservation measure.

APPENDIX M  
SEX BY USAGE

<u>Sex</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Male	Pre	32	22	33	19	34	32
	Post	26	25	31	22	30	28
Female	Pre	68	78	67	81	66	68
	Post	<u>74</u>	<u>75</u>	<u>69</u>	<u>78</u>	<u>70</u>	<u>72</u>
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 552)	100% (N = 889)

APPENDIX N

SEX BY AGE

<u>Sex</u>		Age Group				<u>No Response</u>
		<u>16-20 Years</u>	<u>21-39 Years</u>	<u>40-60 Years</u>	<u>Older Than 60 Years</u>	
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Male	Pre	42	33	27	31	40
	Post	46	34	19	21	27
Female	Pre	58	67	73	69	60
	Post	<u>54</u>	<u>66</u>	<u>81</u>	<u>79</u>	<u>73</u>
Totals	Pre	100% (N = 81)	100% (N = 501)	100% (N = 313)	100% (N = 238)	100% (N = 5)
	Post	100% (N = 90)	100% (N = 423)	100% (N = 235)	100% (N = 238)	100% (N = 15)

APPENDIX O

AGE BY USAGE

<u>Age Groups</u>		<u>Bus Rider Usage</u>					<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
16-20 years	Pre	14	18	10	15	4	7	
	Post	22	24	17	10	4	9	
21-39 years	Pre	45	29	51	44	48	44	
	Post	40	33	48	45	43	42	
40-60 years	Pre	24	18	23	26	28	28	
	Post	17	16	17	15	28	24	
Older than 60 years	Pre	17	34	16	15	20	21	
	Post	20	25	18	29	23	24	
No response	Pre	0	1	0	0	0	0	
	Post	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>1</u>	
Totals	Pre	100% (N = 92)	100% (N = 77)	100% (N = 166)	100% (N = 27)	100% (N = 649)	100% (N = 1,011)	
	Post	100% (N = 65)	100% (N = 55)	100% (N = 116)	100% (N = 101)	100% (N = 552)	100% (N = 889)	

APPENDIX P  
OCCUPATION BY SEX

(First Choice) Occupations	Sex			
	Male		Female	
	Pre (%)	Post (%)	Pre (%)	Post (%)
General office/clerical	1	1	9	6
Management	4	5	1	2
Government	4	1	1	0
University	2	0	1	0
Proprietor	2	2	1	1
Professional	15	11	13	11
Sales	5	4	4	3
Skilled/Semi-skilled	14	13	2	2
Technical	7	5	2	2
Service worker	4	5	6	5
Unskilled labor	6	4	2	2
High school/college student	13	25	7	8
Homemaker	1	0	32	32
Retired	19	19	17	21
Not employed	<u>3</u>	<u>5</u>	<u>2</u>	<u>5</u>
Totals	100% (N = 352)	100% (N = 268)	100% (N = 767)	100% (N = 691)

APPENDIX Q  
OCCUPATION BY AGE

(First Choice) Occupation		Age Groups				No Response
		16-20	21-39	40-60	Older Than	
		Years	Years	Years	60 Years	
		%	%	%	%	%
General office/ clerical	Pre	1	9	8	1	20
	Post	5	6	3	2	0
Management	Pre	1	4	2	0	0
	Post	2	4	3	0	0
Government	Pre	1	2	2	2	0
	Post	0	1	1	0	0
University	Pre	0	2	0	0	0
	Post	0	1	0	0	0
Proprietor	Pre	0	1	3	0	0
	Post	0	3	1	0	0
Professional	Pre	1	20	14	2	0
	Post	1	16	15	2	17
Sales	Pre	1	5	7	1	0
	Post	2	3	7	1	0
Skilled/semi-skilled	Pre	4	8	6	0	0
	Post	7	6	7	1	0
Technical	Pre	3	3	6	0	20
	Post	2	4	5	0	0
Service worker	Pre	5	8	5	1	20
	Post	5	8	4	1	17
Unskilled labor	Pre	1	4	5	1	0
	Post	4	2	3	1	0
High school or college student	Pre	75	9	0	0	40
	Post	64	15	0	0	50
Homemaker	Pre	4	24	33	12	0
	Post	1	24	42	11	16
Retired	Pre	0	0	4	79	0
	Post	0	0	5	79	0
Not employed	Pre	3	1	5	1	0
	Post	7	7	4	2	0
Totals	Pre	100%	100%	100%	100%	100%
	Post	100%	100%	100%	100%	100%
		(N = 78)	(N = 493)	(N = 310)	(N = 234)	(N = 5)
		(N = 89)	(N = 407)	(N = 222)	(N = 235)	(N = 6)