

HE  
5633  
.M5  
M5  
1982  
c. 1



## MICHIGAN PUBLIC TRANSIT ATTITUDE AND AWARENESS SURVEY

Initial and Follow-up Report for the:

### **Capital Area Transportation Authority**



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

September, 1982



MICHIGAN DEPARTMENT OF TRANSPORTATION

STATE TRANSPORTATION COMMISSION

Hannes Meyers, Jr., Chairman  
Carl V. Pellonpaa, Vice Chairman

William C. Marshall  
Lawrence C. Patrick, Jr.

Weston E. Vivian  
Rodger D. Young

DIRECTOR

John P. Woodford

1. Report No. UMTA - MI - 82 - 1		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle MICHIGAN PUBLIC TRANSIT ATTITUDE AND AWARENESS SURVEY				5. Report Date September, 1982	
				6. Performing Organization Code	
7. Author(s) Fredricks, Nancy L.				8. Performing Organization Report No.	
9. Performing Organization Name and Address Michigan Department of Transportation P.O. Box 30050 Lansing, Michigan 48909				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. MI - 09-8005	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Urban Mass Transportation Administration 400 Seventh Street, S.W. Washington, D.C. 20590				13. Type of Report and Period Covered Final Report	
				14. Sponsoring Agency Code	
15. Supplementary Notes This report is one of five available reports. Companion reports summarize results from four other urbanized areas as follows: Ann Arbor, Grand Rapids, Kalamazoo, and Saginaw.					
16. Abstract  This report summarizes the results of an initial and follow-up telephone survey of the general public in LANSING, Michigan. The purpose of the initial survey was to determine public attitudes toward, and awareness of, the Capital Area Transportation Authority (CATA). The purpose of the follow-up survey was to evaluate the effectiveness of CATA 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 CATA 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.					
17. Key Words Attitudes            Research Awareness            Survey: Marketing            Initial = pre Questionnaire        Follow-up = post Target Market			18. Distribution Statement  No restrictions. This document is available to the public through the National Technical Information Service, Springfield, Virginia 22161.		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 91	22. Price

## DISCLAIMER AND ACKNOWLEDGEMENT

This document is disseminated under the sponsorship of the Department of Transportation, Urban Mass Transportation Administration in the interest of information exchange. The United States Government assumes no liability for the contents or use thereof.

## DOCUMENT PRINTING INFORMATION

Document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161.

## TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS . . . . .	1
INTRODUCTION . . . . .	2
SURVEY METHODOLOGY . . . . .	4
SUMMARY OF MAJOR FINDINGS . . . . .	7
DETAILED FINDINGS	
TRANSIT AWARENESS . . . . .	16
TRANSPORTATION PATTERNS . . . . .	23
TRANSPORTATION ATTITUDES . . . . .	32
DEMOGRAPHICS . . . . .	40
ADVERTISING AWARENESS . . . . .	47
CONCLUSIONS. . . . .	58
IMPLICATIONS FOR FUTURE RESEARCH . . . . .	61
APPENDICES . . . . .	63
A. Telephone Survey Questionnaire . . . . .	64
B. Telephone Exchanges Surveyed. . . . .	76
C. Interview Sampling Results . . . . .	77
D. Other Members' Transit Usage. . . . .	78
E. Who Other Member? . . . . .	79
F. Often Other Members?. . . . .	80
G. Other Members' Trip Purpose?. . . . .	81
H. Considered Riding the Bus?. . . . .	82
I. Considered Getting in a Carpool?. . . . .	83
J. Considered Driving Less?. . . . .	84
K. Do Gas Prices Affect You? . . . . .	85
L. Energy Conservation Measure . . . . .	86
M. Sex by Usage. . . . .	87
N. Sex by Age. . . . .	88
O. Age by Usage. . . . .	89
P. Occupation by Sex . . . . .	90
Q. Occupation by Age . . . . .	91

# LIST OF TABLES

	<u>Page</u>
Bus System Awareness . . . . .	16
Bus System Name. . . . .	17
Cost for Bus Ride. . . . .	18
Bus Frequency. . . . .	19
Bus Information. . . . .	20
Special Services for the Elderly . . . . .	21
Special Services for Handicappers. . . . .	22
Used Bus Service?. . . . .	23
Bus Usage Patterns . . . . .	24
Trip Purpose . . . . .	25
Nearness of Bus Route. . . . .	27
Usual Transportation Mode. . . . .	29
Number of Automobiles. . . . .	30
Availability of Vehicle. . . . .	31
Reasons for Not Riding the Bus . . . . .	32
Fairness of Cost . . . . .	33
Closer Routes. . . . .	34
Frequency of Service . . . . .	35
Travel Areas Served. . . . .	36
Improvements . . . . .	39
Sex by Trip Purpose. . . . .	41
Age by Trip Purpose. . . . .	42
Occupation by Usage. . . . .	45
Heard Radio Announcements? . . . . .	47
Radio Stations . . . . .	48
Regularly Listen to Radio? . . . . .	49
Seen TV Announcements? . . . . .	50
TV Stations. . . . .	51
Regularly Watch TV?. . . . .	52
Seen Newspaper Ads?. . . . .	53
Newspapers . . . . .	54
Regularly Read Newspaper?. . . . .	55
Other Places - Seen, heard or read ads?. . . . .	56
Specific Places (Mediums)? . . . . .	57

## ACKNOWLEDGEMENTS

This report was prepared by the Marketing and Consumer Services Section, Governmental Relations and Consumer Affairs Division, Bureau of Urban and Public Transportation. The project manager and principal author was Nancy L. Fredricks, Marketing Coordinator for the Bureau of Urban and Public Transportation. This marketing research project would not have been possible without the cooperation and assistance from the Capital Area Transportation Authority and the Michigan Public Transit Association of Lansing.

Since this project was conducted within the Michigan Department of Transportation, personnel from many sections, divisions, and bureaus in the department provided invaluable assistance in the preparation of this report. These include the Transportation Surveys Section and the Federal Planning Programs Section of the Bureau of Transportation Planning; the Computer Services Division and the Technical Services Division of the Bureau of Administration; the Word Processing Center of the Bureau of Urban and Public Transportation; and the Public Information Section of the Executive Bureau.

If you desire additional information regarding this project, please write or call:

Governmental Relations and Consumer Affairs Division  
Bureau of Urban and Public Transportation  
Michigan Department of Transportation  
P.O. Box 30050  
Lansing, Michigan 48909  
Telephone: (517) 373-6572

## 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 Lansing 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 1:47 for Lansing.

This ratio meant that one telephone number was selected for each of 47 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 Lansing 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 Lansing area among respondents was at 94 percent in the pre-survey and 93 percent in the post-survey.

Ninety-One percent (91%) of the pre-survey respondents and 88 percent of the post-survey respondents correctly identified the Capital Area Transportation Authority (CATA) name.

The majority of bus riders were aware of the cost to ride the bus. Post-survey results show a larger percentage of bus riders who knew the current cash fare, compared to pre-survey results. 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. There was an increase, pre to post, in the percentage of "yes" responses across the rider groups. 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, with an overall increase in the percentage of "yes" responses.

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

### Transportation Patterns

Most respondents, pre (62 percent) and post (66 percent), had not used the bus service during the preceding year.

Of those who had used the bus service, light users comprised 55 percent of pre-survey riders and 40 percent in the post-survey.

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

Other household members of bus riders and nonriders rode basically for work, shopping, and school purposes in both pre- and post-surveys.

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: most pre- and post-survey heavy users  
most post-survey moderate users

2 or more cars: most pre-survey moderate users  
most pre- and post-survey light users  
most pre- and 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," followed by "no reason," and "doesn't stop near me, or I live in the country."

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 CATA'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 traveled by bus, primarily for work purposes, followed by shopping. Females in both surveys traveled by bus to go shopping, followed by work.

Age:

- 16-20 year-old riders used the bus primarily for shopping and school purposes.
- Nearly a third of the 21-39 year-old riders used the bus for work purposes.
- Pre-survey 40-60 year-old riders rode for shopping needs, but post-survey riders in this age group were split between shopping and personal business.
- Older than 60 years riders used the bus 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 majority of bus riders and nonriders were between 21 and 39 years old in both surveys.

Occupation:

Approximately 20 percent of the pre- and post-survey males were students, followed by retired. One-third of the pre- and post-survey females were homemakers, followed by retired.

- Students comprised most of the respondents between the ages of 16-20.
- Homemakers comprised approximately 20 percent of the 21-39 year olds, increasing substantially in the 40-60 year old age group.
- Retirees were reflected more in the older than 60 age group.



Homemaker, retired, student, and professional were the four most frequently mentioned occupations by bus riders and nonriders.

## Advertising Awareness

NOTE: Please see specific sections on "Advertising Awareness" (pg. 47) and "Conclusions" (pg. 58) 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 CATA radio announcements.

Those pre-survey bus riders and nonriders who did hear CATA radio announcements heard them more frequently on WFMK. The particular radio station varied for post-survey results and depended on the bus rider or nonrider group reporting.

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

Those pre- and post-survey bus riders and nonriders who did see CATA TV announcements reported WJIM-TV more than any other station. The only exception was for post-survey light users who reported WILX-TV.

Newspapers - Even though the majority of bus riders and nonriders indicated they regularly read a local newspaper, most reported that they had not seen any CATA newspaper ads.

Those pre- and post-survey bus riders and nonriders who did see CATA newspaper ads reported the State Journal 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 CATA, "billboards" were the most common

source given and witnessed a percentage increase, pre to post, in all groups with the exception of moderate users. "Displays" and "other" places also showed an overall pre to post increase in recognition.

The follow-up survey concluded on October 22, 1981, just prior to CATA's millage referendum, which was on the November 3, 1981 ballot. CATA sought voter approval of a modest property tax increase to support the continuation of its transportation service. The millage referendum was necessary to offset the effects of inflation and the nationwide loss of federal funds to operate bus services.

To ensure voter approval of the millage, CATA formed a "Friends of CATA" committee, which was distinct from the CATA organization. The committee was formed to serve in two major capacities:

1. to lend credibility to the millage effort
2. to provide a mechanism through which to raise and dispense funds to support the millage campaign.

A Speaker's Bureau also was created to inform the public of the ballot issue. The purpose of the Speaker's Bureau was to provide factual, consistent information to as many persons as possible. The two major themes which were stressed were:

1. the importance of the public transportation system to the community
2. the reason that a millage was required to generate local operating funds.

The speakers were drawn from the "Friends of CATA" committee, members of the CATA Board of Directors, and members of the CATA staff. In total, presentations were given to approximately 90 different groups.

CATA addressed its efforts to three targeted groups, which were believed to be supportive of the millage. The first two groups were identified from previous ridership surveys. The third group was believed to be nonbus riders. The groups were as follows:

1. Senior Citizens

a. Seniors using the public transportation system

b. Seniors living in senior citizen housing complexes

c. Seniors who owned their own homes.

2. Students

a. Michigan State University students

b. Lansing Community College students

3. Probable Voters - lists compiled from off-year city elections and the most recent nonpresidential August primary.

Also added to this list was the new voter registrations which had occurred since the last election. Since it was believed that these probable voters were nonbus riders, the promotional material sent to them was directed at convincing them of the benefit of public transportation to the community.

CATA's promotional blend included the following:

1. A direct mail campaign aimed at the probable voter listing and the supporter listing.

2. Endorsements by various individuals and groups in the community.

3. Use of telephone banks (telephone calls to CATA supporters) the week preceding the election.
4. A fundraiser.
5. Radio ads.
6. Newspaper ads.

While this list is not exhaustive, it supports the pre to post increase in recognition of "billboards," "displays," and "other" places. Moreover, CATA benefited from favorable media coverage in regard to the millage campaign. The three local newspapers published editorials endorsing the millage effort. The reporting by the local television and radio stations was done in an objective, favorable and supportive context. Visits with the editorial boards of the media stimulated considerable interest within the contacted organizations. The interest was reflected by a greatly increased level of media coverage in the weeks preceding the election. In several cases, a specific reporter was assigned to cover the CATA campaign. This resulted in a one-to-one relationship between individual CATA staff members and reporters, which in turn led to several "feature stories" which were run and proved favorable to CATA and the millage effort.

TRANSIT AWARENESS

Bus System Awareness

The first question in the survey asked respondents, "Is there a city bus system in the Lansing Area?" Responses are summarized below:

<u>City Bus System?</u>	<u>Total Respondents</u>	
		<u>%</u>
Yes or think so	Pre	94
	Post	93
No	Pre	5
	Post	4
Don't Know	Pre	1
	Post	3
Totals	Pre	100% (N = 1,132)
	Post	100% (N = 1,000)

An overwhelming majority of respondents in both the initial and follow-up survey were aware of the existence of a bus system in the Lansing area.

Bus System Name

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

<u>Response</u>	<u>Total Respondents</u>	
		<u>%</u>
CATA	Pre	91
	Post	88
Other Responses (included names which sound similar to CATA, route destination names and incorrect responses)	Pre	1
	Post	1
Don't know	Pre	8
	Post	<u>11</u>
Totals	Pre	100% (N = 1,069)
	Post	100% (N = 926)

Ninety-one percent (91%) of the initial survey respondents and 88 percent of the follow-up survey respondents correctly identified the CATA name.

## Cost for Bus Ride

The following table summarizes responses to the question, "How much does it cost for a ride on the bus?"

Cost		Bus Rider Usage					Non-riders	Total Respondents
		Heavy	Moderate	Light	Other			
		%	%	%	%	%	%	
More than 35¢	Pre	2	4	3	8	2	2	
More than 50¢	Post	0	0	2	2	1	1	
35¢	Pre	59	62	51	84	28	38	
50¢	Post	66	63	57	54	22	34	
Less than 35¢	Pre	9	7	15	0	9	10	
Less than 50¢	Post	9	7	12	19	9	10	
Senior Citizen Rate	Pre	10	11	9	8	3	5	
	Post	11	21	7	8	2	5	
Pass/Punch Card	Pre	16	7	1	0	1	3	
	Post	14	2	5	1	1	3	
Don't know	Pre	1	7	20	0	57	41	
	Post	0	7	16	16	65	47	
Other	Pre	3	2	1	0	0	1	
	Post	0	0	1	0	0	0	
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 678)	100% (N = 1,087)	
	Post	100% (N = 74)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 607)	100% (N = 908)	

The majority of bus riders were aware of the cost to ride the bus. At the time of the initial survey, January and February 1980, the cash fare was 35 cents. In January 1981, the fare was raised to 50 cents. This also was the cash fare when the follow-up survey was conducted in October 1981. The post-survey results show a larger percentage of bus riders who knew the current cash fare, compared to the pre-survey results. The only exception was for "other" users. Among the nonriders, 57 percent in the initial survey and 65 percent in the follow-up survey did not know the cost for a ride on the bus.



## Bus Frequency

Respondents were asked if they knew how often the bus came by. The majority of bus riders indicated "yes" to this question, with an increase, pre to post, across all rider groups. Most nonriders though, indicated "no" or "don't know," as the following table shows:

<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	90	77	63	58	27	44
	Post	92	81	64	68	27	43
No	Pre	6	12	22	17	41	31
	Post	1	5	8*	2	14*	11
Don't know	Pre	4	9	12	25	29	22
	Post	4	9	26*	30	58*	45
Doesn't seem to follow schedule/it varies	Pre	0	2	3	0	3	3
	Post	3	5	2	0	1	1
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 675)	100% (N = 1,084)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

\*Among the light users there is a significant difference at the .05 level between the pre and post "no" and "don't know" response.

The same pattern of responses is shown for nonriders, with a higher level of significance (.001).

Bus Information

The item "Do you know how to obtain bus information?" produced the following results:

<u>Bus Information</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	90	91	87	75	68	76	
	Post	94	93	88	86	72	78	
No	Pre	7	9	11	25	26	20	
	Post	3	7	9	14	24	19	
Don't know	Pre	3	0	2	0	6	4	
	Post	3	0	3	0	4	3	
Totals	Pre	100% (N = 115)	100% (N = 55)	100% (N = 225)	100% (N = 12)	100% (N = 677)	100% (N = 1,084)	
	Post	100% (N = 75)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 608)	100% (N = 910)	

The majority of the bus rider groups indicated they knew how to obtain bus information, with the amount of usage not an issue. Interestingly, 68 percent of the initial survey nonriders and 72 percent of the follow-up survey nonriders also replied "yes" to this question, yet chose not to use their local bus service. Overall, the percentage of "yes" responses increased slightly.

Special Services for the Elderly

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

Elderly Services		Bus Rider Usage				Non-riders	Total Respondents
		Heavy*	Moderate	Light	Other		
		%	%	%	%	%	%
Yes or think so	Pre	84	66	74	83	71	73
	Post	78	93	77	76	65	70
No	Pre	5	7	11	0	10	9
	Post	1	2	6	2	8	6
Don't know	Pre	11	27	15	17	19	18
	Post	21	5*	17	22	27*	24
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 676)	100% (N = 1,085)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

\*Among the heavy users there is a significant difference at the .05 level between the two surveys due to a change in the distribution of responses. There is a pre to post decrease in the percentage of "yes or think so" and "no" responses, and an increase in the percentage of "don't know" responses.

Among moderate users and nonriders there is a significant difference (.05 and .001 level, respectively) between the pre and post "don't know" response.

Special Services for Handicappers

As with elderly services, respondents were asked if CATA 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	90	79	81	84	75	78
	Post	87	91	78	81	66*	71
No	Pre	3	7	9	8	8	8
	Post	0	2	6	2	7	6
Don't know	Pre	7	14	10	8	17	14
	Post	13	7	16	17	27*	23
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 678)	100% (N = 1,087)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

\*Among nonriders, there is a significant difference at the .001 level between the pre and post "yes or think so" and "don't know" responses. Fewer post-survey nonriders were aware of special bus services for handicapped people, compared to pre-survey results.

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>	
		<u>%</u>
Yes	Pre	37
	Post	33
No	Pre	62
	Post	66
Don't know	Pre	1
	Post	<u>1</u>
Totals	Pre	100%
		(N = 1,060)
	Post	100%
		(N = 916)

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	29
		Post	25
Moderate -	Once a week	Pre	13
		Post	14
Light-	Once a month or once a year	Pre	55
		Post	40*
Other -	A frequency mentioned other than the above frequencies	Pre	3
		Post	<u>21*</u>
Totals		Pre	100%
			(N = 394)
		Post	100%
			(N = 303)

\*Differences between the pre- and post-survey results for light users is significant at the .05 level and for other users 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:

Bus Rider Usage

(First Choice) Purpose		Heavy	Moderate	Light	Other	Total Respondents
		%	%	%	%	%
Work	Pre	41	31	20	9	27
	Post	34	19	22	19	24
Personal Business	Pre	7	11	11	0	10
	Post	12	9	16	21	15
Shopping	Pre	16	40	41	18	33
	Post	16	47	33	33	31
School	Pre	32	13	9	9	16
	Post	29	19	7	8	14
Visits or Recreation	Pre	1	3	4	9	3
	Post	5	2	6	3	4
Medical	Pre	0	2	2	0	1
	Post	0	2	3	2	2
When I don't have a car/ when car is in garage	Pre	2	0	12	55	9
	Post	3	2	12	14	9
Other	Pre	1	0	1	0	1
	Post	1	0	1	0	1
Totals	Pre	100% (N = 110)	100% (N = 55)	100% (N = 211)	100% (N = 11)	100% (N = 387)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 120)	100% (N = 63)	100% (N = 302)

Heavy users rode the bus predominantly for work and school purposes. Moderate and light users indicated shopping and work as their primary purposes.

## Other Household 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. Heavy users were about evenly distributed between "yes" and "no" responses. The other three bus rider groups and nonriders reported a higher percentage of "no" responses in both the pre- and post-survey.

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. Heavy users and moderate users more often reported roommate in the pre-survey (39 percent) changing to children in the post-survey (41 percent). Moderate users, however, reported spouses in the pre-survey (50 percent), and a split between children and roommate (33 percent each) in the post-survey. Nonriders mainly reported children in both the pre- (54 percent) and post- (52 percent) survey (see Appendix E).

Respondents were then asked: "How often do other members use the bus service?" Heavy and moderate users indicated in both surveys a higher percentage of heavy usage by other household members. Light users indicated primarily light usage by other household members, and results for nonriders show a tendency towards heavy and light usage (see Appendix F).

Question No. 9, "For what purpose(s) do the other members use the bus service?" provided 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 work, shopping, and school 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>Bus Rider Usage</u>					<u>Non-riders</u>	<u>Total Respondents</u>
<u>Distance</u>		<u>Heavy</u> %	<u>Moderate</u> %	<u>Light</u> %	<u>Other</u> %	<u>Non-riders</u> %	<u>Total Respondents</u> %	
1 - 2 blocks	Pre	82	77	75	75	52	61	
	Post	74	84	68	68	58	62	
3 - 4 blocks	Pre	10	14	13	17	13	13	
	Post	15	9	14	10	12	12	
1/4 to 1/2 mile	Pre	5	7	6	0	8	7	
	Post	8	3	7	10	8	8	
1/2 - 1 mile	Pre	1	0	1	0	6	4	
	Post	1	2	2	3	4	3	
1 mile or more	Pre	1	2	4	0	10	7	
	Post	1	2	7	6	8	7	
Don't know	Pre	1	0	1	8	11	8	
	Post	1	0	2	3	10	8	
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 678)	100% (N = 1,087)	
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)	

Overall, the majority of bus riders live within one or two blocks of the nearest bus route. Moderate users and nonriders were the only groups to report an increase in this response. Despite the fact that most nonriders also live within one to 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. Also, in general, post-survey results show a higher percentage of "car" responses over pre-survey results.

Pre-survey heavy users were about evenly split between "car" (41 percent) and "bus" (42 percent) responses. However, post-survey heavy users increased their "car" responses to 53 percent, followed by 41 percent for "bus."

Bus Rider Usage

(First Choice) Usual Mode		Heavy	Moderate	Light	Other	Non-riders*	Total Respondents
		%	%	%	%	%	%
Car	Pre	41	59	80	83	91	82
	Post	53	65	81	81	93	86
Bus	Pre	42	16	4	9	0	6
	Post	41	28	5	5	0	6
DART	Pre	1	0	0	0	0	0
	Post	0	0	0	0	0	0
Taxi	Pre	0	0	1	0	0	0
	Post	0	0	0	0	0	0
Friends or relatives take me	Pre	0	7	4	0	4	4
	Post	5	2	2	8	3	3
Bike, motorcycle	Pre	1	2	0	0	0	0
	Post	1	0	5	5	3	3
Senior Citizen or Handicapper Van	Pre	1	0	0	0	0	0
	Post	0	0	0	0	0	0
Usually walk	Pre	5	12	8	0	4	5
	Post	0	5	7	0	1	2
I go a variety of ways	Pre	9	4	3	0	1	3
	Post	0	0	0	0	0	0
Other	Pre	0	0	0	8	0	0
	Post	0	0	0	1	0	0
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 678)	100% (N = 1,087)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of responses for nonriders. Compared to the pre-survey, post-survey results show a higher percentage of "car" and "bike, motorcycle" responses and a lower percentage of "usually walk" responses.

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>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>
1	Pre	46	36	39	50	39	40
	Post	50	54	46	49	38	41
2	Pre	22	27	39	33	42	38
	Post	22	19	27	27	43	37
3	Pre	5	9	10	0	10	9
	Post	3	2	16	8	11	10
4 or more	Pre	4	10	4	0	6	6
	Post	4	2	6	10	6	6
0	Pre	23	18	8	17	3	7
	Post	<u>21</u>	<u>23</u>	<u>5</u>	<u>6</u>	<u>2</u>	<u>6</u>
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 224)	100% (N = 12)	100% (N = 679)	100% (N = 1,086)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

Most heavy users in both surveys reported only one automobile in their household. Forty-six percent (46%) of the pre-survey moderate users reported two or more cars; however, a change occurred in the post-survey with only one auto being reported for 54 percent. Most pre- and post-survey light users and nonriders cited 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	50	57	80	83	90	82
	Post	50	47	73	75	90	81
No	Pre	38	34	14	9	6	12
	Post	40	37	16	16	7	13
Sometimes	Pre	10	7	5	0	3	5
	Post	9	14	10	8	3	5
Other	Pre	2	2	1	8	1	1
	Post	1	2	1	1	0	1
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 224)	100% (N = 12)	100% (N = 678)	100% (N = 1,085)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

Even though the majority of the bus rider groups indicated they did normally have a vehicle available for their use, the percentage was lower for heavy and moderate users, compared to light 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. The second ranking was "no reason," followed by "doesn't stop near me or I live in the country."

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	48	61
No reason	20	16
Doesn't stop near me or I live in the country	14	6
It's inconvenient	6	3
Doesn't go <u>where</u> I want to go	5	4
Other	4	5
Just never thought about it or got around to it	2	2
Takes too long	1	1
Doesn't go <u>when</u> I want to go	<u>0</u>	<u>2</u>
Totals	100% (N = 655)	100% (N = 614)

\*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of responses for nonriders. Pre- to post-survey results show a 13 percent increase in "don't need to, have a car" responses and a decrease in the percentage of "no reason" and "doesn't stop near me or I live in the country" responses.

Fairness of Cost

Respondents were asked their opinions regarding the cost for a bus ride. The following table shows that most bus riders and nonriders believed the fare was "just right:"

You Think this Fare is:		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
		%	%	%	%	%	%
Too Much	Pre	5	6	6	17	2	4
	Post	20*	15	14	11	11*	13
Not Enough	Pre	5	4	3	0	3	4
	Post	3	2	2	4	3	3
Just Right	Pre	88	90	88	83	87	88
	Post	75	83	80	79	73	76
Don't Know	Pre	1	0	2	0	6	3
	Post	1	0	4	4	13	7
Other	Pre	1	0	1	0	2	1
	Post	1	0	0	2	0	1
Totals	Pre	100% (N = 110)	100% (N = 50)	100% (N = 180)	100% (N = 12)	100% (N = 285)	100% (N = 637)
	Post	100% (N = 76)	100% (N = 40)	100% (N = 100)	100% (N = 52)	100% (N = 210)	100% (N = 478)

\*There is a significant difference between the pre and post "too much" response for heavy users (.05 level) and for nonriders (.01 level).

## Closer Routes

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

<u>Closer Routes</u>		<u>Bus Rider Usage</u>					
		<u>Heavy*</u> %	<u>Moderate</u> %	<u>Light</u> %	<u>Other</u> %	<u>Non-riders</u> %	<u>Total Respondents</u> %
Yes	Pre	11	13	17	9	16	15
	Post	5	9	13	11	4*	6
No	Pre	65	64	55	64	57	58
	Post	56	61	55	51	59	58
Don't Know	Pre	2	3	2	0	4	3
	Post	0	2	2	3	2	2
Maybe	Pre	11	7	8	9	7	8
	Post	9	0	7	7	7	6
Probably Not	Pre	10	13	18	18	16	16
	Post	26	21	20	26	27*	26
Other	Pre	1	0	0	0	0	0
	Post	4	7	3	2	1	2
Totals	Pre	100% (N = 112)	100% (N = 55)	100% (N = 221)	100% (N = 11)	100% (N = 593)	100% (N = 992)
	Post	100% (N = 75)	100% (N = 43)	100% (N = 119)	100% (N = 61)	100% (N = 546)	100% (N = 844)

\*Heavy users recorded a significant difference at the .05 level between the two surveys due to a change in the distribution of responses. The post-survey results show a lower percentage of "yes" and "maybe" responses compared to pre-survey results.

Nonriders also reported a significant difference at the .005 level between the pre and post "yes" and "probably not" responses.



Frequency of Service

Respondents were asked if they would use the bus more if it came by more frequently. The results are shown below:

		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
<u>More Frequent Service</u>		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	16	9	12	14	8	11
	Post	21	21	17	17	6	13
No	Pre	54	57	60	57	68	62
	Post	44	55	50	50	63	56
Don't Know	Pre	9	11	1	0	5	5
	Post	0	3	1	3	3	2
Maybe	Pre	10	11	9	0	6	8
	Post	9	3	6	2	8	7
Probably Not	Pre	11	12	18	29	13	14
	Post	24	16	26	26	19	21
Other	Pre	0	0	0	0	0	0
	Post	2	2	0	2	1	1
Totals	Pre	100% (N = 103)	100% (N = 44)	100% (N = 147)	100% (N = 7)	100% (N = 200)	100% (N = 501)
	Post	100% (N = 70)	100% (N = 38)	100% (N = 86)	100% (N = 42)	100% (N = 207)	100% (N = 443)

The four bus rider groups and nonriders indicated in both surveys that they would not use the bus more if it came by more frequently.

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 = 75% - 95%; post = 81% - 96%), whereas, this was only true for 64 percent of the pre-survey nonriders and 60 percent of the post-survey nonriders.

Bus Rider Usage

<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	95	86	84	75	64	73
	Post	96	88	81	81	60	68
No	Pre	4	11	9	17	20	15
	Post	4	10	10	10	18	15
Don't Know	Pre	1	3	7	8	16	12
	Post	0	2	9	9	22	17
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 223)	100% (N = 12)	100% (N = 676)	100% (N = 1,082)
	Post	100% (N = 75)	100% (N = 42)	100% (N = 121)	100% (N = 63)	100% (N = 606)	100% (N = 907)

\*Nonriders recorded a significant difference at the .05 level between the two surveys, due to a change in the distribution of responses. It appears that fewer post-survey nonriders believed 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 the 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 CATA 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 most bus riders and nonriders, pre and post, replied "no changes needed."

Overall, four improvements in CATA since the initial survey appear to be meeting the needs of Lansing's residents. Opinions regarding closer stops, more bus shelters, expanded service hours, and better route and schedule information declined in the follow-up survey. Lower fares, more convenient routes, and more frequent service were the only areas showing an increased need among Lansing's residents.

Bus Rider Usage

(First Choice) Improvements		Bus Rider Usage				Non-riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %	%	%
Lower fares	Pre	1	2	1	0	1	1
	Post	7	2	7	0	2	3
More convenient routes	Pre	5	4	11	0	8	8
	Post	5	12	13	13	10	10
Closer Stops	Pre	6	2	6	0	7	7
	Post	4	2	6	9	4	4
More frequent service	Pre	8	7	3	0	2	3
	Post	8	14	8	3	3	4
More bus shelters	Pre	4	2	0	0	2	2
	Post	1	2	0	2	0	0
Faster service	Pre	1	2	1	0	2	1
	Post	3	0	0	0	1	1
More courteous drivers	Pre	2	0	1	0	0	0
	Post	3	0	1	0	0	1
Expanded service hours	Pre	19	18	7	9	4	7
	Post	9	10	10	11	4	6
Available change	Pre	1	0	0	0	0	0
	Post	0	0	0	0	0	0
Better transfer system	Pre	1	0	2	8	1	1
	Post	3	0	1	0	0	1
Better route and schedule information	Pre	5	3	4	8	3	4
	Post	0	2	2	2	1	1
Other	Pre	10	7	9	25	8	9
	Post	8	5	9	6	9	9
No changes needed	Pre	37	53	55	50	57	54
	Post	49	51	36	46	43	43
I would not use the bus in any case	Pre	0	0	0	0	5	3
	Post	0	0	7	8	23*	17
Totals	Pre	100% (N = 115)	100% (N = 55)	100% (N = 224)	100% (N = 12)	100% (N = 667)	100% (N = 1,073)
	Post	100% (N = 75)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 605)	100% (N = 907)

\*There is a significant difference at the .001 level between the pre and post "I would not use the bus in any case" response for nonriders.

## DEMOGRAPHICS

### Sex

In general, female bus riders and nonriders outnumbered male bus riders and nonriders in both surveys. The only exception was for pre-survey moderate users with 55 percent male and 45 percent female respondents (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:

(First Choice) Purpose	Bus Riders			
	Male		Female	
	Pre (%)	Post (%)	Pre (%)	Post (%)
Work	26	36	27	17
Shopping	25	22	41	36
School	21	17	12	13
Personal Business	13	13	7	16
When I don't have a car/ when car is in garage	10	6	8	11
Visits or Recreation	3	5	3	4
Medical	1	1	2	2
Other	1	0	0	1
Totals	100% (N = 171)	100% (N = 106)	100% (N = 217)	100% (N = 193)

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

"Work" was the most frequently mentioned purpose for using the bus service by males in both surveys. This was followed by "shopping," "school," and "personal business." Females mentioned "shopping" first, followed by "work" uses.

Age

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

(First Choice) Purpose		Age Group				
		16-20 Years	21-39 Years	40-60 Years	Older Than 60 Years	No Response
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Work	Pre	12	36	22	20	0
	Post	16	32	22	12	0
Personal Business	Pre	11	7	11	16	0
	Post	5	17	25	14	0
Shopping	Pre	41	24	43	45	0
	Post	42	18	25	54	0
School	Pre	22	23	6	2	0
	Post	27	17	3	2	0
Visits or recreation	Pre	5	1	5	6	0
	Post	7	5	0	5	0
Medical	Pre	3	0	0	4	0
	Post	0	1	3	4	0
When I don't have a car/ when car is in garage	Pre	6	8	12	7	100
	Post	3	9	22	7	0
Other	Pre	0	1	1	0	0
	Post	0	1	0	2	0
Totals	Pre	100% (N = 64)	100% (N = 189)	100% (N = 65)	100% (N = 69)	100% (N = 1)
	Post	100% (N = 62)	100% (N = 151)	100% (N = 32)	100% (N = 57)	100% (N = 0)

Sixteen to 20 year-old riders used the bus primarily for shopping and school purposes. Approximately one-third of the 21-39 year-old riders used the bus for work purposes. Pre-survey 40-60 year-old riders rode for shopping needs, but post-survey results were split between shopping and personal business. The older than 60 years group 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. For example, 58 percent of the pre-survey males were in the 16-20 year-old age group compared with 28 percent older than 60 years. The reverse was true for females, i.e., as the age groups increased in years, 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 majority of bus riders and nonriders were between 21-39 years old in both surveys.

### Occupation

By sex, the distribution of occupations is shown in Appendix P. Approximately 20 percent of the pre- and post-survey males were students followed by a second ranking of retired. One-third of the pre- and post-survey females were homemakers, followed by a second ranking of retired.

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. Nearly one out of five were homemakers in the 21-39 age group. The proportion for homemakers increased in the 40-60 age group from 36 percent in the pre-survey to 42 percent in the post-survey. The older than 60 age group was comprised mainly of retirees.

Based upon ridership groups, the distribution of occupations is shown in the following table. Homemaker, retired, student, and professional were the four most frequently mentioned occupations by bus riders and nonriders:

[Faint, illegible text, likely a table or list of data]

[Faint, illegible text]

[Faint, illegible text]

[Faint, illegible text]

[Faint, illegible text]

[Faint, illegible text]

Bus Rider Usage

(First Choice) Occupation		Heavy	Moderate	Light	Other	Non- riders*	Total Respondents
		%	%	%	%	%	%
General office/ clerical	Pre	4	4	9	0	9	8
	Post	8	0	4	3	5	5
Management	Pre	2	5	1	9	4	3
	Post	0	0	2	0	3	2
Government	Pre	6	7	2	0	5	4
	Post	1	5	3	3	2	3
University	Pre	1	0	1	9	2	2
	Post	0	0	1	0	1	1
Proprietor	Pre	1	0	1	0	1	1
	Post	0	0	0	0	2	1
Professional	Pre	4	7	12	18	12	11
	Post	9	7	8	11	8	8
Sales	Pre	4	2	3	0	4	4
	Post	5	3	6	0	4	4
Skilled/semi- skilled	Pre	2	0	2	0	5	4
	Post	1	3	5	5	7	6
Technical	Pre	1	0	1	0	2	2
	Post	3	2	3	5	2	2
Service worker	Pre	7	9	3	9	4	4
	Post	7	0	5	7	3	4
Unskilled labor	Pre	4	4	5	0	5	5
	Post	5	0	3	3	6	5
High school or college student	Pre	38	30	21	10	7	14
	Post	31	26	22	26	9	15
Homemaker	Pre	8	18	18	18	24	21
	Post	6	21	19	21	25	22
Retired	Pre	14	14	16	18	14	14
	Post	19	26	14	10	19	18
Not Employed	Pre	4	0	5	9	2	3
	Post	5	7	5	6	4	4
Totals	Pre	100%	100%	100%	100%	100%	100%
	Post	(N = 112)	(N = 56)	(N = 225)	(N = 11)	(N = 672)	(N = 1,076)
		100%	100%	100%	100%	100%	100%
		(N = 75)	(N = 42)	(N = 119)	(N = 62)	(N = 598)	(N = 896)

\*There is a significant difference at the .01 level between the two surveys due to a change in the distribution of nonrider responses. Compared to pre-survey results, post-survey nonriders reported a decrease in general office/clerical, government, and professional occupations, and an increase in the percentage of retired.

ADVERTISING AWARENESS

Radio Station Listening

Respondents were asked if they had heard any CATA radio announcements. The majority of bus riders and nonriders indicated they had not heard any CATA radio announcements. (Pre-survey other users were the only exception.)

Those bus riders who did hear radio announcements were more likely to have been light and other users than heavy or moderate users. This may be due to the fact that the majority of announcements are aired during the morning hours of 7-9 a.m. Thus, heavy and moderate users would not hear the announcements because they are traveling to work by bus during these hours. The following table shows the results to the question:

Heard Announcements?		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light*	Other		
		%	%	%	%	%	%
Yes or think so	Pre	26	28	38	58	37	36
	Post	32	25	31	35	34	33
No	Pre	70	70	59	42	58	60
	Post	64	70	59	60	59	60
Don't know	Pre	4	2	3	0	5	4
	Post	4	5	10	5	7	7
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 676)	100% (N = 1,085)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of responses for light users. Compared to pre-survey results, post-survey results show a lower percentage of "yes or think so" responses and a higher percentage of "don't know" responses.

Listed below are Lansing radio stations with the percentages of respondents who heard announcements on specific radio stations. WFMK was more frequently cited as the station where they heard CATA announcements by pre-survey heavy, moderate, and light users, as well as nonriders. Post-survey heavy users more often reported WJIM, moderate users indicated WVIC, light users mentioned WFMK again, and nonriders cited WITL.

Bus Rider Usage

<u>Radio Stations</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>
WFMK	Pre	36	38	19	14	19	21
	Post	13	10	35	9	11	14
WILS	Pre	7	25	15	0	10	11
	Post	8	10	21	14	9	11
WITL	Pre	7	6	14	29	13	13
	Post	12	10	6	5	21	17
WJIM	Pre	14	0	12	0	15	13
	Post	21	0	6	5	9	9
WKAR	Pre	0	12	1	0	1	2
	Post	0	0	3	0	1	1
WVIC	Pre	7	0	13	28	11	11
	Post	4	20	3	5	6	6
Other	Pre	0	0	0	0	0	0
	Post	4	10	0	5	2	2
Don't know	Pre	29	19	26	29	31	29
	Post	38	40	26	57	41	40
Totals	Pre	100% (N = 28)	100% (N = 16)	100% (N = 84)	100% (N = 7)	100% (N = 239)	100% (N = 374)
	Post	100% (N = 24)	100% (N = 10)	100% (N = 34)	100% (N = 21)	100% (N = 205)	100% (N = 294)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of responses for nonriders. Post-survey results show a decrease in WFMK and WJIM reporting and an increase in WITL.

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. (Post-survey moderate users were the only exception.)

Bus Rider Usage

<u>Regularly Listen?</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	57	68	67	83	63	64
	Post	67	44	66	70	58	60
No	Pre	42	32	32	17	34	34
	Post	33	56	32	25	40	38
Radio is broken or don't have radio	Pre	0	0	1	0	1	1
	Post	0	0	0	0	0	0
Other	Pre	1	0	0	0	2	1
	Post	0	0	2	5	2	2
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 225)	100% (N = 12)	100% (N = 677)	100% (N = 1,085)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 606)	100% (N = 909)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of responses for moderate users. Compared to pre-survey results, post-survey results show a decrease in the percentage of "yes" responses and an increase in "no" responses.

## Television Station Viewing

As with radio, respondents were asked if they had seen any CATA television announcements. Most bus riders and nonriders had not seen any CATA television announcements. Those respondents who did see TV announcements were noted more in the pre-survey than the post-survey.

The following table lists the responses to this question:

		<u>Bus Rider Usage</u>				<u>Non-</u>	<u>Total</u>
<u>Seen Announcements?</u>		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>riders</u>	<u>Respondents</u>
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	36	34	31	42	34	34
	Post	29	28	24	9*	24*	24
No	Pre	61	64	62	58	59	60
	Post	70	67	69	83	67	68
Don't know	Pre	3	2	7	0	7	6
	Post	<u>1</u>	<u>5</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>8</u>
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 115)	(N = 56)	(N = 226)	(N = 12)	(N = 674)	(N = 1,083)
	Post	100%	100%	100%	100%	100%	100%
		(N = 76)	(N = 43)	(N = 121)	(N = 63)	(N = 609)	(N = 912)

\*There is a significant difference (other users - .05 level; nonriders - .01 level) between the pre and post "yes or think so" response. Fewer post-survey respondents saw any CATA TV announcements, compared to pre-survey results.



Listed below are Lansing TV stations with the percentage of respondents who saw announcements on specific TV stations. The majority of bus riders and nonriders reported WJIM-TV as the TV station where they saw CATA announcements.

TV Stations		Bus Rider Usage				Non-riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
WILX Channel 10	Pre	18	22	13	0	17	17
	Post	9	10	41*	0	18	19
WJIM Channel 6	Pre	50	67	69	60	59	61
	Post	62	40	27	60	47	46
WJRT Channel 12	Pre	0	0	0	0	1	1
	Post	0	0	4	0	0	1
WKAR Channel 23	Pre	0	0	0	0	1	0
	Post	0	0	0	0	0	0
WUHQ Channel 41	Pre	3	0	0	0	0	0
	Post	0	0	0	0	0	0
Other	Pre	3	0	0	20	1	1
	Post	5	0	5	0	0	1
Don't know	Pre	26	11	18	20	21	20
	Post	24	50	23	40	35	33
Totals	Pre	100% (N = 38)	100% (N = 18)	100% (N = 67)	100% (N = 5)	100% (N = 218)	100% (N = 346)
	Post	100% (N = 21)	100% (N = 10)	100% (N = 22)	100% (N = 5)	100% (N = 125)	100% (N = 183)

\*There is a significant difference at the .05 level between the pre and post "WILX-TV" response for light users.

Among nonriders there is a significant difference at the .05 level, due to a change in the distribution of responses, pre to post. Fewer nonriders cited "WJIM-TV" and more stated "don't know" during the post survey.

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:

		Bus Rider Usage				Non-riders	Total Respondents
<u>Regularly Watch?</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	56	70	65	92	70	67
	Post	66	57	62	49	66	64
No	Pre	42	30	33	8	27	30
	Post	29	38	35	45	29	31
TV is broken or don't have TV	Pre	1	0	1	0	0	0
	Post	1	2	0	0	0	0
Other	Pre	1	0	1	0	3	3
	Post	4	3	3	6	5	5
Totals	Pre	100% (N = 38)	100% (N = 18)	100% (N = 67)	100% (N = 5)	100% (N = 218)	100% (N = 346)
	Post	100% (N = 21)	100% (N = 10)	100% (N = 22)	100% (N = 5)	100% (N = 125)	100% (N = 183)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution responses for other users. The post-survey results show a lower percentage of "yes" responses and a higher percentage of "no" responses, compared to pre-survey results.

## Newspaper Readership

Respondents were asked if they had seen any CATA newspaper ads. Most of the bus riders and nonriders said "no" to this question, with the exception of post-survey moderate users.

Those respondents who did see newspaper ads were noted more in the pre-survey than the post-survey. The only exception was for moderate and other users. The following table shows the responses to this question.

		<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>Seen Ads?</u>		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	47	45	47	25	43	44
	Post	30	49	44	40	38	39
No	Pre	53	55	50	67	52	52
	Post	61	44	50	57	54	54
Don't know	Pre	0	0	3	8	5	4
	Post	9	7	6	3	8	7
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 225)	100% (N = 12)	100% (N = 677)	100% (N = 1,085)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 607)	100% (N = 910)

\*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of nonrider responses. Compared to pre-survey results, post-survey results show an increase in "no" and "don't know" responses and a decrease in "yes" responses.

Listed below are Lansing area newspapers with the percentages of respondents who saw ads in specific newspapers. Bus riders and nonriders saw CATA newspaper ads more often in the State Journal than in any other newspaper.

Bus Rider Usage

<u>Newspapers</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> %	%	%
State Journal	Pre	71	72	86	100	93	88
	Post	82	69	85	83	91	88
MSU State News	Pre	17	16	8	0	6	8
	Post	9	26	11	13	4	7
E.L. Towne Courier	Pre	4	4	1	0	0	1
	Post	0	0	0	0	0	0
Lansing Star	Pre	0	4	0	0	0	0
	Post	0	0	0	0	0	0
Other	Pre	4	0	2	0	0	1
	Post	5	5	2	4	0	1
Don't know	Pre	4	4	3	0	1	2
	Post	4	0	2	0	5	4
Totals	Pre	100% (N = 53)	100% (N = 25)	100% (N = 105)	100% (N = 3)	100% (N = 281)	100% (N = 467)
	Post	100% (N = 22)	100% (N = 19)	100% (N = 52)	100% (N = 24)	100% (N = 221)	100% (N = 338)

Respondents were asked if they regularly read a local newspaper. The majority of bus riders and nonriders replied "yes" to this question. Pre-survey "other" users were the only exception. The results indicate no major differences between bus riders and nonriders. Responses are tabulated below:

Bus Rider Usage

<u>Regularly Read?</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> %	%	%
Yes	Pre	60	69	65	42	65	65
	Post	55	60	56	62	63	62
No	Pre	28	18	24	50	22	23
	Post	29	12	28	32	25	25
Sometimes	Pre	10	9	8	8	11	10
	Post	15	28	16	6	11	12
Other	Pre	2	4	3	0	2	2
	Post	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
Totals	Pre	100% (N = 114)	100% (N = 55)	100% (N = 226)	100% (N = 12)	100% (N = 677)	100% (N = 1,084)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 120)	100% (N = 63)	100% (N = 609)	100% (N = 911)

Other Media Exposure

Respondents were asked if there were any other places they had seen, heard, or read advertisements or otherwise obtained information about CATA. Most of the bus riders and nonriders indicated they had not obtained information about CATA from any other source than those previously listed. Of those respondents who said "yes," more was recorded from the post-survey than from the pre-survey. 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	32	29	30	25	28	29
	Post	38	42	41	43	35	37
No	Pre	59	62	60	67	65	64
	Post	55	58	50	46	54*	53
Don't know	Pre	8	9	10	8	7	7
	Post	7	0	9	11	11*	10
Other	Pre	1	0	0	0	0	0
	Post	0	0	0	0	0	0
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 113)	(N = 56)	(N = 222)	(N = 12)	(N = 670)	(N = 1,073)
	Post	100%	100%	100%	100%	100%	100%
		(N = 76)	(N = 43)	(N = 121)	(N = 63)	(N = 607)	(N = 910)

\*There is a significant difference at the .05 level between the pre and post "no" and "don't know" response for nonriders. The results indicate a pre to post increase in the percentage of nonriders who obtained information about CATA from sources other than radio, TV, and newspaper announcements.

Of those who had obtained information from another place, "billboards" were the most common source given and witnessed a percentage increase, pre to post, in all groups with the exception of moderate users. "Displays" and "other" places also showed an overall pre to post increase in 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	38	27	30	34	37	35
	Post	41	25	45	37	39	39
Bulletin boards	Pre	8	26	8	0	7	8
	Post	10	25	2	4	3	5
Displays	Pre	19	7	17	0	14	15
	Post	28	19	12	22	18	18
News Articles	Pre	11	6	19	33	17	16
	Post	14	0	12	7	9	9
Other	Pre	19	27	15	0	19	19
	Post	4	19	23	22	28	24
Ad for stores/ institutions which mention that they can be reached by bus	Pre	5	7	11	33	6	7
	Post	<u>3</u>	<u>12</u>	<u>6</u>	<u>8</u>	<u>3</u>	<u>5</u>
Totals	Pre	100% (N = 37)	100% (N = 15)	100% (N = 64)	100% (N = 3)	100% (N = 180)	100% (N = 299)
	Post	100% (N = 29)	100% (N = 16)	100% (N = 49)	100% (N = 27)	100% (N = 209)	100% (N = 330)

\*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 "other" responses and a decrease in "news articles."

## CONCLUSIONS

The main purpose of the follow-up survey was to evaluate the effectiveness of CATA 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 respondents than any other medium. Inspection of the Total Respondents column in the table below, shows that pre-survey recall of newspaper ads was 44 percent, decreasing to 39 percent in the post-survey. Pre-survey recall of radio was 36 percent, decreasing to 33 percent, and television decreased from 34 percent to 24 percent. "Other" media witnessed an overall increase from 29 percent to 37 percent.

"Other" media received the most increase in recognition, pre to post, across all ridership and nonrider groups. For heavy users there was a 6 percent increase; moderate users, 13 percent; light users, 11 percent; other users, 18 percent; and nonriders, 7 percent. (Heavy users also recorded a 6 percent increase in recognition of radio spots.)

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



Bus Rider Usage

<u>MEDIUM</u> Respondents Who Heard, Saw, or Read Ads		<u>Heavy</u> %	<u>Moderate</u> %	<u>Light</u> %	<u>Other</u> %	<u>Non- riders</u> %	<u>Total Respondents</u> %
<b>RADIO</b>							
"Yes or think so"	Pre	26	28	38	58	37	36
	Post	32	25	31	35	34	33
<b>TELEVISION</b>							
"Yes or think so"	Pre	36	34	31	42	34	34
	Post	29	28	24	9	24	24
<b>NEWSPAPER</b>							
"Yes or think so"	Pre	47	45	47	25	43	44
	Post	30	49	44	40	38	39
<b>"OTHER"</b>							
"Yes or think so"	Pre	32	29	30	25	28	29
	Post	38	42	41	43	35	37

"Other" media may have received more recognition, pre to post, because it was used extensively as part of CATA's marketing efforts. When questioned further, respondents indicated a higher recall of billboards, displays, and "other" media. CATA used billboards in their advertising just prior to the post-survey interviewing. Billboards (along with other media) were used during the "CATACARD Introduction." "CATACARD" was a new style "flash pass" and was marketed to the entire bus route area, including Mason, Williamston, and Grand Ledge. Billboards also were used in an effort to increase ridership on extension service buses to Mason, Williamston, and Grand Ledge. Thus, it appears that billboards were effective in reaching bus riders and nonriders, in light of the increase in recall during post-survey interviewing.

CATA 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)
- Exterior and interior bus cards
- Bus schedules

Schedule racks

Token vending machines

Brochures

Group demonstrations

Public meetings

Slide presentation

Magazine ads

Fliers

Lansing area telephone directory advertising

## 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. 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)

LANSING

A \_\_\_\_\_ WCER  
 B \_\_\_\_\_ WFMK  
 C \_\_\_\_\_ WILS  
 D \_\_\_\_\_ WITL  
 E \_\_\_\_\_ WJIM  
 F \_\_\_\_\_ WKAR  
 G \_\_\_\_\_ WUNN  
 H \_\_\_\_\_ WVIC  
 I \_\_\_\_\_ OTHER  
 J \_\_\_\_\_ DON'T  
 \_\_\_\_\_ KNOW

GR

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

KZOO

A \_\_\_\_\_ WAOP  
 B \_\_\_\_\_ WBUK  
 C \_\_\_\_\_ WIDR  
 D \_\_\_\_\_ WKMI  
 E \_\_\_\_\_ WKPR  
 F \_\_\_\_\_ WKZO  
 G \_\_\_\_\_ WMUK  
 H \_\_\_\_\_ WQLR  
 I \_\_\_\_\_ WYYY  
 J \_\_\_\_\_ OTHER  
 K \_\_\_\_\_ DON'T  
 \_\_\_\_\_ KNOW

AA

A \_\_\_\_\_ WAAM  
 B \_\_\_\_\_ WCBN  
 C \_\_\_\_\_ WEMU  
 D \_\_\_\_\_ WIQB  
 E \_\_\_\_\_ WNRS  
 F \_\_\_\_\_ WPAG  
 G \_\_\_\_\_ WRCN  
 H \_\_\_\_\_ WSDS  
 I \_\_\_\_\_ WYFC  
 J \_\_\_\_\_ OTHER  
 K \_\_\_\_\_ DON'T  
 \_\_\_\_\_ KNOW

SAGINAW

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

GR

KZOO

AA

SAGINAW

- 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

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

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

- 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

- 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

GR

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

- 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

KZOO

- A  KZOO GAZETTE
- B  PORTAGE HERALD-HEADLINER
- C  THREE RIVERS COMMERCIAL
- D  OTHER
- E  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

SAGINAW

- A  SAGINAW NEWS
- B  OTHER
- C  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  
LANSING  
TELEPHONE EXCHANGES SURVEYED

<u>Exchange Prefix</u>	<u>Numbers Called</u>	
	<u>Pre-Survey</u>	<u>Post-Survey</u>
321	156	215
322	8	65
323	81	114
332	178	227
337	102	147
339	61	106
349	123	168
351	137	222
371	56	101
372	122	167
393	150	195
394	84	124
482	98	147
484	110	159
485	154	200
487	61	106
489	89	124
694	133	482
699	19	265
882	151	492
887	250	250
	<hr/> 2,073	<hr/> 4,076

APPENDIX C

LANSING  
INTERVIEW SAMPLING RESULTS

	<u>Pre-Survey</u>	<u>Post-Survey</u>
Start Date	January 23, 1980	October 12, 1981
Finish Date	February 11, 1980	October 22, 1981
Ratio	1:47	1:47
Interviews Taken	1,175	1,000
Disconnected or Changed	242	1,454
Refusals	224	168
Businesses*	41	398
No Answer**	<u>391</u>	<u>1,056</u>
Numbers Called	2,073	4,076

\*Businesses were not included in the surveys.

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

APPENDIX D

OTHER MEMBERS' TRANSIT USAGE

Bus Rider Usage

Other Member's Transit Usage		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
		%	%	%	%	%	%
Yes	Pre	50	37	38	25	15	25
	Post	45	42	43	44	23*	30
No	Pre	48	59	60	75	84	74
	Post	55	58	51	51	74	67
Don't know	Pre	2	4	2	0	1	1
	Post	0	0	6	5	3*	3
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 222)	100% (N = 12)	100% (N = 676)	100% (N = 1,081)
	Post	100% (N = 75)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 606)	100% (N = 908)

\*Nonriders noted a significant difference at the .05 level between the pre- and post-survey "yes" and "don't know" responses. Eight percent (8%) more household members of nonriders rode during the post-survey, compared to pre-survey results.

APPENDIX E

WHO OTHER MEMBER?

Bus Rider Usage

Who Other Member?		Bus Rider Usage				Non-riders %	Total Respondents %
		Heavy %	Moderate %	Light %	Other %		
Husband/wife	Pre	28	50	28	34	32	32
	Post	25	27	22	36	33	30
Son/daughter/ children	Pre	21	23	37	33	54	39
	Post	41	33	45	36	52	46
Mother/father	Pre	3	0	11	0	2	5
	Post	3	0	7	9	2	3
Roommate	Pre	39	23	22	33	11	21
	Post	22	33	13	5	9	13
Other	Pre	9	4	2	0	1	3
	Post	9	7	13	14	4	8
Totals	Pre	100% (N = 57)	100% (N = 22)	100% (N = 85)	100% (N = 3)	100% (N = 103)	100% (N = 270)
	Post	100% (N = 32)	100% (N = 15)	100% (N = 45)	100% (N = 22)	100% (N = 121)	100% (N = 235)

APPENDIX F

OFTEN OTHER MEMBERS?

Bus Rider Usage

Often Other Member?		Bus Rider Usage				Non-riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
Heavy usage	Pre	69	36	30	50	38	42
	Post	77	44	35	44	37	43
Moderate usage	Pre	14	27	14	0	16	16
	Post	11	33	10	4	11	12
Light usage	Pre	15	32	54	50	41	39
	Post	6	17	45	16	33	29
Other usage	Pre	2	5	2	0	5	3
	Post	6	6	10	36	19	16
Totals	Pre	100% (N = 58)	100% (N = 22)	100% (N = 87)	100% (N = 2)	100% (N = 106)	100% (N = 275)
	Post	100% (N = 35)	100% (N = 18)	100% (N = 51)	100% (N = 25)	100% (N = 139)	100% (N = 268)

\*Among nonriders there is a significant difference at the .005 level between the two surveys due to a change in the distribution of responses. Compared to the pre-survey, post-survey nonriders reported a lower percentage of moderate and light usage and a higher percentage of other usage by other household members.

APPENDIX G

OTHER MEMBERS' TRIP PURPOSE?

Bus Rider Usage

(First Choice) Other Members' Trip Purpose		Bus Rider Usage				Non- riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
Work	Pre	31	38	31	0	35	33
	Post	29	28	35	35	35	33
Personal business	Pre	12	9	6	0	9	8
	Post	6	11	4	15	7	7
Shopping	Pre	22	43	31	34	29	30
	Post	23	33	27	23	27	27
School	Pre	33	10	18	33	22	22
	Post	37	22	19	15	17	20
Visits or recreation	Pre	2	0	7	0	3	4
	Post	0	0	9	8	6	6
Medical	Pre	0	0	4	0	0	1
	Post	5	6	4	0	1	2
When I don't have a car/ When car is in garage	Pre	0	0	1	33	1	1
	Post	0	0	2	4	6	4
Other	Pre	0	0	2	0	1	1
	Post	0	0	0	0	1	1
Totals	Pre	100% (N = 58)	100% (N = 21)	100% (N = 87)	100% (N = 3)	100% (N = 105)	100% (N = 274)
	Post	100% (N = 35)	100% (N = 18)	100% (N = 52)	100% (N = 26)	100% (N = 140)	100% (N = 271)

APPENDIX H

CONSIDERED RIDING THE BUS?

Bus Rider Usage

Considered Riding the Bus?		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
		%	%	%	%	%	%
Don't know	Pre	1	2	1	0	2	2
	Post	1	0	2	0	0	0
Haven't thought about it	Pre	1	0	2	0	5	4
	Post	4	7	3	2	5	4
Other	Pre	3	0	2	0	1	1
	Post	5	0	2	6	3	3
Yes	Pre	82	75	67	75	43	54
	Post	64	67	55	56	24*	36
No	Pre	13	23	28	25	49	39
	Post	26	26	38	36	68*	57
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 674)	100% (N = 1,083)
	Post	100% (N = 75)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 608)	100% (N = 910)

\*There is a significant difference at the .001 level between the pre and post "yes" and "no" responses for nonriders. Fewer post-survey nonriders had considered riding the bus more because of rising gasoline prices.



APPENDIX I

CONSIDERED GETTING IN A CARPOOL?

Considered Getting in a Carpool?		Bus Rider Usage				Non- riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
Don't know	Pre	1	0	0	0	2	1
	Post	0	2	2	0	1	1
Haven't thought about it	Pre	5	4	6	0	2	3
	Post	7	5	5	3	4	4
Other	Pre	3	5	5	8	2	3
	Post	4	0	4	3	2	3
Yes	Pre	21	32	31	33	34	32
	Post	30	19	21	38	27	26
No	Pre	70	59	58	59	60	61
	Post	59	74	68	56	66	66
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 678)	100% (N = 1,087)
	Post	100% (N = 74)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 910)

\*Nonriders reported a significant difference, at the .05 level, due to a pre to post change in the distribution of responses. Fewer post-survey nonriders (27 percent) had considered getting in a carpool, compared to pre-survey results (34 percent).

APPENDIX J

CONSIDERED DRIVING LESS?

Bus Rider Usage

Considered Driving Less?		Bus Rider Usage					Non-riders	Total Respondents
		Heavy	Moderate	Light	Other			
		%	%	%	%	%	%	
Don't know	Pre	0	0	0	0	1	1	
	Post	0	0	2	0	0	1	
Haven't thought about it	Pre	4	2	2	0	3	3	
	Post	7	2	2	5	3	3	
Other	Pre	4	4	4	17	2	3	
	Post	1	3	2	0	1	1	
Yes	Pre	57	66	62	58	69	66	
	Post	51	58	57	57	60	58	
No	Pre	35	28	32	25	25	27	
	Post	41	37	37	38	36*	37	
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 679)	100% (N = 1,088)	
	Post	100% (N = 74)	100% (N = 43)	100% (N = 120)	100% (N = 63)	100% (N = 608)	100% (N = 908)	

\*Nonriders reported a significant difference at the .05 level between the pre and post "no" response. The results indicate that fewer post-survey nonriders had considered driving less, compared to pre-survey results.

APPENDIX K

DO GAS PRICES AFFECT YOU?

Do Gas Prices Affect You?		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
		%	%	%	%	%	%
Don't know	Pre	1	2	0	0	1	1
	Post	0	0	0	0	0	0
Haven't thought about it	Pre	1	0	1	0	1	1
	Post	0	0	0	2	1	1
Other	Pre	0	2	0	0	0	0
	Post	3	0	2	0	1	1
Yes	Pre	69	69	84	58	86	82
	Post	67	72	76	81	74	74
No	Pre	29	27	15	42	12	16
	Post	30	28	22	17	24*	24
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 679)	100% (N = 1,088)
	Post	100% (N = 73)	100% (N = 43)	100% (N = 120)	100% (N = 63)	100% (N = 608)	100% (N = 907)

\*Nonriders reported a significant difference at the .001 level between the pre and post "no" response. Gas prices apparently affected fewer nonriders during post-survey interviewing.

APPENDIX L  
ENERGY CONSERVATION MEASURE

		Bus Rider Usage					
<u>Energy Measure</u>		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>Non-riders</u>	<u>Total Respondents</u>
		%	%	%	%	%	%
Yes	Pre	96	98	94	92	94	94
	Post	93	98	92	98	88	90
No	Pre	1	0	1	8	2	2
	Post	1	0	4	2	4	4
Don't know	Pre	3	2	5	0	4	4
	Post	<u>6</u>	<u>2</u>	<u>4</u>	<u>0</u>	<u>8*</u>	<u>6</u>
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 115)	(N = 53)	(N = 226)	(N = 12)	(N = 674)	(N = 1,080)
	Post	100%	100%	100%	100%	100%	100%
		(N = 74)	(N = 43)	(N = 121)	(N = 63)	(N = 598)	(N = 899)

\*Nonriders reported a significant difference at the .05 level between the pre and post "Don't know" response. Evidently fewer post-survey nonriders believed the bus service was an energy conservation measure.

APPENDIX M

SEX BY USAGE

Bus Rider Usage

<u>Sex</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>
Male	Pre	47	55	39	25	33	37
	Post	38	40	30	39	38	37
Female	Pre	53	45	61	75	67	63
	Post	<u>62</u>	<u>60</u>	<u>70</u>	<u>61</u>	<u>62</u>	<u>63</u>
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 676)	100% (N = 1,085)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 120)	100% (N = 61)	100% (N = 605)	100% (N = 905)

APPENDIX N

SEX BY AGE

<u>Sex</u>		<u>Age Group</u>				<u>No Response</u>
		<u>16-20</u>	<u>21-39</u>	<u>40-60</u>	<u>Older Than</u>	
		<u>Years</u>	<u>Years</u>	<u>Years</u>	<u>60 Years</u>	
Male	Pre	58	41	26	28	50
	Post	45	41	29	30	12
Female	Pre	42	59	74	72	50
	Post	55	59	71	70	88
Totals	Pre	100% (N = 103)	100% (N = 542)	100% (N = 279)	100% (N = 241)	100% (N = 2)
	Post	100% (N = 101)	100% (N = 463)	100% (N = 199)	100% (N = 221)	100% (N = 8)

APPENDIX O

AGE BY USAGE

Bus Rider Usage

Age Groups		Bus Rider Usage				Non-riders %	Total Respondents %
		Heavy %	Moderate %	Light %	Other %		
Older than 60 years	Pre	16	23	18	25	20	19
	Post	19	37	16	14	22	21
40-60 years	Pre	11	12	22	17	27	24
	Post	8	7	13	11	25	20
21-39 years	Pre	58	45	44	50	48	48
	Post	51	42	50	54	47	48
16-20 years	Pre	15	20	16	0	5	9
	Post	22	14	21	21	5	10
No response	Pre	0	0	0	8	0	0
	Post	0	0	0	0	1	1
Totals	Pre	100% (N = 115)	100% (N = 56)	100% (N = 226)	100% (N = 12)	100% (N = 678)	100% (N = 1,087)
	Post	100% (N = 76)	100% (N = 43)	100% (N = 121)	100% (N = 63)	100% (N = 609)	100% (N = 912)

APPENDIX P  
OCCUPATION BY SEX

(First Choice) Occupations	Sex			
	Male		Female	
	Pre (%)	Post (%)	Pre (%)	Post (%)
General office/clerical	2	2	11	6
Management	5	5	2	1
Government	6	3	3	2
University	2	2	1	0
Proprietor	1	2	1	1
Professional	12	10	10	7
Sales	5	6	3	3
Skilled/Semi-skilled	9	11	1	2
Technical	3	5	1	1
Service worker	4	4	5	4
Unskilled labor	11	6	2	4
High school or college student	22	20	9	11
Homemaker	1	3	33	33
Retired	14	16	16	21
Not employed	<u>3</u>	<u>5</u>	<u>2</u>	<u>4</u>
Totals	100% (N = 416)	100% (N = 349)	100% (N = 740)	100% (N = 625)



APPENDIX Q  
OCCUPATION BY AGE

(First Choice) Occupation		Age Groups				
		16-20	21-39	40-60	Older Than	No
		Years	Years	Years	60 Years	Response
		%	%	%	%	%
General office/ clerical	Pre	5	10	11	1	0
	Post	2	7	6	0	0
Management	Pre	2	4	4	2	0
	Post	0	3	3	1	17
Government	Pre	1	5	7	1	0
	Post	1	3	4	0	0
University	Pre	0	1	3	1	50
	Post	0	1	1	1	0
Proprietor	Pre	0	1	2	1	0
	Post	0	2	2	0	0
Professional	Pre	1	16	10	4	0
	Post	1	13	7	2	17
Sales	Pre	6	3	4	2	50
	Post	4	5	6	1	0
Skilled/semi-skilled	Pre	2	6	2	2	0
	Post	0	7	9	1	0
Technical	Pre	0	3	2	0	0
	Post	0	4	1	0	0
Service worker	Pre	5	5	7	1	0
	Post	4	5	3	1	0
Unskilled labor	Pre	8	7	4	1	0
	Post	7	7	3	0	0
High school or college student	Pre	59	18	1	0	0
	Post	72	15	0	0	16
Homemaker	Pre	3	19	36	15	0
	Post	6	23	42	11	50
Retired	Pre	1	0	3	69	0
	Post	0	0	5	80	0
Not employed	Pre	7	2	4	0	0
	Post	3	5	8	2	0
Totals	Pre	100%	100%	100%	100%	100%
	Post	100%	100%	100%	100%	100%
		(N = 102)	(N = 539)	(N = 277)	(N = 241)	(N = 2)
		(N = 99)	(N = 457)	(N = 198)	(N = 222)	(N = 6)