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MICHIGAN PUBLIC TRANSIT ATTITUDE AND AWARENESS SURVEY

Initial and Follow-up Report for the:



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

September, 1982.



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16. Abstract This report summarizes the results of an initial and follow-up telephone survey of the general public in SAGINAW, Michigan. The purpose of the initial survey was to determine public attitudes toward, and awareness of, the Saginaw Transit System (STS). The purpose of the follow-up survey was to evaluate the effectiveness of STS 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 STS for use in developing effective marketing efforts for public transportation services. 3. To assist the Michigan Department of Transportation in determining the type of marketing efforts which might be appropriate at the state level.					
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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 Saginaw 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 1:20 for Saginaw.

This ratio meant that one telephone number was selected for each of 20 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 Saginaw 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 Saginaw area among respondents was at 74 percent in the pre-survey and 84 percent in the post-survey.

Thirty-two percent (32%) of the pre-survey respondents and 48 percent of the post-survey respondents correctly identified the transit system in Saginaw.

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

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

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

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

Transportation Patterns

Most respondents, pre (90 percent) and post (87 percent), had not used the bus service during the preceding year.

Of those who had used the bus service, light users comprised 47 percent of pre-survey riders and 44 percent in the post-survey.

Heavy users rode the bus mainly for shopping, work, and school purposes, whereas moderate users rode basically to go shopping and for personal business. Light and other users indicated shopping as their primary purpose for riding the bus.

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

Most bus riders live within one or two blocks of the nearest bus route. Nonriders, however, were about evenly distributed between the "1 to 2 blocks," "1 mile or more," and "don't know" responses.

"Car" was cited as the usual means of transportation. The highest percentage occurred for nonriders; the lowest percentage was recorded for heavy users.

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

0 cars	48%, pre-survey heavy users
	60%, post-survey heavy users
	44%, post-survey moderate users
1 car	54%, pre-survey moderate users
	39%, pre-survey light users
	50%, post-survey light users
2 or more cars	65%, pre-survey nonriders
	60%, post-survey nonriders

The majority of bus riders and nonriders normally have a vehicle available to them. The only exceptions were post-survey heavy and moderate users.

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 "doesn't stop near me or I live in the country," and "no reason."

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 STS's bus service is that no changes were needed. Opinions regarding five improvements showed an overall decline in the follow-up survey. Only two improvements showed an increased need.

Demographics

Sex:

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

Shopping was the most frequently mentioned purpose for using the bus service by males and females in both surveys. Pre-survey males followed with work,

school, and visits or recreation (each cited with a 16 percent frequency). Post-survey males and pre- and post-survey females second ranking was personal business.

Age:

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

Shopping also was mentioned more frequently by riders 21-39 years old, 40-60 years old, and older than 60 years.

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 were between 21-39 years old and older than 60 years in both surveys. Most nonriders were between 21-39 years old and 40-60 years old.

Occupation:

Nineteen percent (19%) of the pre-survey males were skilled/semi-skilled, followed by 17 percent retired, and 14 percent professional. Twenty-eight percent (28%) of the post-survey males indicated they were retired and 12 percent, each, for skilled/semi-skilled and unskilled labor.

Pre- and post-survey females reported an identical ranking of homemaker (40 percent/38 percent), retired (19 percent/24 percent), and professional (10 percent/7 percent).

-Students comprised the following age groups:

- 54%, pre-survey 16-20 years old
- 60%, post-survey 16-20 years old

-Homemakers, comprised the following age groups:

- 32%, pre-survey 21-39 years old
- 31%, post-survey 21-39 years old
- 44%, pre-survey 40-60 years old
- 45%, post-survey 40-60 years old

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

Retired, homemaker, and student were the three most frequently mentioned occupations by bus riders. Nonriders reported homemaker, retired, and professional.

Advertising Awareness

NOTE: Please see specific sections on "Advertising Awareness" (pg. 41) and "Conclusions" (pg. 52) 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 STS radio announcements.

Those bus riders and nonriders who did hear STS radio announcements heard them more frequently on WSAM, WSGW, and WWWS.

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

Those bus riders and nonriders who did see STS TV announcements reported each of the following TV stations at least once: WEYI-TV, WNEM-TV, WJRT-TV, and WUCM-TV.

Newspapers - The majority of bus riders and nonriders indicated they regularly read a local newspaper. When asked if they had seen any STS newspaper ads, most of the pre-survey bus riders replied "no." However, most post-survey responses were "yes or think so." Most nonriders indicated "no."

These bus riders and nonriders who did see STS newspaper ads reported the Saginaw News 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 STS, "billboards," "displays," "other" media,

and "ads for stores/institutions which mention that they can be reached by bus" were the most common places cited.

"Displays" and "other" places were the two mediums showing an overall pre to post increase in recognition.

TRANSIT AWARENESS

Bus System Awareness

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

<u>City Bus System?</u>	<u>Total Respondents</u>	
		<u>%</u>
Yes or think so	Pre	74
	Post	84
No	Pre	20
	Post	6*
Don't know	Pre	6
	Post	<u>10*</u>
Totals	Pre	100% (N = 1,089)
	Post	100% (N = 1,000)

*There is a significant difference at the .001 level between the pre and post "no" response, and at the .005 level for the "don't know" response. Post-survey results show an increased awareness of STS over pre-survey results.

Bus System Name

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

<u>Response</u>		<u>Total Respondents</u>
		<u>%</u>
Saginaw Transit System	Pre	32
	Post	26
Saginaw Transit	Pre	-0-
	Post	22*
Other responses (included names which sound similar to the Saginaw Transit System, route destination names, and incorrect responses)	Pre	18
	Post	6*
Don't Know	Pre	50
	Post	<u>46</u>
Totals	Pre	100% (N = 803)
	Post	100% (N = 837)

*There is a significant difference at the .001 level between the two surveys regarding the "Saginaw Transit" and the "other responses" categories. Adding the Saginaw Transit System (STS) and Saginaw Transit (ST) responses together produces an increase in recall, pre to post, from 32 percent to 48 percent.

Cost for Bus Ride

The following table summarizes responses to the question, "How much does it cost for a ride on the bus?" The results indicate the majority of bus riders were aware of the cost to ride the bus. Most nonriders, however, replied "don't know." At the time of the initial survey, April - June 1980, the cash fare was 35 cents. Subsequent to this, the fare was raised to 40 cents. The follow-up survey occurred in November and December 1981, just prior to another STS fare increase to 50 cents. The possibility of this fare increase was reported in the newspaper during post-survey interviewing, and may account for 10 percent of the Total Respondents, who responded "more than 40¢."

		Bus Rider Usage					Non-riders	Total Respondents
Cost		Heavy %	Moderate %	Light %	Other %	Non-riders %	Total Respondents %	
More than 35¢	Pre	5	8	11	12	4	4	
More than 40¢	Post	16	0	12	5	10*	10	
35¢	Pre	53	23	31	38	5	8	
40¢	Post	32	38	40	57	8	13	
Less than 35¢	Pre	5	15	22	25	6	7	
Less than 40¢	Post	12	12	17	5	4	5	
Senior	Pre	16	31	17	12	1	3	
Citizen Rate	Post	32	13	12	9	1	3	
Pass/Punch	Pre	21	0	8	0	0	1	
Card	Post	8	6	0	5	0	1	
Don't know	Pre	0	15	11	13	84	77	
	Post	0	31	19	19	77	68	
Other	Pre	0	8	0	0	0	0	
	Post	0	0	0	0	0	0	
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)	
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 717)	100% (N = 827)	

*There is a significant difference at the .005 level between the pre and post "more than current cash fare" response for nonriders. The 6 percent increase could be due to reports of an impending fare increase by the press at the time of the post-survey.

Bus Frequency

Respondents were asked if they knew how often the bus came by. The majority of bus riders indicated "yes" to this question. Most nonriders, though, indicated "no" or "don't know," 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	84	62	70	75	11	18
	Post	88	63	60	57	15	22
No	Pre	11	7	8	0	36	33
	Post	0	12	13	0	17*	15
Don't know	Pre	5	31	22	25	53	49
	Post	12	25	27	43	67*	62
Other	Pre	0	0	0	0	0	0
	Post	0	0	0	0	1	1
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

*There is a significant difference, pre to post, between the "no" response (.001 level) and the "don't know" response (.05 level) for nonriders. Post-survey results show a 4 percent increase in bus frequency awareness.

Bus Information

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

<u>Bus Information</u>		<u>Bus Rider Usage</u>				<u>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	92	72	75	54	57
	Post	96	81	83	62	64	66
No	Pre	10	0	28	25	40	37
	Post	4	19	15	24	31	29
Don't know	Pre	0	8	0	0	6	6
	Post	0	0	2	14	5	5
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 719)	100% (N = 829)

*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of nonrider responses. Most pre-survey nonriders (54 percent) and significantly more post-survey nonriders (64 percent) replied they knew how to obtain bus information, yet chose not to use their local bus service.

Special Services for the Elderly

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

<u>Elderly Services</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	90	77	75	76	79	69
	Post	96	82	81	86	80	74
No	Pre	5	8	6	12	7	13
	Post	0	6	4	0	3*	4
Don't know	Pre	5	15	19	12	14	18
	Post	4	12	15	14	17	22
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

*There is a significant difference at the .01 level between the pre and post "no" response for nonriders. Awareness of HANDI-CAB service has increased slightly. This slight increase is expected, since the service has not been heavily marketed.

Special Services for Handicappers

As with elderly services, respondents were asked if STS 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	95	84	89	75	80	71
	Post	100	88	83	91	86	80
No	Pre	0	8	0	12	7	11
	Post	0	6	4	0	3*	4
Don't know	Pre	5	8	11	13	13	18
	Post	0	6	13	9	11	16
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

*There is a significant difference at the .05 level between the pre and post "no" response for nonriders. Awareness of HANDI-CAB service has increased by 6 percent.

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	10
	Post	13
No	Pre	90
	Post	<u>87</u>
Totals	Pre	100% (N = 805)
	Post	100% (N = 832)

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

<u>Usage</u>			<u>%</u>
Heavy	- Daily or almost every day	Pre	25
		Post	23
Moderate	- Once a week	Pre	17
		Post	14
Light	- Once a month or once a year	Pre	47
		Post	44
Other	- A frequency mentioned other than the above frequencies	Pre	11
		Post	<u>19</u>
Totals		Pre	100% (N = 176)
		Post	100% (N = 110)

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. Heavy users rode the bus for shopping, work, and school purposes. Moderate users mentioned shopping and personal business. Light and other users indicated shopping as their primary purpose for riding the bus.

Bus Rider Usage

<u>(First Choice) Purpose</u>		<u>Bus Rider Usage</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>
Work	Pre	22	0	0	13	7
	Post	28	12	4	5	11
Personal business	Pre	11	27	11	12	14
	Post	4	38	17	5	16
Shopping	Pre	33	46	52	38	45
	Post	40	31	48	70	47
School	Pre	22	9	11	12	14
	Post	12	0	11	0	7
Visits or recreation	Pre	6	0	17	13	11
	Post	0	0	8	15	6
Dining	Pre	0	0	0	12	1
	Post	0	0	0	0	0
Medical	Pre	6	18	0	0	4
	Post	8	13	2	0	4
When I don't have a car/ when car is in garage	Pre	0	0	6	0	3
	Post	0	6	8	5	6
Other	Pre	0	0	3	0	1
	Post	8	0	2	0	3
Totals	Pre	100% (N = 18)	100% (N = 11)	100% (N = 35)	100% (N = 8)	100% (N = 72)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 20)	100% (N = 109)

Other Household Members Transit Usage

Given that a respondent rides the bus is it likely that other household members also ride? Most bus riders and nonriders reported a higher percentage of "no" responses in both the pre- and post-surveys (see Appendix D).

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. The most frequently mentioned responses were children, spouses, and "other" members. The "children" response increased, pre to post, from 45 percent to 53 percent (see Appendix E). This supports STS's increase in School Tripper ridership.

Respondents were then asked: "How often do other members use the bus service?" Heavy users indicated in both pre- and post-surveys a higher percentage of heavy usage by other household members. Pre-survey moderate users indicated primarily moderate usage; post-survey results showed moderate and light usage. Light users reported light usage by other members of the household. And results for nonriders show a tendency towards heavy 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 personal business, shopping, and school purposes in both pre- and post-surveys.

Nearness of Bus Route

The item, "How far do you live from the nearest bus route?" revealed that the majority of bus riders live within one or two blocks of the nearest bus route. Nonriders, however, were about evenly distributed between the "one or two blocks," "one mile or more," and "don't know" responses.

Overall, Saginaw residents have noticed that route improvements have brought the bus closer to their home, as witnessed by the 8 percent increase in "one or two blocks" responses.

Bus Rider Usage

<u>Distance</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>
1 or 2 blocks	Pre	69	69	61	88	23	28
	Post	84	75	67	57	31	36
3 or 4 blocks	Pre	11	16	14	12	10	10
	Post	12	13	17	14	9	10
1/4 to 1/2 mile	Pre	5	15	8	0	7	7
	Post	0	6	6	10	5	5
1/2 - 1 mile	Pre	5	0	0	0	3	3
	Post	0	0	2	9	3	3
1 mile or more	Pre	5	0	11	0	30	28
	Post	4	0	6	5	28	25
Don't know	Pre	5	0	6	0	27	24
	Post	0	6	2	5	24	21
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 718)	100% (N = 828)

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:

(First Choice) Usual Mode		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
		%	%	%	%	%	%
Car	Pre	37	62	59	50	91	87
	Post	24	44	71	62	94	88
Bus	Pre	53	8	8	13	0	2
	Post	64	25	12	29	0	3
Friends or relatives take me	Pre	0	15	22	25	6	7
	Post	4	19	13	9	6	8
Bike, motorcycle	Pre	5	0	3	0	1	1
	Post	0	0	0	0	0	0
Senior Citizen's or Handicapper Van	Pre	5	15	0	0	0	1
	Post	4	0	0	0	0	0
Usually walk	Pre	0	0	8	12	2	2
	Post	4	12	4	0	0	1
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

"Car" was cited as the usual means of transportation. The highest percentage occurred for nonriders; the lowest percentage was recorded for heavy users. Heavy users primarily rely on the bus for their transportation needs.

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	42	54	39	25	30	31
	Post	24	37	50	29	36	37
2	Pre	5	15	14	38	45	43
	Post	16	19	31	24	42	39
3	Pre	0	0	11	12	14	13
	Post	0	0	2	14	12	11
4 or more	Pre	5	0	5	0	6	5
	Post	0	0	4	5	6	5
0	Pre	48	31	31	25	5	8
	Post	60	44	13	28	4	8
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 19)	(N = 13)	(N = 36)	(N = 8)	(N = 724)	(N = 800)
	Post	100%	100%	100%	100%	100%	100%
		(N = 25)	(N = 16)	(N = 48)	(N = 21)	(N = 721)	(N = 831)

Bus riders, pre and post, basically reported no cars or only one auto in their household. As expected, nonriders reported two or more cars. Overall, the number of one car households is increasing, while two and three car households are declining. The potential for new bus riders is increasing as the number of one car households increases.

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>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>Non-riders</u>	
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	Pre	47	69	56	50	90	85
	Post	12	38	71	48	87	81
No	Pre	48	31	39	25	7	12
	Post	72	56	21	43	8	13
Sometimes	Pre	5	0	0	13	2	2
	Post	16	0	4	5	4	4
Other	Pre	0	0	5	12	1	1
	Post	0	6	4	4	1	2
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

Pre-survey heavy users were about evenly split between the "yes" and "no" responses, while 72 percent in the post-survey replied they did not normally have a vehicle available for their use. Most pre-survey moderate users indicated "yes," while 56 percent in the post-survey replied "no." Light and other users and nonriders reported they did normally have a vehicle available in both surveys.

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. Second and third ranking for both surveys was "doesn't stop near me, or I live in the country," and "no reason."

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

(First Choice) <u>Reasons for Not Riding the Bus</u>	<u>Pre %*</u>	<u>Post %*</u>
Don't need to, have a car	48	63
Doesn't stop near me or I live in the country	28	17
No reason	13	11
Doesn't go <u>where</u> I want to go	4	2
It's inconvenient	3	2
Other	2	4
Just never thought about it or got around to it	<u>2</u>	<u>1</u>
Totals	100% (N = 720)	100% (N = 715)

*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 results show a significant increase in the percentage of nonriders who don't ride the bus because they have a car. Eleven percent (11%) fewer said the bus "doesn't stop near me, or I live in the country," indicating that these nonriders appear to be aware that STS route changes and additions have brought the bus closer to them.

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." It is difficult to judge what, if any effect, talk of an impending 10¢ fare increase had on the high level of support for the post-survey 40¢ fare.

<u>Do You Think This Fare is:</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> %	
Too Much	Pre	5	10	6	0	6	6
	Post	4	18	18	6	7	9
Not enough	Pre	0	0	3	0	5	4
	Post	4	0	2	6	4	4
Just right	Pre	95	90	78	86	79	81
	Post	84	82	77	88	76	78
Don't know	Pre	0	0	10	0	7	6
	Post	4	0	3	0	11	7
Other	Pre	0	0	3	14	3	3
	Post	4	0	0	0	2	2
Totals	Pre	100% (N = 19)	100% (N = 10)	100% (N = 32)	100% (N = 7)	100% (N = 115)	100% (N = 183)
	Post	100% (N = 25)	100% (N = 11)	100% (N = 39)	100% (N = 17)	100% (N = 167)	100% (N = 259)

Closer Routes

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

<u>Closer Routes</u>		<u>Bus Rider Usage</u>					<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>			
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Yes	Pre	39	23	20	12	20	21	
	Post	9	7	18	5	15	14	
No	Pre	22	54	65	50	48	48	
	Post	82	86	74	50	55	58	
Don't know	Pre	0	0	3	0	3	2	
	Post	0	0	0	0	2	2	
Maybe	Pre	17	8	6	0	13	12	
	Post	0	7	2	15	12	11	
Probably not	Pre	5	15	6	38	16	16	
	Post	0	0	2	20	15	13	
Other	Pre	17	0	0	0	0	1	
	Post	9	0	4	10	1	2	
Totals	Pre	100% (N = 18)	100% (N = 13)	100% (N = 34)	100% (N = 8)	100% (N = 529)	100% (N = 602)	
	Post	100% (N = 23)	100% (N = 14)	100% (N = 46)	100% (N = 20)	100% (N = 538)	100% (N = 641)	

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 pre to post decrease in "yes" responses for bus riders could indicate that recent route changes have met the needs of some riders.

Frequency of Service

Respondents were asked if they would use the bus more if it came by more frequently. The results, as shown below, indicate that bus riders and nonriders would not use the bus more if it came by more frequently. The overall decrease in "yes" responses appears to indicate that service changes have met the needs of some respondents.

		<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>More Frequent Service</u>		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Yes	Pre	19	0	15	17	15	15	
	Post	14	17	9	17	5	7	
No	Pre	25	88	50	50	66	58	
	Post	52	75	79	42	84	78	
Don't know	Pre	13	0	8	0	1	4	
	Post	0	0	6	8	2	3	
Maybe	Pre	12	0	12	0	7	8	
	Post	10	0	0	16	3	4	
Probably not	Pre	19	12	15	33	11	14	
	Post	14	8	6	17	5	7	
Other	Pre	12	0	0	0	0	1	
	Post	<u>10</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	
Totals	Pre	100% (N = 16)	100% (N = 8)	100% (N = 26)	100% (N = 6)	100% (N = 98)	100% (N = 154)	
	Post	100% (N = 21)	100% (N = 12)	100% (N = 33)	100% (N = 12)	100% (N = 178)	100% (N = 256)	

*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 percentage decrease in "yes" responses and an increase in "no" and "probably not" (considered together).

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/post = 75 percent/76 percent - 100 percent), whereas this was only true for 39 percent of the pre-survey nonriders and 61 percent of the post-survey nonriders.

Bus Rider Usage

<u>Serve Areas</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>
Yes	Pre	100	92	84	75	39	44
	Post	100	88	92	76	61*	65
No	Pre	0	0	8	13	33	30
	Post	0	12	0	14	15*	14
Don't know	Pre	0	8	8	12	28	26
	Post	0	0	8	10	24	21
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

*Among nonriders there is a significant difference at the .001 level between the pre and post "yes" and "no" response. Significantly more post-survey nonriders indicated that the bus system served the areas they frequently traveled. The addition of Fashion Square Mall service could account for much of the change.

Effects of Gasoline Prices

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

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

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

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

The results indicate that gasoline prices apparently affected both bus riders and nonriders. Those bus riders who indicated "no" to this question may depend on STS 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." The only exception was for pre-survey heavy users who indicated "other" improvements.

Overall, improvements in STS since the initial survey appear to be meeting the needs of Saginaw residents. Opinions regarding more convenient routes, closer stops, more frequent service, more bus shelters, and better route and schedule information declined in the follow-up survey. Expanded service hours and "other" improvements were the only areas showing an increased need among Saginaw residents.

Bus Rider Usage

<u>(First Choice) Improvements</u>		<u>Heavy</u> %	<u>Moderate</u> %	<u>Light</u> %	<u>Other</u> %	<u>Non-riders</u> %	<u>Total Respondents</u> %
Lower fares	Pre	0	0	0	0	0	0
	Post	0	0	2	0	0	0
More convenient routes	Pre	11	8	8	25	7	7
	Post	4	6	0	0	4	4
Closer stops	Pre	5	8	6	0	10	10
	Post	0	0	6	5	10	9
More frequent service	Pre	5	0	3	0	1	1
	Post	0	0	0	0	0	0
More bus shelters	Pre	5	0	0	12	0	1
	Post	8	0	0	0	0	0
Faster service	Pre	0	0	3	0	0	0
	Post	0	0	4	0	0	0
Expanded service hours	Pre	0	0	5	0	2	2
	Post	24	12	2	14	3	4
Better route and schedule information	Pre	0	0	5	0	6	5
	Post	0	0	0	0	3	3
Other	Pre	48	15	14	25	12	13
	Post	4	19	9	9	17	16
No changes needed	Pre	26	69	56	38	57	56
	Post	60	63	77	67	59	60
I would not use the bus in any case	Pre	0	0	0	0	5	5
	Post	0	0	0	5	4	4
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 47)	100% (N = 21)	100% (N = 718)	100% (N = 827)

DEMOGRAPHICS

Sex

In general, female bus riders and nonriders outnumbered male bus riders and nonriders in both surveys. The table, as shown in Appendix M, illustrates the percentage of male and female respondents across ridership and nonrider groups.

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

<u>(First Choice) Purpose</u>	<u>Bus Riders</u>			
	<u>Pre (%)</u>	<u>Male</u> <u>Post (%)</u>	<u>Pre (%)</u>	<u>Female</u> <u>Post (%)</u>
Shopping	37	36	47	51
Work	16	14	4	10
School	16	4	13	9
Visits or recreation	16	4	9	7
Personal business	10	21	15	14
When I don't have a car/ when car is in garage	5	14	2	2
Dining	0	0	2	0
Medical	0	4	6	5
Other	<u>0</u>	<u>3</u>	<u>2</u>	<u>2</u>
Totals	100% (N = 19)	100% (N = 28)	100% (N = 53)	100% (N = 82)

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

"Shopping" was the most frequently mentioned purpose for using the bus service by males and females in both surveys. Pre-survey males followed with "work," "school," and "visits or recreation" (each cited with a 16 percent frequency). Post-survey males, and pre- and post-survey females followed with "personal business."

Age

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

(First Choice) Purpose		Age Groups				No Response
		16-20	21-39	40-60	Older Than	
		Years	Years	Years	60 Years	
		%	%	%	%	%
Work	Pre	0	14	10	4	0
	Post	5	18	11	6	0
Personal business	Pre	0	23	10	16	0
	Post	14	5	22	24	0
Shopping	Pre	43	32	50	52	100
	Post	48	42	45	55	0
School	Pre	36	18	10	0	0
	Post	24	8	0	0	0
Visits or recreation	Pre	14	9	10	12	0
	Post	9	5	11	3	0
Dining	Pre	0	0	0	4	0
	Post	0	0	0	0	0
Medical	Pre	0	0	10	8	0
	Post	0	8	0	6	0
When I don't have a car when car is in garage	Pre	7	0	0	4	0
	Post	0	11	11	0	0
Other	Pre	0	4	0	0	0
	Post	0	3	0	6	0
Totals	Pre	100%	100%	100%	100%	100%
		(N = 14)	(N = 22)	(N = 10)	(N = 25)	(N = 1)
	Post	100%	100%	100%	100%	0%
		(N = 21)	(N = 38)	(N = 18)	(N = 33)	(N = 0)

Sixteen to 20 year-old riders used the bus primarily for shopping and school purposes. Shopping also was mentioned more frequently by riders, 21-39 years old, 40-60 years old, and the older than 60 years age group.

As the age groups increased in years, the percentage of males comprising each age group tended to decrease. For example, 37 percent of the pre-survey males were in the 16-20 year-old group compared with 20 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. Sixty-three percent (63%) of the pre-survey females were in the 16-20 year-old group compared with 80 percent, older than 60 years (see Appendix N).

Appendix O lists the various age groups with the percentage of bus riders and nonriders comprising each age group. The 21-39 year-old group and the older than 60 years group contained the highest percentage of bus riders. Most nonriders were between 21-39 years old and 40-60 years old.

Occupation

By sex, the distribution of occupations is shown in Appendix P. In rank order, 19 percent of the pre-survey males were skilled/semi-skilled, 17 percent retired, and 14 percent professional. Twenty-eight percent (28%) of the post-survey males were retired and 12 percent, each, for skilled/semi-skilled and unskilled labor. Pre- and post-survey females reported an identical ranking of homemaker (40 percent/38 percent), retired (19 percent/24 percent), and professional (10 percent/7 percent).

By age groups, the distribution of occupations is shown in Appendix Q. As expected, the majority of respondents between the ages of 16-20 were students. Approximately a third of the pre- and post-survey respondents between the ages of 21-39 were homemakers. First ranking for 40-60 year-old respondents also was homemaker. Retired was cited more frequently by the older than 60 years group.

Based upon ridership groups, the distribution of occupations is shown in the following table. Student, homemaker, and retired were the three most frequently mentioned occupations by bus riders. Nonriders primarily reported homemaker, retired, and the professional categories.

Bus Rider Usage

<u>(First Choice) Occupation</u>		<u>Heavy</u> <u>%</u>	<u>Moderate</u> <u>%</u>	<u>Light</u> <u>%</u>	<u>Other</u> <u>%</u>	<u>Non- riders*</u> <u>%</u>	<u>Total Respondents</u> <u>%</u>
General office/ clerical	Pre	5	0	3	0	6	5
	Post	4	0	2	0	4	4
Management	Pre	0	0	0	0	2	2
	Post	0	0	2	5	2	1
Government	Pre	5	0	0	12	1	1
	Post	0	0	2	0	1	1
University	Pre	0	0	0	0	1	0
	Post	0	0	0	0	0	0
Proprietor	Pre	0	0	0	0	1	1
	Post	0	0	2	0	2	1
Professional	Pre	5	7	6	0	13	11
	Post	8	0	7	4	7	7
Sales	Pre	0	0	10	0	4	3
	Post	0	6	2	0	5	4
Skilled/semi- skilled	Pre	5	8	0	25	7	6
	Post	0	0	2	5	5	5
Technical	Pre	5	0	0	0	2	2
	Post	8	7	4	0	2	2
Service worker	Pre	11	0	3	0	5	5
	Post	8	0	2	0	3	4
Unskilled labor	Pre	0	0	3	0	4	4
	Post	0	7	2	5	5	4
High school or college student	Pre	16	8	19	12	5	6
	Post	13	13	15	19	6	7
Homemaker	Pre	16	23	22	13	27	29
	Post	8	7	17	24	30	28
Retired	Pre	21	46	28	38	16	19
	Post	34	27	28	24	21	25
Not employed	Pre	11	8	6	0	6	6
	Post	<u>17</u>	<u>33</u>	<u>13</u>	<u>14</u>	<u>7</u>	<u>7</u>
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 32)	100% (N = 8)	100% (N = 657)	100% (N = 729)
	Post	100% (N = 24)	100% (N = 15)	100% (N = 47)	100% (N = 21)	100% (N = 705)	100% (N = 812)

*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of nonrider responses. Significant changes include a decrease, pre to post, in the percentage of general office/clerical, professional, and skilled/semi-skilled occupations, and an increase in the percentage of retired.

ADVERTISING AWARENESS

Radio Station Listening

Respondents were asked if they had heard any STS radio announcements. The majority of bus riders and nonriders indicated they had not heard any STS radio announcements. Those who did hear announcements were noted more in the post-survey than in the pre-survey. (Heavy and other users were the only exceptions.)

The following table shows the results to the question:

<u>Heard Announcements?</u>		<u>Bus Rider Usage</u>				<u>Non-riders</u>	<u>Total Respondents</u>
		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	32	15	22	50	23	23
	Post	32	25	38	43	31*	32
No	Pre	63	85	78	50	74	74
	Post	64	75	62	57	65	64
Don't know	Pre	5	0	0	0	3	3
	Post	4	0	0	0	4	4
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 47)	100% (N = 21)	100% (N = 720)	100% (N = 829)

*There is a significant difference at the .05 level between the pre and post "yes or think so" response for nonriders. There was an increase, pre to post, in the percentage of nonriders who heard STS radio announcements.

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

The most frequently mentioned stations by riders and nonriders were WSAM, WSGW, and WWWS. Since the initial survey, STS advertised regularly on WSGW, WWWS, and WSAM, and occasionally on WKCQ, WHNN and, W106. The survey results mirror STS's radio advertising buys.

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>
W106	Pre	0	0	0	0	4	3
	Post	12	50	0	11	7	8
WGER	Pre	0	0	0	0	1	2
	Post	0	0	0	0	2	2
WHNN	Pre	0	0	12	0	5	5
	Post	0	0	0	0	4	3
WKCQ	Pre	0	0	0	0	3	2
	Post	0	0	0	0	1	1
WKNX	Pre	0	50	12	0	3	4
	Post	0	0	0	0	2	1
WRDD	Pre	0	0	0	25	0	1
	Post	0	0	0	0	0	0
WSAM	Pre	0	0	0	0	13	11
	Post	12	0	12	11	13	13
WSGW	Pre	0	0	0	0	12	11
	Post	25	0	19	0	21	20
WWWS	Pre	33	0	38	25	5	8
	Post	25	25	38	45	8	12
Other	Pre	17	0	0	25	6	6
	Post	13	0	6	11	6	6
Don't know	Pre	50	50	38	25	48	47
	Post	13	25	25	22	36	34
Totals	Pre	100% (N = 6)	100% (N = 2)	100% (N = 8)	100% (N = 4)	100% (N = 155)	100% (N = 175)
	Post	100% (N = 8)	100% (N = 4)	100% (N = 16)	100% (N = 9)	100% (N = 202)	100% (N = 239)

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

		Bus Rider Usage					Total Respondents
<u>Regularly Listen?</u>		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>Non-riders</u>	<u>%</u>
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Yes	Pre	74	62	72	75	76	75
	Post	72	69	81	67	62*	63
No	Pre	26	38	28	25	22	23
	Post	28	31	19	33	37*	36
Other	Pre	0	0	0	0	2	2
	Post	0	0	0	0	1	1
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 19)	(N = 13)	(N = 36)	(N = 8)	(N = 724)	(N = 800)
	Post	100%	100%	100%	100%	100%	100%
		(N = 25)	(N = 16)	(N = 47)	(N = 21)	(N = 720)	(N = 829)

*There is a significant difference among nonriders between the two surveys due to a change in the "yes" response (.05 level) and "no" response (.001 level). The results indicate that fewer post-survey nonriders are regular radio listeners, compared to pre-survey findings.

Television Station Viewing

As with radio, respondents were asked if they had seen any STS television announcements. Most bus riders and nonriders had not seen any STS television announcements; however, those who had were noted more in the post-survey than the pre-survey.

The following table lists the responses to this question:

		<u>Bus Rider Usage</u>					<u>Total Respondents</u>
<u>Seen Announcements?</u>		<u>Heavy</u>	<u>Moderate</u>	<u>Light</u>	<u>Other</u>	<u>Non-riders</u>	
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes or think so	Pre	5	8	6	0	9	9
	Post	24	19	13	24	17*	17
No	Pre	90	92	94	100	88	88
	Post	68	81	79	76	78	78
Don't know	Pre	5	0	0	0	3	3
	Post	8	0	8	0	5	5
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 47)	100% (N = 21)	100% (N = 720)	100% (N = 829)

*There is a significant difference at the .001 level between the pre and post "yes or think so" response for nonriders. More post-survey nonriders reported they had seen STS TV announcements. This could be due to STS's greater visibility on the TV newscasts. (STS has never purchased TV advertisements.)

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

Bus Rider Usage

<u>TV Stations</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>
WEYI Ch. 25	Pre	100	0	0	0	12	15
	Post	17	0	0	0	7	6
WNEM Ch. 5	Pre	0	0	0	0	15	15
	Post	0	0	25	0	10	10
WJRT Ch. 12	Pre	0	100	50	0	28	28
	Post	0	0	0	0	2*	2
WUCM Ch. 19	Pre	0	0	0	0	0	0
	Post	67	33	50	50	44*	45
Other	Pre	0	0	0	0	1	1
	Post	0	0	0	0	0	0
Don't know	Pre	0	0	50	0	44	41
	Post	<u>16</u>	<u>67</u>	<u>25</u>	<u>50</u>	<u>37</u>	<u>37</u>
Totals	Pre	100% (N = 1)	100% (N = 1)	100% (N = 2)	0% (N = 0)	100% (N = 68)	100% (N = 72)
	Post	100% (N = 6)	100% (N = 3)	100% (N = 4)	100% (N = 4)	100% (N = 105)	100% (N = 122)

*There is a significant difference at the .001 level between the pre and post "WJRT" and "WUCM" response for nonriders. Since the initial survey, STS appeared twice on the "Day by Day" show on WUCM. It appears as though this TV exposure resulted in significant publicity for the system.

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
Regularly Watch?		Heavy %	Moderate %	Light %	Other %		%	
Yes	Pre	79	85	89	88	76	76	
	Post	92	81	85	71	72	73	
No	Pre	21	15	11	12	22	22	
	Post	8	13	15	29	27	25	
TV's broken or don't have TV	Pre	0	0	0	0	0	0	
	Post	0	6	0	0	0	1	
Other	Pre	0	0	0	0	2	2	
	Post	0	0	0	0	1	1	
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)	
	Post	100% (N = 25)	100% (N = 16)	100% (N = 47)	100% (N = 21)	100% (N = 720)	100% (N = 829)	

Newspaper Readership

Respondents were asked if they had seen any STS newspaper ads. Most pre-survey bus riders and nonriders said "no." Post-survey responses for bus riders were primarily "yes or think so;" nonriders were nearly equal between "yes" and "no" responses.

		<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	32	31	33	38	25	26
	Post	60	56	62	48	46*	48
No	Pre	63	61	61	37	70	69
	Post	40	44	36	48	50*	48
Don't know	Pre	5	8	6	25	5	5
	Post	0	0	2	4	4	4
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 47)	100% (N = 21)	100% (N = 719)	100% (N = 828)

*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. Among nonriders there is a significant difference at the .001 level between the pre and post "yes or think so" and "no" response. STS advertised heavily in the newspaper since the initial survey, and the significant increase in recall for light users and nonriders mirror the newspaper buys.

Listed below are Saginaw area newspapers with the percentages of respondents who saw ads in specific newspapers. An overwhelming majority of bus riders and nonriders saw STS newspaper ads more often in the Saginaw News than in any other newspaper.

Bus Rider Usage

<u>Newspapers</u>		<u>Heavy</u> <u>%</u>	<u>Moderate</u> <u>%</u>	<u>Light</u> <u>%</u>	<u>Other</u> <u>%</u>	<u>Non-riders</u> <u>%</u>	<u>Total Respondents</u> <u>%</u>
Saginaw News	Pre	100	75	100	100	97	96
	Post	100	100	100	100	100	100
Other	Pre	0	0	0	0	1	2
	Post	0	0	0	0	0	0
Don't know	Pre	0	25	0	0	2	2
	Post	0	0	0	0	0	0
Totals	Pre	100% (N = 6)	100% (N = 4)	100% (N = 12)	100% (N = 3)	100% (N = 175)	100% (N = 200)
	Post	100% (N = 15)	100% (N = 8)	100% (N = 30)	100% (N = 9)	100% (N = 312)	100% (N = 374)

Respondents were asked if they regularly read a local newspaper. The majority of bus riders and nonriders replied "yes" to this question. Heavy and light users and nonriders reported a pre to post increase in newspaper readership, as indicated in the table below:

		Bus Rider Usage					Total Respondents
<u>Regularly Read?</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>	<u>%</u>
Yes	Pre	48	69	55	88	66	65
	Post	76	56	77	62	69	69
No	Pre	26	8	28	0	21	21
	Post	16	25	17	14	22	22
Sometimes	Pre	26	23	14	12	12	13
	Post	8	19	6	24	9	9
Other	Pre	0	0	3	0	1	1
	Post	0	0	0	0	0	0
Totals	Pre	100%	100%	100%	100%	100%	100%
		(N = 19)	(N = 13)	(N = 36)	(N = 8)	(N = 724)	(N = 800)
	Post	100%	100%	100%	100%	100%	100%
		(N = 25)	(N = 16)	(N = 48)	(N = 21)	(N = 719)	(N = 829)

Other Media Exposure

Respondents were asked if there were any other places they had seen, heard or read advertisements or otherwise obtained information about STS. Most of the bus riders and nonriders indicated they had not obtained information about STS from any other source than those previously listed.

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	42	31	14	38	22	22
	Post	24	19	27	43	28	28
No	Pre	58	61	83	50	74	74
	Post	76	81	69	43	64	64
Don't know	Pre	0	8	3	12	4	4
	Post	0	0	4	14	8	8
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 722)	100% (N = 798)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 718)	100% (N = 828)

*There is a significant difference at the .001 level between the two surveys due to a change in the distribution on nonrider responses. The results indicate a pre to post increase in the percentage of nonriders who obtained information about STS from sources other than radio, TV, and newspaper announcements.

Of those who had obtained information from another place, "billboards," "displays," "other" media, and "ads for stores/institutions which mention that they can be reached by bus" were the most common places cited.

"Displays" and "other" places were the two mediums showing an overall pre to post increase in recognition.

The specific breakdown is as follows:

Places?		Bus Rider Usage					Non-riders	Total Respondents
		Heavy	Moderate	Light	Other			
		%	%	%	%	%	%	
Billboards	Pre	25	50	20	0	27	27	
	Post	0	0	28	50	11*	13	
Bulletin boards	Pre	12	0	0	33	5	6	
	Post	0	0	0	0	5	4	
Displays	Pre	12	0	0	0	4	4	
	Post	17	67	27	12	15*	16	
News articles	Pre	0	0	20	67	18	17	
	Post	0	0	9	13	18	17	
Other	Pre	38	25	0	0	37	35	
	Post	33	33	27	25	43	41	
Ad for stores/ institutions which mention that they can be reached by bus	Pre	13	25	60	0	9	11	
	Post	50	0	9	0	8	9	
Totals	Pre	100% (N = 8)	100% (N = 4)	100% (N = 5)	100% (N = 3)	100% (N = 158)	100% (N = 178)	
	Post	100% (N = 6)	100% (N = 3)	100% (N = 11)	100% (N = 8)	100% (N = 190)	100% (N = 218)	

*There is a significant difference at the .05 level between the pre and post "billboards" and "displays" responses for nonriders. STS Transit Information Racks and Energy Expo displays could account for the 11 percent increase in "displays" responses.

CONCLUSIONS

The main purpose of the follow-up survey was to evaluate the effectiveness of STS 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, followed by radio, "other" media, and television. Inspection of the Total Respondents column in the table below, shows that pre-survey recall of newspaper ads was 26 percent, increasing to 48 percent in the post-survey. Radio followed with 23 percent recall in the pre-survey, increasing to 32 percent in the post-survey. "Other" media increased in recognition from 22 percent in the pre-survey to 28 percent in the post-survey. And television increased overall in pre to post recall from 9 percent to 17 percent.

The medium which received the most increase in recognition, pre to post, varied depending on the ridership group reporting. Follow-up results for newspapers show a higher percentage of recall over initial survey results for heavy, moderate, and light users, and nonriders. For heavy users there was a 28 percent increase; moderate users, 25 percent; light users, 29 percent; and nonriders, 21 percent. Follow-up results for television show a higher percentage of recall over initial survey results for other users with a 24 percent increase.

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

MEDIUM Respondents Who Heard, Saw, or Read Ads		Bus Rider Usage					Total Respondents
		Heavy %	Moderate %	Light %	Other %	Non- riders %	
RADIO							
"Yes or think so"	Pre	32	15	22	50	23	23
	Post	32	25	38	43	31	32
TELEVISION							
"Yes or think so"	Pre	5	8	6	0	9	9
	Post	24	19	13	24	17	17
NEWSPAPER							
"Yes or think so"	Pre	32	31	33	38	25	26
	Post	60	56	62	48	46	48
"OTHER"							
"Yes or think so"	Pre	42	31	14	38	22	22
	Post	24	19	27	43	28	28

Newspapers may have received more recognition, pre to post, by heavy, moderate, and light users, and nonriders, because it was used extensively as part of STS's marketing efforts during the time from the initial survey to the follow-up survey. Residents in the STS service area were exposed to newspaper advertising (along with other media) for the following projects:

Total System Revision - to introduce STS route and schedule improvements.

Passport Bus Pass - to inform riders of the convenience of the monthly bus pass and stimulate sales.

1981 Energy Expo - to increase recognition of STS.

Shop By Bus - to inform the public of STS service to shopping centers

New Bus Introduction - to inform residents of new bus features.

Saginaw students and parents were informed of the convenience of the Student Bus Pass via newspapers. Saginaw Township residents were informed of the new bus, and downtown monthly parkers and Saginaw area commuters were informed of the cost savings by commuting to work via STS buses.

Newspapers were an effective medium for the bus riders and nonriders previously mentioned, because the survey results indicated that, overall, newspaper readership increased, while radio and television use declined. Those respondents who regularly read the newspaper increased, pre to post, from 65 percent to 69 percent. Radio and television use declined from 75 percent to 63 percent, and 76 percent to 73 percent, respectively. The table below highlights these findings and summarizes parts from three tables in the section on "Advertising Awareness:"

MEDIUM Respondents Who Regularly Listened, Watched or Read Medium		Bus Rider Usage				Non- riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %		
RADIO "Yes"	Pre	74	62	72	75	76	75
	Post	72	69	81	67	62	63
TELEVISION "Yes"	Pre	79	85	89	88	76	76
	Post	92	81	85	71	72	73
NEWSPAPER "Yes"	Pre	48	69	55	88	66	65
	Post	76	56	77	62	69	69

STS 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:

Coupons

Timetables

Exterior and interior bus signs

Posters

Ceremonies

Transfer Point Signs

1980 and 1981 City Calendars

School Tripper Service Timetables

Monthly pass

Counter cards

Sales forms

Santa Promotion (Santa suit and candy canes)

Saginaw area Telephone Directory - yellow pages ad

Fliers

Form letters

Surveys

Window Decals

Ride 'n Shop Ticket

Slide-tape presentation

Commuter Computer

Contest

Key Tags

Bus Displays

Reception

Premiere Ticket

STS's goal of increased ridership was met when more than 1.1 million riders were served in 1981. This represented an increase of 48 percent over 1980 figures. This was attributable not only to the marketing efforts, but also, in part, to the introduction of STS's fleet of advanced-design Grumman Flixible buses in the fall of 1981. The increase in ridership also was achieved despite reports of an impending fare increase by the press at the time of the post-survey.

IMPLICATIONS FOR FUTURE RESEARCH

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

1. It is suggested that the follow-up survey be conducted during the same time of year as the initial survey. This would prevent any seasonal fluctuation from affecting the results, such as a heavier expenditure of advertising dollars in one part of the year over another. The original intention of this study was that the follow-up survey be conducted one year after the initial survey; however, a lapse of approximately 21 months occurred. This was due to departmental personnel cuts in the Surveys Section and the longer than expected lead time to install additional temporary telephone lines.
2. The initial and follow-up telephoning should be conducted on the same days, and during the same time of day, i.e., consistent interviewing days and hours from pre-survey to post-survey. Interviews for the initial survey were conducted during the hours of 12 noon - 8 p.m., Monday through Thursday. Post-survey interviewing was conducted during the hours of 9 a.m. to 6 p.m., Monday through Thursday and 9 a.m. to 4:30 p.m. on Friday. Again, this was due to scheduling problems in the Surveys Section.
3. Use of a closed-end questionnaire, one in which the possible answers are prescribed for the respondents, limits valuable information that could be gained if an open-end questionnaire had been used. An open-end questionnaire is one to which the respondent is free to answer in his own words. (Question 2., which asks for the specific name of the transit system in each city, was the only open-end question; all other questions were closed-end.) The sheer size of the sample and scope of the study precluded the use of an open-end questionnaire.

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

APPENDICES

APPENDIX A

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

RESPONDENT: _____

ADDRESS: _____ REFUSAL: _____

PHONE NUMBER: _____ COMPLETION: _____

INTERVIEWER INITIALS: _____

** INSTRUCTIONS TO INTERVIEWERS ** RESCHEDULE:

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

* * * * *

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

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

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

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

- A _____ YES OR THINK SO
- B _____ NO (IF NO, GO TO QUESTION 32)
- C _____ DON'T KNOW (GO TO QUESTION 32)

2. What is the name of it?

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

- A _____ YES (IF YES, GO TO 5)
- B _____ NO (IF NO, GO TO 4 THEN 7)
- C _____ DON'T KNOW (GO TO 4 THEN 7)

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

- A _____ NO
- B _____ DON'T NEED TO, HAVE A CAR
- C _____ DOESN'T STOP NEAR ME, (OR) I LIVE IN THE COUNTRY
- D _____ DOESN'T GO WHERE I WANT TO GO
- E _____ DOESN'T GO WHEN I WANT TO GO
- F _____ TAKES TOO LONG
- G _____ COSTS TOO MUCH
- H _____ IT'S INCONVENIENT
- I _____ IT'S UNRELIABLE
- J _____ IT'S UNCOMFORTABLE
- K _____ IT'S NOT SAFE
- L _____ I DON'T LIKE BUSES
- M _____ I DON'T LIKE THE PEOPLE WHO RIDE BUSES
- N _____ JUST NEVER THOUGHT ABOUT IT OR GOT AROUND TO IT .
- O _____ OTHER

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

- A _____ ONCE A YEAR
- B _____ ONCE A MONTH
- C _____ ONCE A WEEK
- D _____ ALMOST EVERY DAY

E _____ DAILY

F _____ OTHER

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

A _____ WORK

B _____ PERSONAL BUSINESS

C _____ SHOPPING

D _____ SCHOOL

E _____ VISITS OR RECREATION

F _____ DINING

G _____ MEDICAL

H _____ WHEN I DON'T HAVE A CAR/WHEN CAR IS IN GARAGE

I _____ OTHER (SPECIFY _____)

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

A _____ YES

B _____ NO (IF NO, GO TO 10)

C _____ DON'T KNOW (GO TO 10)

IF THEY MENTION WHO, CHECK:

7a. A _____ HUSBAND/WIFE

B _____ SON/DAUGHTER/CHILDREN

C _____ MOTHER/FATHER

D _____ ROOMMATE

E _____ OTHER (SPECIFY _____)

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

A _____ ONCE A YEAR

B _____ ONCE A MONTH

C _____ ONCE A WEEK

D _____ ALMOST EVERY DAY

E _____ DAILY

F _____ OTHER

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

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

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

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

11. Do you think this fare is:

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

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

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

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

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

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

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

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

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

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

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

17. Do you know how to obtain bus information?

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

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

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

Response:

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

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

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

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

- A LOWER FARES
- B MORE CONVENIENT ROUTES
- C CLOSER STOPS
- D MORE FREQUENT SERVICE
- E MORE BUS SHELTERS
- F FASTER SERVICE
- G MORE COURTEOUS DRIVERS
- H EXPANDED SERVICE HOURS
- I AVAILABLE CHANGE
- J BETTER TRANSFER SYSTEM
- K BETTER ROUTE AND SCHEDULE INFORMATION
- L OTHER
- M NO CHANGES NEEDED

N _____ I WOULD NOT USE THE BUS IN ANY CASE

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

Have you heard any _____ radio announcements?

A _____ YES (GO TO QUESTION 22) OR THINK SO

B _____ NO (GO TO QUESTION 23)

C _____ DON'T KNOW (GO TO QUESTION 23)

D _____ OTHER

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

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

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

LANSINGGRKZOOAASAGINAW

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

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

KZOO

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

SAGINAW

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

GR

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

AA

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

29. Do you regularly read a local newspaper?

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

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

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

31. Where?

- A BILLBOARDS
- B BULLETIN BOARDS
- C DISPLAYS
- D NEWS ARTICLES
- E OTHER

F _____ AD FOR STORES/INSTITUTIONS WHICH MENTION THAT THEY CAN BE REACHED BY BUS

32. Does _____ have special bus services for elderly people?

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

33. Does _____ have special bus services for handicapped people?

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

34. What is your usual means of transportation?

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

35. How many automobiles does your household have?

- A _____ 1
- B _____ 2
- C _____ 3
- D _____ 4 or more
- E _____ 0

36. Is a vehicle normally available for your use?

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

37. Which of these age groups are you in?

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

38. What is your occupation?

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

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

APPENDIX B
SAGINAW
TELEPHONE EXCHANGES SURVEYED

<u>Exchange Prefix</u>	<u>Numbers Called</u>	
	<u>Pre-Survey</u>	<u>Post-Survey</u>
752	140	238
753	192	240
754	185	201
755	183	197
770	49	28
777	220	240
781	215	--
790	43	120
792	259	334
793	207	188
799	180	204
Totals	1,873	1,990

APPENDIX C

SAGINAW
INTERVIEW SAMPLING RESULTS

	<u>Pre-Survey</u>	<u>Post-Survey</u>
Start Date	April 28, 1980	November 25, 1981
Finish Date	June 6, 1980	December 8, 1981
Ratio	1:20	1:20
Interviews Taken	1,098	1,000
Disconnected or Changed	159	205
Refusals	255	246
Businesses*	25	70
No Answer**	<u>336</u>	<u>469</u>
Numbers Called	1,873	1,990

*Businesses were not included in the surveys.

**Numbers tried three times with no answer.

APPENDIX D

OTHER MEMBERS' TRANSIT USAGE

Other Members' Transit Usage		Bus Rider Usage					Non- riders*	Total Respondents
		Heavy %	Moderate %	Light %	Other %			
Yes	Pre	37	39	28	25	5	7	
	Post	44	50	26	29	7	11	
No	Pre	63	46	72	75	95	92	
	Post	52	50	70	71	92	88	
Don't know	Pre	0	15	0	0	0	1	
	Post	4	0	4	0	1	1	
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 721)	100% (N = 797)	
	Post	100% (N = 25)	100% (N = 16)	100% (N = 47)	100% (N = 21)	100% (N = 716)	100% (N = 825)	

*There is a significant difference at the .05 level between the two surveys due to a change in the distribution of nonrider responses. A slight increase occurred in the percentage of nonriders who reported that other household members had used the bus services.

APPENDIX E

WHO OTHER MEMBER?

Bus Rider Usage

<u>Who Other Member?</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>
Husband/wife	Pre	17	60	30	0	14	22
	Post	22	29	29	0	17	18
Son/daughter/ children	Pre	33	20	30	100	54	45
	Post	45	29	29	50	61	53
Mother/father	Pre	17	0	10	0	7	8
	Post	11	14	14	17	2	7
Roommate	Pre	17	0	0	0	4	4
	Post	11	0	0	0	0	1
Other	Pre	16	20	30	0	21	21
	Post	11	28	28	33	20	21
Totals	Pre	100% (N = 6)	100% (N = 5)	100% (N = 10)	100% (N = 1)	100% (N = 28)	100% (N = 50)
	Post	100% (N = 9)	100% (N = 7)	100% (N = 7)	100% (N = 6)	100% (N = 46)	100% (N = 75)

APPENDIX F
OFTEN OTHER MEMBERS?

Often Other Members?		Bus Rider Usage					Non-riders	Total Respondents
		Heavy	Moderate	Light	Other			
		%	%	%	%	%	%	
Heavy usage	Pre	43	0	11	50	35	29	
	Post	82	14	23	33	51	47	
Moderate usage	Pre	14	60	22	0	28	27	
	Post	0	43	0	0	16	13	
Light usage	Pre	14	40	56	0	31	33	
	Post	9	43	77	0	19	26	
Other usage	Pre	29	0	11	50	6	11	
	Post	9	0	0	67	14	14	
Totals	Pre	100% (N = 7)	100% (N = 5)	100% (N = 9)	100% (N = 2)	100% (N = 32)	100% (N = 55)	
	Post	100% (N = 11)	100% (N = 7)	100% (N = 13)	100% (N = 6)	100% (N = 49)	100% (N = 86)	

APPENDIX G

OTHER MEMBERS' TRIP PURPOSE?

(First Choice) Other Members' Trip Purpose		Bus Rider Usage					Non- riders	Total Respondents
		Heavy %	Moderate %	Light %	Other %			
Work	Pre	0	20	10	50	6	9	
	Post	9	14	0	0	14	10	
Personal business	Pre	0	0	10	50	16	12	
	Post	0	29	15	0	6	8	
Shopping	Pre	43	80	10	0	31	32	
	Post	36	29	46	50	31	35	
School	Pre	57	0	40	0	41	38	
	Post	37	0	31	17	39	33	
Visits or recreation	Pre	0	0	20	0	3	5	
	Post	0	14	0	33	6	7	
Medical	Pre	0	0	0	0	0	0	
	Post	18	0	0	0	2	3	
When I don't have a car/ When car is in garage	Pre	0	0	10	0	3	4	
	Post	0	14	8	0	2	4	
Totals	Pre	100% (N = 7)	100% (N = 5)	100% (N = 10)	100% (N = 2)	100% (N = 32)	100% (N = 56)	
	Post	100% (N = 11)	100% (N = 7)	100% (N = 13)	100% (N = 6)	100% (N = 49)	100% (N = 86)	

APPENDIX H

CONSIDERED RIDING THE BUS?

Considered Riding the Bus?		Bus Rider Usage					Non-riders*	Total Respondents
		Heavy	Moderate	Light	Other			
		%	%	%	%	%		
Don't know	Pre	0	7	5	0	1	1	
	Post	0	0	2	0	1	1	
Haven't thought about it	Pre	0	8	0	0	3	3	
	Post	4	0	0	14	9	8	
Other	Pre	16	8	3	13	2	3	
	Post	12	6	4	14	2	3	
Yes	Pre	74	69	64	50	25	29	
	Post	80	75	61	62	30	35	
No	Pre	10	8	28	37	69	64	
	Post	4	19	33	10	58	53	
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)	
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 720)	100% (N = 830)	

*There is a significant difference at the .001 level between the two surveys due to a change in the distribution of nonrider responses. Pre to post results show an increase in "haven't thought about it" responses and a decrease in "no" responses.

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	0	0	0	0	1	1	
	Post	0	0	0	0	0	0	
Haven't thought about it	Pre	0	0	3	0	2	2	
	Post	8	0	0	19	3	4	
Other	Pre	21	8	22	25	4	5	
	Post	8	6	6	9	2	2	
Yes	Pre	16	23	31	38	37	36	
	Post	16	25	27	10	36	34	
No	Pre	63	69	44	37	56	56	
	Post	68	69	67	62	59	60	
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)	
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 720)	100% (N = 830)	

*There is a significant difference at the .05 level between the two surveys due to a change in the distribution on nonrider responses. Pre to post results show an increase in "no" responses, indicating a declining interest in carpools.

APPENDIX J
CONSIDERED DRIVING LESS?

Considered Driving Less?		Bus Rider Usage				Non-riders	Total Respondents
		Heavy	Moderate	Light	Other		
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>		
Don't know	Pre	0	0	0	0	0	0
	Post	0	0	0	0	1	0
Haven't thought about it	Pre	0	0	0	0	1	1
	Post	4	0	0	10	1	1
Other	Pre	21	8	25	25	3	5
	Post	20	13	10	14	3	4
Yes	Pre	42	54	56	50	71	69
	Post	56	56	67	38	70	69
No	Pre	37	38	19	25	25	25
	Post	<u>20</u>	<u>31</u>	<u>23</u>	<u>38</u>	<u>25</u>	<u>26</u>
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 724)	100% (N = 800)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 720)	100% (N = 830)

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	0	0	0	0	0	0
	Post	4	0	0	0	1	0
Haven't thought about it	Pre	0	0	0	0	0	0
	Post	4	0	0	5	0	1
Other	Pre	16	0	19	25	2	4
	Post	8	6	6	9	1	2
Yes	Pre	63	69	64	63	86	84
	Post	64	63	67	62	78	76
No	Pre	21	31	17	12	12	12
	Post	<u>20</u>	<u>31</u>	<u>27</u>	<u>24</u>	<u>20*</u>	<u>21</u>
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 720)	100% (N = 830)

*There is a significant difference at the .005 level between the pre and post "no" response for nonriders. Apparently, concern over rising gas prices has decreased as gas prices have stabilized.

APPENDIX L
ENERGY CONSERVATION MEASURE

		<u>Bus Rider Usage</u>					
<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	90	100	94	75	91	91
	Post	88	94	90	100	92	92
No	Pre	0	0	6	0	3	3
	Post	4	6	6	0	4	4
Don't know	Pre	10	0	0	25	6	6
	Post	8	0	4	0	4	4
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 715)	100% (N = 825)

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	26	15	22	50	30	28
	Post	16	44	23	24	29	28
Female	Pre	74	85	78	50	70	72
	Post	84	56	77	76	71	72
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 723)	100% (N = 799)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 720)	100% (N = 830)

APPENDIX N

SEX BY AGE

		Age Groups				
		16-20 Years	21-39 Years	40-60 Years	Older than 60 Years	No Response
<u>Sex</u>		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Male	Pre	37	33	24	20	14
	Post	39	30	23	26	22
Female	Pre	63	67	76	80	86
	Post	<u>61</u>	<u>70</u>	<u>77</u>	<u>74</u>	<u>78</u>
Totals	Pre	100% (N = 84)	100% (N = 432)	100% (N = 323)	100% (N = 233)	100% (N = 14)
	Post	100% (N = 85)	100% (N = 364)	100% (N = 261)	100% (N = 280)	100% (N = 9)

APPENDIX O
AGE BY USAGE

Bus Rider Usage

<u>Age Groups</u>		<u>Heavy</u> %	<u>Moderate</u> %	<u>Light</u> %	<u>Other</u> %	<u>Non-riders</u> %	<u>Total Respondents</u> %
16-20 years	Pre	16	8	25	12	7	8
	Post	16	19	19	24	8	9
21-39 years	Pre	42	31	20	50	44	40
	Post	36	50	29	33	39	36
40-60 years	Pre	10	15	19	0	29	30
	Post	8	6	23	14	28	26
Older than 60 years	Pre	32	46	33	38	19	21
	Post	40	25	29	29	24	28
No response	Pre	0	0	3	0	1	1
	Post	0	0	0	0	1	1
Totals	Pre	100% (N = 19)	100% (N = 13)	100% (N = 36)	100% (N = 8)	100% (N = 722)	100% (N = 798)
	Post	100% (N = 25)	100% (N = 16)	100% (N = 48)	100% (N = 21)	100% (N = 721)	100% (N = 831)

APPENDIX P

OCCUPATION BY SEX

(First Choice) Occupations	Sex			
	Male		Female	
	Pre (%)	Post (%)	Pre (%)	Post (%)
General office/clerical	1	1	7	5
Management	3	3	1	1
Government	2	3	0	0
University	0	0	0	0
Proprietor	1	2	1	1
Professional	14	6	10	7
Sales	6	6	2	4
Skilled/semi-skilled	19	12	2	2
Technical	4	2	1	2
Service worker	5	5	4	3
Unskilled labor	8	12	3	1
High school or college student	9	9	5	6
Homemaker	1	1	40	38
Retired	17	28	19	24
Not employed	<u>10</u>	<u>10</u>	<u>5</u>	<u>6</u>
Totals	100% (N = 273)	100% (N = 268)	100% (N = 722)	100% (N = 706)

APPENDIX Q
OCCUPATION BY AGE

(First Choice) Occupations		Age Groups				
		16-20	21-39	40-60	Older than	No
		Years %	Years %	Years %	60 Years %	Response %
General office/ clerical	Pre	1	8	5	1	0
	Post	1	6	4	0	0
Management	Pre	2	2	2	1	0
	Post	1	2	2	0	0
Government	Pre	1	2	0	0	0
	Post	0	2	2	0	0
University	Pre	0	1	0	0	0
	Post	0	0	0	0	0
Proprietor	Pre	0	1	1	1	0
	Post	0	2	3	1	0
Professional	Pre	3	15	15	1	0
	Post	1	10	10	1	0
Sales	Pre	6	3	5	0	0
	Post	9	7	4	1	0
Semi- skilled	Pre	3	11	5	1	0
	Post	1	8	5	1	0
Technical	Pre	1	4	1	0	0
	Post	1	4	2	0	0
Service worker	Pre	6	5	6	1	0
	Post	5	5	5	1	0
Unskilled labor	Pre	5	4	6	0	0
	Post	4	6	5	0	0
High school or college student	Pre	54	3	0	1	0
	Post	60	3	1	0	100
Homemaker	Pre	5	32	44	12	100
	Post	5	31	45	15	0
Retired	Pre	0	0	5	80	0
	Post	0	0	8	79	0
Not employed	Pre	13	9	5	1	0
	Post	12	14	4	1	0
Totals	Pre	100% (N = 83)	100% (N = 401)	100% (N = 301)	100% (N = 210)	100% (N = 2)
	Post	100% (N = 85)	100% (N = 357)	100% (N = 254)	100% (N = 278)	100% (N = 1)