

## 2004 Transit Needs Study

Capital Area Transportation Authority in  
Partnership with Eaton County Transportation  
Authority and Delta Township

Final Report

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# I. Project Overview

## 1.1 Background & Objectives

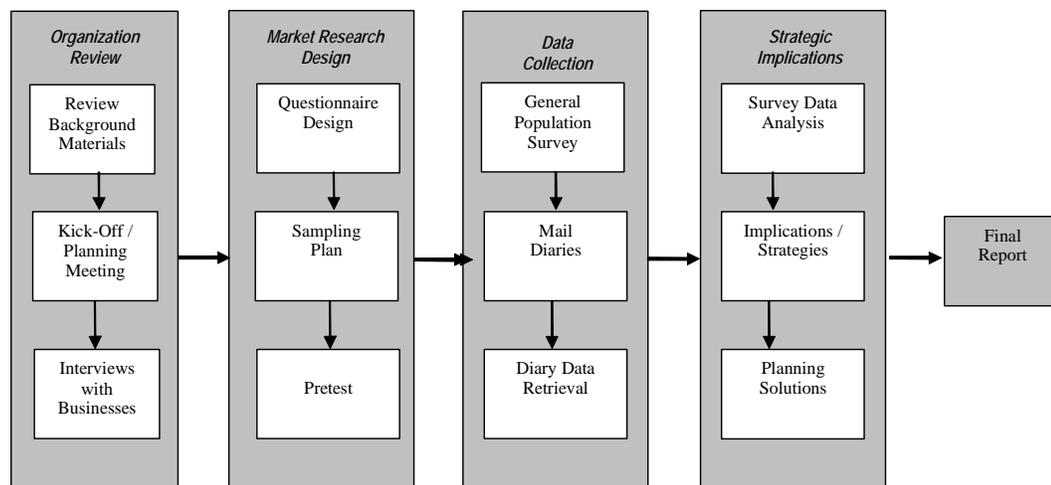
Ingham County has a total population of 278,398 persons. While smaller, Eaton County, with a population of 104,837 persons, grew significantly – nearly 12 percent – during the 1990s. Population has continued to increase since the last full census. Delta Township is one of the larger townships in Eaton County with a population of nearly 30,000 persons. This growth has contributed to an increase in travel between Delta Township and the greater Lansing area. However, little is known about the precise nature of this travel and the need for public transportation services to serve this type of travel. The research conducted by the *2004 Transit Needs Study* was designed to:

- Provide a reliable measure of demand and need for transit services in the area;
- Determine the volume of movement between the study areas in Eaton and Ingham counties;
- Provide a complete market analysis using lifestyle, psychographic, travel pattern, and demographic information;
- Achieve the appropriate sample size and sub-sample quotas necessary to achieve statistical reliability at the 95% confidence level;
- Provide data on which to recommend modifications to current services and marketing that will be successful in attracting riders to new and existing public transportation services;
- Provide data on which to develop planning solutions to address existing and potential demand for public transportation services.

## 1.2 Research Approach

In order to meet the stated objectives, the study employed a multi-phased research approach. The following is an overview of the approach used to collect and analyze the data accordingly.

*Figure 1: Research Approach*



**Organization Review:** The first task involved a meeting between the consulting team and the Technical Review Committee consisting of members from CATA, EATRAN, and Delta Township. During that meeting, research goals and design parameters were discussed in detail and ultimately finalized. In addition to the project kickoff meeting, the project team reviewed previous research and the *Transit Development Plan (TDP)*, and conducted interviews with area businesses to supplement the findings from the survey research for transit service planning purposes.

**Market Research Design:** The 2004 Transit Needs Study was developed to provide CATA and EATRAN a better understanding of the current and potential travel among area residents, specifically via transit, between Ingham and Eaton Counties. The survey instrument was designed to collect data that describe the existing travel behaviors of area residents, their attitudes towards transit, their potential for using public transportation, and their demographic characteristics. In order to effectively meet the stated objectives without placing an undue burden on survey respondents, two survey instruments were designed to collect the appropriate data: a main telephone survey and a supplemental travel diary.

To achieve statistically reliable estimates of the aforementioned attitudes and behaviors, a stratified probability sample was used to ensure that a minimum number of surveys were collected from each of the three target areas: Ingham County, Delta Township of Eaton County, and a grouping of other municipalities in Eaton County. The final data set contains 819 samples, of which 406 were drawn from Ingham County, 206 from Delta Township, and 207 from other Eaton areas. The resulting margin of error for estimates generated for the entire study area is  $\pm 3\%$  with a 95% level of confidence,  $\pm 5\%$  for Ingham County estimates, and  $\pm 10\%$  for each Delta Township and the combined other Eaton County areas.

All research design parameters and data collection procedures were thoroughly pre-tested prior to beginning full-scale data collection. Forty-two completed interviews were conducted between February 2 and February 5. As a result of the pretest, minor refinements were made to the original survey instrument draft before full-scale data collection began.

**Data Collection:** All data were collected through telephone interviewing using a Window's-based computer-assisted telephone interviewing (CATI) platform between February 20 and March 23, 2004. The main survey instrument was administered to all respondents. A subsample of those respondents were subsequently mailed a paper travel log in which to record details of their travel over the course of an assigned travel day. A second telephone interview was used to collect that information. Interviews and resulting datasets were monitored daily for quality control. Upon the completion of data collection, all data were tested for logic and completeness.

**Strategic Imperatives:** Following data collection, Northwest Research Group, Inc. and TranSystems Corporation worked together to analyze the data to develop a set of findings and strategic imperatives. This report serves to disseminate those findings and imperatives, as well as document the methodology used to design and conduct the research.

# II. Survey Research Methods

## 2.1 Questionnaire Design

### Objective

The survey instrument was designed to span the following topics of interest so that an accurate portrayal of intra-county travel, and the factors affecting this travel and the choice of mode, could be obtained from the population.

- Respondent demographics;
- Historic and current travel between Eaton and Ingham Counties by trip purpose, time of day, and day of week;
- Historic and current usage levels of other public transportation services by trip purpose, time of day, and day of week;
- Number of typical daily trips made by trip purpose and mode of transportation;
- Typical modes used to travel to common destinations (work, school, medical, shopping, etc.);
- Reasons for using or not using public transit services; and
- Whether trips would be made given the availability or unavailability of particular modes of transportation.

To increase the accuracy of data and to reduce the burden on respondents, data items were collected through a combination of survey instruments, a main telephone survey and a supplemental travel diary (each described below). All data were collected using a Window's-based Computer Assisted Telephone Interviewing (WinCATI) system. The questionnaires and accompanying logic were entered into a computer program. Interviewers read the questionnaire verbatim from a computer screen and entered the data directly into a data file as respondents answered each question. Telephone interviewing occurred between February 20 and March 23, 2004. A pre-test was conducted with 42 respondents between February 2 and February 5, 2004.

### Main Survey Instrument

As the first point of contact, the *Main Survey Instrument* was administered to all respondents by telephone and included the following sections:

- *Introduction* – introduced the study to potential respondents and elicited participation.
- *Screenener* – determined respondents' eligibility for the study. Respondents were screened to ensure that they were residents of the study area. Employees or household members of employees of the transit industry were disqualified. The gender of qualifying respondents was recorded during the screener.
- *Ridership Characteristics* – defined respondents as a rider or non-rider. For riders, obtained frequency of transit use and reasons for use. For non-riders, obtained reasons for not using transit.
- *Ride Factors* – asked respondents to rate a series of attributes to determine if each was a minor, moderate, or major factor, or not a factor at all in deciding which mode of transportation to use to make any given trip. Measured the influence of paid parking at school or work on the likelihood of using transit as an alternative commute mode.
- *Retrospective Travel Diary* – recorded respondent's travel details on a weekday prior to the interview. Details include the mode, purpose, start time, end time, and destination of each trip made on the previous weekday.

- *Demographics* – collected basic household and person-level demographics including household size, auto availability, number of licensed drivers in the household, residence type, age, employment and student status, and household income.

The following table presents the final call outcomes for each telephone number that was attempted en route to collecting a minimum of 800 completed interviews. As shown, at least one attempt was made to 7,255 telephone numbers in order to collect a final sample of 818 useable records. Of those, 1,999 telephone numbers (28%) were determined to be “Eligible” for inclusion into the study. Eligible telephone numbers included those that belonged to a qualified respondent. Thirty percent (30%) of the telephone numbers attempted were determined to be “Not Eligible” for the study, and included numbers that were disconnected, belonged to businesses, belonged to residences of someone employed by the transit industry, were located outside the study area, or were respondents that were reached after a particular sampling quota was filled. The remaining 3,067 telephone numbers (42%) that were attempted ended in call outcomes that did not allow a determination of eligibility.

**Table 1: Final Call Outcomes for Main Telephone Survey**

<b>Call Outcome</b>	<b>Telephone Numbers</b>	<b>Percent</b>
<b>Eligible Outcomes</b>	<b>1,999</b>	<b>28%</b>
Refusal	1,080	15%
Partially Completed Interview	101	1%
Completed Interview	818	11%
<b>Not Eligible Outcomes</b>	<b>2,189</b>	<b>30%</b>
Disconnected / Nonworking (5)	1,183	16%
Business (2)	690	10%
Out of Area	85	1%
Employed by Transit	5	<1%
Over Quota	226	3%
<b>Eligibility Unknown Outcomes</b>	<b>3,067</b>	<b>42%</b>
No Answer / Answering Machine / Busy	2,571	35%
Not Called	25	<1%
Communication / Language Barrier	53	1%
Callback	418	6%
<b>Total</b>	<b>7,255</b>	<b>100%</b>

Using a formula recommended by the *American Association for Public Opinion Research* (AAPOR) for calculating response rates for studies of this type, the resulting response rate for the main telephone survey portion of the study is 27%. The rate is calculated by dividing the sum of “Completed Interviews” and “Partially Completed Interviews” by the sum of “Eligible” numbers and an estimated portion of “Eligibility Unknown” numbers that would have been determined “Eligible” had a potential respondent been contacted<sup>1</sup>. A response rate of 27% is just above average when compared with other travel surveys conducted by telephone across the country with the general population.

In all, 46% of all those qualified for the study agreed to participate (participation rate). The participation rate is calculated by dividing the sum of “Completed Interviews” and “Partially Completed Interviews” by the total of “Eligible” numbers. A participation rate falling between 40% and 50% is typical for this type of study.

<sup>1</sup> The portion of “Eligibility Unknown” numbers that are assigned to the denominator of the response rate formula is derived by multiplying the percent of “Eligible” numbers of all the numbers with a known eligibility, by the total number of “Eligibility Unknown” numbers.

## Travel Diary Instrument

In addition to the retrospective travel diary, a prospective travel diary was used to capture travel characteristics to counter the potential limitations of a retrospective approach in collecting travel behavior data (e.g., failure on the respondent's part to accurately remember details of past travel). Unlike the retrospective approach, the prospective travel diary methodology employed the use of a paper travel log, which was mailed to each respondent recruited for this supplemental task. Diary recruits were asked to record the following details for each trip made on their assigned travel day:

- Origin / destination place name,
- Origin / destination location (county and cross-streets),
- Arrival time,
- Travel mode(s),
- Alternate mode (if actual mode was unavailable),
- Reason for travel, and
- Departure time.

Respondents were re-contacted by telephone within two days following their travel day to collect the information recorded in the travel diary. Respondents not traveling on their travel day were asked to provide the reasons that they did not travel. The final response rate of the diary retrieval telephone survey portion of the study is 71% (200 completed diary interviews out of 208 eligible recruited respondents).

## 2.2 Sample Design

### Sampling Plan

A random digit dial (RDD) telephone sampling method was used to ensure a representative probability sample of the universe, which included households located in preselected zip codes in Ingham and Eaton Counties. Universe zip codes were selected based on their propensity to include a relatively high rate of cross-county travel. The universe was stratified by geography and quota sampling used to provide large enough samples to be pulled from the three study subareas: Ingham County, Delta Township, and Other Municipalities in Eaton County. The following table provides a list of assigned Zip Codes, the number of adults, the resulting sample size, and the resulting margin of error at the 95% confidence level for each submarket area.

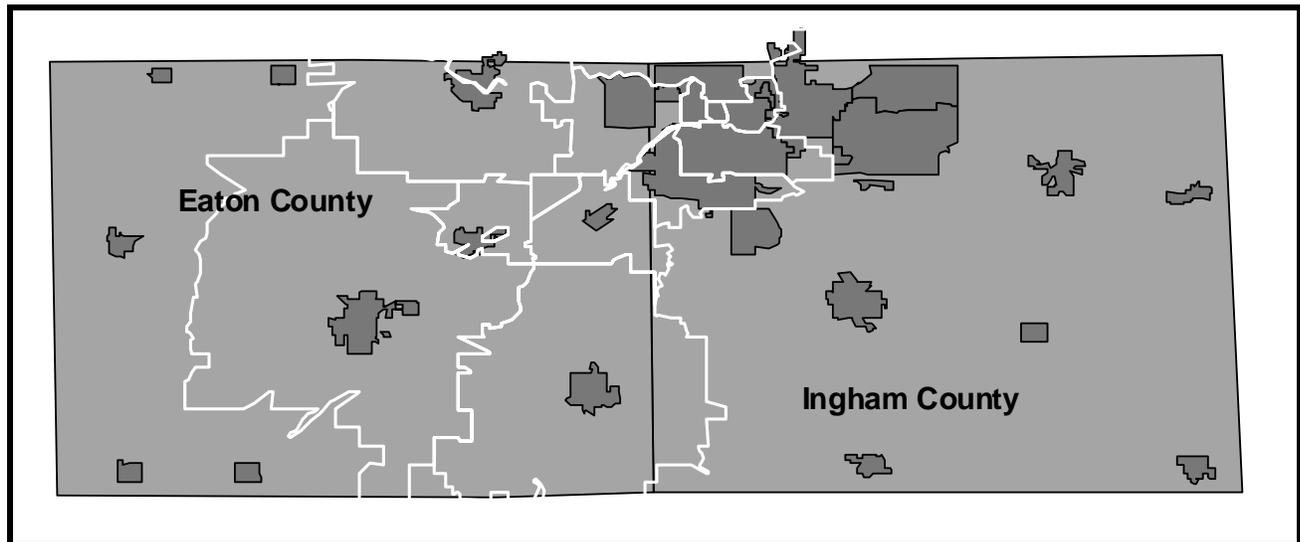
**Table 2: Final Unweighted Sample Size by Area of Residence**

Area	Zip Codes	Population of Adults	Percent of Population	Samples	Percent of Samples	Margin of Error <sup>1</sup>
Ingham County	48906, 48910, 48911, 48912, 48915, 48917, 48933	102,180	65%	406	50%	±5%
Delta Township	48837, 48917	22,890	15%	207	25%	±7%
Eaton Other	48813, 48821, 48827, 48876	32,284	21%	206	25%	±7%
Total	All	157,354	100%	819	100%	±3%

<sup>1</sup>Margin of error at the 95% confidence level

The boundaries of zip codes included in the study area are depicted on the following map by a white border.

**Figure 2: Study Area Map**



## Statistical Weighting

Because disproportionate sampling was used to ensure minimum sample sizes by geography, statistical weights have been developed using 2000 Census data to allow the sample to adequately represent the study area's population as a whole. The final weighting scheme also adjusted for any over or undersampling of gender and age categories. Two final weight variables were added to the dataset. One adjusts only for gender and age so that the minimum geographic sample sizes could be maintained for statistical reliability purposes at the subarea level, while the other adjusts for geography, gender, and age. The latter is used when analysis is performed at the global level.

## Statistical Significance

While interpreting survey results, readers should keep in mind that all surveys are subject to sampling error. Sampling error is the extent to which the results may differ from what would be obtained if the whole population were surveyed. The size of such sampling error depends completely on the number of interviews completed; the larger the sample, the smaller the sampling error.

The overall margin of sampling error for this survey for questions asked of all respondents is plus or minus 3 percent. The following table illustrates the error associated with different proportions at different sample sizes and can be used to determine sampling error for subgroup analysis. For example, if we asked a question of all respondents (n=400) and 10 percent gave a specific response, the error associated with that 10 percent is plus or minus 2.9 percent. That is, if you repeated the survey, you could expect this same response to be from 7.1 percent to 12.9 percent.

**Table 3: Error at Different Sample Sizes at the 95% Confidence Level**

Sample Size	Estimate				
	10% / 90%	20% / 80%	30% / 70%	40% / 60%	50% / 50%
50	8.3%	11.1%	12.7%	13.6%	13.9%
100	5.9%	7.8%	9.0%	9.6%	9.8%
200	4.2%	5.5%	6.4%	6.8%	6.9%
300	3.4%	4.5%	5.2%	5.5%	5.7%
400	2.9%	3.9%	4.5%	4.8%	4.9%
600	2.4%	3.2%	3.7%	3.9%	4.0%
800	2.1%	2.8%	3.2%	3.4%	3.5%
1,000	1.9%	2.5%	2.8%	3.0%	3.1%

# III. Survey Research Findings

## 3.1 Market Profile

### Rider / Non-Rider Demographics

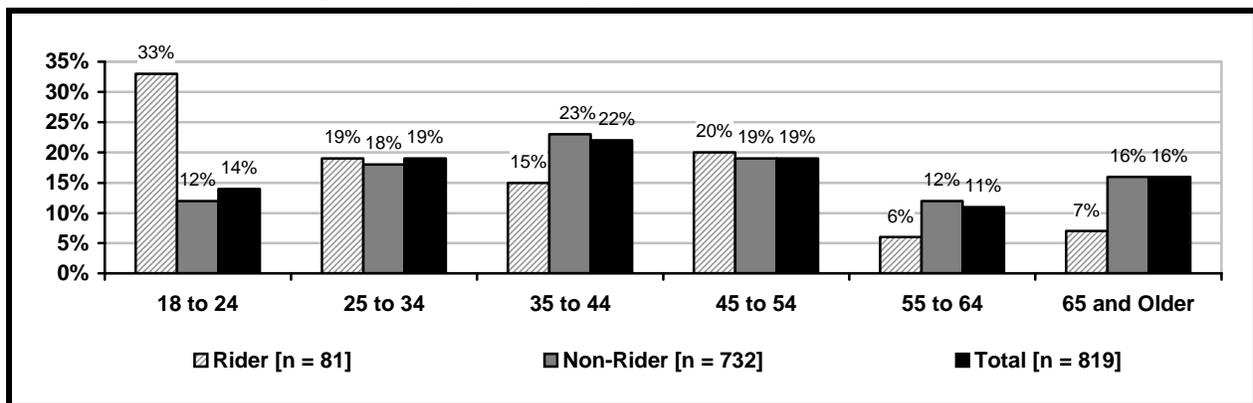
The following narrative and tables present an overview of the differences, or similarities, between those who use transit and those that do not. Comparisons are made between the two rider/ non-rider segments. For the purposes of this report, a Rider is defined as any respondent stating that they ride CATA or EATRAN at least once a month. Of the 819 respondents sampled, 81 respondents fell within this definition (10%). An additional 9 respondents reported using transit at least once a year; in all, 142 respondents (17%) stated that they belong to a household with at least one member that has used either CATA or EATRAN service.

Note that the following profiles, and findings presented throughout this report, are of respondents living within the study area only and do not reflect the entire populations of CATA or EATRAN customers. Findings presented in these sections are based on weighted data unless otherwise noted. Due to rounding, totals may not always add to 100%. Sample sizes are indicated in each table or figure.

### Key Demographics

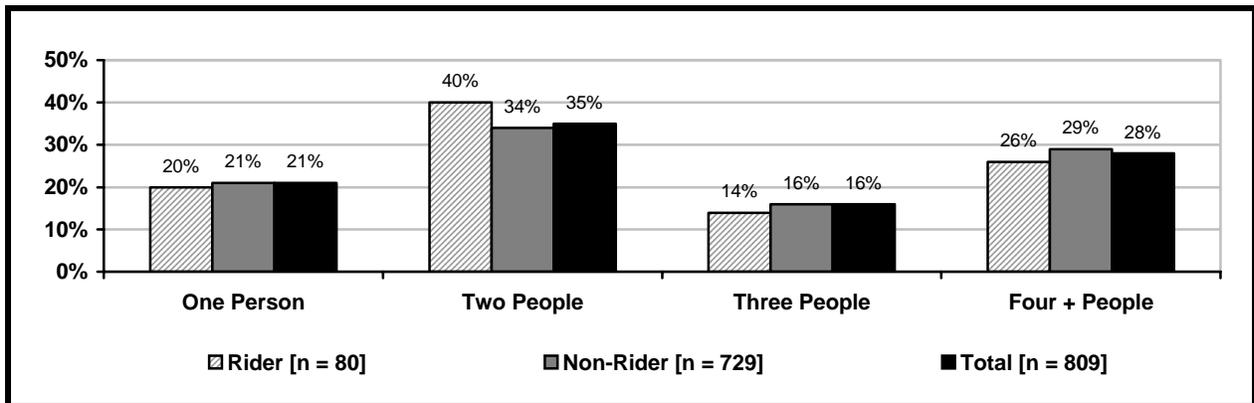
As shown in the following figure, Riders tend to be younger than the non-riding population. One in three Riders are between the ages of 18 and 24 years, compared with 12% of Non-Riders. On the opposite end of the scale, a significantly smaller percentage (7%) of Riders are 65 years of age or older when compared to the non-riding population.

**Figure 3: Respondent Age by Rider/ Non-Rider**



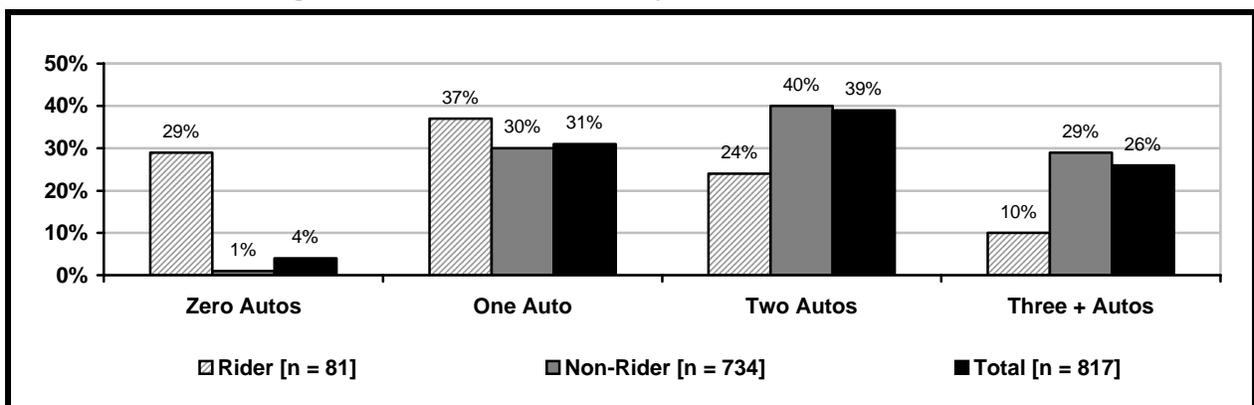
The greatest divide between the two segments with regards to household size is seen with two or less person households and household of three or more people. Sixty percent (60%) of households with a respondent Rider are comprised of one or two people, compared with 55% of non-rider households. While this difference may be attributed to the margin of error (the mean household size for Riders [2.67] and Non-Riders [2.70] are only separated by .03 persons), the trend does follow other published results.

**Figure 4: Household Size by Rider/ Non-Rider**



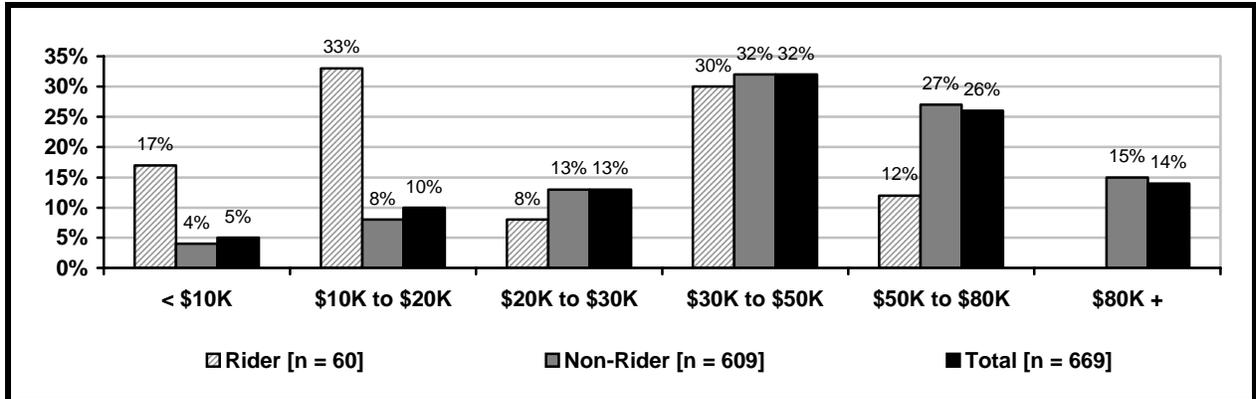
As the following figure shows, a significant difference in auto availability exists between the two groups. Nearly three out of ten (29%) Riders reported not having a household vehicle, a stark contrast to the 1% of Non-Riders without a household vehicle. Nearly seven out of ten (69%) Non-Riders reported having two or more household vehicles. On average, Riders (1.13) have nearly one less vehicle than Non-Riders (2.11).

**Figure 5: Household Vehicles by Rider/ Non-Rider**



Household income also varies significantly between the two segments. Nearly one out of two Riders (50%) belongs to households with an annual household income of less than \$20,000, compared with just over one out of ten Non-Riders (12%).

**Figure 6: Household Income by Rider/ Non-Rider**



**Other findings**

- Nearly nine out of ten Riders (88%) live in Ingham County, compared with 62% of Non-Riders.
- One in three Riders (33%) reported being either non-Caucasian or multiracial (16% Black/ African American), compared with 16% of Non-Riders who report the same. Nine percent (9%) of Non-Riders reported being Black or African American. Eight percent (8%) of Riders reported being of Hispanic ethnicity, compared with 5% of Non-Riders.
- More than one out of three Riders (37%) are currently enrolled in some type of school, compared with 17% of Non-Riders. Fifty-six percent (56%) of Riders are employed, compared with 69% of Non-Riders.
- Two out of three Riders (66%) reported having a valid driver’s license, compared with 96% of Non-Riders.
- No differences in the gender split are seen when comparing the two segments, each are equally split between males and females.

## 3.2 General Transit Use Characteristics

### Rider Characteristics

The following sections present a closer look at the characteristics of Riders, i.e., those who ride public transportation at least once a month. Of the 81 respondents fitting into this category, 86% use only CATA services, 6% use only EATRAN services, and 7% use or have used both.

### Length and Frequency of Transit Use

On average, Riders reported that they have been using either CATA or EATRAN for nearly 6 years (5.8).

- One in three Riders (33%) have used public transportation for a year or less;
- Twelve percent (12%) have used transit for 2 years;
- Fifteen percent (15%) have used transit for 3 or 4 years;
- Twenty-two percent (22%) have used transit for 5 to 10 years; and
- Eighteen percent (18%) have used transit for 10 or more years.

Two out of every three Riders (67%) ride either CATA or EATRAN at least once a week.

- Seven percent (7%) ride 6 or 7 days per week;
- Twenty percent (20%) ride 4 or 5 days per week;
- Thirty percent (30%) ride 2 or 3 days per week; and
- Ten percent (10%) ride one day per week.

### Transit Dependency

Riders were asked to choose from a list of statements that best describe the reason why they use public transportation. The statements were developed to take into account auto availability, the ability to drive an automobile, and mode preference, and serve to help identify a rider as either a transit dependent or choice customer. As shown in the following table, 52% of Riders are truly “Choice” customers, having a car but preferring to take the bus. An additional 4% choose to be a “Transit Dependant” customer by electing to not have a car because of their preference for the bus. Forty-four percent of Riders reported being truly “Transit Dependant”, either by not having a car available (32%) or not knowing how to drive (12%).

*Table 4: Reason for Riding Public Transportation*

Reason for Riding Public Transportation	Riders [n = 81]
I ride because I can't or don't know how to drive.	12%
I ride because I don't have a car available.	32%
I don't have a car available because I prefer to take the bus.	4%
I have a car available, but prefer to take the bus.	52%
Total	100%

## General Types of Trips Made Using Public Transportation

The following table shows the type of trips Riders generally make on public transportation. As shown, 50% of Riders use transit to commute to work or make work-related trips and 42% use transit for their school commute or for school-related travel. The table also shows that a similar percent of Riders use transit for discretionary reasons such as to shop or dine (47%), or to get to places of entertainment, recreation, or to a place to socialize (45%).

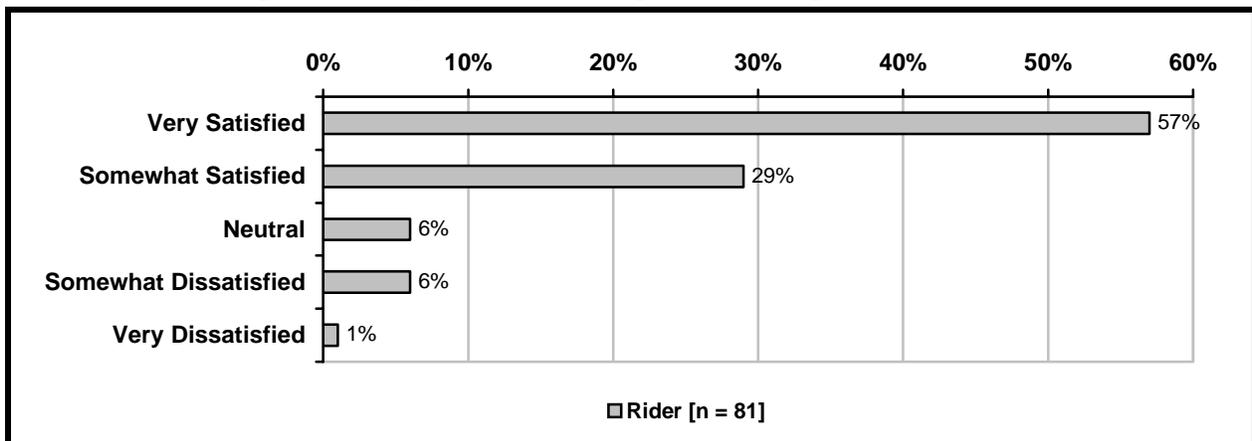
**Table 5: Types of Trips Made Using Public Transportation**

Trip Types	Percent of Riders [n = 81]
Work commute / work-related	50%
Travel for medical places	49%
Travel to a place to shop or dine	47%
Travel to places of entertainment / recreation / socializing	45%
School commute / school-related	42%

## Satisfaction with Public Transportation Services

When asked to specify their level of satisfaction with riding public transportation, all but 13% reported being satisfied (57% very satisfied). One-percent of Riders reported being very dissatisfied, while 6% were not sure enough to say one way or the other.

**Figure 7: Satisfaction with Riding Public Transportation**



## Non-Rider Characteristics

The following sections present a closer look at the characteristics of Non-Riders, i.e., those who do not ride public transportation at least once a month. Of the 819 surveyed respondents, 737 (90%) fall within this category. Of those, 9 reported that they use transit at least once a year. Another 142 respondents (17%) stated that they belong to a household with at least one member that has used transit.

### Awareness of Services

Among the Non-Riders, awareness of the area's public transportation agencies was very high. More than eight out of ten respondents (83%) stated that they are aware of both CATA and EATRAN. An additional 15% stated that they are aware of CATA only, and just fewer than 2% stated that they are aware of EATRAN only. The percentage of Non-Riders not aware of at least one agency is insignificant, at less than one percent (0.3%).

Breaking those numbers down by county of residence reveals that 91% of respondents living in Eaton County are aware of both CATA and EATRAN. By comparison, 78% of Ingham County respondents reported the same. That difference is accounted for in the percentage of Ingham County respondents that are aware of only CATA (21%). Looking only at respondents of Delta Township, 94% are aware of both CATA and EATRAN, 4% are aware of CATA only, and 1% are aware of EATRAN only.

Awareness of the specific services available to respondents (i.e., routes, schedules, stops, etc.) was also relatively high. Nearly three out of four respondents (74%) reported being aware of the specific services available to them. That awareness was higher among Ingham County respondents (78%) than Eaton County respondents (66%). Awareness of the specific services available was higher among Delta Township respondents than it was for respondents in other Eaton County areas. Sixty-eight percent (68%) of Delta Township respondents reported that they are aware of the specific services available to them, compared with 64% of respondents other Eaton County areas.

### Reasons for Not Using Public Transportation

Non-Rider respondents were asked to provide their primary reason for not using public transportation. Information was collected using an unaided method, or in other words, respondents were free to give any reason without the confinements of preconceived response choices. However, responses were categorized following data collection. The top reason reported for not using public transportation was the preference for a personal vehicle (79%). Other reasons included:

- Transit does not go where I need it to (6%)
- Access to transit (e.g., park and rides, bus stops, etc.) are not close enough to my home (4%)
- It is not an option for me (3%)
- Transit takes too long (2%)
- I do not like to use transit (1%)
- It costs too much (1%)

The only significant difference in responses between respondents of the two counties is seen in the transit availability responses: "does not go where I need it to," "not an option for me," "and not close enough to my home." When those responses are combined and compared by county, the data show that 20% of Eaton County respondents and only 8% of Ingham County respondents stated that the unavailability of transit was the primary reason they do not use that mode of transportation. Seventeen percent (17%) of Delta Township respondents reported one of the responses relating to "transit availability."

## Potential Travel Purposes

The following table shows the type of trips Non-Riders would consider making on public transportation if that mode was more favorable to them. Travel for medical reasons was reported as the trip type with the most potential for respondents of the three areas. Nearly one out of two (47%) Ingham County respondents reported that they would consider taking a trip on transit for medical reasons, compared with 41% of Delta Township and other Eaton County respondents. Overall, potential use of public transit for specific travel purposes was higher among Delta Township respondents than it was for respondents in other Eaton County areas. While it is important to note that these responses are based on a hypothetical situation and assumes that public transportation was more favorable to the Non-Rider, the information is useful in identifying the types of trips that Non-Riders feel are more suitable for public transportation.

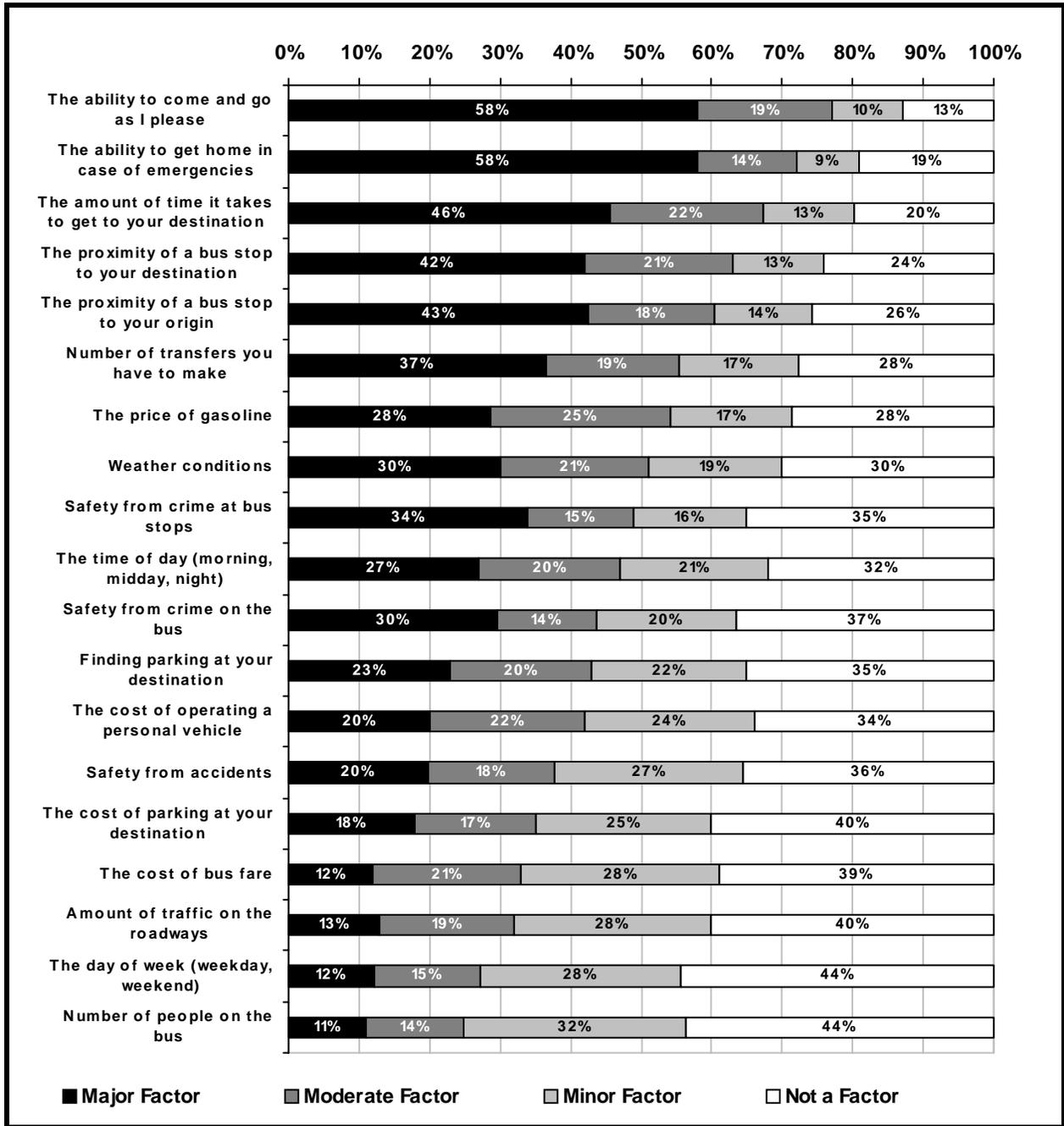
**Table 6: Potential Reasons Non-Riders May Use Public Transportation by Area**

Trip Types	Ingham County [n = 319]	Delta Township [n = 164]	Other Eaton [n = 155]
Travel for medical reasons	47%	41%	41%
Work commute / work-related	40%	36%	29%
Travel to a place to shop or dine	37%	36%	33%
Travel to places of entertainment / recreation / socializing	30%	35%	27%
School commute / school-related	32%	29%	26%

## Ride Factors

All respondents were read a list of 19 potential factors, or attributes, which may play a role in deciding which mode to use for any given trip. For each potential factor, respondents were asked to indicate if they thought it was a factor for them, and if so, if it was a major, moderate, or minor factor. The following figure presents the results of that question set. The data presented in the figure have been sorted by descending order of percentage of respondents stating “major factor.” These factors do not vary significantly by county of residence

**Figure 8: Potential Factors in Deciding Which Mode to Use for Travel**



The following table presents the same factors, with the data sorted by mean score. The mean score is calculated by: a) multiplying the proportion of respondents reporting an attribute as a “minor factor” by 1, a “moderate factor” by 2 and a “major factor” by 3; b) summing the products by case; c) dividing the sum by three. Both illustrations, Figure 7 and Table 7, show that convenience-based attributes tend to be a larger factor in deciding which mode to use for any given trip, compared with safety and cost-based attributes.

**Table 7: Potential Factors in Deciding Which Mode to Use for Travel (mean scores)**

Attributes	Mean Score
The ability to come and go as I please	0.74
The ability to get home in case of emergencies	0.70
The amount of time it takes to get to your destination	0.65
The proximity of a bus stop to your destination	0.60
The proximity of a bus stop to your origin	0.60
Number of transfers you have to make	0.55
The price of gasoline	0.50
Weather conditions	0.50
Safety from crime at bus stops	0.49
The time of day (morning, midday, night)	0.47
Safety from crime on the bus	0.46
Finding parking at your destination	0.44
The cost of operating a personal vehicle	0.43
Safety from accidents	0.41
The cost of parking at your destination	0.38
The cost of bus fare	0.35
Amount of traffic on the roadways	0.35
The day of week (weekday, weekend)	0.31
Number of people on the bus	0.31
<b>Mean Score</b>	<b>0.49</b>

## Cross-County Transit Potential

### Cross-County Travel

While actual observations of cross-county travel were made using the retrospective and prospective travel diary methods, each respondent was also asked directly whether or not they have the need or desire to travel to places in the neighboring county (either Ingham or Eaton County). The following summarizes the relevant findings:

- Of those surveyed, 68% reported that they indeed have a need or desire to travel into the neighboring county.
- Interestingly, a much greater percentage of Non-Riders (72%) reported having the need or desire than Riders (37%).
- Eighty-four percent (84%) of Eaton County respondents reported having the need or desire to travel into Ingham County. By comparison, 60% of Ingham County respondents reported having the need or desire to travel into Eaton County. Delta Township respondents did not differ in their response when compared to other Eaton County respondents, with 84% stating that they have the need or desire to travel into Ingham County.

As a follow-up question, respondents were asked to state whether or not they have ever used public transportation to travel into the neighboring county. Of those surveyed, 22% stated that they have done so. The following summarizes additional findings:

- One out of five Riders (20%) reported that they regularly travel into the neighboring county using public transportation. Another 20% stated that they do from time to time. Sixty percent (60%) of Riders stated that they have never traveled into the neighboring county using public transportation. Twenty-one percent (21%) of Non-Riders reported that they have used public transportation to travel into the neighboring county.
- Twenty-seven percent (27%) of Eaton County respondents reported that they have used public transportation to travel into Ingham County. Four percent (4%) stated that they regularly do. Of those living in Delta Township, 30% reported that they have used public transportation to travel into Ingham County, 4% stated that they regularly do.
- Eighteen percent (18%) of Ingham County respondents reported that they have traveled into Eaton County using public transportation. Six percent (6%) stated that they travel into Eaton County on a regular basis.
- Of those that have traveled to the neighboring county using public transportation, 64% thought that it is easy to do using public transportation (either somewhat – 46% or very – 18%). A higher percentage of Eaton County respondents (70%) thought it was easy to travel into Ingham County using public transportation, when compared with the 59% of Ingham County respondents who thought it was easy to travel into Eaton County on public transportation.
- Of those that reported that they have never used public transportation to travel into the neighboring county, 86% thought it was possible to do so. A higher percentage of Eaton County respondents (91%) thought it was possible to travel into Ingham County using public transportation, when compared with the 83% of Ingham County respondents who thought travel on public transportation was possible into Eaton County.

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## **Attitudes towards Cross-County Servicing and Funding**

When asked if they thought there was a need for increased transit service between the two counties, 70% thought there is. No difference in opinion on this topic is seen between county respondents; however, a greater percentage of Riders (78%) thought there was a need for increased service between counties, when compared with Non-Riders (69%).

When asked if they would support or oppose an increase in property taxes to help pay for expanded service between the two counties, 41% stated that they support such an action (28% - somewhat, 13% - strongly). However, a nearly equal percentage (40%) strongly opposes an increase in property taxes for that purpose. The following summarized additional findings from this question:

- Riders (23%) were more likely to strongly support the action when compared with Non-Riders (13%), a nearly equal percentage strongly oppose (35% and 39% respectively).
- Delta Township respondents are more likely to favor (50% / 20% strongly) and slightly less likely to strongly oppose (33%) an increase in property tax to help pay for increased transit service between the counties when compared with other Eaton County respondents (favor – 40%, strongly oppose – 40%) and Ingham County respondents (favor – 40%, strongly oppose - 40%).
- Of those that previously stated that there was a need for increased service, 54% also stated that they support an increase in property taxes to help pay for it; 24% strongly support the action. By comparison, of those that had stated that they do not see a need for increased service between the counties, 23% stated they support an increase in property taxes (6% strongly support).

Other general trends in support or opposition of an increase in property taxes include:

- As age increases, so does support for an increase in property taxes to pay for increased transit service between the counties. The trend reverses once the 65 years of age threshold is reach.
- Middle-income respondents (\$30K to \$80K) tend to offer greater support than did lower and upper-end income respondents.
- Minority and those of Hispanic ethnicity are more likely to support an increase in property taxes to pay for increased service.
- Employment status does not appear to have an influence on the level of support or opposition.
- Cross-county travelers are more likely than those that do not travel as often between Ingham and Eaton counties to support an increase in property tax.

## **Attitudes towards Increased Servicing and Funding in Delta Township**

Respondents residing within Delta Township were asked similar questions, but specifically about service within the township. When asked if they thought there was a need for increased transit within the township, 57% thought there is. Fifty-six percent of respondents stated that they support an increase in property tax to help pay for that increase in service (26% strongly). Of those that support an increase in property taxes to help pay for increased service within Delta Township, 84% also supported the notion of an increase in property taxes to help pay for an increase in service between Ingham and Eaton counties.

### 3.3 Travel Behavior

#### Daily Trip Rate

To develop an understanding of travel behavior and patterns within the two-county study area, a random set of 600 respondents was asked about all the trips that s/he made over the course of an entire day. This included trips made by any mode excluding airplane or boat (e.g., personal vehicles, public transportation, taxi, school bus, bicycle, and walking). Moreover, respondents reporting “personal vehicle” as a mode of travel were asked to specify whether they were the driver or passenger. Respondents reporting transit trips were asked to specify the service provider, access and egress modes, number of transfers, and for trips made using EATRAN, information pertaining to scheduling and on-time performance. Respondents reporting walking or biking trips were asked to specify the number of blocks walked or biked.

In total, 1,899 trips were reported by 600 respondents. Of those, 1,770 trips (93%) were made using a personal vehicle, 55 trips (3%) were made using public transportation, and 68 trips (4%) were made using a non-motorized mode (e.g., walk, bike, etc.).

The following sections present an in-depth examination of the trips that were reported by traveling respondents including daily trip rates by mode, travel mode share, and trip purposes. Multi-modal trips with public transportation as the primary mode, i.e. going to work by a combination of bus and walking, have been counted as one trip. Where appropriate, comparisons have been made between various population segments.

A daily trip rate is the average number of trips taken per person on a daily basis. A trip is defined as any travel from an origin to a destination (one-way). For example, two trips are recorded if a respondent travels from home to work, making one stop at a convenience store along the way. The first trip is from home to the convenience store, the second trip is from the convenience store to work. For this study, “daily” refers to weekdays, Monday through Friday, only. On average, study participants make 3.36 trips a day. Of those trips, 3.13 are made using a personal vehicle and 0.10 trips are made using public transportation. The following table presents the daily trip rate by market segment and including all modes, personal vehicle only, and public transportation only. Segment sample sizes are shown in parentheses.

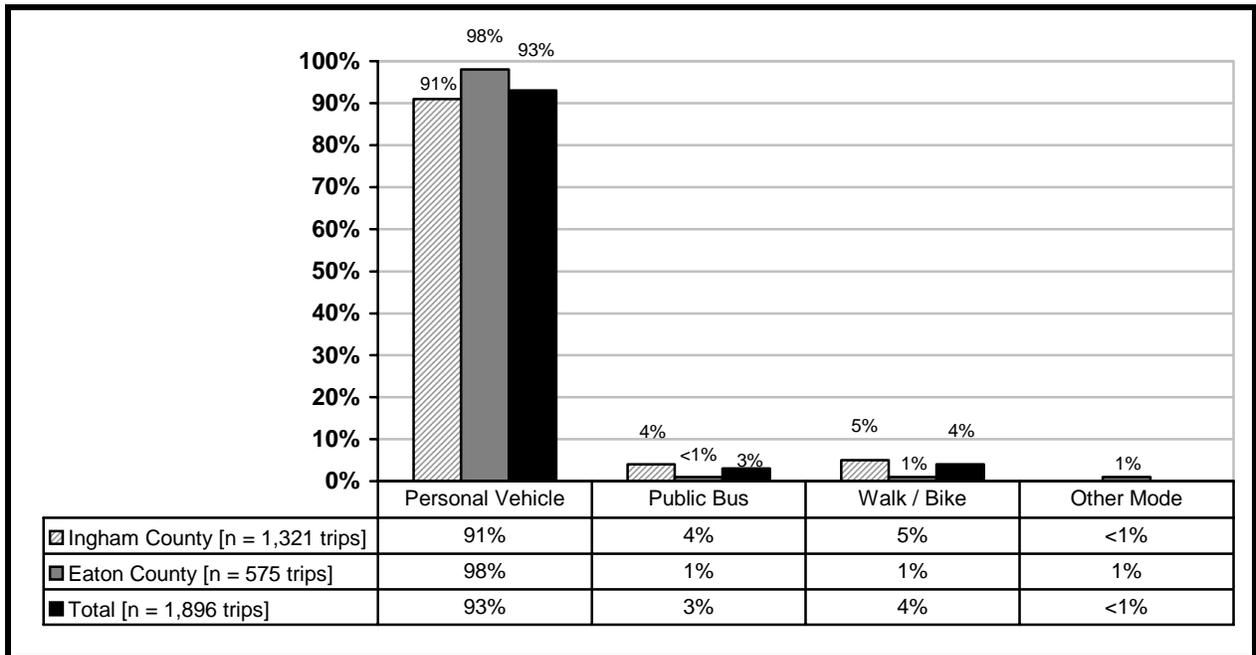
**Table 8: Daily Trip Rates by Market Segment**

Segment	Average Daily Trips by:		
	All Modes	Personal Vehicle	Public Transportation
<b>Transit Rider/ Non-Rider</b>			
Rider [n=52]	2.44	1.26	0.88
Non-Rider [n=543]	3.45	3.31	0.02
<b>Area of Residence</b>			
Ingham County [n=387]	3.60	3.26	0.15
Delta Township [n=80]	3.02	2.93	0.01
Eaton Other [n=127]	2.85	2.85	0
<b>Gender</b>			
Female [n=308]	3.08	2.86	0.16
Male [n=287]	3.66	3.43	0.03
<b>Age</b>			
18 to 24 years [n=85]	3.37	2.68	0.33
25 to 34 years [n=101]	3.80	3.64	0.03
35 to 44 years [n=121]	3.93	3.70	0.06
45 to 54 years [n=122]	3.43	3.36	0.04
55 to 64 years [n=71]	3.17	3.02	0.11
65 years or older [n=93]	2.23	2.08	0.08
<b>Employment Status</b>			
Employed [n=397]	3.52	3.32	0.05
Not Employed [n=197]	3.06	2.76	0.19
<b>Student Status</b>			
Student [n=111]	3.65	3.16	0.25
Not a Student [n=483]	3.30	3.13	0.06
<b>Household Size</b>			
One person [n=116]	2.94	2.49	0.13
Two people [n=203]	3.06	2.81	0.12
Three people [n=94]	4.07	3.91	0.03
Four or more people [n=174]	3.69	3.58	0.08
<b>Household Vehicles</b>			
Zero vehicles [n=23]	1.63	0.27	0.91
One vehicle [n=178]	3.20	3.01	0.06
Two vehicles [n=241]	3.34	3.14	0.08
Three or more vehicles [n=151]	3.90	3.74	0.05
<b>Household Income</b>			
Less than \$10,000 [n=29]	2.63	1.58	0.45
\$10,000 to \$19,999 [n=55]	2.96	2.72	0.15
\$20,000 to \$49,000 [n=221]	3.64	3.44	0.08
\$50,000 to \$79,999 [n=123]	3.51	3.43	0
\$80,000 or more [n=68]	3.74	3.74	0
<b>All Respondents [n=600]</b>	<b>3.36</b>	<b>3.31</b>	<b>0.10</b>

## Travel Mode

The following table presents the mode split for trips taken by diary respondents. As shown, the use of personal vehicle dominates the share of all trips, with 93%. Public transportation was highest among those trips made by Ingham County respondents at 4%, with 3% of all trip reported made using this mode. Eaton County respondents also reported a lower share (1%) of non-motorized modes (walk/bike) when compared to Ingham County respondents (5%).

**Figure 9: Travel Modes Used on Travel Day**



Additional travel mode findings include:

- Of the trips that respondents reported making by personal vehicle, 89% were made as the driver.
- The average reported occupancy per vehicle trip was 1.53 persons.
- CATA accounted for 96% of the reported trips made by public transportation.
- Less than 1% of trips reported by Eaton County respondents were made using public transportation. All were made by respondents of Delta Township.
- “Walking” accounted for 100% of the reported transit access modes. On average respondents walked an average of 1.8 blocks to access a CATA bus. “Walking” also dominated the transit egress modes (97%), while taxi accounted for 2% transit egress modes. On average, respondents walked 1.8 blocks from the bus stop to their final destination.
- Of the respondents making a trip on EATRAN, all reported having success in getting their first selection of pickup day and time. In addition, all reported that the transit vehicles arrive for pick-up on schedule.
- Of those trips made by walking or biking alone, respondents reported walking or biking an average of 2.7 blocks.

## Cross-County Travel

As the following table shows, 87% of trips made by Ingham County respondents had a destination within Ingham County. Eaton County respondents reported greater cross-county travel, with 43% of their trips having a destination outside of their home county.

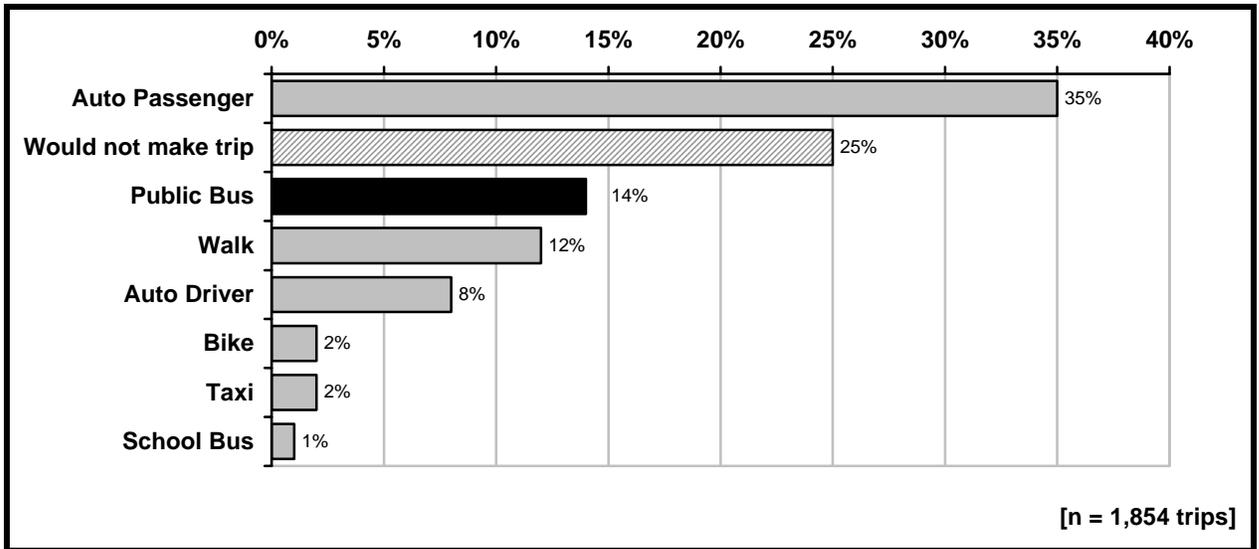
**Table 9: Observed Cross-County Travel**

Destination County	Home County	
	Ingham County [n = 831 trips]	Eaton County [n = 339 trips]
Ingham County	87%	36%
Eaton County	10%	57%
Clinton County	<1%	<1%
Other County	3%	7%

## Alternate Travel Mode

Each respondent was asked to assume for a moment that the mode that they reported for a particular trip was not available; the question was then posed, “how would you have made that trip?” The following figure presents those findings. As shown, respondents reported that 25% of trips would not have been made had the original mode of transportation not been available. Respondents also reported that 14% of trips would have been made using public transportation. The most common response was “Get a ride from somebody” (35%).

**Figure 10: Alternate Travel Modes**



## Trip Purpose

Trip purpose describes the primary reason that a respondent made a particular trip. Responses were allowed to fall within twelve pre-coded options including:

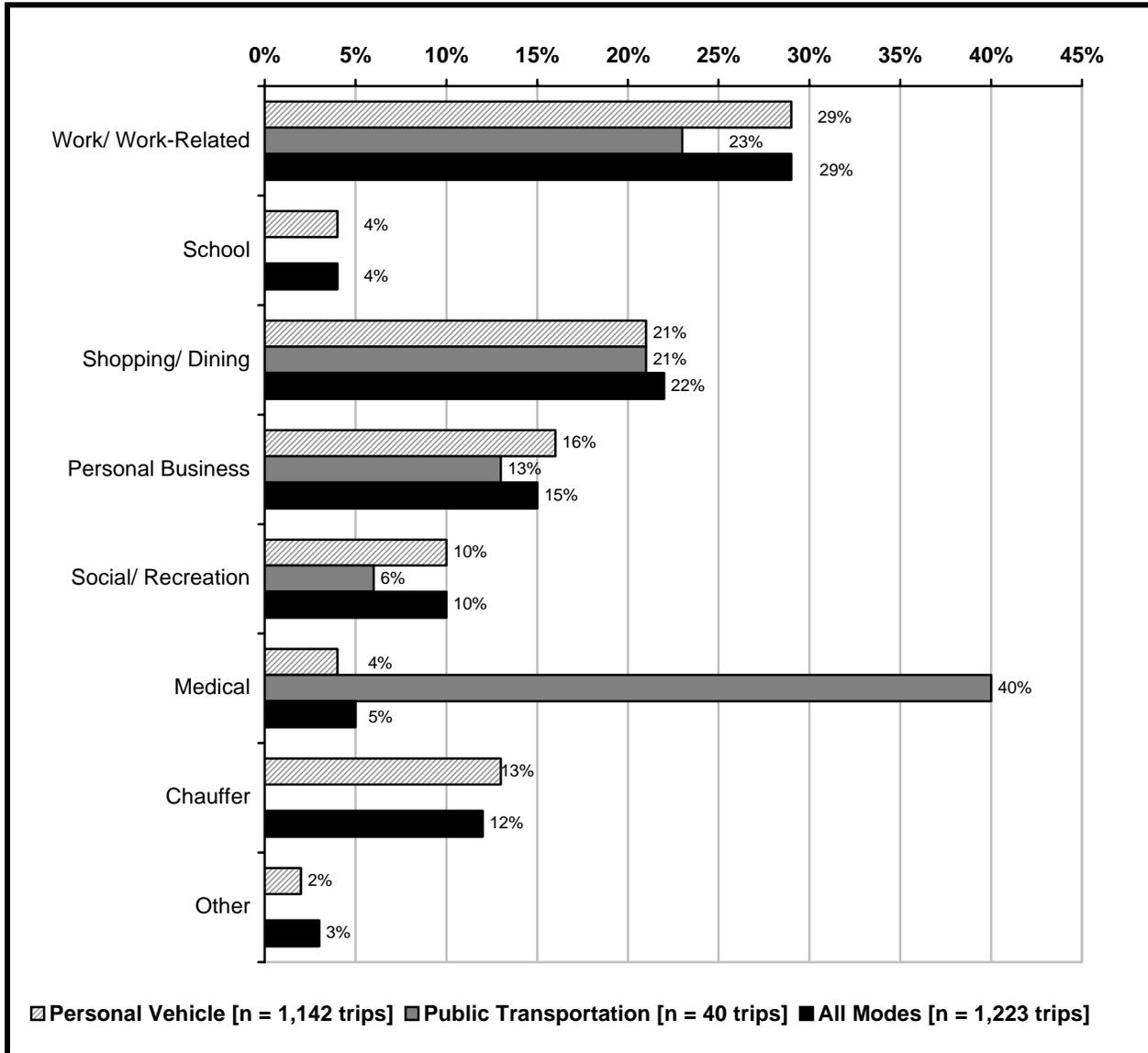
- Go to work,
- Go to school,
- Go shopping,
- Run errands for personal business,
- Run errands for work or go to a work-related site,
- Visit friends or relatives,
- Eat at a restaurant or diner,
- Visit a doctor or travel for medical or dental reasons,
- Go to a place of entertainment or recreation,
- Go to church or a place of religion,
- Pick-up or drop-off passenger, and
- Return home.

Responses not fitting perfectly within one of the pre-coded options were placed into an “other” category. For the report, the original categories have been collapsed to allow differences to be more easily identified. The following categories in parenthesis are used in the next figure. “Return Home” has been excluded from graph data.

- Go to work and Run errands for work or go to a work-related site (Work / Work-Related);
- Go to School (School);
- Go shopping and Eat at a restaurant or diner (Shopping / Dining);
- Run errands for personal business (Personal Business);
- Visit friends or relatives, Go to a place of entertainment or recreation, and Go to church or a place of religion (Social / Recreation);
- Visit a doctor or travel for medical or dental reasons (Medical);
- Pick-up or drop-off passenger (Chauffer); and
- Purposes not fitting into another category (Other).

The following figure presents the reasons that respondents reported making each trip. Comparisons are made between trips made by a personal vehicle, by public transportation, and by all modes. As shown, the largest percent of all trips were made to go to work or for work related reasons (29%). The most frequently reported reason for using public transportation was to go to a medical place or for medical reasons (40%). Public transportation was not reported as the mode of travel for any trips made for the purpose of going to school, or to pick-up or drop-off a passenger (chauffer).

**Figure 11: Observed Reasons for Travel on Travel Day**



# IV. Business Interviews

## 4.1 Introduction

One of the regional markets to be assessed for this study is the inter-county work trip market. Members of the business community were interviewed in an effort to gain information regarding these regional commuting patterns and the barriers that individuals may face in accessing employment opportunities. In conjunction with the technical committee and project manager, large employers in Eaton and Ingham Counties were chosen to be surveyed. Attempts were made to interview at least 10 major employers in each of the counties so as to represent a variation in geographic location and business type. After compiling some guidelines for questions, the study team contacted the stakeholders by telephone to set up face-to-face structured interviews. The majority of the establishments agreed to meet, but several were unable to do so for scheduling or other reasons. These businesses were subsequently interviewed about their transportation issues via telephone.

Structured interviews were held with some of the Lansing area's major employers. The following companies located in Eaton County were interviewed:

- Target
- Health Central / Blue Cross
- Comprehensive Logistics
- Capital Enterprises
- Delphi
- Meijers Distribution Center
- Wal-Mart
- Meijers
- General Motors

The following companies located in Ingham County were interviewed:

- Michigan Works
- Michigan State University
- Lansing Community College
- Eastwood Towne Center
- Sparrow Hospital
- State of Michigan Employees
- Peckham Vocational Industries

Case studies of these establishments follow. Please note that although Peckham Vocational Industries has facilities in both counties, the primary focus was on its Ingham County location. Additionally, detailed information on employee distribution, parking constraints, and work shifts for the businesses can be found in the appendices.

## 4.2 Case Studies

Please note that the following information was compiled from actual interviews with employees of each of the following businesses. The information presented reflects only the opinions and views of those business representatives and do not necessarily reflect the opinions or views of CATA, EATRAN, or the consultant, nor are necessarily factual. Where appropriate, corrections to non-factual findings have been provided in brackets.

### Eaton County Businesses

#### ***Target***

The Target store on West Saginaw Highway was contacted by phone. A typical big-box retail establishment, it provides free parking to its employees. No specific transportation problems were cited and the existing levels of public transportation options in Eaton County have not affected the store's ability to hire or retain employees from Ingham County. It is to be noted that this establishment is served by CATA bus Route 3, which does provide some linkage to Ingham County. Target managers did not think that many of their employees used public transportation or participated in other alternative modes of transportation, such as vanpools or carpools. It was stated that most of the Target employees were residents of Eaton County and lived in the apartment complexes located off of West Saginaw Highway. The first shift begins between 6 AM and 7 AM and the final shift normally ends around 11 PM - after CATA service has stopped operating.

#### ***Health Central / Blue Cross***

Health Central / Blue Cross is located in an office complex at the intersection of I-496 and Creyts Road. Because of the facility's suburban location on the western edge of the Lansing Metro area on I-496, the 239 employees commute from all parts of the mid-Michigan area. Less than half of the employees come from Ingham County. The typical workday at the facility runs between 7:30 AM and 5 PM. However, people work in four, six, eight, and twelve-hour shifts. People were not generally interested in public transportation or alternative commuting given the abundant parking and the suburban location, but interest was raised regarding public transportation from the area of Delta Township that falls outside of the CATA fixed-route service area.

#### ***Comprehensive Logistics***

Comprehensive Logistics is a logistical planning firm. They are responsible for the management of all inbound materials for the five (soon to be four) Lansing GM plants. The firm receives goods and then moves them over to the GM plants. Although the company's 450 employees are chiefly short-haul truck drivers, they drive only within the Lansing area and return home during the evening / morning. Comprehensive Logistics operates on either a two or three-shift schedule depending on the volume of work received. The three-shift option consists of shifts between 5:30 AM and 2 PM, 1:30 PM and 10 PM, and 9:30 PM and 6 AM. The two-shift option consists of shifts between 6:45 AM and 3:15 PM and 5:30 PM and 2 AM. Typically two-thirds of the employees work the first shift; one-fourth of the employees work the second, and the remaining work the third shift.

About 10% of the employees ride public transportation for part of the way to work. They take CATA Route 3 out to the Lansing Mall and then walk or bike the approximately three miles to the Comprehensive Logistics facility. It appears that the majority of these riders originate in the South Cedar St. area of south Lansing. This relative lack of public transportation options in Eaton County affected Comprehensive Logistics' ability to hire or retain employees from Ingham County. Although job applicants are asked if they have reliable transportation, they often provide misleading information or they request that the company hire a friend or family member along with them to ensure transportation. In the past, some informal carpools had been set up among employees to meet these needs.

Two possible public transportation suggestions voiced were the establishment of direct shuttles from downtown Lansing and the extension of CATA Route 3 from the Lansing Mall down to the industrial areas of southern Delta Township.

Individuals at Comprehensive Logistics think that there is great potential for transit to serve all of the businesses and industrial parks along Snow Rd, Mt. Hope, and Creyts Road. There is a new road being built behind their facility and the land has already been platted for industrial usage. They suggested a bus loop down from the Mall on Snow, which would return on Creyts Road. They would be willing to poll their workers or have CATA come undertake an informal survey regarding service (five questions or fewer). However, any outreach or market research would have to cover all three shifts.

### ***Capital Enterprises***

Capital Enterprises is a firm of 37 people located in the Delta Township Industrial Tract. This small establishment sells manufactured goods to prison commissaries. Most of their employees drive in from Ingham County. There have staggered work shifts of eight-hour intervals. The plant is usually open from 6 AM to 8 PM. The busiest time occurs when orders are being filled between noon and 5 PM.

In terms of transportation access, there are a few informal carpools but they primarily serve people who travel from very long distances (outside of the Lansing area). One person who does travel by public transportation part of the way has arranged to be picked up and dropped off at the Lansing Mall, which is at the westernmost end of CATA service. The lack of public transportation options in Eaton County has affected Capital Enterprises' ability to hire and retain employees from Ingham County. Although they currently do not offer any special employee transportation services, they did express interest and support for CATA service. Although they are small, they can envision piggybacking on CATA service to the industrial tract's larger businesses such as Yazaki-North America and the Lansing State Journal.

### ***Delphi***

This manufacturing facility is a GM supplier employing about 150 people. Its manufacturing labor is contracted out to Labor Force 2000, which in turn has a contract with the United Auto Workers (UAW). Delphi provides good union jobs in a difficult labor market and employees do everything they can to keep their positions. Some people even walk the several miles from CATA Route 3 to the plant if they have no other option. However, those who drive recognize that unexpected things do occur (such as car trouble, accidents, etc.), and employees would like to have another transportation option. One of the personnel managers noted that there were times when he called in sick because his car would not start. The lack of alternate commute options has often contributed to employee layoffs. Workers who have been dismissed for repeatedly being tardy or absent for their shifts have often cited reliable transportation as the key cause.

The most pressing public transportation need appears to be for the 110 first-shift workers (6:48 AM to 3:18 PM). The 40 people working the second shift (5:18 PM to 1:48 AM) usually will have enough warning time (during the day) to know that they will not have transportation and thus will try make arrangements to get to the facility.

Most of the employees seem to be coming from the southeast Lansing area. A direct work shuttle timed to meet/end shifts would probably best serve this company's needs.

The personnel department volunteered to take a quick poll of the employees to see exactly what sort of service the workers would prefer. They also thought it would be beneficial for CATA to come in and give an informational session during the "lunch" breaks during each of the shifts. Delphi appears extremely enthusiastic, supportive, and interested in receiving CATA service.

### ***Meijer Distribution Center***

This facility employs slightly fewer than 2,000 people and serves as the distribution center for the Meijer stores in mid-Michigan and western Michigan. The facility is open around the clock. Drivers work all shifts but most employees work in one of two shifts. The first shift starts between 5:30 AM and 7 AM; the second shift starts between 2 PM and 4 PM. The facility experiences a lighter load on the weekends. There do not seem to be any pressing transportation needs. They have ample parking on site and fewer than 20 people use EATRAN for part of their work trip.

Employees, especially long-time ones, travel to the facility from all over Michigan. Previously, the distribution center had been located in Grand Rapids and many workers made the move with the facility in order to retain their unionized positions and seniority.

Carpooling, and possibly direct shuttles from downtown Lansing, seem to be the best options for alternative commuting, but transportation options need to be flexible. Employees may leave early if work is slow or stay later to work overtime. Other potential markets for public transportation, however, do exist at the facility. Michigan State University students are often employed for seasonal work. A shuttle from East Lansing may best serve their needs. Also, the several hundred on-site FHI workers, lower-wage employees from a packing and loading company, may be more amenable to transit usage than the regular Meijer workers.

### ***Wal-Mart***

About 250 people work at this store on West Saginaw Highway. The largest group (40%) comes from Ingham County. Although the store hours run from 7 AM to 11 PM, there are overnight shifts running from 10 PM to 6:30 AM and from 7 AM to midnight. Very few people utilize public transportation to get to their job, but informal carpooling has sprung up to deal with transportation issues. When someone has a transportation problem, the others at Wal-Mart offer rides, including the management. There does not seem to be any real pressing transportation needs, although the store would like to receive CATA service. They would like to see the extension of CATA Route 3 down Saginaw Highway to the Wal-Mart shopping area, which is also home to Lowe's, Menards, Michaels, and other businesses. The extension of CATA service hours past 10:30 PM to account for night shifts would also be a benefit.

### ***Meijer***

Approximately 500 people work at the 24-hour Meijer store on West Saginaw Highway. The majority of the employees come from Eaton County, although a significant portion originates in Ingham County. This establishment currently has CATA service and between 10 and 15 percent of its employees use public transportation to get to and from work. However, there are many transportation issues. There is a need for later bus service past the current last scheduled bus. A later span of service would benefit workers on the night shift as well as other people getting off work at midnight. Also, people coming from Ingham County have difficulty making transfers late at night. By the time they get into downtown Lansing, service has stopped on the connecting routes. Other routes need to be run later or some sort of connection protection must be in place. This affects about one percent of the current Meijer employees.

The lack of fixed route public transportation service in Eaton County has affected the store's ability to hire or retain employees from Ingham and Eaton Counties. People have chosen not to work for Meijer if they lack viable transportation.

### ***General Motors***

The new General Motors facility in Delta Township is presently home to 100 workers, but expects to expand to 250 in the near future. The entire new plant complex is projected to employ more than 1,000 workers. There does not seem to be many current transportation issues. The management is more concerned with getting the facility up and running. A clearer picture of transportation related concerns should emerge by the end of the year.

## **Ingham County**

### ***Michigan Works!***

Michigan Works is a one-stop location for unemployment, welfare benefits, workforce training programs, and welfare-to-work programs. The 70 full-time employees chiefly hail from Ingham County. Employment providers, such as Lansing Community College and Peckham Vocational Industries often send people on-site to recruit. Parking is provided free for both employees and clients. The vast majority of employees and clients drive alone to the facility, and no real interest has been shown in increased public transportation to the facility from Eaton County. It should be noted that Michigan Works does maintain other facilities in Charlotte and Delta Township, so residents of Eaton County often avail themselves of services at those locations.

### ***Michigan State University***

Michigan State University (MSU), located in East Lansing, is a major research university. Approximately 44,000 students attend the university while nearly 12,000 persons are employed by the university. Very few of these employees live in Eaton County. The overwhelming majority of employees drive to work. There are 25,000-26,000 parking spaces available for everyone holding a permit (staff, faculty, students) as well as for university vehicles and university service vehicles. This parking permit costs \$224 annually for employees. Graduate students can get permits depending on the level of funding they receive. Once they qualify for such permits, graduate students pay about 75% of the staff rate. Commuter parking permits are available for all students for \$35 annually. These permits allow holders to park remotely on the southern part of the campus and then take on-campus CATA buses for free [MSU students must have either a commuter pass or a semester pass to ride the bus from the commuter lot. Cash is also accepted – \$0.50]. However, many students use the pay parking lots (\$0.80 for 30 minutes) reserved for visitors and can receive a reduced rate if they have a commuter parking pass. There has been talk of offering a commuter pass to faculty / staff for \$50 per year. With their parking permit, the staff gets a pass to use on-campus CATA routes. However, the on-campus CATA routes do not operate in the summer. Only 6,000 annual commute trips, including both students and employees, are made to Michigan State on CATA vehicles. This is a very small number considering that approximately 44,000 students attend the university and nearly 12,000 persons are employed by the university.

The chief transportation complaint at MSU is the difficulty of parking near worksites. A campus parking permit entitles one to park in lots around campus. Parking can usually be found quickly somewhere else on campus, but employees would rather search until something opens up near their worksite. This is intensified during the peak time, which is usually between 8 AM and 3 PM Monday through Thursday.

There has been consideration for establishing remote park and ride lots in Lansing. In this case, carpooling and vanpooling could become an attractive option especially if preferential reserved parking near specific buildings is designated.

### ***Lansing Community College***

Lansing Community College (LCC) is located in downtown Lansing. Some 1,800 to 2,000 full and part-time employees, as well as some 500 students, work for the college. The vast majority of these people commute to work via automobile. The peak work times are 9:30 AM to noon and 6 PM to 9 PM. Work shifts for non-faculty employees run between 7:30 AM and 5:40 PM. The 250 full-time faculty usually work between 8 AM and 5 PM. The part-time faculty primarily works in the evenings between 5:30 PM and 9:30 PM.

There are 700 employee parking spaces located in parking decks and in lots adjacent to the campus. Parking is provided to LCC employees free of charge. LCC pays approximately \$500,000 per year for this parking. About half of this expenditure is for the rental of additional lots from the city, churches, markets, and the water department. Notwithstanding, LCC continues to suffer from a lack of parking for its employees and its students. There are 1,300 to 1,400 employees on campus during the peak time but only 700 parking spots are available. Most staff members attempt to arrive well before 7:30 AM to secure a good parking spot. People often wait in

long lines to park. However, very few people are willing to give up their cars and the freedom it affords them. LCC is also a commuter school and student do not feel that they live close enough to the campus to give up the driving option. Another issue is that no CATA route directly serves the campus from the west. In order to reach the LCC campus, someone from Delta Township would have to travel to the CATA Transportation Center and transfer to a route serving LCC.

Alternative commute options do not currently seem to be popular among the employees. LCC does sell monthly transit passes to about five employees. LCC offered \$50 a month to their employees if they gave up their parking permit, but only three people took them up on the offer. Vanpooling and carpooling programs might be successful since parking is such an issue. People might use these modes if priority parking and preferential parking were given to carpools and vanpools.

LCC has studied running shuttle services from remote lots during the peak periods at 15-minute headways. The proposal was not implemented, however, because the school believed that it would be more feasible for CATA to operate such service than LCC. Also, only 50 to 75 people were predicted to use these shuttles if remote lots were set up at sites such as the Meridian Mall or the Lansing Mall. The problem with these locations is that many people would have to commute in the opposite direction from LCC in order to reach these remote lots.

The new MTech campus, located off of Mt. Hope Hwy. between Snow Rd. and Creyts Road in Delta Township, is scheduled to open in 18 months. This will present a need for service between the downtown campus and the MTech one. There will be 800 free parking spaces located at the MTech campus, even though only 600 are expected to be used. Perhaps a shuttle can be set up to link the two campuses. Suggestions have been previously made to extend the Lansing Mall CATA route to the new MTech LCC Campus. According to LCC, CATA has studied these proposals and decided that there would not be enough demand for the route.

LCC has a big CATA display kiosk in their lobby. The school is committed to helping CATA and would like to participate in marketing and developing strategies. They know that as a commuter community college, they present a unique challenge to CATA.

### ***Eastwood Towne Center***

The Eastwood Towne Center is an outdoor “lifestyle center” containing high-end restaurants and shops that previously were not found in the Mid-Michigan area. The mall in the area is growing rapidly, with Sam’s Club, Lowe’s, and Wal-Mart all opening in June. Most of the 1,500 people who work at the mall are either local Ingham County residents or Michigan State University students. There are a lot of part time and seasonal positions, which are easily filled. The low pay and high turnover nature of most of these positions lead locals to fill them, rather than commuters from Eaton County. Most of the workers drive to their jobs. There are 300 free parking spaces available at the complex. Transit has difficulty serving this location, because it is designed for easy auto access. A recent intercept survey of shoppers done by the mall discovered that three percent of the visitors come from Grand Ledge in Eaton County.

### ***Sparrow Hospital***

Sparrow Hospital is the Lansing area’s largest health care provider. Between 5,800 and 6,000 people are employed by the Sparrow Hospital network, of which about half are at the associate (nurse/health-care worker) level. There are three typical eight-hour shifts: one morning, one evening, and one night. The morning shift typically starts between 5 AM and 6 AM for food service; and around 7 AM for nurses and other associates. Associates and physicians usually work from 7 AM to 7 PM.

Transportation does not seem to be a key issue for the Sparrow Hospital workers. Less than five percent of Sparrow’s employees take public transportation to get to work. There are 2,000 free parking spaces available to the employees in areas adjacent to the facilities. Nevertheless, the lack of public transportation options in Eaton County has affected Sparrow’s ability to hire and retain employees from Eaton County.

Recently, Sparrow opened a new 1,200 space parking deck. During the construction period, employees were forced to use remote lots and free shuttles were frequently run. Employees voiced numerous complaints about the situation, focusing not on the quality of service but on the fact that they had to take a shuttle in the first place. Despite these employee concerns, Sparrow still maintains a remote employee parking lot two miles away. A shuttle transports commuters from the early morning hours to late in the evening, but the service appears to be considered a last resort.

In March, Sparrow Hospital will be buying a long-term care facility in Eaton County. Some 300 people will be shifted from the main facility in downtown Lansing to it. This will no doubt affect the inter-county travel patterns.

### ***State of Michigan Employees***

Some 10,000 people work for the various state of Michigan offices in downtown Lansing. Of these workers, approximately 3,000 to 4,000 are residents of Eaton County.

The major transportation problem that state employees face in downtown is parking. There are 7,000 places in downtown Lansing for these workers. State employees are eligible to buy pre-taxed parking permits for certain facilities. Parking in a surface lot costs \$16.50 bi-weekly. Non-reserved parking in a garage costs \$30.50 bi-weekly. A defined reserved parking spot in a garage costs \$41 bi-weekly. Rooftop parking on the garage costs \$19.50 bi-weekly. Typically, seniority determines what type of parking is available to whom. However, employees typically compete for the cheapest spots, which may not be the most convenient ones. Priority and preferential parking are offered to carpools, vanpools, and ridesharing. Some 100 people participate in these programs.

Remote shuttles have been somewhat successful. During the renovation of one of the parking decks, a remote lot was set up at a church parking lot on MLK Drive. CATA ran shuttles to the downtown on five minute headways. Employees were charged \$4.50 bi-weekly for this. At its peak, the service was being used by 350 people. When the parking deck reopened, 100 to 150 people opted to continue to use the shuttle instead of returning to the parking deck and paying the higher price. This indicates that parking costs may be a concern for some employees. However, this remote lot was shut down due to budgetary constraints.

### ***Peckham Vocational Industries***

Peckham is a vocational rehabilitation company that seeks to assist in providing independent living and employment for its clients. Its major facilities are in north Lansing, although there is a significant one in Charlotte. In addition to employing people, it administers many types of programs around Lansing. One problem noted by Peckham's Charlotte management was an inter-jurisdictional one. Sometimes, Peckham's clients from Delta Township need to travel to county government facilities. However, as Eaton County residents, these people are required to travel out to Charlotte instead of going to much closer facilities located in Lansing across the Ingham County border. Waivers are often obtained in these cases and Peckham's clients are permitted to use the Ingham County facilities. However, this presents a transportation problem since Delta Township and Ingham County are not linked by extensive fixed-route service. The chief area of need in this case is west of Waverly Rd. beyond the CATA service area. It was also noted that the majority of the public housing developments in Delta Township, such as along Elmwood Rd. behind the Lansing Mall and along Canal Rd. north of West Saginaw Highway, do not have fixed-route service. Residents of these developments, many of whom are Peckham clients or employees, would definitely benefit from additional transportation options.

Currently, Peckham serves 54 Eaton County residents who commute to Ingham County based jobs for work. The individuals who do not drive take EATRAN to the Lansing Mall and transfer either to CATA or Spec-Tran or are transported by Dean Bus. Of the Ingham County residents seeking work, 40 to 50 existing CATA riders per month are limited in their community job search because they cannot reach Eaton County locations via CATA. There are a number of hotels, restaurants, stores, and other businesses just west of the Lansing Mall (especially in

the new Wal-Mart complex) on West Saginaw Highway with entry-level jobs that are not accessible to transit-dependent individuals. Other similar businesses located along Grand River Avenue west of the Waverly Road / Grand River Avenue intersection and located west of the St. Joe Highway / Waverly Road intersection are also inaccessible to public transport riders originating in Ingham County.

The West Saginaw Highway corridor seems to be the most critical area. The use of EATRAN as a connecting service in Eaton County along this corridor has proven to be a problem. The individuals who have used EATRAN report that EATRAN's fare and limited scheduling capabilities are deterrents to continuing to use the service.

## **4.3 Findings**

### **Delta Township**

The Delta Township businesses can be broken into roughly two groups: those located along the West Saginaw Highway corridor and those located in the industrial parks south of Mt. Hope Highway.

#### **West Saginaw Highway Corridor**

Most of the businesses located along West Saginaw Highway are of a retail nature. Some of the West Saginaw Highway businesses, such as the Lansing Mall and the Meijers store, currently receive CATA service. Their most pressing needs are the extension of service hours to cover their late hour shifts and the extension of CATA Route 3 westward to serve the apartment complexes as well as the businesses along the Saginaw Highway corridor, especially the rapidly developing area around the interstate highway. Employment in this corridor tends to be low-wage and low-skill and it is these people who are most likely to be transit-dependent.

#### **Southern Delta Township**

There appears to be a lot of employment and growth in this area. The individuals at Comprehensive Logistics even pointed out some new roads and developments being erected. The majority of the workers at these facilities come from the south Lansing area and there is a critical mass of employees at the Delta Township employers. Some suggestions for serving them included direct shuttles coinciding with work shifts, the extension of the current CATA Route 3 down from Lansing Mall, and the establishment of new routes from downtown Lansing.

The Delta Township Industrial Tract may be a good candidate for service. Yazaki-North America, a GM supplier, has 30 full time employees and 200 temporary ones. According to others in the Industrial Tract, Yazaki is always short of parking and most of its temporary employees access the facility by kiss and ride. The company will be increasing its operations with the opening of the new GM plant in Delta. They have already begun construction on an expansion and will soon be doing more hiring. The other large employer in the Industrial Tract, the Lansing State Journal newspaper, also may present potential for ridership.

### **Ingham County**

The Ingham County businesses' chief transportation problem seems to be a lack of parking. However, with the exception of the state employees, very few workers seem to be willing to try alternative modes.

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# V. Conclusions & Recommendations

## 5.1 Survey Research Conclusions

### Rider / Non-Rider Comparisons

Public transportation users did not significantly vary demographically from the non-rider population. The following summarizes the differences between the two populations.

- Riders tend to be younger than the non-riding population. One in three Riders are between the ages of 18 and 24 years, compared with 12% of Non-Riders. On the opposite end of the scale, a significantly smaller percentage of Riders are 65 years of age or older when compared to the non-riding population.
- The greatest difference between the two populations with regard to household size is seen with two or less person households and households of three or more people. Sixty percent (60%) of households with a respondent Rider are comprised of one or two people, compared with 55% of non-rider households. While this difference may be attributed to the margin of error (the mean household size for Riders [2.67] and Non-Riders [2.70] are only separated by .03 persons), the trend does follow other published results.
- A significant difference in auto availability exists between the two groups. Nearly three out of ten (29%) Riders reported not having a household vehicle, a stark contrast to the 1% of Non-Riders without a household vehicle. Nearly seven out of ten (69%) Non-Riders reported having two or more household vehicles. On average, Riders (1.13) have nearly one less vehicle than Non-Riders (2.11).
- Household income also varies significantly between the two segments. Nearly one out of two Riders (50%) belongs to a household with an annual household income of less than \$20,000, compared with over one out of ten Non-Riders (12%).
- One in three Riders (33%) reported being either non-Caucasian or multiracial (16% Black/ African American), compared with 16% of Non-Riders who report the same. Nine percent (9%) of Non-Riders reported being Black or African American. Eight percent (8%) of Riders reported being of Hispanic ethnicity, compared with 5% of Non-Riders.
- More than one out of three Riders (37%) are currently enrolled in some type of school, compared with 17% of Non-Riders. Fifty-six percent (56%) of Riders are employed, compared with 69% of Non-Riders.
- Two out of three Riders (66%) reported having a valid driver's license, compared with 96% of Non-Riders.

### Cross-County Travel Attitudes

When asked if they thought there was a need for increased transit service between the two counties, 70% thought there is. No difference in opinion on this topic is seen between county respondents; however, a greater percentage of Riders (78%) thought there was a need for increased service between counties, when compared with Non-Riders (69%).

When asked if they would support or oppose an increase in property taxes to help pay for expanded service between the two counties, 41% stated that they support such an action (28% - somewhat, 13% - strongly). However, a nearly equal percentage (40%) strongly opposes an increase in property taxes for that purpose. The following summarized additional findings from this question:

- Riders (23%) were more likely to strongly support the action when compared with Non-Riders (13%), though a nearly equal percentage strongly oppose (35% and 39% respectively).

- Delta Township respondents are more likely to favor (50% / 20% strongly) and slightly less likely to strongly oppose (33%) an increase in property tax to help pay for increased transit service between the counties when compared with other Eaton County respondents (favor – 40%, strongly oppose – 40%) and Ingham County respondents (favor – 40%, strongly oppose - 40%).
- Of those that previously stated that there was a need for increased service, 54% also stated that they support an increase in property taxes to help pay for it; 24% strongly support the action. By comparison, of those that had stated that they do not see a need for increased service between the counties, 23% stated they support an increase in property taxes (6% strongly support).

Other general trends in support or opposition of an increase in property taxes include:

- As age increases, so does support for an increase in property taxes to pay for increased transit service between the counties. The trend reverses once the 65 years of age threshold is reached.
- Middle-income respondents (\$30K to \$80K) tend to offer greater support than did lower and upper-end income respondents.
- Employment status does not appear to have an influence on the level of support or opposition.

### **Attitudes towards Increased Servicing and Funding in Delta Township**

Respondents residing within Delta Township were asked similar questions, but specifically about service within the township. When asked if they thought there was a need for increased transit within the township, 57% thought there was. Fifty-six percent of respondents stated that they support an increase in property tax to help pay for that increase in service (26% strongly). Of those that support an increase in property taxes to help pay for increased service within Delta Township, 84% also supported the notion of an increase in property taxes to help pay for an increase in service between Ingham and Eaton counties.

### **Attitudes of Those Making or Wanting to Make Inter-County Trips**

More than 800 telephone surveys were administered in the study area. Since the primary goal of this study was to examine the current and potential inter-county travel market, only survey records in which the respondent indicated that s/he experiences the need or desire to travel into the other county were considered when analyzing the survey data for transit planning purposes.

The transit planning task specifically focuses on the cross-county travel markets and how well they are served. Most respondents claim familiarity with the area's transportation options. The majority of respondents (71%) indicated that they were aware of the specific public transportation services available to them. The figure was slightly higher for respondents from Ingham County (77%) than from Eaton County (64%) and Delta Township (68%). More than 20% of the total respondents indicated that they have traveled to places in the other county using public transportation. The figure was slightly higher for respondents from Eaton County (27%) than from Ingham County (18%). It is interesting to note that more respondents from Delta Township (34%) indicated that they take transit for cross-country trips than did respondents from Ingham County or Eaton County as a whole.

Most respondents believe that it is fairly easy to make cross-county transit trips. Nearly 90% of respondents thought it was possible to travel to places in the other county on public transportation. The figure was lower for respondents from Ingham County (88%) than from Eaton County and Delta Township (91% each). The following table displays the degree of difficulty that respondents from the geographic areas believe is involved with making inter-county trips on transit.

**Table 10: Level of Difficulty Making Cross-County Trips**

	Ingham County	Delta Township	Other Eaton County	Overall
Very Difficult	11.1%	14.9%	10.2%	10.7%
Somewhat Difficult	26.6%	22.3%	21.0%	23.8%

When asked why they did not use transit for cross-county trips, respondents cited preference for automobiles, not lack of accessibility, negative impression of transit service, operational issues, or other causes. The main reason for not using public transit cited by all respondents desiring or needing to make inter-county trips is that they prefer to use their personal vehicle (78%). When the data is examined in greater detail, three-quarters of the Eaton County respondents and Delta Township respondents also indicated that they do not use transit to make inter-county trips because of an automobile preference; Ingham County had an even slightly higher (81%) number of respondents indicating this.

Almost three-quarters of the interviewed people thought there was a need for better transit service between the two counties. An even higher percentage (81%) of Delta Township respondents reported a need for better cross-county transit service. A significant percentage (43%) of the overall respondents stated that they were willing to accept an increase in property taxes to pay for transit enhancements. Willingness to accept property tax levies was higher among Eaton County respondents (45%) and Delta Township respondents (47%) than among Ingham County respondents (41%). More than half (57%) of Eaton County respondents believe that there is a need for better transit service in Delta Township and more than half of them (54%) reported being willing to accept increases in Delta Township property taxes to pay for such improvements. Respondents from Delta Township answered these questions at roughly the same levels as the respondents from Eaton County.

### **Workers**

Slightly more than two-thirds of the cross-county travelers identified themselves as workers. Approximately 1.2% of this market uses transit to commute to work. Nearly 9% of workers with cross-county commute trips indicated that their employers pay for all or part of a monthly transit pass. Overall, 41% of cross-county commuters reported that they would be more likely to use transit if their employer paid for all or part of their transit pass.

### **Students**

Fourteen percent (14%) of the cross-county travelers identified themselves as students. Approximately 6% of these students use transit to get to school. Nearly half (46%) of these students reported that they have to pay to park at school. Students do seem to be willing to use transit under certain conditions. More than 25% of all students indicated that they would use transit if they had to pay for parking at school. Overall, 42% of students indicated that they would be more likely to use transit if their school paid for all or part of their transit pass. The numbers were slightly higher for respondents from Delta Township, 56% said they would use transit if their school paid for all or part of their transit pass.

## Transit-Dependent Populations

It is interesting to examine some of the traditional transit markets – particularly the transit-dependent populations. These people are not transit riders by choice – they either lack access to a working automobile or they have no valid driver’s license. Unfortunately, only two cross-county travelers indicated that they do not currently have access to a working automobile. This is too small of a sample to be valid for our use. Considerably more respondents indicated that they lacked a valid driver’s license. Almost three-quarters of those people lacking valid driver’s licenses, but needing or desiring to make inter-county trips, reside in Ingham County.

Of the cross-county respondents lacking a valid driver’s license, 83% indicated that they were aware of the public transportation services available to them. Ironically, the main reason cited by these people for not using public transportation was that they prefer to use their own car, even if they lack a valid driver’s license. Slightly more than one-quarter of these respondents cited transit not being an option for them or not being close enough to them.

Of these people lacking a valid driver’s license and indicating a need to make cross county-travel, slightly more than one-quarter indicated they actually have traveled to places in the other county by public transportation. Although nearly 90% of these people indicated that they believe it possible to access the other county by public transportation, 60% believe that it is difficult to do so. However, 89% believe that there is a need for increased inter-county transit and 73% favor an increase in property taxes to fund it. This is a much greater percentage of willingness for property tax levies than was found in the general population of cross-county travelers.

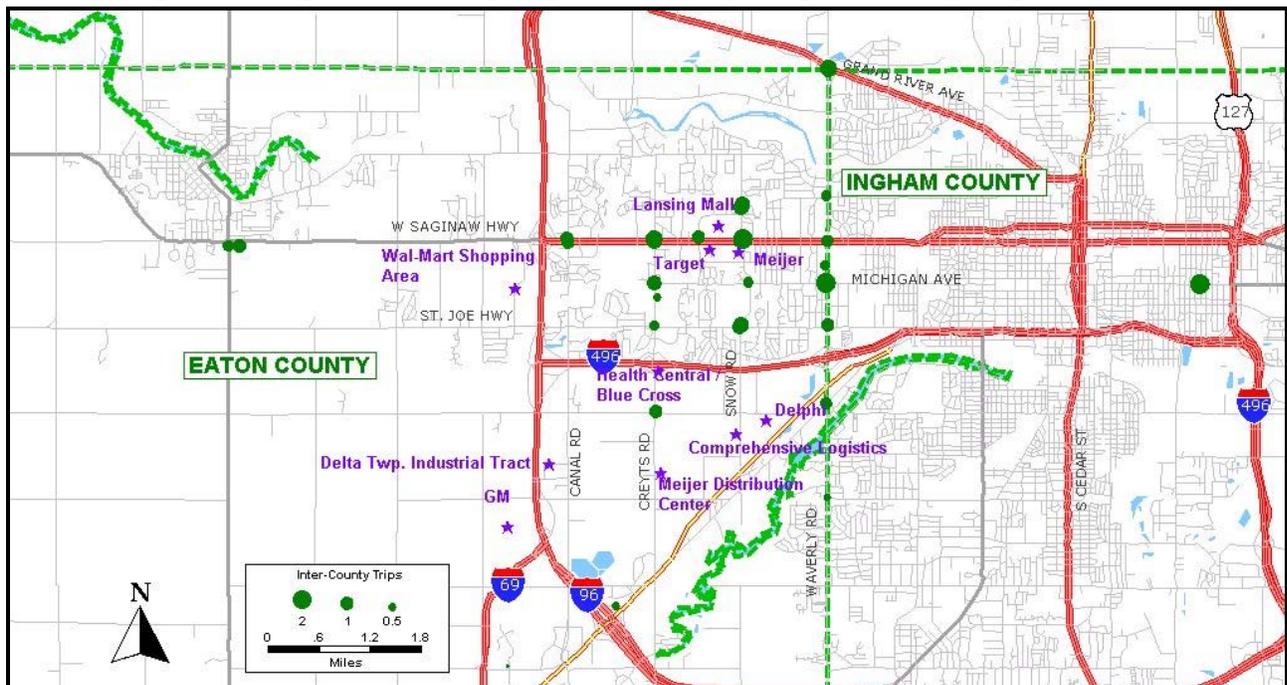
The survey results do show that area residents desire better cross-country transit service and are mostly willing to pay for it. Furthermore, the majority of Eaton County and Delta Township respondents reported that they are willing to accept property tax hikes to pay for better transit service in Delta Township. Significant percentages of both students and workers indicated that would be more likely to take transit if their employer or school paid for all or part of a monthly transit pass.

## Cross-County Origins & Destinations

A travel diary was administered to a subsample of 100 survey respondents in each county. These travel diaries offer the opportunity for closer examination of observed travel behaviors, and travel not made due to the lack of transportation by capturing one or two days worth of trips per sample.

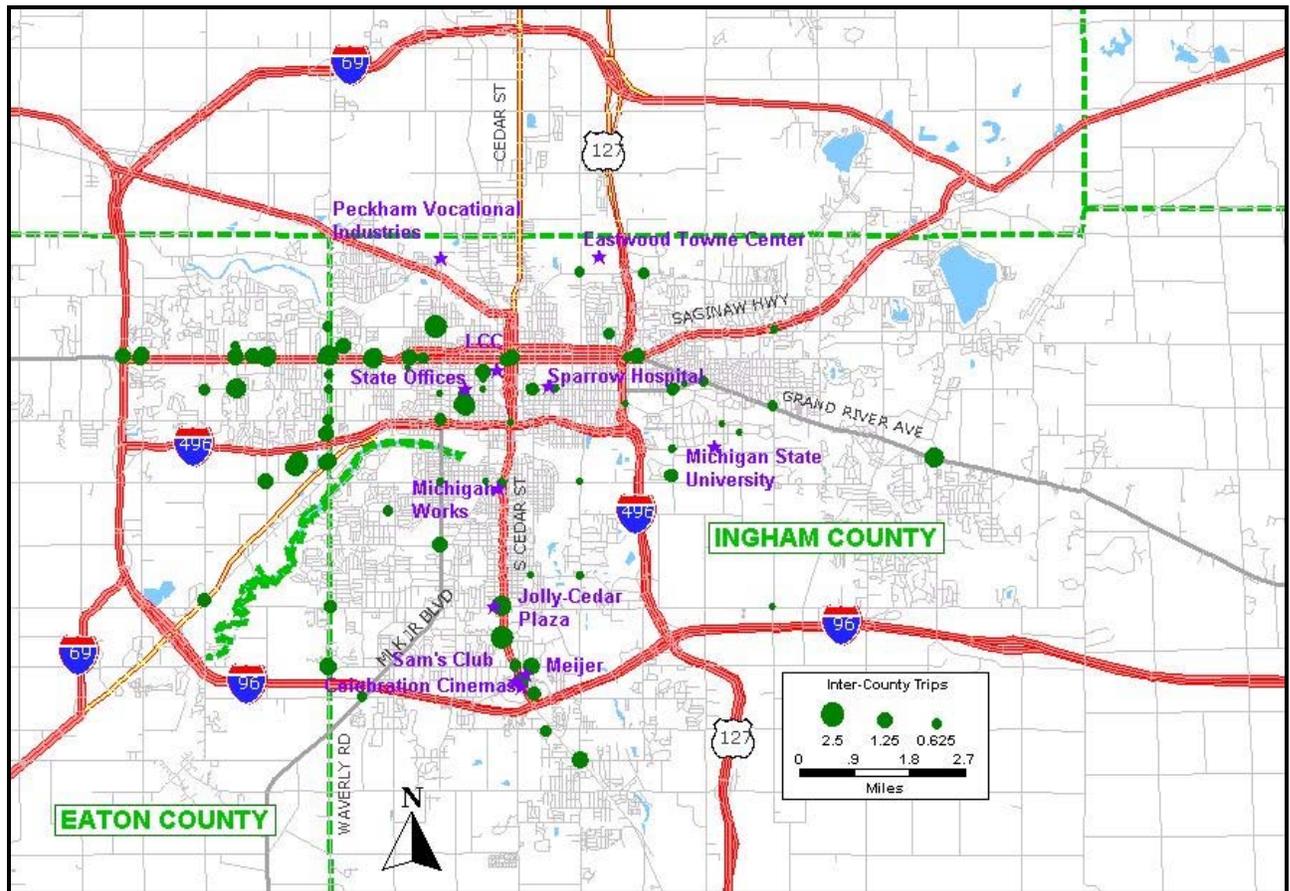
Travel destinations were plotted for cross-county trips originating in the three different geographic regions (Ingham County, Eaton County, and Delta Township). As seen in Map 1, cross-county trips made by Ingham County residents appear to be concentrated around the West Saginaw Highway corridor, with the largest clusters near the Lansing Mall, Creyts Road and Canal Road. Significant clusters also exist in the area bounded by Creyts Road to the west, Mt. Hope Avenue to the south, and Waverly Road to the east. Some of the concentrations along the St. Joe Highway and Michigan Road corridor are school-related. The survey does not indicate much demand for travel to the industrial park areas of southern and western Delta Township, which is inconsistent with the employer interviews.

*Figure 12: Map 1 Inter-County Trip Destinations for Ingham County Respondents*



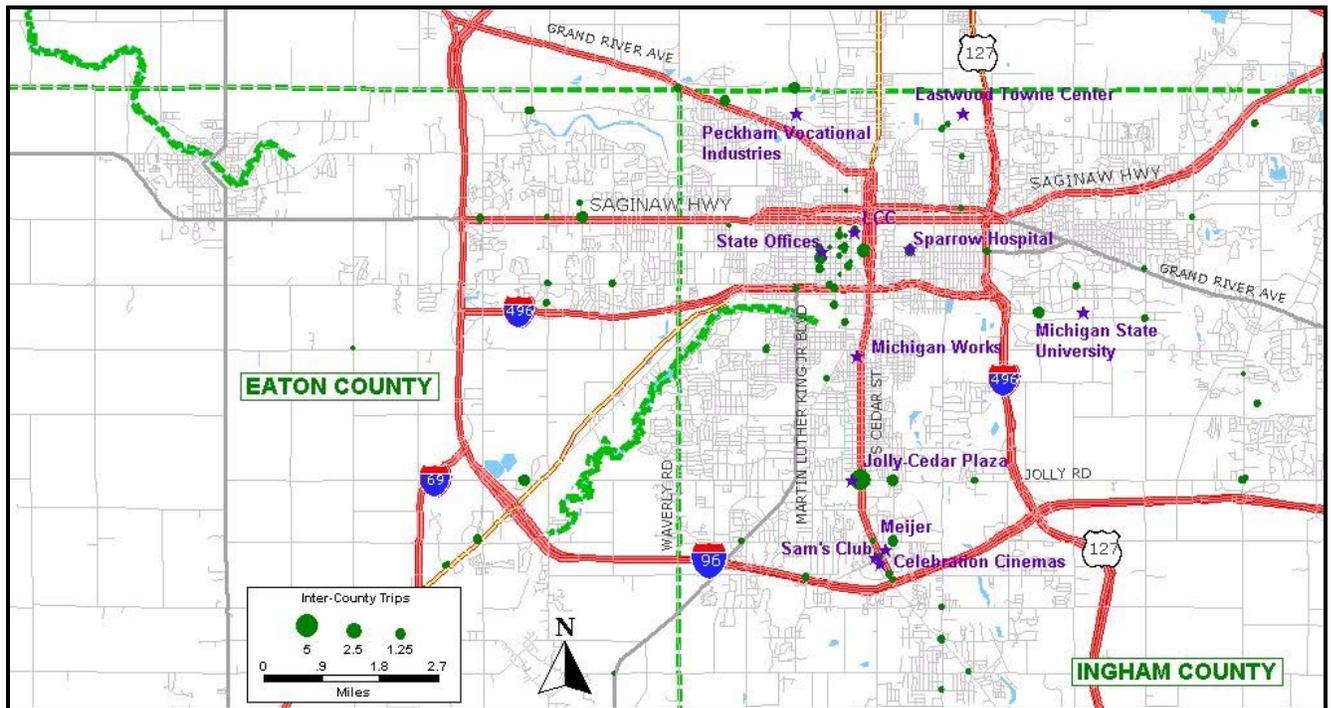
As seen in Map 2, the destinations in Ingham County for Delta Township residents fall into several large clusters: downtown Lansing, South Cedar Street south of Jolly Road, the area around Michigan State University in East Lansing area, the intersection of Grand River Road and Saginaw Highway, the eastside of Lansing, and in Okemos. The largest concentration of destinations seems to occur in South Lansing along the South Cedar Street and Waverly Road corridors. A fair number of these destinations have their origins in Delta Township locations currently lacking CATA fixed-route service. These include the area of West Saginaw Highway near Canal Road, St. Joe Highway near Creyts Road, Snow Road near St. Joe Highway, and the area between Snow Road and Waverly Road. These corridors in South Lansing, in addition to being home to several social service agencies, contain a considerable amount of the area's moderate to low-end retail and commercial establishments.

**Figure 13: Map 2 Inter-County Trip Destinations for Delta Township Respondents**



As seen in Map 3, most of the destinations originating from other portions of Eaton County fall in the downtown area of Lansing. Some significant clusters also occur along the South Cedar Street corridor, especially near Jolly Road. The other main destination concentration is in the Michigan State University area of East Lansing.

**Figure 14: Map 3 Inter-County Trip Destinations for Eaton County Respondents**



*\*Excluding Delta Township Respondents*

## Convergence of Survey Research Findings with Business Interviews

Not surprisingly, the survey and travel diary results confirmed two major findings from the stakeholder surveys.

- There is a need for fixed-route service along West Saginaw Highway west of the Lansing Mall
- There is a significant unserved travel market between Delta Township and South Lansing. However, the travel diary revealed flows from Delta Township to South Lansing while the employer interviews revealed flows in the opposite direction.

The results of the research also show that there are several key service areas meriting attention:

**The West Saginaw Highway Corridor west of the current CATA route 3 terminus at the Lansing Mall -** Several stakeholders indicated that they would like to see the extension of CATA Route 3 down Saginaw Highway to the large Wal-Mart shopping area, which is also home to Lowe's, Menard's, Michael's, and other businesses. The survey also indicated a number of people traveling to and from locations along West Saginaw Highway west of the Lansing Mall, specifically near the intersections with Canal Road, Creyts Road, and Broadbent Road.

Peckham Vocational Industries has indicated that a number of its transit-dependent Ingham County residents are limited in their community job search because they cannot reach Eaton County locations via CATA. There are a number of hotels, restaurants, stores, and other businesses just west of the Lansing Mall (especially in the new Wal-Mart complex) on West Saginaw Highway with entry-level jobs that are not accessible to transit-dependent individuals. The use of EATRAN as a connecting service in Eaton County along this corridor has proven to be a problem. The individuals who have used EATRAN report that the EATRAN fare (\$2 per ride) and limited scheduling capabilities are deterrents to continuing to use the service.

**St. Joe Highway and Creyts Road in Delta Township -** The survey indicated the presence of origins and destinations for cross-county travel located along St. Joe Highway and Creyts Road in Delta Township. Peckham Vocational Industries has indicated there are a number of hotels, restaurants, stores, and other businesses with entry-level jobs that are not accessible to transit-dependent individuals along St. Joe Highway and Creyts Road, specifically near the intersection of Creyts Road and I-496. That intersection is also home to the large Health Central/Blue Cross complex.

**Public Housing in Delta Township north of West Saginaw Highway -** It was also noted that the majority of the public housing developments in Delta Township, such as those along Elmwood Rd. behind the Lansing Mall and along Canal Rd. north of West Saginaw Highway, do not have fixed-route service. Residents of these developments, many of whom are Peckham clients or employees, would definitely benefit from additional transportation options.

**Southern Delta Township -** Many Delta Township employers and residents think that there is great potential for transit to serve all of the businesses and industrial parks along Snow Road, Mt. Hope Highway, and Creyts Road

**Extension of service hours -** Several stakeholders along the current CATA Route 3, along West Saginaw Highway, mentioned CATA service hours as a problem. There is a need for later bus service past the current last scheduled bus. Many stores, such as Target, Meijers, and Wal-Mart, have work shifts ending after CATA service ends operation at 10 PM. A longer span of service would benefit workers on the night shift - starting work between 10 PM and midnight - as well as other people getting off work at midnight. Another problem concerns making transfers late at night. Riders of Routes 7, 11, 13, and 15 do not have service after the last bus has left.

## 5.2 Recommendations

The following strategies were identified to enable CATA and EATRAN to better serve the inter-county travel market between Delta Township and Ingham County. These strategies were tailored to meet the specific demands revealed in the research. Among the strategies considered were extending routes, adjusting schedule time to better serve customer needs, and introducing new types of service, such as cross-town shuttles and urban demand-response service. Some of these alternatives are more viable than others due to costs. They are described in more detail below.

### Higher Potential Options

The higher potential options have the benefit that they provide for needs revealed in the research without entailing large cost increases. In particular, these options will not require complementary ADA service. Additionally, the benefits and costs for these options will accrue mainly to Delta Township.

#### Transit Hubs

The needs revealed by the research dovetail with suggestions made in CATA's *2003 Transit Development Plan* (TDP). CATA's current fixed-route system has a radial design oriented towards downtown Lansing. This makes cross-town travel (such as from South Lansing to Delta Township) difficult. A Multi-Hub system was proposed in the TDP as an improvement on the present system. This type of service system involves the establishment of secondary hubs (the primary one being CATA's downtown CTC) at significant endpoints of the CATA service area. These secondary hubs, such as the Meridian Mall and the Pennsylvania Avenue Meijer, currently function as major transfer locations. A secondary hub could be established in Delta Township at the Lansing Mall. This new Delta Township transit hub, located at the western end of CATA Route 3, could then play a key role in serving the unmet Delta Township transit market. New cross-town service and circulator/feeder services, dedicated to serving the Delta Township market, would be based at the Lansing Mall transit hub.

#### Cross-Town Service

A service could be established to serve the cross-county travel market between South Lansing and Delta Township. There are two main sources of the demand for this service. First, many of the employees working in the industrial areas of southern and western Delta Township are residents of South Lansing. Second, the survey and travel diary disclosed large concentrations of destinations for Delta Township residents in South Lansing along the South Cedar Street and Waverly Road corridors. Direct service between these two regions clearly is appropriate. A suggestion is to establish a cross-town bus route to directly connect the secondary transit hub at the Pennsylvania Avenue Meijer in South Lansing to the newly established transit hub at the Lansing Mall. The route could operate like the Mason Connector route. CATA currently operates the Mason Connector route, which links Mason, (outside of the CATA service area) to South Lansing. Five daily departures are scheduled in each direction. Additionally, the route deviates from its alignment up to one mile upon request. Note that these headways do not meet CATA's established goals for minimum service standards. The 2003 TDP stated that maximum policy headways for cross-town routes should be 30-35 minutes during the peak period and 60 minutes during the off-peak period. However there is a caveat that the maximum peak period standard of 30 minutes should only be implemented if sufficient ridership and funding exists.<sup>2</sup> Operating a Delta Township to South Lansing route with a similar schedule to that for the Mason Limited would allow the concept to be tested, and service to be increased when demand is established.

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<sup>2</sup> RLS and Associates, Capital Area Transit Authority: Transit Development Plan for the Tri-County Region, September 2003, p. 129.

## Other Cross-Town services

Since many of the employees working in the industrial areas of southern and western Delta Township are residents of South Lansing, another alternative is to set up subscription worksite shuttles. The secondary transit hub at the Pennsylvania Avenue Meijer in South Lansing could function as a central collection point and the shuttle schedules would coincide with the shift schedules for each worksite. Additionally, the Meijer Distribution Center, Comprehensive Logistics, and Delphi all appear to be in favor of establishing more formal ridesharing and carpool arrangements to ensure that their employees get to work. Many of the employers in the southern portion of Delta Township have had trouble hiring and retaining employees due to the lack of public transportation options and would gladly entertain programs to eliminate transportation concerns.

## Establishment of Delta Township Redi-Ride Service

The Lansing Mall secondary transit hub is capable of serving the specific Delta Township market by functioning as a base for flexible feeder and circulator services. Such services would provide connections for the residential areas and trip destinations in Delta Township. The survey and employer interviews clearly showed a desire for better transit service within Delta Township as well as residents' willingness to pay for it. One cost-effective way of dealing with this demand (and a step towards building ridership) is to establish an urban demand-response service zone. "Demand response services are generally applied in areas of low to moderate density where the number of transit trips and size of the area would probably be insufficient to justify a network of fixed route services. Demand response services are intended to provide greater area coverage using fewer vehicle resources than a fixed route network. At the same time, by offering a door-to-door premium service, they provide an additional level of service which planners and operators hope to translate into higher ridership among choice riders."<sup>3</sup>

CATA currently operates two demand response services in urban areas just inside of its fixed-route service area. These demand response services, dubbed Redi-Ride service, are provided in Meridian Township and in Delhi Township. Curb-to-curb service is provided usually within four hours of a passenger's telephone call. Service hours are from 9 AM to 5 PM on weekdays and Saturdays. Travel is permitted only within a specified geographic area (either Meridian Township or Delhi Township). These demand response services interface with CATA fixed route service in Meridian Township and Delhi Township and thus allow for transferring possibilities to other parts of the metropolitan region. These services appear to be successful in terms of ridership. It was reported in the TDP that ridership on the Meridian Redi-Ride Service has steadily increased from 943 in its inaugural month of March 2000 to over 1500 in March 2003.

A similar urban demand-response service zone could be established in Delta Township. It would be centered at the Lansing Mall secondary transit hub. Such a service would serve the needs expressed in several ways. First, it would provide access to all of the areas identified as needing attention (West Saginaw Highway corridor, St. Joe Highway corridor, industrial areas in southern Delta Township, and public housing north of West Saginaw Highway). The flexibility of a demand-response service zone allows for deep service penetration into all of Delta Township's markets; not a single bit of Delta Township would be left unserved if the service zone was defined correctly. Second, such a service would have the flexibility to serve the different dispersed industrial businesses in southern and western Delta Township without having to commit to a specific routing alignment (and perhaps leaving some development unserved in the process). Third, the service would act as a feeder service to the existing CATA routes and allow for transfers to fixed-route service at the Lansing Mall, the town's major retail center, or at other Delta Township locations. Fourth, in addition to acting as a feeder service to the CATA fixed routes, the demand-response service will have the additional benefit of providing possibilities for local trip-making within Delta Township, such as to the Lansing Mall. Fifth, such a service, due to its flexible nature, would not require complementary ADA paratransit service and thus would not incur additional expenses. "[Demand-response and] route deviation services are becoming increasingly important in meeting the requirements of the ADA within a cost-effective framework since they do not require complementary paratransit

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<sup>3</sup>Urban Associates, Inc., Guidelines for Enhancing Suburban Mobility Using Public Transportation, TCRP B-6: *Improving Transit Connections for Enhanced Suburban Mobility*, June 1997, p. 78.

services be provided as for fixed routes.”<sup>4</sup> Sixth, such a service would probably use small vehicles, which would establish a visible and positive image for the service.

If a critical mass of ridership having distinct travel patterns emerges from this service, CATA and EATRAN may wish to consider establishing some flexible circulator routes.

## Lower Potential Options

Several options were developed to extend existing fixed route services to Delta Township and to increase service hours. These options were found to be infeasible as they would also require increases in complementary ADA service along with increased operating cost.

### Route Extensions

One method for dealing with the unmet travel demand in Delta Township would be to simply extend some existing fixed-route service. The West Saginaw Highway corridor could be served by an extension of CATA Route 3, while the St. Joe Highway corridor could be served by an extension of CATA Route 12. Both of these suggestions were mentioned in CATA’s recent Transit Development Plan (TDP) of September 2003. However, several factors prohibit these extensions from being viable alternatives. First, as the Transit Development Plan points out, “since these route extensions would expand the CATA service area, complementary ADA paratransit service would need to be provided as well.”<sup>5</sup> This would place new burdens, fiscal and other, on CATA’s resources. Second, both of these route extensions would result in longer vehicle route running times. This could complicate the maintenance of acceptable headways and service standards that were set forth in the recent TDP. CATA’s goals for minimum headways on fixed routes are 30 to 40 minutes during the peak period and 60 to 70 minutes in other periods.<sup>6</sup> Schedules may have to be adjusted or else service might have to be cut back on parts of the existing routes in order to meet these service standards without increasing the number of vehicles in service on the alignment. For example, with an extension of Route 3, it is impossible to serve both the West Saginaw Highway corridor and the Willow Street corridor in Lansing if standards for route headways are to be adhered to. If service to these two areas were to be restructured into separate routes, this would also require increased commitment of fiscal and other resources in order to purchase new vehicles and pay for operating costs. Hence, extension of CATA’s existing fixed-route service into Delta Township would be costly.

### Extension of Service Hours

The need for increased span of fixed-route service could be remedied by increased service hours to meet late shifts. Additionally, issues with making late night transfers, such as those voiced by stakeholders, could be dealt with by running routes later or putting some sort of connection protection to ensure that people needing to make transfers from the final run are able to do so. However, such an extension of operating hours would require an extension of complementary ADA paratransit service.

Another alternative for dealing with the problem of making late night transfers may be to set up a modified guaranteed ride home program by having a fleet of cutaway buses or vans, normally used for demand response service, present at the CATA Transportation Center to meet the last bus arrivals there. Once all of the final buses have arrived, demand can be assessed. These smaller vehicles can be assigned to do a “final outbound run” along the route alignments depending on the needs of the travelers wishing to make transfers. These “final outbound runs” can also be run in flexible fashion, to reduce in-vehicle travel time and operating costs, once the destinations of the passengers wishing to make transfers are known. However, this alternative is not deemed feasible due to CATA’s large service area. Urban demand-response services, such as CATA’s Redi-Ride, are most efficient when they operate in a small defined geographic area.

Another option for extension of hours is to expand the Redi-Ride hours to cover evening and late night.

## Future Transit Demand

<sup>4</sup> Urban Associates, Inc., Guidelines for Enhancing Suburban Mobility Using Public Transportation, TCRP B-6: *Improving Transit Connections for Enhanced Suburban Mobility*, June 1997, p. 69.

<sup>5</sup> RLS and Associates, Capital Area Transit Authority: Transit Development Plan for the Tri-County Region, September 2003, p. 98.

<sup>6</sup> RLS and Associates, Capital Area Transit Authority: Transit Development Plan for the Tri-County Region, September 2003, p. 95.

Several major developments are slated to occur in Delta Township in the near future. Although specific details remain unknown, CATA and EATRAN will need to make efforts to serve these new facilities.

By the time this report is completed, Sparrow Hospital will have purchased a new long-term care facility in Delta Township. Some 300 people will be shifted from the main facility in downtown Lansing to it. This will no doubt affect the inter-county travel patterns.

Lansing Community College (LCC) is scheduled to open their new MTech Campus, situated in Delta Township, by the beginning of this fall. This new facility is located off of Mt. Hope Highway between Snow Road and Creyts Road. This will present a need for service between the downtown LCC campus and the MTech one. Perhaps a shuttle can be set up to link the two campuses.

The new General Motors facility in Delta Township, located off of Millett Highway west of I-69 and I-96, is presently home to 100 workers, but expects to expand to 250 in the near future. The entire new plant complex is projected to employ more than 1,000 workers. Once a critical mass is present, this could be a good market for CATA service.

The Delta Township Industrial Tract may be a good candidate for service, but more investigation of its specific travel markets is necessary. Yazaki-North America, a GM supplier, has 30 full time employees and 200 temporary ones. According to others in the Industrial Tract, Yazaki is always short of parking and most of its temporary employees access the facility by kiss and ride. The company will be increasing its operations with the opening of the new GM plant in Delta. They have already begun construction on an expansion and will soon be doing more hiring. The other large employer in the Industrial Tract, the Lansing State Journal newspaper, also may present potential for ridership. These companies, along with Capital Enterprises, could provide a significant base for ridership. Employee interviews at these specific facilities in the Delta Township Industrial Tract should be administered to get a better understanding of travel needs.

# Appendix

## Business Survey Interview Memo

To: Debbie Alexander

From: Michael Skipper

One of the regional markets to be assessed for the Transit Needs study is the inter-county work trip market. Members of the business community were interviewed in an effort to gain information regarding these regional commuting patterns and the barriers that individuals may face in accessing employment opportunities. Businesses were also asked a set of questions to gauge their interest in alternate commute options for their employees and if they would be willing to receive and distribute rideshare information to staff.

In conjunction with the technical committee and project manager, large employers in Eaton and Ingham Counties were chosen to be surveyed. After compiling some guidelines for questions, the study team contacted the stakeholders by telephone to set up face-to-face structured interviews. The majority of the establishments agreed to meet, but several were unable to do so for scheduling or other reasons. These businesses were subsequently interviewed about their transportation issues via telephone.

The following businesses were interviewed.

<b>Ingham County Businesses</b>	<b>Eaton County Businesses</b>
Michigan Works	Target
Michigan State University	Health Central / Blue Cross
Lansing Community College	Comprehensive Logistics
Eastwood Towne Center	Capital Enterprises
Sparrow Hospital	Delphi
State of Michigan Employees	Meijers Distribution Center
Peckham Vocational Industries	Wal-Mart
	Meijers
	General Motors

Interview summaries are provided in the right column of the following table. Rideshare interest and contact information is provided in the left column.

Business	Summary
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<p><b>Michigan Works!</b></p> <p><i>Rideshare Interest:</i> Yes</p> <p><i>Willing to distribute Information:</i> Yes</p> <p><i>Willing to host informational session:</i> Yes</p> <p><i>Contact:</i>            Edythe Hatter-Williams            (517) 492-5504  <a href="mailto:ehatter-williams@camw.net">ehatter-williams@camw.net</a></p>	<p>Michigan Works is a one-stop location for unemployment, welfare benefits, workforce training programs, and welfare-to-work programs. The 70 full-time employees chiefly hail from Ingham County. Employment providers, such as Lansing Community College and Peckham Vocational Industries often send people on-site to recruit. Parking is provided free for both employees and clients. The vast majority of employees and clients drive alone to the facility, and no real interest has been shown in increased public transportation to the facility from Eaton County. It should be noted that Michigan Works does maintain other facilities in Charlotte and Delta Township, so residents of Eaton County often avail themselves of services at those locations.</p> <p>Michigan Works has a CATA kiosk onsite with maps and schedules.</p>
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<p><b>Michigan State University</b></p> <p><i>Rideshare Interest:</i> Yes</p> <p><i>Willing to distribute Information:</i> Yes</p> <p><i>Willing to host informational session:</i> Yes</p> <p><i>Contact:</i>            Mike Rice            Parking and Safety Department            Michigan State University</p> <p>Jeff Kacos            (517) 355-9582  <a href="mailto:kacos@cpp.msu.edu">kacos@cpp.msu.edu</a></p>	<p>Michigan State University (MSU), located in East Lansing, is a major research university. Approximately 44,000 students attend the university while nearly 12,000 persons are employed by the university. Very few of these employees live in Eaton County. The overwhelming majority of employees drive to work. There are 25,000-26,000 parking spaces available for everyone holding a permit (staff, faculty, students) as well as for university vehicles and university service vehicles. This parking permit costs \$224 annually for employees. Graduate students can get permits depending on the level of funding they receive. Once they qualify for such permits, graduate students pay about 75% of the staff rate. Commuter parking permits are available for all students for \$35 annually. These permits allow holders to park remotely on the southern part of the campus and then take on-campus CATA buses for free [MSU students must have either a commuter pass or a semester pass to ride the bus from the commuter lot. Cash is also accepted – \$0.50]. However, many students use the pay parking lots (\$0.80 for 30 minutes) reserved for visitors and can receive a reduced rate if they have a commuter parking pass. There has been talk of offering a commuter pass to faculty / staff for \$50 per year. With their parking permit, the staff gets a pass to use on-campus CATA routes. However, the on-campus CATA routes do not operate in the summer. Only 6,000 annual commute trips, including both students and employees, are made to Michigan State on CATA vehicles. This is a very small number considering that approximately 44,000 students attend the university and nearly 12,000 persons are employed by the university.</p> <p>The chief transportation complaint at MSU is the difficulty of parking near worksites. A campus parking permit entitles one to park in lots around campus. Parking can usually be found quickly somewhere else on campus, but employees would rather search until something opens up near their worksite. This is intensified during the peak time, which is usually between 8 AM and 3 PM Monday through Thursday.</p> <p>There has been consideration for establishing remote park and ride lots in Lansing. In this case, carpooling and vanpooling could become an attractive option especially if preferential reserved parking near specific buildings is designated.</p>
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<p><b>Lansing Community College</b></p> <p><i>Rideshare Interest:</i> Yes</p> <p><i>Willing to distribute Information:</i> Yes</p> <p><i>Willing to host informational session:</i></p>	<p>Lansing Community College (LCC) is located in downtown Lansing. Some 1,800 to 2,000 full and part-time employees, as well as some 500 students, work for the college. The vast majority of these people commute to work via automobile. The peak work times are 9:30 AM to noon and 6 PM to 9 PM. Work shifts for non-faculty employees run between 7:30 AM and 5:40 PM. The 250 full-time faculty usually work between 8 AM and 5 PM. The part-time faculty primarily works in the evenings between 5:30 PM and</p>
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Yes, a suggestion is to have a session or presentation during registration. At that time, students, faculty, and workers will all be congregating in the area to register, pay their bills, and get their parking passes.

*Contact:*

Eric Glohr  
(517) 483-1797  
[eglohr@lcc.edu](mailto:eglohr@lcc.edu)

9:30 PM.

There are 700 employee parking spaces located in parking decks and in lots adjacent to the campus. Parking is provided to LCC employees free of charge. LCC pays approximately \$500,000 per year for this parking. About half of this expenditure is for the rental of additional lots from the city, churches, markets, and the water department.

Notwithstanding, LCC continues to suffer from a lack of parking for its employees and its students. There are 1,300 to 1,400 employees on campus during the peak time but only 700 parking spots are available. Most staff members attempt to arrive well before 7:30 AM to secure a good parking spot. People often wait in long lines to park. However, very few people are willing to give up their cars and the freedom it affords them. LCC is also a commuter school and student do not feel that they live close enough to the campus to give up the driving option. Another issue is that no CATA route directly serves the campus from the west. In order to reach the LCC campus, someone from Delta Township would have to travel to the CATA Transportation Center and transfer to a route serving LCC.

Alternative commute options do not currently seem to be popular among the employees. LCC does sell monthly transit passes to about five employees. LCC offered \$50 a month to their employees if they gave up their parking permit, but only three people took them up on the offer. Vanpooling and carpooling programs might be successful since parking is such an issue. People might use these modes if priority parking and preferential parking were given to carpools and vanpools.

LCC has studied running shuttle services from remote lots during the peak periods at 15-minute headways. The proposal was not implemented, however, because the school believed that it would be more feasible for CATA to operate such service than LCC. Also, only 50 to 75 people were predicted to use these shuttles if remote lots were set up at sites such as the Meridian Mall or the Lansing Mall. The problem with these locations is that many people would have to commute in the opposite direction from LCC in order to reach these remote lots.

The new MTech campus, located off of Mt. Hope Hwy. between Snow Rd. and Creyts Road in Delta Township, is scheduled to open in 18 months. This will present a need for service between the downtown campus and the MTech one. There will be 800 free parking spaces located at the MTech campus, even though only 600 are expected to be used. Perhaps a shuttle can be set up to link the two campuses. Suggestions have been previously made to extend the Lansing Mall CATA route to the new MTech LCC Campus. According to LCC, CATA has studied these proposals and decided that there would not be enough demand for the route.

LCC has a big CATA display kiosk in their lobby. The school is committed to helping CATA and would like to participate in marketing and developing strategies. They know that as a commuter community college, they present a unique challenge to CATA.

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## **Eastwood Towne Center**

*Rideshare Interest: Yes*

*Willing to distribute Information: Yes*

*Willing to host informational session: Yes*

*Contact:*

Brad Wick  
(517) 316-9209  
[bwick@anderson-realestate.com](mailto:bwick@anderson-realestate.com)

The Eastwood Towne Center is an outdoor "lifestyle center" containing high-end restaurants and shops that previously were not found in the Mid-Michigan area. The mall in the area is growing rapidly, with Sam's Club, Lowe's, and Wal-Mart all opening in June. Most of the 1,500 people who work at the mall are either local Ingham County residents or Michigan State University students. There are a lot of part time and seasonal positions, which are easily filled. The low pay and high turnover nature of most of these positions lead locals to fill them, rather than commuters from Eaton County. Most of the workers drive to their jobs. There are 300 free parking spaces available at the complex. Transit has difficulty serving this location, because it is designed for easy auto access. A recent intercept survey of shoppers done by the mall discovered that three percent of the visitors come from Grand Ledge in Eaton County.

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## **Sparrow Hospital**

*Rideshare Interest:* Yes

*Willing to distribute Information:* Yes

*Willing to host informational session:* Yes

*Contact:*

Gale Rosen

(517) 364-5820

[gale.rosen@sparrow.org](mailto:gale.rosen@sparrow.org)

Sparrow Hospital is the Lansing area's largest health care provider. Between 5,800 and 6,000 people are employed by the Sparrow Hospital network, of which about half are at the associate (nurse/health-care worker) level. There are three typical eight-hour shifts: one morning, one evening, and one night. The morning shift typically starts between 5 AM and 6 AM for food service; and around 7 AM for nurses and other associates. Associates and physicians usually work from 7 AM to 7 PM.

Transportation does not seem to be a key issue for the Sparrow Hospital workers. Less than five percent of Sparrow's employees take public transportation to get to work. There are 2,000 free parking spaces available to the employees in areas adjacent to the facilities. Nevertheless, the lack of public transportation options in Eaton County has affected Sparrow's ability to hire and retain employees from Eaton County.

Recently, Sparrow opened a new 1,200 space parking deck. During the construction period, employees were forced to use remote lots and free shuttles were frequently run. Employees voiced numerous complaints about the situation, focusing not on the quality of service but on the fact that they had to take a shuttle in the first place. Despite these employee concerns, Sparrow still maintains a remote employee parking lot two miles away. A shuttle transports commuters from the early morning hours to late in the evening, but the service appears to be considered a last resort.

In March, Sparrow Hospital will be buying a long-term care facility in Eaton County. Some 300 people will be shifted from the main facility in downtown Lansing to it. This will no doubt affect the inter-county travel patterns.

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## State of Michigan Employees

*Rideshare Interest: Yes*

*Willing to distribute Information: Yes*

*Willing to host informational session: Yes*

*Contact:*

Kay Black

(517) 335-1307

[blackk2@michigan.gov](mailto:blackk2@michigan.gov)

Brian Turnbull

(517) 241-4221

Some 10,000 people work for the various state of Michigan offices in downtown Lansing. Of these workers, approximately 3,000 to 4,000 are residents of Eaton County.

The major transportation problem that state employees face in downtown is parking. There are 7,000 places in downtown Lansing for these workers. State employees are eligible to buy pre-taxed parking permits for certain facilities. Parking in a surface lot costs \$16.50 bi-weekly. Non-reserved parking in a garage costs \$30.50 bi-weekly. A defined reserved parking spot in a garage costs \$41 bi-weekly. Rooftop parking on the garage costs \$19.50 bi-weekly. Typically, seniority determines what type of parking is available to whom. However, employees typically compete for the cheapest spots, which may not be the most convenient ones. Priority and preferential parking are offered to carpools, vanpools, and ridesharing. Some 100 people participate in these programs.

Remote shuttles have been somewhat successful. During the renovation of one of the parking decks, a remote lot was set up at a church parking lot on MLK Drive. CATA ran shuttles to the downtown on five minute headways. Employees were charged \$4.50 bi-weekly for this. At its peak, the service was being used by 350 people. When the parking deck reopened, 100 to 150 people opted to continue to use the shuttle instead of returning to the parking deck and paying the higher price. This indicates that parking costs may be a concern for some employees. However, this remote lot was shut down due to budgetary constraints.

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## Peckham Vocational Industries

*Rideshare Interest: Yes*

*Willing to distribute Information: Yes*

*Willing to host informational session: Yes*

*Contact:*

Andy Wright (Charlotte)

(517) 541-8847

[awright@peckham.org](mailto:awright@peckham.org)

Sara Weiss (Lansing)

(517) 319-8411

[sweiss@peckham.org](mailto:sweiss@peckham.org)

Peckham is a vocational rehabilitation company that seeks to assist in providing independent living and employment for its clients. Its major facilities are in north Lansing, although there is a significant one in Charlotte. In addition to employing people, it administers many types of programs around Lansing. One problem noted by Peckham's Charlotte management was an inter-jurisdictional one. Sometimes, Peckham's clients from Delta Township need to travel to county government facilities. However, as Eaton County residents, these people are required to travel out to Charlotte instead of going to much closer facilities located in Lansing across the Ingham County border. Waivers are often obtained in these cases and Peckham's clients are permitted to use the Ingham County facilities. However, this presents a transportation problem since Delta Township and Ingham County are not linked by extensive fixed-route service. The chief area of need in this case is west of Waverly Rd. beyond the CATA service area. It was also noted that the majority of the public housing developments in Delta Township, such as along Elmwood Rd. behind the Lansing Mall and along Canal Rd. north of West Saginaw Highway, do not have fixed-route service. Residents of these developments, many of whom are Peckham clients or employees, would definitely benefit from additional transportation options.

Currently, Peckham serves 54 Eaton County residents who commute to Ingham County based jobs for work. The individuals who do not drive take EATRAN to the Lansing Mall and transfer either to CATA or Spec-Tran or are transported by Dean Bus. Of the Ingham County residents seeking work, 40 to 50 existing CATA riders per month are limited in their community job search because they cannot reach Eaton County locations via CATA. There are a number of hotels, restaurants, stores, and other businesses just west of the Lansing Mall (especially in the new Wal-Mart complex) on West Saginaw Highway with entry-level jobs that are not accessible to transit-dependent individuals. Other similar businesses located along Grand River Avenue west of the Waverly Road / Grand River Avenue intersection and located west of the St. Joe Highway / Waverly Road intersection are also inaccessible to public transport riders originating in Ingham County.

The West Saginaw Highway corridor seems to be the most critical area. The use of EATRAN as a connecting service in Eaton County along this corridor has proven to be a problem. The individuals who have used EATRAN report that EATRAN's fare and limited scheduling capabilities are deterrents to continuing to use the service.

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## Target

*Rideshare Interest: Yes*

The Target store on West Saginaw Highway was contacted by phone. A typical big-box retail establishment, it provides free parking to its employees. No specific transportation problems were cited and the existing levels of public transportation options in Eaton County have not affected the store's ability to hire or retain employees from Ingham County. It is to be noted that this establishment is served by CATA bus Route 3, which

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*Willing to distribute Information:* Yes, but the store has a no solicitation policy.

*Willing to host informational session:* No

*Contact:*  
Tiffany Evans  
(517) 886-9488

does provide some linkage to Ingham County. Target managers did not think that many of their employees used public transportation or participated in other alternative modes of transportation, such as vanpools or carpools. It was stated that most of the Target employees were residents of Eaton County and lived in the apartment complexes located off of West Saginaw Highway. The first shift begins between 6 AM and 7 AM and the final shift normally ends around 11 PM - after CATA service has stopped operating.

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### **Health Central / Blue Cross**

*Rideshare Interest:* Yes

*Willing to distribute Information:* Yes

*Willing to host informational session:* No

*Contact:*  
(800) 333-6288

Health Central / Blue Cross is located in an office complex at the intersection of I-496 and Creyts Road. Because of the facility's suburban location on the western edge of the Lansing Metro area on I-496, the 239 employees commute from all parts of the mid-Michigan area. Less than half of the employees come from Ingham County. The typical workday at the facility runs between 7:30 AM and 5 PM. However, people work in four, six, eight, and twelve-hour shifts. People were not generally interested in public transportation or alternative commuting given the abundant parking and the suburban location, but interest was raised regarding public transportation from the area of Delta Township that falls outside of the CATA fixed-route service area.

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### **Comprehensive Logistics**

*Rideshare Interest:* Yes

*Willing to distribute Information:* Yes

*Willing to host informational session:* Yes

*Contact:*  
Heather Baldwin  
(517) 322-2649  
[hbaldwin@comprehensivelogistics.com](mailto:hbaldwin@comprehensivelogistics.com)

Comprehensive Logistics is a logistical planning firm. They are responsible for the management of all inbound materials for the five (soon to be four) Lansing GM plants. The firm receives goods and then moves them over to the GM plants. Although the company's 450 employees are chiefly short-haul truck drivers, they drive only within the Lansing area and return home during the evening / morning. Comprehensive Logistics operates on either a two or three-shift schedule depending on the volume of work received. The three-shift option consists of shifts between 5:30 AM and 2 PM, 1:30 PM and 10 PM, and 9:30 PM and 6 AM. The two-shift option consists of shifts between 6:45 AM and 3:15 PM and 5:30 PM and 2 AM. Typically two-thirds of the employees work the first shift; one-fourth of the employees work the second, and the remaining work the third shift.

About 10% of the employees ride public transportation for part of the way to work. They take CATA Route 3 out to the Lansing Mall and then walk or bike the approximately three miles to the Comprehensive Logistics facility. It appears that the majority of these riders originate in the South Cedar St. area of south Lansing. This relative lack of public transportation options in Eaton County affected Comprehensive Logistics' ability to hire or retain employees from Ingham County. Although job applicants are asked if they have reliable transportation, they often provide misleading information or they request that the company hire a friend or family member along with them to ensure transportation. In the past, some informal carpools had been set up among employees to meet these needs.

Two possible public transportation suggestions voiced were the establishment of direct shuttles from downtown Lansing and the extension of CATA Route 3 from the Lansing Mall down to the industrial areas of southern Delta Township.

Individuals at Comprehensive Logistics think that there is great potential for transit to serve all of the businesses and industrial parks along Snow Rd, Mt. Hope, and Creyts Road. There is a new road being built behind their facility and the land has already been platted for industrial usage. They suggested a bus loop down from the Mall on Snow, which would return on Creyts Road. They would be willing to poll their workers or have CATA come undertake an informal survey regarding service (five questions or fewer). However, any outreach or market research would have to cover all three shifts.

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### **Capital Enterprises**

*Rideshare Interest:* Yes

Capital Enterprises is a firm of 37 people located in the Delta Township Industrial Tract. This small establishment sells manufactured goods to prison commissaries. Most of their employees drive in from Ingham County. There have staggered work shifts of eight-hour intervals. The plant is usually open from 6 AM to 8 PM. The busiest time occurs when

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orders are being filled between noon and 5 PM.

*Willing to distribute Information: Yes*

*Willing to host informational session: Yes*

*Contact:*

Jim Morin

(800) 530-9900

[jimmorin@capitalent.net](mailto:jimmorin@capitalent.net)

In terms of transportation access, there are a few informal carpools but they primarily serve people who travel from very long distances (outside of the Lansing area). One person who does travel by public transportation part of the way has arranged to be picked up and dropped off at the Lansing Mall, which is at the westernmost end of CATA service. The lack of public transportation options in Eaton County has affected Capital Enterprises' ability to hire and retain employees from Ingham County. Although they currently do not offer any special employee transportation services, they did express interest and support for CATA service. Although they are small, they can envision piggybacking on CATA service to the industrial tract's larger businesses such as Yazaki-North America and the Lansing State Journal.

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**Delphi**

*Rideshare Interest:* Yes

*Willing to distribute Information:* Yes

*Willing to host informational session:* Yes

*Contact:*

Ken Jones

Labor Force 2000 (subcontractor)

[Ken.e.jones@delphi.com](mailto:Ken.e.jones@delphi.com)

This manufacturing facility is a GM supplier employing about 150 people. Its manufacturing labor is contracted out to Labor Force 2000, which in turn has a contract with the United Auto Workers (UAW). Delphi provides good union jobs in a difficult labor market and employees do everything they can to keep their positions. Some people even walk the several miles from CATA Route 3 to the plant if they have no other option. However, those who drive recognize that unexpected things do occur (such as car trouble, accidents, etc.), and employees would like to have another transportation option. One of the personnel managers noted that there were times when he called in sick because his car would not start. The lack of alternate commute options has often contributed to employee layoffs. Workers who have been dismissed for repeatedly being tardy or absent for their shifts have often cited reliable transportation as the key cause.

The most pressing public transportation need appears to be for the 110 first-shift workers (6:48 AM to 3:18 PM). The 40 people working the second shift (5:18 PM to 1:48 AM) usually will have enough warning time (during the day) to know that they will not have transportation and thus will try make arrangements to get to the facility.

Most of the employees seem to be coming from the southeast Lansing area. A direct work shuttle timed to meet/end shifts would probably best serve this company's needs.

The personnel department volunteered to take a quick poll of the employees to see exactly what sort of service the workers would prefer. They also thought it would be beneficial for CATA to come in and give an informational session during the "lunch" breaks during each of the shifts. Delphi appears extremely enthusiastic, supportive, and interested in receiving CATA service.

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**Meijers Distribution Centers**

*Rideshare Interest:* Yes

*Willing to distribute Information:* No

*Willing to host informational session:* No

*Contact:*

Dan Mulder

(517) 322-7200

[mulderda@meijer.com](mailto:mulderda@meijer.com)

This facility employs slightly fewer than 2,000 people and serves as the distribution center for the Meijer stores in mid-Michigan and western Michigan. The facility is open around the clock. Drivers work all shifts but most employees work in one of two shifts. The first shift starts between 5:30 AM and 7 AM; the second shift starts between 2 PM and 4 PM. The facility experiences a lighter load on the weekends. There do not seem to be any pressing transportation needs. They have ample parking on site and fewer than 20 people use EATRAN for part of their work trip.

Employees, especially long-time ones, travel to the facility from all over Michigan. Previously, the distribution center had been located in Grand Rapids and many workers made the move with the facility in order to retain their unionized positions and seniority.

Carpooling, and possibly direct shuttles from downtown Lansing, seem to be the best options for alternative commuting, but transportation options need to be flexible. Employees may leave early if work is slow or stay later to work overtime. Other potential markets for public transportation, however, do exist at the facility. Michigan State University students are often employed for seasonal work. A shuttle from East Lansing may best serve their needs. Also, the several hundred on-site FHI workers, lower-wage employees from a packing and loading company, may be more amenable to transit usage than the regular Meijer workers.

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**Wal-Mart**

*Rideshare Interest:* Yes

*Willing to distribute Information:* No

*Willing to host informational session:* No

*Contact:*

Adam Vandiver

(517) 622-1431

About 250 people work at this store on West Saginaw Highway. The largest group (40%) comes from Ingham County. Although the store hours run from 7 AM to 11 PM, there are overnight shifts running from 10 PM to 6:30 AM and from 7 AM to midnight. Very few people utilize public transportation to get to their job, but informal carpooling has sprung up to deal with transportation issues. When someone has a transportation problem, the others at Wal-Mart offer rides, including the management. There does not seem to be any real pressing transportation needs, although the store would like to receive CATA service. They would like to see the extension of CATA Route 3 down Saginaw Highway to the Wal-Mart shopping area, which is also home to Lowe's, Menards, Michaels, and other businesses. The extension of CATA service hours past 10:30 PM to account for night shifts would also be a benefit.

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**Meijer (store)**

*Rideshare Interest:* Yes

*Willing to distribute Information:* Yes

*Willing to host informational session:* Maybe, need to check with corporate management.

*Contact:*

Mike Borek

(517) 886-8109

[borekm@meijer.com](mailto:borekm@meijer.com)

Approximately 500 people work at the 24-hour Meijer store on West Saginaw Highway. The majority of the employees come from Eaton County, although a significant portion originates in Ingham County. This establishment currently has CATA service and between 10 and 15 percent of its employees use public transportation to get to and from work. However, there are many transportation issues. There is a need for later bus service past the current last scheduled bus. A later span of service would benefit workers on the night shift as well as other people getting off work at midnight. Also, people coming from Ingham County have difficulty making transfers late at night. By the time they get into downtown Lansing, service has stopped on the connecting routes. Other routes need to be run later or some sort of connection protection must be in place. This affects about one percent of the current Meijer employees.

The lack of fixed route public transportation service in Eaton County has affected the store's ability to hire or retain employees from Ingham and Eaton Counties. People have chosen not to work for Meijer if they lack viable transportation.

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**General Motors**

*Rideshare Interest:* Not right now

*Willing to distribute Information:*  
Not right now

*Willing to host informational session:*  
Not right now

*Contact:*

Jim Metevier

(517) 721-2009

The new General Motors facility in Delta Township is presently home to 100 workers, but expects to expand to 250 in the near future. The entire new plant complex is projected to employ more than 1,000 workers. There does not seem to be many current transportation issues. The management is more concerned with getting the facility up and running. A clearer picture of transportation related concerns should emerge by the end of the year.

**CAPITAL AREA TRANSPORTATION AUTHORITY  
TRANSIT NEEDS ASSESSMENT SURVEY  
BOI-03-198**

**Introduction**

**INT** Hello, my name is \_\_\_\_\_ from Northwest Research Group and I am calling on behalf of CATA and EATRAN **[PRONOUNCED E-TRAN]** your community's public transportation providers, to conduct a survey on public transportation in your area. This call may be monitored and/or recorded for quality control purposes.

**For this survey, I need to speak to the adult in the household who is 18 years of age or older who had the most recent birthday. Would that be you?**

**[FOR MID-INTERVIEW CALLBACKS]**

**[AS NEEDED: Let me assure you this is not a sales call, and all the information you give will be kept strictly confidential]**

**[FOR MID-INTERVIEW CALLBACKS]:** Hello, my name is \_\_\_\_\_ from Northwest Research Group and I am calling on behalf of CATA, the Capital Area Transit Authority, to complete a survey on public transportation.

- 1 RESPONDENT AVAILABLE **[CONTINUE TO LANG1]**
- 2 ALTERNATE AVAILABLE **[SECOND CONTACT ONLY] [CONTINUE TO LANG1]**
- 2 RESPONDENT NOT AVAILABLE **[SCHEDULE CALLBACK]**
- 3 NO ONE IN HOUSEHOLD IS 18 OR OLDER **[SKIPTO THANK2 – DISPOS=22]**
- 4 LANGUAGE BARRIER **[SKIPTO THANK1 – DISPOS=10]**
- 9 DON'T KNOW/REFUSED **[SKIP TO THANK8 – DISPOS=8]**

**LANG1** In what language are you most comfortable expressing your opinions?

**[SELECT ONE]**

- 1 ENGLISH **[SKIPTO SCR1]**
- 2 SPANISH **[SCHEDULE CALLBACK]**
- 3 OTHER [SPECIFY] **[SKIPTO LANG2]**
- 9 DON'T KNOW / REFUSED **[SKIPTO LANG2]**

**LANG2** May I speak to another adult household member who would be most comfortable speaking English?

- 1 YES **[SKIPTO INTRO]**
- 2 NO **[SKIPTO THANK1 – DISPOS=10]**
- 3 ENGLISH-SPEAKING ADULT NOT AVAILABLE NOW **[SCHEDULE CALLBACK]**
- 4 LANGUAGE BARRIER – CANNOT CONTINUE **[SKIPTO THANK1 – DISPOS=10/15]**
- 9 DON'T KNOW/REFUSED **[SKIP TO THANK8 – DISPOS=8]**

**Screener**

**SCR1** So that I can be sure that you are in our study area, may I please have your zip code?

##### ZIPCODE

99998 DON'T KNOW **[THANK AND TERMINATE] [SKIP TO THANK8 – DISPOS=8]**

99999 REFUSED **[THANK AND TERMINATE] [SKIP TO THANK8 – DISPOS=8]**

**IF OUTSIDE ZIPCODE LIST, THANK AND TERMINATE [SKIP TO THANK4 – DISPOS=24]**

- SCR2** In what county is your residence?
- 1 CLINTON COUNTY [THANK AND TERMINATE] [SKIP TO THANK8 – DISPOS=8]
  - 2 EATON COUNTY
  - 3 INGHAM COUNTY
  - 4 OTHER (SPECIFY) [THANK AND TERMINATE] [SKIP TO THANK8 – DISPOS=8]
  - 8 DON'T KNOW [THANK AND TERMINATE] [SKIP TO THANK8 – DISPOS=8]
  - 9 REFUSED [THANK AND TERMINATE] [SKIP TO THANK8 – DISPOS=8]

**ALTCNTY** COMPUTE

- 1 EATON COUNTY [IF SCR2 = 3]
- 2 INGHAM COUNTY [IF SCR2 = 2]

**DELTA** COMPUTE

- 1 DELTA TOWNSHIP [IF SCR1 = 48917 AND SCR2=2]
- 2 NOT DELTA TOWNSHIP

**QUOTAS:**

- 1 DELTA TWP (n = 200)
- 2 OTHER EATON CO. (n = 200)
- 3 INGHAM CO. (n = 200)

IF ZIP=48837 AND SCR2=2, QUOTA=1

IF ZIP=48817 AND SCR2=2, QUOTA=1

IF ZIP=48813 AND SCR2=2, QUOTA=2

IF ZIP=48821 AND SCR2=2, QUOTA=2

IF ZIP=48827 AND SCR2=2, QUOTA=2

IF ZIP=48876 AND SCR2=2, QUOTA=2

IF ZIP=48906 AND SCR2=3, QUOTA=3

IF ZIP=48910 AND SCR2=3, QUOTA=3

IF ZIP=48911 AND SCR2=3, QUOTA=3

IF ZIP=48912 AND SCR2=3, QUOTA=3

IF ZIP=48915 AND SCR2=3, QUOTA=3

IF ZIP=48933 AND SCR2=3, QUOTA=3

IF ZIP=48917 AND SCR2=3, QUOTA=3

**SCR3** Do you or anyone in your household work for CATA or EATRAN?

- 1 YES [SKIP TO THANK3 – DISPOS=23]
- 2 NO
- 8 DON'T KNOW / REFUSED [SKIP TO THANK8 – DISPOS=8]
- 9 REFUSED [SKIP TO THANK8 – DISPOS=8]

**GENDER** DO NOT ASK

- 1 MALE
- 2 FEMALE

**DIARY** DIARY RESPONDENT

- 1 YES
- 2 NO

## Section A – Ridership Characteristics

**A1** Including yourself, how many people in your household ride public transit at least once a month?

- 00 NONE [SKIP TO NON1]
- \_\_ ENTER NUMBER OF PEOPLE
- 98 DON'T KNOW
- 99 REFUSED

- A2** Do you personally ride public transportation provided by CATA or EATRAN? Which one?
- 1 CATA
  - 2 EATRAN
  - 3 CATA and EATRAN
  - 4 DO NOT USE TRANSIT **[SKIP TO NON1]**
  - 8 DON'T KNOW **[SKIP TO NON1]**
  - 9 REFUSED **[SKIP TO NON1]**

- RIDER1** Please tell me how often you ride public transportation. That is, how many days per week, month, or year do you ride?
- 1 ONE DAY A WEEK
  - 2 TWO OR THREE DAYS A WEEK
  - 3 FOUR OR FIVE DAYS A WEEK
  - 4 SIX OR SEVEN DAYS A WEEK
  - 5 LESS THAN ONE DAY WEEK, BUT AT LEAST ONE DAY A MONTH
  - 6 LESS THAN ONE DAY A MONTH, BUT AT LEAST ONE DAY A YEAR
  - 7 NEVER **[SKIP TO NON1]**
  - 98 DON'T KNOW
  - 99 REFUSED

- RIDER2** How long have you been using **[SHOW A2]**?  
\_\_\_\_\_ ENTER NUMBER OF YEARS
- 55 Less than 6 Months
  - 66 6 Months to 1 Year
  - 77 Not a Regular Rider
  - 98 DON'T KNOW
  - 99 REFUSED

- RIDER3** Which of the following statements best describes why you use public transit?  
**[ROTATE RESPONSES 1-4]**
- 1 I ride because I can't or don't know how to drive
  - 2 I ride because I don't have a car available
  - 3 I don't have a car available because I prefer to take the bus
  - 4 I have a car available but prefer to take the bus for some purposes
  - 8 DON'T KNOW
  - 9 REFUSED

- RIDER4** Do you ever use public transit for any of the following reasons?  
**[ROTATE RESPONSES 1-11]**  
**[READ EACH RESPONSE AND WAIT FOR A "YES/NO" RESPONSE]**  
**[SELECT ALL THAT APPLY]**
- 1 Go to work
  - 2 Go to school
  - 3 For entertainment or social reasons
  - 4 Go shopping or out to eat
  - 5 Go to the doctor or for medical reasons
  - 6 NONE **[FIRST CHOICE ONLY]**
  - 98 DON'T KNOW
  - 99 REFUSED

- RIDERS5** Overall, how satisfied are you with riding public transportation? Would you say you are satisfied or dissatisfied?  
(Is that somewhat or very satisfied / dissatisfied?)
- 1 VERY DISSATISFIED
  - 2 SOMEWHAT DISSATISFIED
  - 3 NEITHER SATISFIED, NOR DISSATISFIED
  - 4 SOMEWHAT SATISFIED
  - 5 VERY SATISFIED
  - 8 DON'T KNOW
  - 9 REFUSED
- [SKIP TO SECTION B]
- NON1** Have you heard of either CATA or EATRAN?
- 1 YES, CATA
  - 2 YES, EATRAN
  - 3 YES, BOTH
  - 4 NO **[SKIP TO NON3]**
  - 9 REFUSED **[SKIP TO NON3]**
- NON2** Are you aware of the specific public transportation services available to you?  
**(Such as routes, stops, and schedules that in your area?)**
- 1 YES
  - 2 NO
  - 9 REFUSED
- NON3** What is the main reason you do not use public transportation?  
**[DO NOT READ – SELECT ONLY ONE]**
- 1 IT IS NOT CLOSE ENOUGH TO ME / NOT CLOSE TO MY HOME
  - 2 IT DOES NOT GO WHERE I NEED IT TO
  - 3 I PREFER TO USE MY CAR
  - 4 I DO NOT KNOW HOW TO RIDE
  - 5 I DO NOT LIKE TO USE TRANSIT
  - 6 I DO NOT THINK TRANSIT IS SAFE
  - 7 TRANSIT TAKES TOO LONG
  - 8 IT COSTS TOO MUCH
  - 9 NOT AN OPTION FOR ME
  - 97 OTHER **(SPECIFY)**
  - 99 DON'T KNOW/ REFUSED
- NON4** **[ASK IF NON3 <=> 1,2, OR 9]**If public transportation was more favorable to you, would you consider using it for any of the following?  
**[ROTATE RESPONSES 1-11]**  
**[READ EACH RESPONSE AND WAIT FOR A “YES/NO” RESPONSE]**  
**[SELECT ALL THAT APPLY]**
- 7 Go to work
  - 8 Go to school
  - 9 For entertainment or social reasons
  - 10 Go shopping or out to eat
  - 11 Go to the doctor or for medical reasons
  - 12 NONE **[FIRST CHOICE ONLY]**
  - 98 DON'T KNOW
  - 99 REFUSED

## Section B – Rider Factors

- B1** I'm going to read you a short list of items that may or may not be factors to you in deciding whether to use public transportation or some other mode of travel, like a car. For each one I read, please

tell me if it is a factor for you in deciding which mode you use to make trip. [RANDOMIZE B1A THRU B1...]

**B1A** Safety from crime at bus stops

(Would you say it is a factor?)

(Would that be a major factor, moderate factor, or minor factor?)

- 1 MINOR FACTOR
- 2 MODERATE FACTOR
- 3 MAJOR FACTOR
- 4 NOT A FACTOR
- 8 DON'T KNOW
- 9 REFUSED

**B1B** Safety from crime on the bus

**B1C** Number of people on the bus

**B1D** Number of transfers you have to make

**B1E** The amount of time it takes to get to your destination

**B1F** The proximity of a bus stop to your origin

**B1G** The proximity of a bus stop to your destination

**B1H** Weather conditions

**B1I** Amount of traffic on the roadways

**B1J** The cost of operating a personal vehicle

**B1K** The cost of bus fare

**B1L** Safety from accidents

**B1M** The price of gasoline

**B1N** The time of day (morning, midday, night)

**B1O** The day of week (weekday, weekend)

**B1P** The ability to get home in case of emergencies

**B1Q** Finding parking at your destination

**B1R** The cost of parking at your destination

**B1S** The ability to come and go as I please

**B2** Are you employed outside of your home?

- 1 YES
- 2 NO [SKIP TO B5]
- 9 REFUSED [SKIP TO B5]

**B3** How do you typically commute to work?

[MULTIPLE SELECT]

- 1 CAR, VAN, TRUCK, MOTORCYCLE
- 2 TAXI / LIMO / PRIVATE SHUTTLE
- 3 PUBLIC BUS
- 4 SCHOOL BUS
- 5 WALK
- 6 BIKE
- 7 WORK AT HOME / TELECOMMUTE
- 97 OTHER [SPECIFY]
- 98 DON'T KNOW
- 99 Refused

- B4A** Does your employer offer to pay part or all of a transit pass for its employees?
- 1 YES, PART
  - 2 YES, ALL
  - 3 NO
  - 8 DON'T KNOW
  - 9 REFUSED
- B4B** **[ASK IF B4A > 2 and B3 <> 3]** Would you be more likely to use transit if your employer paid for part or all of a transit pass?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 9 REFUSED
- B5** Do you attend school/ classes outside of your home?
- 1 YES
  - 2 NO **[SKIP TO B9]**
  - 3 REFUSED **[SKIP TO B9]**
- B6** How do you typically commute to school?
- [MULTIPLE SELECT]**
- 1 CAR, VAN, TRUCK, MOTORCYCLE
  - 2 TAXI / LIMO / PRIVATE SHUTTLE
  - 3 PUBLIC BUS
  - 4 SCHOOL BUS
  - 5 WALK
  - 6 BIKE
  - 7 HOME SCHOOL / CORRESPONDENCE
  - 97 OTHER **[SPECIFY]**
  - 98 DON'T KNOW
  - 99 Refused
- B7A** **[ASK IF B6 = 1]** Do you have to pay to park at school?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 9 REFUSED
- B7B** **[ASK IF B6 =1]** Would you be more likely to use transit if you had to pay for parking at school?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 9 REFUSED
- B7C** **[ASK IF B6 > 1]** Would you have to pay to park at school if you drove?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 9 REFUSED
- B8** **[ASK IF B6 <> 3]** Would you be more likely to use transit if your school paid for part or all of a transit pass?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 9 REFUSED

- B9** Do you ever have the need or desire to travel into **[SHOW ALTCNTY]**?
- 1 YES
  - 2 NO **[SKIP TO B11]**
  - 8 DON'T KNOW **[SKIP TO B11]**
  - 9 REFUSED **[SKIP TO B11]**
- B10** **[ASK IF B9 = 1]** Do you or have you ever traveled to places in **[SHOW ALTCNTY]** using public transportation?
- (IF YES: Do you travel there regularly – at least once a month?)**
- 1 YES, REGULARLY **[SKIP TO B12]**
  - 2 YES, IRREGULARLY
  - 3 NO
  - 8 DON'T KNOW
  - 9 REFUSED
- B11** Based on your experience or on what you have seen or heard, do you think it is possible to travel to places in **[SHOW ALTCNTY]** using public transportation?
- 1 YES
  - 2 NO **[SKIP TO B13]**
  - 8 DON'T KNOW **[SKIP TO B13]**
  - 9 REFUSED **[SKIP TO B13]**
- B12** Based on your experience or on what you have seen or heard, how easy or difficult is it to make a trip on public transportation to places in **[SHOW ALTCNTY]**? Would you say that it is...?
- 1 Very easy
  - 2 Somewhat easy
  - 3 Somewhat difficult
  - 4 Very difficult
  - 8 DON'T KNOW
  - 9 REFUSED
- B13** Do you feel there is a need for increased transit service between the two counties?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 8 REFUSED
- B14** CATA and EATRAN are considering expanding service between Eaton and Ingham Counties to improve transportation between the two counties. Would you favor or oppose an increase in property taxes to help pay for this expanded service?  
(Would that be strongly or somewhat favor / oppose?)
- 1 STRONGLY FAVOR
  - 2 SOMEWHAT FAVOR
  - 3 SOMEWHAT OPPOSE
  - 4 STRONGLY OPPOSE
  - 8 NOT SURE/ I NEED MORE INFORMATION
  - 9 REFUSED
- B15** **[ASK IF DELTA = 1]** Do you feel there is a need for increased transit service within Delta Township?
- 1 YES
  - 2 NO
  - 8 DON'T KNOW
  - 9 REFUSED

- B16** **[ASK IF DELTA = 1]** CATA and EATRAN are also considering expanding service within Delta Township. Would you favor or oppose an increase in property taxes to help pay for this expanded service within Delta Township?  
(Would that be strongly or somewhat favor/ oppose?)
- 1 STRONGLY OPPOSE
  - 2 SOMEWHAT OPPOSE
  - 3 SOMEWHAT FAVOR
  - 4 STRONGLY FAVOR
  - 8 NOT SURE/ I NEED MORE INFORMATION
  - 9 REFUSED

**Section C – Retrospective Travel Diary**

**NOTE:** TRAVEL DAY MUST BE A WEEKDAY, I.E. MONDAY THROUGH FRIDAY. IF INTERVIEW DAY IS SUNDAY OR MONDAY, ASK ABOUT PREVIOUS FRIDAY.

**IF DIARY <> 2, SKIPTO DEM1**

**C1** Now I'm going to ask you some questions about each trip you made (yesterday / this past Friday). This information will be extremely helpful for future transportation planning in your area. To speed up this process, will you please tell me the two cross-streets to which your home is nearest? I do not need your full address.

**C2** STREET1:  
STREET2:

**C3** How many trips did you make (yesterday / this past Friday)? A trip can be anything like going to work or going to the grocery store. Round trips like going to the grocery store and returning home, count as two trips. Walking & biking trips of more than two blocks count as a trip.

- \_\_\_ ENTER NUMBER **[IF C3 > 0, GO TO C5]**  
 98 DON'T KNOW  
 99 REFUSED

**C4A** So you did not go anywhere (yesterday / this past Friday)?

- 1 CORRECT **[SKIP TO C4C]**
- 2 INCORRECT
- 9 DON'T KNOW REFUSED **[SKIP TO C4C]**

**C4B** **[ASK IF C4A = 2]** So, how many trips did you make (yesterday / this past Friday)?

- \_\_\_ ENTER NUMBER **[IF C4B > 0, GO TO C5]**  
 98 DON'T KNOW **[SKIP TO C5]**  
 99 REFUSED **[SKIP TO C5]**

**C4C** **[ASK IF C4A = 1 or C4B = 0]** What were the reasons you did not travel at all (yesterday / this past Friday)?

**[DO NOT READ LIST – SELECT ALL THAT APPLY]**

- 1 I HAD NO WHERE TO GO **[SKIP TO DEM1]**
- 2 I DID NOT FEEL WELL ENOUGH TO GO ANYWHERE **[SKIP TO DEM1]**
- 3 I HAD NO TRANSPORTATION **[SKIP TO C16]**
- 4 WEATHER CONDITIONS **[SKIP TO DEM1]**
- 5 OTHER REASON1 (SPECIFY) **[SKIP TO DEM1]**
- 6 OTHER REASON2 (SPECIFY) **[SKIP TO DEM1]**
- 7 OTHER REASON3 (SPECIFY) **[SKIP TO DEM1]**
- 8 DON'T KNOW **[SKIP TO DEM1]**
- 9 REFUSED **[SKIP TO DEM1]**

- C5** Did you start (yesterday / this past Friday) at home, or some other place?
- 1 HOME **[SKIP TO C8]**
  - 2 OTHER RESIDENCE
  - 3 HOTEL/ MOTEL **[SPECIFY]**
  - 4 HOSPITAL/ MEDICAL FACILITY **[SPECIFY]**
  - 5 SOME OTHER PLACE **[SPECIFY]**
  - 9 DON'T KNOW / REFUSED
- C6A** Can you tell me the nearest cross-streets to that location?  
**[Or "intersection" if respondent is confused by "cross-streets"]**
- 1 YES
  - 2 DON'T KNOW **[SKIP TO C7]**
  - 9 REFUSED **[SKIP TO C7]**
- C6B** **[IF C6A=1]**  
STREET1:  
STREET2:  
**[HAVE RESPONDENT VERIFY SPELLING ON CROSS-STREETS / INTERSECTIONS]**
- C7** In what county is that?
- 1 CLINTON COUNTY
  - 2 EATON COUNTY
  - 3 INGHAM COUNTY
  - 4 OTHER **[SPECIFY]**
  - 8 DON'T KNOW
  - 9 REFUSED
- C8A.#** What time did you leave this place to start your first / next trip, please be exact as possible?  
\_\_\_\_\_ ENTER BOTH HOURS AND MINUTES – 4 DIGITS  
7777 NO OTHER PLACES **[SKIP TO C15]**  
8888 DON'T KNOW  
9999 REFUSED
- C8B.#** **[IF C8A.# < 7777]** TIME REFERENCE
- 1 A.M.
  - 2 P.M.
- C8C.#** Did you end your day at this place?
- 1 YES **[SKIP TO DEM1]**
  - 2 NO **[CONTINUE]**
  - 8 DON'T KNOW **[SKIP TO DEM1]**
  - 9 REFUSED **[SKIP TO DEM1]**
- C9A.#** What time did you get to the next place?  
\_\_\_\_\_ ENTER BOTH HOURS AND MINUTES – 4 DIGITS  
8888 DON'T KNOW  
9999 REFUSED
- C9B.#** **[IF C9A.# < 7777]** TIME REFERENCE
- 1 A.M.
  - 2 P.M.
- C10A.#** What is the name of that place?
- 1 HOME **[SKIP TO C13.#]**
  - 2 OTHER (ENTER NAME – VERIFY SPELLING)
  - 8 DON'T KNOW
  - 9 REFUSED
- C10B.#** **[IF C10A = 7]**  
NAME:

- C11A.#** And what are the nearest cross-streets to that location?  
**[Or “intersection” if respondent is confused by “cross-streets”]**
- 1 ENTER CROSS-STREETS [HAVE RESPONDENT VERIFY SPELLING]
  - 8 DON'T KNOW
  - 9 REFUSED
- C11B.#** **[IF C11A = 1]**  
 STREET1:  
 STREET2:
- C12.#** In what county is that?
- 2 CLINTON COUNTY
  - 3 EATON COUNTY
  - 4 INGHAM COUNTY
  - 5 OTHER **(SPECIFY)**
  - 8 DON'T KNOW
  - 9 REFUSED
- C13.#** How did you get there?  
**[SELECT ALL THAT APPLY]**
- 1 CAR, VAN, TRUCK, MOTORCYCLE
  - 2 TAXI / LIMO / PRIVATE SHUTTLE
  - 3 PUBLIC BUS
  - 4 SCHOOL BUS
  - 5 WALK
  - 6 BIKE
  - 7 OTHER **[SPECIFY]**
  - 8 DON'T KNOW
  - 9 REFUSED
- C13A1.#** **[IF C13.# = 1]** Did you drive, or were you a passenger?
- 1 DROVE
  - 2 PASSENGER
  - 8 DON'T KNOW
  - 9 REFUSED
- C13A2.#** **[IF C13.# = 1]** How many people, including yourself, were in the vehicle for this trip?
- \_\_ ENTER NUMBER
  - 88 DON'T KNOW
  - 99 REFUSED
- C13B1.#** **[IF C13.# = 3]** Was that a CATA bus or an EATRAN bus?  
**[READ IF NECESSARY – SELECT ONLY ONE]**
- 1 CATA
  - 2 EATRAN
  - 8 DON'T KNOW
  - 9 REFUSED

**C13B2A.# [IF C13B1.# <> 2] How did you get to the first bus stop of this trip?**

**[DO NOT READ – SELECT ONLY ONE]**

- 1 CAR, VAN, TRUCK, MOTORCYCLE
- 2 TAXI / LIMO / PRIVATE SHUTTLE
- 3 PUBLIC BUS
- 4 SCHOOL BUS
- 5 WALK
- 6 BIKE
- 7 NONE – I WAS PICKED UP **[GO TO C13B3A]**
- 8 OTHER **[SPECIFY]**
- 98 DON'T KNOW
- 99 REFUSED

**C13B2B.# [IF C13B2A.# = 5 or 6] How many blocks did you walk [OR bike] to get to the bus stop?**

\_\_\_ ENTER NUMBER

88 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**

99 REFUSED

**C13B2C.# [IF C13.# <> 2] How many transfers did you make before you arrived at your destination?**

\_\_\_ ENTER NUMBER

8 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**

9 REFUSED

**C13B2D.# [IF C13.# <> 2] How did you get from the last bus stop of this trip to your destination?**

**[DO NOT READ – SELECT ONLY ONE]**

- 1 CAR, VAN, TRUCK, MOTORCYCLE
- 2 TAXI / LIMO / PRIVATE SHUTTLE
- 3 PUBLIC BUS
- 4 SCHOOL BUS
- 5 WALK
- 6 BIKE
- 7 OTHER **[SPECIFY]**
- 8 DON'T KNOW
- 9 REFUSED

**C13B2E.# [IF C13B2D.# = 5 or 6] How many blocks did you walk [OR bike] to get to your final destination?**

\_\_\_ ENTER NUMBER

88 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**

99 REFUSED

**C13B3A.# [IF C13B1.# = 2 or IF C13B2A.# = 7] Did the transit vehicle pick you up on time?**

- 1 YES
- 2 NO
- 8 DON'T KNOW
- 9 REFUSED

**C13B3B.# [IF C13B1.# = 2 or IF C13B2A.# = 7] When you called to schedule this trip, were you able to get your first choice in pickup time?**

- 1 YES
- 2 NO
- 8 DON'T KNOW
- 9 REFUSED

**C13C.# [IF C13.# = 5 or 6] How many blocks did you walk [OR bike]?**

\_\_\_ ENTER NUMBER

88 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**

99 REFUSED

**C13D.#** How would you have made that trip if the mode that you used was not available?

**[DO NOT READ – SELECT ONLY ONE]**

- 1 Driven a car, van, truck, motorcycle
- 2 Gotten a ride from somebody else
- 3 Used a TAXI / LIMO / PRIVATE SHUTTLE
- 4 Used PUBLIC BUS
- 5 Used a SCHOOL BUS
- 6 Walked
- 7 Biked
- 8 OTHER **[SPECIFY]**
- 9 WOULD NOT HAVE MADE TRIP
- 98 DON'T KNOW
- 99 REFUSED

**C14.#** What was the main reason you made that trip?

**[NOTE: If respondent is returning home, select code 13]**

**[DO NOT READ LIST] [SELECT ONLY ONE]**

- 1 GO TO WORK
- 2 GO TO SCHOOL
- 3 GO TO THE AIRPORT
- 4 GO SHOPPING
- 5 RUN ERRANDS FOR PERSONAL BUSINESS
- 6 RUN ERRANDS FOR WORK OR GO TO A WORK-RELATED SITE
- 7 VISIT FRIENDS/ RELATIVES
- 8 EAT AT A RESTAURANT/ DINER
- 9 VISIT A DOCTOR OR FOR MEDICAL/ DENTAL REASONS
- 10 GO TO A PLACE OF ENTERTAINMENT/ RECREATION
- 11 GO TO CHURCH OR PLACE OF RELIGION
- 12 PICK UP/ DROP OFF PASSENGER
- 13 RETURNING HOME
- 14 OTHER **(SPECIFY)**
- 98 DON'T KNOW
- 99 REFUSED

**C16** **[C13.# <> 3]** What were the most important reasons you did not use the public transit to go anywhere yesterday?

**[DO NOT READ LIST]**

**[SELECT FIRST TWO RESPONSES]**

- 1 NOT A CONVENIENCE
- 2 TOO SLOW/ TAKES TOO LONG
- 3 RELIABILITY/ NOT ON TIME
- 4 WAITING TIME TOO LONG/ FREQUENCY OF RUNS
- 5 TOO FAR FROM MY HOME
- 6 DOES NOT GO WHERE I NEED TO GO
- 7 DO NOT KNOW THE SCHEDULE OR ROUTES
- 8 COSTS TOO MUCH
- 9 DO NOT LIKE TRANSIT
- 10 PREFER CAR
- 11 BUSES ARE UNCOMFORTABLE/ DIRTY/ GRAFFITI
- 12 AFRAID OF CRIME/ UNSAFE
- 13 OTHER REASON **(SPECIFY)**
- 98 DON'T KNOW
- 99 REFUSED

## Demographics

- DEM1** Finally, I have some background questions that will be used to help us group your answers with those of people like yourself.  
How many years have you lived at your current address?  
**[ENTER 1 IF LESS THAN ONE YEAR]**  
\_\_\_\_ RECORD NUMBER OF YEARS  
99 DON'T KNOW / REFUSED
- DEM2** Do you have a valid driver's license?  
1 YES  
2 NO  
9 DON'T KNOW / REFUSED
- DEM3** How many automobiles in working condition do you have available to members of your household?  
\_ ENTER NUMBER  
8 8 OR MORE  
9 DON'T KNOW / REFUSED
- DEM4A** What is your age?  
\_\_\_\_ AGE  
999 REFUSED
- DEM4B** **[IF DEM4A = 99]** Would that be . . .  
1 16-17,  
2 18-24,  
3 25-34,  
4 35-44,  
5 45-54,  
6 55-64, or  
7 65 and Older?  
9 REFUSED
- DEM5A** **[ASK IF B2 <> 1]** Are you currently employed?  
1 YES  
2 NO  
9 REFUSED
- DEM5B** **[ASK IF B2 = 1 OR DEM5A = 1]** Are you employed full-time or part-time?  
1 FULL-TIME  
2 PART-TIME  
3 BOTH  
4 OTHER **[SPECIFY]**  
9 REFUSED
- DEM5C** **[ASK IF B2 = 2 OR DEM5A = 2]** Which of the following best describes your situation?  
**[Select only one]**  
1 Homemaker  
2 Retired  
3 Unemployed due to disability  
4 Unemployed and looking for work  
5 Unemployed and not looking for work  
6 OTHER **[SPECIFY]**  
9 REFUSED
- DEM5D** **[ASK IF B5 <> 1]** Are you currently a student or attending classes?  
1 YES  
2 NO  
9 REFUSED

- DEM6A** Including yourself, how many people live in your household? Please count all adults and children.  
 \_ ENTER NUMBER  
 9 DON'T KNOW / REFUSED
- DEM6B** **[ASK IF DEM6A > 1]** How many children age 17 or younger live in your household?  
 \_ ENTER NUMBER  
 9 DON'T KNOW / REFUSED
- DEM6C** **[ASK IF DEM6B > 0]** How many children age 15 or younger live in your household?  
 \_ ENTER NUMBER  
 9 DON'T KNOW / REFUSED
- DEM6D** **[ASK IF DEM6C > 0]** How many children age 5 or younger live in your household?  
 \_ ENTER NUMBER  
 9 DON'T KNOW / REFUSED
- DEM7A** **[ASK IF DEM6A > 1]** Including yourself, how many people in your household are employed full-time?  
 \_ ENTER NUMBER  
 9 DON'T KNOW / REFUSED
- DEM7B** **[ASK IF DEM6A > 1]** Including yourself, how many people in your household are employed part-time?  
 \_ ENTER NUMBER  
 9 DON'T KNOW / REFUSED
- DEM8A** Is your total annual household income below or above \$30,000 per year?  
 1 UP TO \$30,000 PER YEAR  
 2 ABOVE \$30,000 PER YEAR  
 8 DK -- PROBE FOR BEST ESTIMATE  
 9 REFUSED
- DEM8B** **[IF DEM8A = 1]** Would that be . . .  
 1 Less than \$10,000 per year,  
 2 \$10,000 to 20,000, or  
 3 \$20,000 to 30,000?  
 9 DON'T KNOW / REFUSED
- DEM8C** **[IF DEM8A = 2]** Would that be . . .  
 1 \$30,000 to 40,000,  
 2 \$40,000 to 50,000,  
 3 \$50,000 to 60,000,  
 4 \$60,000 to 80,000,  
 5 \$80,000 to 100,000, or  
 6 Over \$100,000?  
 9 DON'T KNOW / REFUSED
- DEM9** Are you Spanish, Hispanic, or Latino?  
**[IF NEEDED, PROBE: Were your ancestors Mexican, Puerto Rican, Cuban, Central or South American, or from Spain?]**  
 1 YES  
 2 NO  
 8 DON'T KNOW  
 9 REFUSED

**DEM10** : What racial category do you most identify with or consider yourself to be?  
**[IF RESPONDENT SAYS "INDIAN," PROBE - "Is that American Indian or Asian Indian?"]**  
**[ASIAN/PACIFIC ISLANDER INCLUDES GROUPS SUCH AS: CHINESE, FILIPINO, HAWAIIAN, INDIAN (ASIAN), VIETNAMESE, KOREAN, JAPANESE, CAMBODIAN, AND SAMOAN.]**  
**[IF RESPONDENT SAYS "HISPANIC," SELECT "SOME OTHER RACE."]**  
**[READ IF NECESSARY – SELECT ONLY ONE]**

- 1 (White or Caucasian)
- 2 (Black or African American)
- 3 (American Indian or Alaskan Native)
- 4 (Asian or Pacific Islander)
- 5 (Some Other Race?) **[SPECIFY]**
- 6 (Multiracial)
- 8 DON'T KNOW
- 9 REFUSED

**DEM11** For our records, I need to verify your telephone number. Is it.... **[SHOW PHONE]?**  
 1 YES  
 2 NO  
 9 REFUSED

**DEM12** **[IF DEM11 = 2]** What is your correct phone number?  
 \_\_\_\_\_ ENTER CORRECT PHONE NUMBER  
 9999999999 REFUSED

**Section E – Diary Respondents / Recruit**

**THIS SECTION: ASK IF DIARY = 1**

**E1** Now I'm going to ask you some questions about each trip you made yesterday. This information will be extremely helpful for future transportation planning in your area.  
 How many trips did you make yesterday? A trip can be anything like going to work or going to the grocery store. Round trips like going to the grocery store and returning home, count as two trips. Walking & biking trips of more than two blocks count as a trip.

- \_\_\_ ENTER NUMBER **[IF E3> 0, GO TO E3]**
- 98 DON'T KNOW
- 99 REFUSED

**E2A** So you did not go anywhere yesterday?  
 1 CORRECT **[SKIP TO E2C]**  
 2 INCORRECT  
 9 DON'T KNOW / REFUSED **[SKIP TO E2C]**

**E2B** **[ASK IF E2A = 2]** So, how many trips did you make yesterday?  
 \_\_\_ ENTER NUMBER **[IF E2B> 0, GO TO E3]**  
 98 DON'T KNOW **[SKIP TO E3]**  
 99 REFUSED **[SKIP TO E3]**

**E2C** **[ASK IF C4A = 1 or C4B = 0]** What were the reasons you did not travel at all yesterday?  
**[DO NOT READ LIST – SELECT ALL THAT APPLY]**

- 1 I HAD NO WHERE TO GO **[SKIP TO DIARY1]**
- 2 I DID NOT FEEL WELL ENOUGH TO GO ANYWHERE **[SKIP TO DIARY1]**
- 3 I HAD NO TRANSPORTATION **[SKIP TO DIARY1]**
- 4 WEATHER CONDITIONS **[SKIP TO DIARY1]**
- 5 OTHER REASON1 (SPECIFY) **[SKIP TO DIARY1]**
- 6 OTHER REASON2 (SPECIFY) **[SKIP TO DIARY1]**
- 7 OTHER REASON3 (SPECIFY) **[SKIP TO DIARY1]**
- 8 DON'T KNOW **[SKIP TO DIARY1]**
- 9 REFUSED **[SKIP TO DIARY1]**

**E3** How many of those trips did you make in a personal vehicle?

\_\_\_ ENTER NUMBER

98 DON'T KNOW

99 REFUSED

**E4** How many of those trips did you make using public transit?

\_\_\_ ENTER NUMBER

98 DON'T KNOW

99 REFUSED

**DIARY1** For the second part of this survey I will ask you to record your travel over the course of a day. To make this easier for you, I will mail you a travel log that you should use to keep track of when, where, and how you go to places. We will then call you back to collect this information. I will include contact information on the travel log so that you can call with questions. Are there any questions I can answer about this now?

1 CONTINUE

9 REFUSED **[SKIP TO THANK9]**

**[IF RESPONDENT REFUSES DIARY – DOES NOT TRAVEL: That's okay, some people will not travel and we understand that. Your participation is important anyway. Just follow the instructions provided and if you do not travel during your scheduled travel period, that's okay.]**

**DIARY2** Your travel period will be **[DAY OF WEEK, MONTH, DAY]**.

**DIARY3A** Remember, we will call you the day after your travel day. What time should we call you to collect the information?

\_\_\_\_\_ ENTER BOTH HOURS AND MINUTES – 4 DIGITS **[IF RESPONDENT STATES A GENERAL TIME, PLEASE ASSIGN A SPECIFIC TIME FOR THEM]**

9998 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**

9999 REFUSED **[SKIP TO THANK9]**

**DIARY3B** TIME REFERENCE

1 A.M.

2 P.M.

**DIARY4** In order to mail your travel log, I need to get your mailing address.

**[HAVE RESPONDENT VERIFY SPELLING ON CORRECTED ADDRESS]**

ADDRESS:

STREET ADDR1:

STREET ADDR2:

CITY:

ZIP:

9 REFUSED

**DIARY5** Great, you're all set. You should receive your travel log in the mail within the next 5 to 6 days.

1 CONTINUE **[AGAIN]**

### Terminations

**AGAIN** Those are all the questions we have at this time. Would you be willing to participate in future CATA public participation exercises?

1 YES **[SPECIFY: Can I get you first name so we'll know you to talk to?]**

2 NO / DON'T KNOW / REFUSED

**THANK** That concludes our survey. Thank you very much for your time and the useful information you have provided us. Have a good day / evening.

**[DISPOS = 40]**

- THANK1** Thank you for your time, but we are unable to complete this survey in the language you are most comfortable speaking. Have a good day / evening.  
**IF LANG=3 AND LANG2=4 [DISPOS=10]**
- THANK2** Thank you for your time, however we can only complete this survey with those who are 18 years of age or older. Have a good day / evening.  
**[DISPOS=22]**
- THANK3** Thank you for your time, unfortunately we are not able to include the results of those that are employed by a public transportation agency. Have a good day / evening.  
**[DISPOS=23]**
- THANK4** Thank you for your time, unfortunately you are not in our current study area. Have a good day / evening.  
**IF SCR1 = UNLISTED ZIPCODE [DISPOS=24]**  
**OQ GENDER [DISPOS=27]**
- THANK8** Thank you for your time. However we cannot continue without that information. Have a good day / evening.  
**[DISPOS = 8]**
- THANK9** Thank you for your time. However we cannot continue without that information. Have a good day / evening.  
**[DISPOS = 28]**

**CAPITAL AREA TRANSPORTATION AUTHORITY  
TRANSIT NEEDS SURVEY – DIARY RETRIEVAL  
JANUARY 2004  
BOI-03-198**

**Introduction**

**INTRO** Hello, my name is \_\_\_\_\_ from Northwest Research Group and I am calling to complete a survey that I started with **[RESPONDENT NAME]** regarding public transportation in your area. This call may be monitored and/or recorded for quality control purposes.

May I please speak with **[RESPONDENT NAME]**?

**[AS NEEDED:** Let me assure you this is not a sales call, and all the information you give will be kept strictly confidential]

**[FOR MID-INTERVIEW CALLBACKS]:** Hello, my name is \_\_\_\_\_ from Northwest Research Group and I am calling on behalf of CATA, the Capital Area Transit Authority, to complete a survey on public transportation.

- 1 RESPONDENT AVAILABLE **[CONTINUE TO LANG1]**
- 2 RESPONDENT NOT AVAILABLE **[SCHEDULE CALLBACK]**
- 3 NO HEAD OF HOUSEHOLD / NO ONE IN HOUSEHOLD IS 18 OR OLDER  
**[SKIPTO THANK2 – DISPOS=22]**
- 4 LANGUAGE BARRIER **[SKIPTO THANK1 – DISPOS=10]**
- 9 DON'T KNOW/REFUSED **[SKIP TO THANK8 – DISPOS=8]**

**LANG1** In what language are you most comfortable expressing your opinions?

**[ONE RESPONSE ONLY]**

- 1 ENGLISH **[SKIPTO SCR1]**
- 2 SPANISH **[SCHEDULE CALLBACK]**
- 3 OTHER **[SPECIFY] [SKIPTO LANG2]**
- 9 DON'T KNOW / REFUSED **[SKIPTO LANG2]**

**LANG2** May I speak to another adult household member who would be most comfortable speaking English?

- 1 YES **[SKIPTO INTRO]**
- 2 NO **[SKIPTO THANK1 – DISPOS=10]**
- 3 ENGLISH-SPEAKING ADULT NOT AVAILABLE NOW **[SCHEDULE CALLBACK]**
- 4 LANGUAGE BARRIER – CANNOT CONTINUE **[SKIPTO THANK1 – DISPOS=10/15]**
- 9 DON'T KNOW/REFUSED **[SKIP TO THANK8 – DISPOS=8]**

**Diary Retrieval**

**DR1** Were you able to complete your travel log for the day of **[TRAVDAY]**?

**[IF NOT]** Why were you unable to complete your travel log?

- 1 YES **[SKIP TO DR2]**
- 2 DID NOT RECEIVE IT IN TIME
- 3 DID NOT UNDERSTAND HOW TO COMPLETE IT
- 9 DON'T KNOW

- DR1A** [ASK IF DR1 > 1] Do you think you can remember all the trips you made on [TRAVDAY] without a completed travel log?
- 1 YES
  - 2 NO [RESCHEDULE TRAVEL DAY]
  - 9 DK/RF [RESCHEDULE TRAVEL DAY]
- DR2** Now I'm going to ask you to describe each of the trips you made on [TRAVDAY]. To speed up this process, will you please tell me the two cross-streets to which your home is nearest? I do not need your full address.
- STREET1:  
STREET2:
- DR3** How many trips did you make on [TRAVDAY]? A trip can be anything like going to work or going to the grocery store. Round trips like going to the grocery store and returning home, count as two trips. Walking & biking trips of more than two blocks count as a trip.
- \_\_\_ ENTER NUMBER [IF DR3> 0, GO TO DR5]
- 98 DON'T KNOW
  - 99 REFUSED
- DR4A** So you did not go anywhere on [TRAVDAY]?
- 1 CORRECT [SKIP TO DR4C]
  - 2 INCORRECT
  - 9 DON'T KNOW REFUSED [SKIP TO DR4C]
- DR4B** [ASK IF DR4A = 2] So, how many trips did you make on [TRAVDAY]?
- \_\_\_ ENTER NUMBER [IF DR4B> 0, GO TO DR5]
- 98 DON'T KNOW [SKIP TO DR5]
  - 99 REFUSED [SKIP TO DR5]
- DR4C** [ASK IF DR4A = 1 or DR4B = 0] What were the reasons you did not travel at all on [TRAVDAY]?
- [DO NOT READ LIST – SELECT ALL THAT APPLY]
- 1 I HAD NO WHERE TO GO [SKIP TO THANK]
  - 2 I DID NOT FEEL WELL ENOUGH TO GO ANYWHERE [SKIP TO THANK]
  - 3 I HAD NO TRANSPORTATION [SKIP TO DR16]
  - 4 WEATHER CONDITIONS [SKIP TO THANK]
  - 5 OTHER REASON1 (SPECIFY) [SKIP TO THANK]
  - 6 OTHER REASON2 (SPECIFY) [SKIP TO THANK]
  - 7 OTHER REASON3 (SPECIFY) [SKIP TO DEM1]
  - 8 DON'T KNOW [SKIP TO DEM1]
  - 9 REFUSED [SKIP TO DEM1]
- DR5** Did you start your travel day at home, or some other place?
- 1 HOME [SKIP TO DR8]
  - 2 OTHER RESIDENCE
  - 3 HOTEL/ MOTEL (SPECIFY)
  - 4 HOSPITAL/ MEDICAL FACILITY (SPECIFY)
  - 5 SOME OTHER PLACE (SPECIFY)
  - 9 DON'T KNOW / REFUSED

- DR6A** Can you tell me the nearest cross-streets to that location?  
**[or “intersection” if respondent is confused by “cross-streets”]**
- 1 YES
  - 8 DON'T KNOW **[SKIP TO DR7]**
  - 9 REFUSED **[SKIP TO DR7]**
- DR6B** **[IF DR6A=1]**  
 STREET1:  
 STREET2:
- [HAVE RESPONDENT VERIFY SPELLING ON CROSS-STREETS / INTERSECTIONS]**
- DR7** In what county is that?
- 1 CLINTON COUNTY
  - 2 EATON COUNTY
  - 3 INGHAM COUNTY
  - 4 OTHER **(SPECIFY)**
  - 8 DON'T KNOW
  - 9 REFUSED
- DR8A.#** What time did you leave this place to start your first/ next trip, please be exact as possible?
- \_\_\_\_\_ ENTER BOTH HOURS AND MINUTES – 4 DIGITS
  - 7777 NO OTHER PLACES **[SKIP TO DR15]**
  - 8888 DON'T KNOW
  - 9999 REFUSED
- DR8B.#** **[IF DR8A.# < 7777]** TIME REFERENCE
- 1 A.M.
  - 2 P.M.
- DR9A.#** What time did you get to the next place?
- \_\_\_\_\_ ENTER BOTH HOURS AND MINUTES – 4 DIGITS
  - 8888 DON'T KNOW
  - 9999 REFUSED
- DR9B.#** **[IF DR9A.# < 7777]** TIME REFERENCE
- 1 A.M.
  - 2 P.M.
- DR10A.#** What is the name of that place?
- 1 HOME **[SKIP TO DR13.#]**
  - 2 OTHER (ENTER NAME – VERIFY SPELLING)
  - 8 DON'T KNOW
  - 9 REFUSED
- DR10B.#** **[IF DR10A = 7]**  
 NAME:
- DR11A.#** And what are the nearest cross-streets to that location?  
**[or “intersection” if respondent is confused by “cross-streets”]**
- 1 ENTER CROSS-STREETS **[HAVE RESPONDENT VERIFY SPELLING]**
  - 8 DON'T KNOW
  - 9 REFUSED

**DR11B.# [IF DR11A = 1]**

STREET1:

STREET2:

**DR12.#** In what county is that?

- 1 CLINTON COUNTY
- 2 EATON COUNTY
- 3 INGHAM COUNTY
- 4 OTHER (SPECIFY)
- 8 DON'T KNOW
- 9 REFUSED

**DR13.#** How did you get there?

**[SELECT ALL THAT APPLY]**

- 1 CAR, VAN, TRUCK, MOTORCYCLE
- 2 TAXI / LIMO / PRIVATE SHUTTLE
- 3 PUBLIC BUS
- 4 SCHOOL BUS
- 5 WALK
- 6 BIKE
- 7 OTHER **[SPECIFY]**
- 8 DON'T KNOW
- 9 REFUSED

**DR13A1.# [IF DR13.# = 1]** Did you drive, or were you a passenger?

- 1 DROVE
- 2 PASSENGER
- 8 DON'T KNOW
- 9 REFUSED

**DR13A2.# [IF DR13.# = 1]** How many people, including yourself, were in the vehicle for this trip?

- \_\_\_ ENTER NUMBER
- 88 DON'T KNOW
- 99 REFUSED

**DR13B1.# [IF DR13.# = 3]** Was that a CATA bus or an EATRAN bus?

**[READ IF NECESSARY – SELECT ONLY ONE]**

- 1 CATA
- 2 EATRAN
- 8 DON'T KNOW
- 9 REFUSED

**DR13B2A.# [IF DR13B1.# <> 2]** How did you get to the first bus stop of this trip?

**[DO NOT READ – SELECT ONLY ONE]**

- 1 CAR, VAN, TRUCK, MOTORCYCLE
- 2 TAXI / LIMO / PRIVATE SHUTTLE
- 3 PUBLIC BUS
- 4 SCHOOL BUS
- 5 WALK
- 6 BIKE
- 7 NONE – I WAS PICKED UP **[GO TO DR13B3A]**
- 8 OTHER **[SPECIFY]**
- 98 DON'T KNOW
- 99 REFUSED

**DR13B2B.# [IF DR13B2A.# = 4 or 5]** How many blocks did you walk [OR bike] to get to the bus stop?

\_\_\_ ENTER NUMBER

- 88 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**
- 99 REFUSED

**DR13B2C.# [IF DR13.# <> 2]** How many transfers did you make before you arrived at your destination?

\_\_\_ ENTER NUMBER

- 8 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**
- 9 REFUSED

**DR13B2D.# [IF DR13.# <> 2]** How did you get from the last bus stop of this trip to your destination?

**[DO NOT READ – SELECT ONLY ONE]**

- 1 CAR, VAN, TRUCK, MOTORCYCLE
- 2 TAXI / LIMO / PRIVATE SHUTTLE
- 3 PUBLIC BUS
- 4 SCHOOL BUS
- 5 WALK
- 6 BIKE
- 7 OTHER **[SPECIFY]**
- 8 DON'T KNOW
- 9 REFUSED

**DR13B2E.# [IF DR13B2D.# = 4 or 5]** How many blocks did you walk [OR bike] to get to your final destination?

\_\_\_ ENTER NUMBER

- 88 DON'T KNOW **[PROBE FOR BEST GUESS AND RECODE]**
- 99 REFUSED

**DR13B3A.# [IF DR13B1.# = 2 or IF DR13B2A.# = 7]** Did the transit vehicle pick you up on time?

- 1 YES
- 2 NO
- 8 DON'T KNOW
- 9 REFUSED

**DR13B3B.# [IF DR13B1.# = 2 or IF DR13B2A.# = 7]** When you called to schedule this trip, were you able to get your first choice in pickup time?

- 1 YES
- 2 NO
- 8 DON'T KNOW
- 9 REFUSED

- DR13C.#** [IF DR13.# = 4 or 5] How many blocks did you walk [OR bike]?  
 \_\_\_ ENTER NUMBER  
 88 DON'T KNOW [PROBE FOR BEST GUESS AND RECODE]  
 99 REFUSED
- DR13D.#** How would you have made that trip if the mode that you used was not available?  
**[DO NOT READ – SELECT ONLY ONE]**
- 1 Driven a car, van, truck, motorcycle
  - 2 Gotten a ride from somebody else
  - 3 Used a TAXI / LIMO / PRIVATE SHUTTLE
  - 4 Used PUBLIC BUS
  - 5 Used a SCHOOL BUS
  - 6 Walked
  - 7 Biked
  - 8 OTHER [SPECIFY]
  - 9 WOULD NOT HAVE MADE TRIP
  - 98 Don't know
  - 99 Refused
- DR14.#** What was the main reason you made that trip?  
**[NOTE: If respondent is returning home, select code 13]**  
**[DO NOT READ LIST] [SELECT ONLY ONE]**
- 1 GO TO WORK
  - 2 GO TO SCHOOL
  - 3 GO TO THE AIRPORT
  - 4 GO SHOPPING
  - 5 RUN ERRANDS FOR PERSONAL BUSINESS
  - 6 RUN ERRANDS FOR WORK OR GO TO A WORK-RELATED SITE
  - 7 VISIT FRIENDS/ RELATIVES
  - 8 EAT AT A RESTAURANT/ DINER
  - 9 VISIT A DOCTOR OR FOR MEDICAL/ DENTAL REASONS
  - 10 GO TO A PLACE OF ENTERTAINMENT/ RECREATION
  - 11 GO TO CHURCH OR PLACE OF RELIGION
  - 12 PICK UP/ DROP OFF PASSENGER
  - 13 RETURNING HOME
  - 14 OTHER [SPECIFY]
  - 98 DON'T KNOW
  - 99 REFUSED
- DR15** Did you end your day at this place?  
**[VERIFY IF HOME IS NOT FINAL DESTINATION]**
- 1 YES
  - 2 NO [GO TO DR8A.# - REPEAT SERIES FROM DR8A THRU DR14]
  - 8 DON'T KNOW [GO TO DR8A.#]
  - 9 REFUSED [GO TO DR8A.#]

**DR16** [DR13.# <> 3] What were the most important reasons you did not use the public transit to go anywhere on your travel day?

**[DO NOT READ LIST]**

**[SELECT FIRST TWO RESPONSES]**

- 1 NOT A CONVENIENCE
- 2 TOO SLOW/ TAKES TOO LONG
- 3 RELIABILITY/ NOT ON TIME
- 4 WAITING TIME TOO LONG/ FREQUENCY OF RUNS
- 5 TOO FAR FROM MY HOME
- 6 DOES NOT GO WHERE I NEED TO GO
- 7 DO NOT KNOW THE SCHEDULE OR ROUTES
- 8 COSTS TOO MUCH
- 9 DO NOT LIKE TRANSIT
- 10 PREFER CAR
- 11 BUSES ARE UNCOMFORTABLE/ DIRTY/ GRAFFITI
- 12 AFRAID OF CRIME/ UNSAFE
- 13 OTHER REASON **[SPECIFY]**
- 98 DON'T KNOW
- 99 REFUSED

#### **Terminations**

**THANK** That concludes our survey. Thank you very much for your time and the useful information you have provided us. Have a good day / evening.

**[DISPOS = 40]**

**THANK1** Thank you for your time, but we are unable to complete this survey in the language you are most comfortable speaking. Have a good day / evening.

**IF LANG=3 AND LANG2=4**

**[DISPOS=10]**

**THANK8** Thank you for your time. However we cannot continue without that information. Have a good day / evening.

**[DISPOS = 8]**