

2006 Austin/San Antonio GPS-Enhanced Household Travel Survey Technical Summary



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2006 AUSTIN/SAN ANTONIO GPS-ENHANCED HOUSEHOLD TRAVEL SURVEY

TECHNICAL SUMMARY

by

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SUMMARY

The Texas Department of Transportation (TxDOT) has commissioned household travel surveys in metropolitan areas throughout the state of Texas since the early 1990s. These surveys are conducted for transportation modeling and planning purposes and to provide reliable data for traffic and congestion management systems. In recent years, household travel surveys have included data collected with GPS (Global Positioning System) technology. The use of this technology alongside the traditional CATI (Computer-Assisted Telephone Interview) method of travel survey administration enables researchers to better understand the advantages and disadvantages of each method of data collection, improve future travel surveys, and gain insight into the nature and frequency of misreporting in travel diaries. This report presents an evaluation of the GPS-enhanced household travel survey that was undertaken in the Austin and San Antonio, Texas area in 2005 and 2006.

SURVEY DESIGN AND DATA COLLECTION

The Austin/San Antonio household travel survey had a total CATI target sample of 3,500 households. The sample plan called for 1,500 of these to be obtained from the Austin area and 2,000 from the San Antonio area. The passive GPS component of the survey was limited to a sub sample of 500 (approximately 14 percent) of the CATI households. A total of 150 of these were derived from the Austin area and 350 from the San Antonio area.

The samples were stratified on two variables: household size and annual household income. There were four categories of household size (1, 2, 3 and 4+ persons) and five categories of household income (\$0-\$19,999, \$20,000-\$34,999, \$35,000-\$49,999, \$50,000-\$74,999, and \$75,000 or more). Although the data collection vendor, ETC Institute, Inc. (ETC), was unable to meet the CATI and GPS sampling targets for every household size and income cohort, more than the total required number of surveys were collected. Overall, the number of households for which useable household travel data was collected (in both the CATI and GPS surveys) was two percent below the overall target number of household GPS surveys. Both the CATI and GPS portions of the survey were pilot tested and evaluated to ensure that there were no problems with respect to survey design, procedures or equipment prior to the full data collection effort.

DATA ANALYSIS METHODOLOGY

The methods of data analysis presented in this report were designed specifically for combined CATI and GPS household travel surveys. Data analysis was conducted with two primary software packages, Microsoft® Office and ESRI ArcGIS™ Version 9.2. Microsoft® Excel and Access were used to import, format and analyze the raw CATI survey data. Preliminary GPS trip determination was also performed in Microsoft® Excel and Access. ESRI ArcGIS™ software was employed for subsequent trip assessment and correction. A trip analysis master table and other tools were created to facilitate side-by-side comparisons and statistical analyses of the CATI and GPS data. Vehicle travel information reported in the CATI and recorded by on-board GPS units was analyzed and compared according to various criteria, including: trip rates, trip purpose, trip distance, home-based tours, and dwell time.

SURVEY RESULTS

Results from the Austin/San Antonio GPS-enhanced household travel survey offer insight into some of the similarities and differences observed between CATI and GPS-derived travel information. The data and results presented in this summary pertain to the combined Austin/San Antonio study area. Separate data and results for the Austin and San Antonio portions of the study area are provided in Appendix A.

Both the GPS and CATI datasets exhibited an overall rise in household trip rates with increasing household size. The mean trip rate for the smallest household size (1-person households) was 6.2 in the CATI survey and 7.0 in the GPS survey. Mean trip rates for the largest households (four or more persons) were 12.7 in the CATI survey and 15.0 in the GPS survey. Trip rates were consistently higher in the GPS survey, however, there were no clear trends in trip rates with respect to household income.

One of the clearest distinctions between the GPS and CATI household travel data was the higher number of total trips observed in the GPS survey. Overall, there were 5,416 trips identified in the GPS survey and 4,592 trips in the CATI survey. This difference was primarily attributable to underreporting of non-home based trips in the CATI survey. Many non-home based trips occur on the way to work or home from work, when the driver makes a brief stop (e.g. at a gas station

or other establishment). The omission of these types of trips by CATI survey respondents increases the number of reported CATI home-based work trips and lowers the number of CATI home-based other and non-home based trips vis-à-vis the GPS survey. In Austin/San Antonio-area households for which all vehicle data were available, there were 32.6 percent more home-based work trips identified in the CATI than in the GPS survey. Conversely, there were 6.0 percent fewer home-based other trips and 30.4 percent fewer non-home based trips in the CATI than the GPS survey.

Another metric used to compare GPS and CATI survey results was the number of home-based tours made by each vehicle. By focusing on complete tours instead of trips, the effects of missing side trips (such as stopping at a gas station on the way home from work) could be removed when comparing the GPS and CATI data. The results of this analysis showed that despite having divergent trip and incomplete-tour totals, the two survey methods differed by only 2.1 percent with respect to the number of complete tours. This illustrates the degree to which underreporting of trips by CATI survey respondents accounts for discrepancies between the GPS and CATI travel data. Analysis of the tour data also indicated that there were 55.7 percent fewer incomplete tours reported in the CATI survey compared to the GPS survey. This reveals a propensity among CATI respondents to report their trips in terms of complete tours, regardless of actual travel on the assigned survey day.

The final means of evaluating the data was to compare vehicle distance traveled for each survey method. Although total mileage values for the GPS and CATI surveys (27,896 miles and 25,799 miles respectively) were relatively close, the larger number of GPS trips identified yielded an average GPS trip length (5.15 miles/trip) that was almost 10 percent shorter than that calculated for the CATI data (5.62 miles/trip). Analysis of the distance traveled data by trip purpose showed that home-based work trips, with average GPS and CATI trip distances of 10.14 and 9.69 miles respectively, were approximately twice as long as than other trip types. However, home-based work trips were fewer in number and accounted for less than 20 percent of the total miles traveled.

In addition to providing valuable modeling data and insight into key differences between CATI and GPS-derived household travel data, the Austin/San Antonio GPS-enhanced travel survey

highlighted the need for further research. Topics meriting investigation include more efficient household recruitment strategies, cost-effective survey administration techniques, and measures to reduce trip underreporting in the CATI survey.

INTRODUCTION

Household travel surveys are conducted in Texas for the purpose of providing data inputs for both local and regional transportation modeling and planning. These data, stratified by socioeconomic variables such as household size and household income, are crucial for determining household trip production rates used in trip generation models. Efforts over the past several decades have enhanced surveying and reporting methodologies. Advances include the introduction and improvement of the Computer-Assisted Telephone Interview (CATI) technique, modification of data elements surveyed, and the design and implementation of new survey instruments.

More recently, GPS technology and newly-developed sources of geo-information have been leveraged in transportation research. These innovations have resulted in improvements in research scope, design, implementation, and data quality. GPS technology has also provided reliable sources of real-world data for analysis and implementation of traffic and congestion management systems.

The first GPS-enhanced household travel survey was conducted by the Federal Highway Administration in the mid-1990's (1). This study demonstrated the benefits of GPS-enhanced travel surveys, including the ability to determine route choice and travel speeds for survey participants. The first full household survey to feature a GPS subcomponent was conducted in Austin, Texas in 1997 (2). Analysis in this study compared GPS data collected from survey participants' vehicles with trips that were manually recorded in their travel diaries. Not only did the GPS data identify trips reported in the travel diaries, but they also identified trips that were not reported in the diaries. In 2005, the Texas Transportation Institute (TTI) reported results from similar studies conducted in the Laredo and Tyler-Longview, Texas areas. Less than half of the trips identified in the GPS data were accurately described in the CATI-reported travel diary.

When making trip rate estimations within urban areas, the degree of trip misreporting that can occur has been shown to be a significant problem (2, 3). In 2003, household characteristic indicators of trip misreporting behavior were identified using the results from GPS-enhanced

household travel surveys conducted in three urban areas in California (3). However, researchers were unable to include trip purpose in the analysis.

The following report is based on the GPS-enhanced household travel survey conducted in 2005 and 2006 in the 10 counties surrounding Austin and San Antonio, Texas (Bastrop, Caldwell, Hays, Travis, Williamson, Bexar, Comal, Guadalupe, Kendall and Wilson). Counties comprising the study area are shown in Figure 1. According to U.S. Census Bureau estimates, the study area had total population of 3,347,790 in 2006¹.

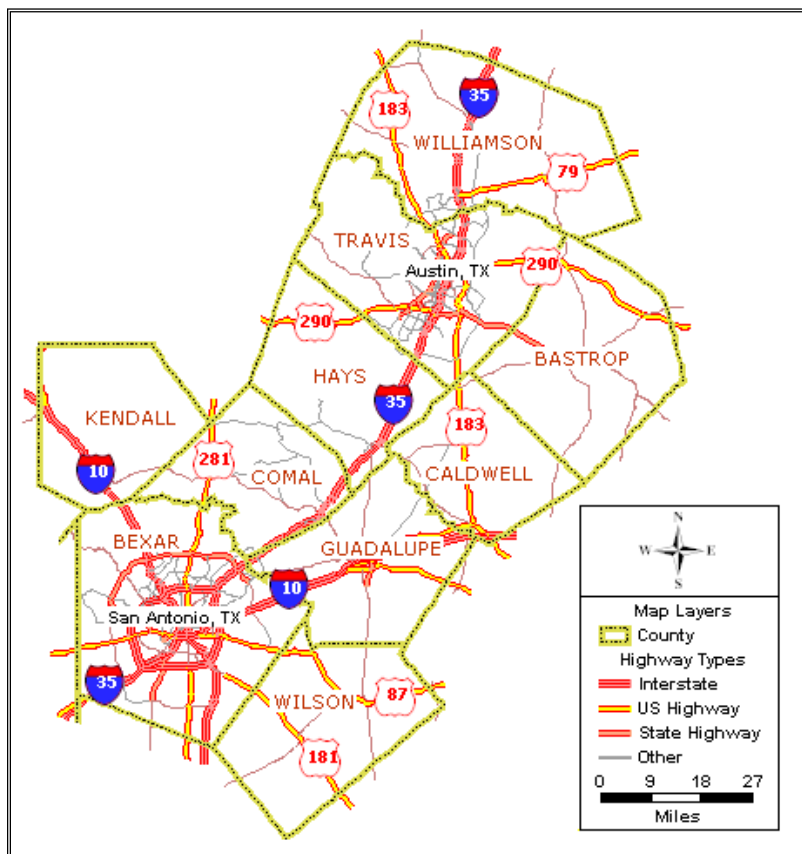


Figure 1. Map of Study Area.

For the purposes of this report, the study area was treated as a single region that required the collection of CATI-reported surveys from a total of 3,500 households. Of these, 1,500 were derived from the Austin area and 2,000 from the San Antonio area. The sample plan also called for the collection of passive GPS surveys from 500 households. Of these, 150 were to be

¹ http://quickfacts.census.gov/qfd/maps/texas_map.html

recruited from the Austin area and 350 from the San Antonio area. The ratio of San Antonio area to Austin area households in the GPS survey was higher than that of the CATI survey due to additional funding allocated by the San Antonio MPO for that portion of the study. Surveys were conducted under the direction of the Texas Department of Transportation, with survey development, oversight, data checking and analysis support provided by TTI. One of the primary goals of the study was to identify and compare trip information reported in the CATI with actual vehicle travel data recorded by in-vehicle GPS units. This was undertaken to better understand the advantages and disadvantages of each method of data collection, and improve future household travel surveys. Another important objective of the study was to gain insight into the frequency of trip-purpose misreporting in traditional CATI-reported travel diaries.

This report is divided into three main sections. The first section describes the CATI and GPS surveys and their implementation. Next, the methods used for preparation and analysis of the data are discussed. The final section presents the data analysis results for the combined Austin and San Antonio study area. Additional survey information, including separate results for the 5-county Austin and 5-county San Antonio study areas, is provided in the appendices.

SURVEY DESIGN AND DATA COLLECTION

Proper survey design and implementation are crucial to the success of household travel surveys. Although a well-designed survey does not ensure accurate trip reporting by survey participants, one that is poorly designed greatly increases the probability of inaccurate reporting. ETC Institute, Inc., a market-research firm with extensive experience conducting household travel surveys, was contracted to conduct the CATI and GPS portions of the Austin/San Antonio household travel survey. During the survey planning and design phases of the project, representatives from TxDOT, TTI and ETC met to develop and review survey instruments and procedures and ensure that the entire research team had a clear understanding of the project's data requirements. The data collection phase of the project was conducted between October 5, 2005 and May 26, 2006, excluding weekends and school holidays. The following section describes the survey methods used to obtain travel information from households recruited to participate in the Austin/San Antonio household travel survey.

CATI-REPORTED HOUSEHOLD TRAVEL SURVEYS

Travel diaries and the CATI data retrieval technique constituted the primary methods of obtaining household travel data in this study. Households recruited to participate in the survey were randomly contacted from a list of all the households in the combined study area that had a land-based (non-cellular) home phone line. Each member of a recruited household was required to complete a travel diary for a specific, assigned travel day. The travel diary, shown in Appendix D, enabled household members to record their trips and activities in a standardized format. Travel-diary information was then retrieved during one or more phone calls made by ETC to the household within two days of the assigned travel day.

During CATI data retrieval calls, interviewers attempted to speak with each individual household member who completed a travel diary (diaries for minors or disabled persons were completed by other members of the household). Information about each household member's trips and activities was entered into a computer database during this phone call. A proxy provided information for household members who were not available.

Trip information recorded in the travel diary and reported during the CATI included start and stop times, locations traveled to, vehicle used, activity, purpose and other data. Copies of

standardized telephone scripts used to recruit households into the study and retrieve data during the CATI can be found in ETC's *Capital Area MPO 2006-07 Regional Household Activity/Travel Survey Summary Report*, published in May 2007 (4).

CATI-REPORTED TRAVEL SURVEY SAMPLE

The Austin/San Antonio household travel survey had a total target sample of 3,500 household surveys, with 1,500 to be obtained from the Austin area and 2,000 from San Antonio. This sample was stratified on two variables: household size and annual household income. There were four categories of household size (1, 2, 3 and 4+ persons) and five categories of household income (\$0-\$19,999, \$20,000-\$34,999, \$35,000-\$49,999, \$50,000-\$74,999, and \$75,000+). Table 1 presents a comparison between the number of completed household surveys and the target number of surveys for each household size and income cohort. Note that all data and results in the main body of this report pertain to the combined Austin/San Antonio study area. Separate results for Austin and San Antonio are available in Appendix A.

Table 1. Number of Completed Household Travel Surveys Versus Target Sample Size.

Size HH Income	1			2			3			4+			Total		
	C	T	%	C	T	%	C	T	%	C	T	%	C	T	%
\$0-\$19,999	223	181	23	205	198	4	73	93	-22	98	105	-7	599	577	4
\$20,000-\$34,999	144	128	13	268	257	4	126	163	-23	173	175	-1	711	723	-2
\$35,000-\$49,999	131	117	12	233	198	18	126	187	-33	192	193	-1	682	695	-2
\$50,000-\$74,999	71	71	0	256	233	10	141	198	-29	205	210	-2	673	712	-5
\$75,000+	60	70	-14	274	245	12	205	210	-2	296	268	10	835	793	5
Total	629	567	11	1236	1131	9	671	851	-21	964	951	1	3500	3500	0

C = Completed surveys T = Target number of surveys % = C/T expressed as % over or under.
Source: ETC Institute, Inc.

Column “C” in Table 1 indicates the number of household travel surveys completed by the vendor for each cohort. In order to be considered complete, a household survey had to include relevant travel information for each member of the household. The “T” column shows the target number of household travel surveys for each household type as specified by TxDOT. The “%” column reflects the relationship between the number of completed household travel surveys and the number of target household travel surveys expressed as an over or under percentage.

To compensate for sampling targets that were not met (most notably, in the 3-person household category), ETC collected more than the required number of surveys for similar cohorts. This enabled the vendor to achieve the overall goal of 3,500 CATI-reported household surveys in the Austin/San Antonio study area. Measures taken during the project planning and implementation stages that contributed to relatively high response and recruitment rates included:

- creating a public awareness campaign involving TxDOT to add legitimacy to the survey and stress the importance of public participation
- using bilingual pre-notification letters to initially inform households that they were randomly selected to participate in the survey
- ensuring that all communication and survey materials were available in Spanish so that households with Spanish-speaking members were not underrepresented
- making reminder calls to each recruited household the day before they were scheduled to begin the travel survey
- providing local and toll-free contact telephone numbers for survey participants to call if they had any questions before, during or after the assigned travel day
- pilot testing survey instruments and data collection procedures so that any necessary changes could be made prior to the full data collection effort

Despite continued improvements in travel diaries, household survey design, and CATI procedures, research has shown that sole reliance upon this method of data collection typically results in a significant level of trip misreporting in household travel surveys (5).

PASSIVE GPS SURVEYS

The second data collection method utilized in the Austin/San Antonio household travel survey involved passive GPS tracking of the recruited household’s vehicle movements on the assigned

travel day. These data were collected using small, battery-powered GPS units placed inside each vehicle that was available to household members. This type of GPS tracking is referred to as passive because the data are stored internally on the unit and downloaded at a later time (as opposed to active GPS tracking which provides travel data in real time). Due to the expense of conducting of this type of survey and the greater difficulty in recruiting participants, the passive GPS survey was only required for a sub sample of 500 (approximately 14 percent) of the households that participated in the CATI survey.

ETC asked each household recruited for the CATI survey to participate in the passive GPS survey in order to maximize the pool of GPS survey candidates. Monetary incentives were offered to encourage participation. Participating households with one vehicle received \$50; households with two vehicles received \$75; and households with three or more vehicles received \$100. Incentives were disbursed upon return of the GPS device and submission of the household's completed travel diary.

Administration of the GPS survey was conducted over a three-day period. This included installation of the GPS unit the day before the assigned travel day, the actual travel day (during which vehicle movements were recorded by the GPS unit and travel diaries were kept by household members), and the post-travel day retrieval of the GPS units and hard-copy travel diaries. To facilitate installation and retrieval of the GPS units, participants were required to drive to a central location where ETC personnel installed and retrieved the units for the vehicles.

The GPS device deployed in the Austin/San Antonio survey was the LandAirSea 3100- INT, a unit commonly used for passive GPS tracking applications (see Figure 2). This compact battery-powered unit has an internal antenna and is activated by a built-in motion sensor. The LandAirSea 3100-INT uses standard National Marine Electronic Association (NMEA) communication protocol and, according to the manufacturer, has a horizontal positional accuracy of approximately six feet (2.5 meters), an operating temperature range of -15°F to 185°F (-26°C to 85°C), and a data storage capacity equivalent to approximately 100 hrs of driving time. Each unit records a variety of GPS data on a second-by-second basis. Key data elements include the GPS identification number, date, time, latitude, longitude, speed and direction. To reduce power consumption, the unit pauses recording when the vehicle is not in motion. GPS units deployed in

the Austin/San Antonio study were programmed to stop recording if the vehicle speed fell below five miles per hour for 30 minutes or more. The devices were typically placed on the vehicle's dashboard, inside the glove box, or in another convenient location. Survey participants were never required to touch the units or turn them on or off. For vehicles with an operational cigarette lighter, the GPS device was connected to it upon installation to provide backup power in the event of battery failure.



Source: Land Air Sea Systems, Inc.

Figure 2. LandAirSea 3100-INT Passive GPS Unit.

PASSIVE GPS SURVEY SAMPLE

The sample plan for the Austin/San Antonio passive GPS survey had a total target sample of 500 households. Of these, 150 households were to be recruited from the Austin area and 350 from the San Antonio area. The ratio of San Antonio area to Austin area households in the GPS survey was higher than that of the CATI survey due to additional funding allocated by the San Antonio MPO for that portion of the survey. The sample plan for the GPS survey stipulated the number of households to be surveyed based on household size and annual household income, regardless of the number of vehicles in each household.

Table 2 compares the number of completed household GPS surveys and the target number of household GPS surveys for each household size and income strata. Column “C” indicates the number of household GPS surveys completed by the vendor. To be considered complete, a household GPS survey had to include relevant travel data for all household vehicles available on the assigned travel day. A completed household GPS survey could include data for as few as one

or as many as four vehicles, regardless of household size. The “T” column shows the target number of household GPS surveys for each household type as specified by TxDOT and TTI. The “%” column reflects the relationship between the number of completed household GPS surveys and the number of target household GPS surveys expressed as an over or under percentage.

Table 2. Number of Completed GPS Surveys Versus Target Sample Size.

Size HH Income	1			2			3			4+			Total		
	C	T	%	C	T	%	C	T	%	C	T	%	C	T	%
\$0- \$19,999	13	25	-48	10	25	-60	11	17	-35	4	17	-76	38	84	-55
\$20,000- \$34,999	19	17	12	32	33	-3	16	25	-36	15	25	-40	82	100	-18
\$35,000- \$49,999	22	17	29	34	33	3	18	25	-28	19	25	-24	93	100	-7
\$50,000- \$74,999	15	8	88	40	33	21	27	25	8	45	33	36	127	99	28
\$75,000 +	6	8	-25	51	33	55	34	33	3	74	43	72	165	117	41
Total	75	75	0	167	157	6	106	125	-15	157	143	10	505	500	1

C = Completed surveys T = Target number of surveys % = C/T expressed as % over or under.
Source: ETC Institute, Inc.

All households that agreed to participate in the household survey were automatically eligible to participate in the GPS survey. However, for low-income households, the level of interest in participating in the GPS survey was lower than it was for the CATI survey. It should be noted that the legal residency status of household members was never requested or determined during this study, and participants were assured that all information collected was confidential and for transportation research purposes only. Nonetheless, the prospect of participating in a research effort that involved electronic tracking of household vehicles (and the identification of employers and places of work in the CATI survey) appears to have been viewed unfavorably by a higher proportion of small, low-income households. It should also be noted that these households are more likely not to have any vehicles.

To offset the reduced response rate to the GPS survey among this demographic, ETC began offering a \$100/household participation incentive, regardless of the number of vehicles in the

household. Though targets for several cohorts were still not met, more than the required number of surveys was collected for other household types, enabling the vendor to surpass the 500-household GPS survey goal for the Austin/San Antonio study area.

DATA USABILITY

Valid comparisons between GPS and CATI-reported survey data are contingent on the availability of complete and useable datasets in both surveys. As a result of occasional GPS-unit malfunction or CATI data collection/processing problems, completed surveys for some vehicles and households could not be utilized in the final trip comparison and analysis. Table 3 shows the number of households for which useable travel data were available in the CATI and GPS surveys (column “U”). The target number of household GPS surveys is indicated in column “T”. The “%” column reflects the relationship between the number of useable household surveys collected and the target number of household GPS surveys as an over or under percentage. As previously mentioned, the vendor encountered difficulties recruiting low-income households for the GPS study, despite offering increased monetary incentives. For example, in the \$0-\$19,999 income bracket, the number of households for which useable data were collected was 58 percent below the target. Notwithstanding this problem, the overall number of households for which useable household travel data was collected (in both the CATI and GPS surveys) was only two percent below the overall target number of household GPS surveys.

Table 3. Number of Useable Household Surveys Versus Target Household GPS Sample Size.

Size HH HH Income	1			2			3			4+			Total		
	U	T	%	U	T	%	U	T	%	U	T	%	U	T	%
\$0- \$19,999	11	25	-56	10	25	-60	11	17	-35	3	17	-82	35	84	-58
\$20,000- \$34,999	18	17	6	31	33	-6	16	25	-36	15	25	-40	80	100	-20
\$35,000- \$49,999	22	17	29	33	33	0	18	25	-28	18	25	-28	91	100	-9
\$50,000- \$74,999	15	8	88	38	33	15	26	25	4	44	33	33	123	99	24
\$75,000 +	6	8	-25	51	33	55	33	33	0	73	43	70	163	117	39
Total	72	75	-4	163	157	4	104	125	-17	153	143	7	492	500	-2

U = Useable surveys T = Target number of surveys % = U/T expressed as % over or under.

PILOT TEST

TxDOT guidelines required pilot testing and evaluation of household and GPS survey instruments, procedures and equipment prior to the full data collection phase of the project. For this study, the travel-diary portion of household survey was piloted tested in the following areas:

- telephone recruitment,
- survey mail-out,
- reminder call,
- retrieval call,
- data entry,
- trip end geocoding, and
- data checking

Collection of travel-diary information for a minimum of 50 households was required for successful completion of the CATI pilot test. GPS data were collected and reviewed for 18 of these households, using the same technology that was deployed in the full survey. Evaluation of the pilot test results indicated that 34 percent of the households that were initially contacted

agreed to participate in the CATI survey. Of these, 81 percent provided complete travel-diary information. No problems were identified in the pilot test with respect to survey design, procedures or GPS equipment.

DATA FORMAT

GPS and CATI data for the Austin/San Antonio household travel survey were collected over the course of several months. During this time, datasets were periodically compiled and submitted by the vendor for payment. Per TxDOT guidelines, each submission of CATI-reported survey data was separated into one of the following four file types:

- households,
- persons,
- vehicles, and
- trips

Files were transmitted in fixed-width text format with related household, person, vehicle and trip data all tied to a unique household identification number that was assigned by the vendor.

After being downloaded from a GPS unit, vehicle travel data were saved as an individual text file in comma-delimited format. The naming convention for these files indicated the data collection date and the identification number for the GPS unit used to record the data. Each file name was unique and the vendor was required to include an administration file with the GPS data submission that linked individual GPS files to a specific household and vehicle. By using the same identification numbers for households and vehicles in both the CATI and GPS surveys, the data could be compared. A complete description of the file formats used in the surveys is included in Appendix E.

DATA ANALYSIS AND METHODOLOGY

DATA ANALYSIS SOFTWARE AND DATA PREPARATION

Two primary software packages, Microsoft® Office and ESRI ArcGIS™ Version 9.2, were used to analyze the survey data. In the first package, Microsoft® Excel was employed to convert the plain-text, fixed-width data files (CATI data) into a user-friendly spreadsheet format. The spreadsheet information was then filtered into four worksheets containing data on households, persons, vehicles and trips. Since travel diaries and CATI data collection were designed around participant activities rather than trips (to facilitate respondent recall), the CATI trip file had to be adjusted prior to analysis. This adjustment entailed combining departure time information from activity A with arrival time and information for activity B, producing a single line of CATI data for trip analysis. Unnecessary fields were eliminated during this manipulation procedure to reduce the size of the datasets.

Excel was also used with the GPS data to automate the initial process of trip-end determination (based on stops greater than or equal to 120 seconds) and calculate trip distance from the GPS unit's second-by-second longitude and latitude readings. As the analysis progressed and results became richer in detail, the Excel tables were modified and Microsoft® Access was employed to perform data queries, store data, and facilitate other tasks. One of these tasks was the determination of CATI travel time and distance values using Traffic Analysis Zone (TAZ) information available from network skims. Network skims contain data on the shortest travel time between any two TAZ centroids in the study area and the travel distance between those centroids based on the shortest travel time.

Due to the subjective nature of CATI respondents' perceptions of travel time, the research team was obliged to use standardized TAZ information obtained from the network skims to populate trip speed and distance cells in the CATI analysis tables. This greatly facilitated the matching of GPS and CATI trips. However, trip speed and distance values for the two methods of analysis were never exactly the same and sometimes differed significantly. This occurred because TAZ information is based on hypothetical trip length in time and distance between TAZ centroids, whereas the GPS information reflected the actual duration and distance of trips that began and ended at specific locations within each TAZ. CATI trip speed and distance values for intrazonal trips (trips starting and ending in the same TAZ) were not coded in the network skims and are

therefore represented by a “-” on the trip analysis master table shown in Appendix C. Excel was used as the medium for creating trip geo-databases that were compatible with the other main software package used in the analysis, ESRI ArcGIS™ Version 9.2.

ArcGIS is a powerful geographical information system that can be used for a variety of analyses in the field of transportation. For the Austin/San Antonio household travel survey, ArcGIS offered a framework within which street networks, GPS-collected longitude/latitude trip information, and geocoded addresses could be stored, viewed, manipulated, and analyzed for the different aspects of the project. Prior to working with the data in ArcGIS, separate network maps for the Austin and San Antonio areas had to be merged into a single regional network. This was achieved by merging the geographies of the two networks in Caliper® TransCAD Version 4.8.

TRIP DETERMINATION - CATI DATA

Determination of CATI trip ends began once the data had been collected, converted, and prepared in Excel. The CATI trip file (Record 4) was used to identify all trips that each household member reported making on the assigned travel day. This record was in coded form and included the vehicle used on each trip. Figure 3 shows an Excel screenshot of selected CATI data fields in Record 4 prior to adjustment of the data. Only trips with at least one trip end located in the study area were included in the analysis.

The following sorting procedure was used for the CATI trip determination process. First, all household trips were sorted by vehicle. This was done to enable comparisons with the GPS data. Vehicle trips were then sorted by the time of day, beginning with the first trip that started at 3 a.m. or later on the assigned travel day. The final trip included in the analysis was the last trip that ended before 3 a.m. the day after the assigned travel day. Next, the CATI trip data shown in Figure 3 had to be adjusted so that each line of information represented a single trip departing from one location and arriving at another.

Record_Type	Household_ID	Month	Day	Person_Number	Activity_Trip_Number	Activity_Type_Code	Location	City	County	Zip_Code	Study_Area	Zone	Longitude	Latitude	Type_of_Place	Purpose	Mode_of_Travel	Number_of_People	HH_Members	Persons_on_Trip	Non_HH_Members	HH_Vehicle	Vehicle_Used	To_Activity	Arrival_Hour	Arrival_Minute	Departure_Hour	Departure_Minute	
4	4587	5	17	1	0	1	HOME	SAN ANTONIO	6	78250	S	703	-98.681126	29.512697	1	1													
4	4587	5	17	1	1	4	ZACHRY CONSTRUCTION CORP	SAN ANTONIO	6	78221	S	140	-98.523003	29.351336	11	3	2	1	1	1	0	1	2	2	7	33	15	36	
4	4587	5	17	1	2	11	DR DIAZ	SAN ANTONIO	6	78229	S	434	-98.556165	29.497018	14	8	2	1	1	1	0	1	2	2	16	3	16	15	
4	4587	5	17	1	3	8	SUN HARVEST	SAN ANTONIO	6	78230	S	493	-98.551094	29.512696	12	7	2	1	1	1	0	1	2	2	16	25	16	40	
4	4587	5	17	1	4	10	BANK OF AMERICA	SAN ANTONIO	6	78230	S	495	-98.563949	29.533532	6	8	2	1	1	1	0	1	2	2	16	47	16	51	
4	4587	5	17	1	5	11	OAK HILLS MEDICAL CENTER	SAN ANTONIO	6	78229	S	901	-98.571674	29.506697	14	8	2	1	1	1	0	1	2	2	17	3	18	0	
4	4587	5	17	1	6	8	STANLEYS GAS STATION	SAN ANTONIO	6	78240	S	442	-98.598377	29.491656	9	7	2	1	1	1	0	1	2	2	18	10	18	25	
4	4587	5	17	1	7	2	HOME	SAN ANTONIO	6	78250	S	703	-98.681126	29.512697	1	1	2	1	1	1	0	1	2	2	18	57			
4	4587	5	17	2	0	1	HOME	SAN ANTONIO	6	78250	S	703	-98.681126	29.512697	1	1										16	29		
4	4587	5	17	2	1	11	OAK HILLS MEDICAL CENTER	SAN ANTONIO	6	78229	S	901	-98.571674	29.506697	14	8	2	2	2	2	3	0	1	1	2	16	56	17	59
4	4587	5	17	2	2	8	CONOCO	SAN ANTONIO	6	78240	S	442	-98.598377	29.491656	9	7	2	2	2	2	3	0	1	1	2	18	6	18	15
4	4587	5	17	2	3	8	HEB	SAN ANTONIO	6	78250	S	700	-98.643224	29.519198	12	7	2	2	2	2	3	0	1	1	2	18	30	18	43
4	4587	5	17	2	4	2	HOME	SAN ANTONIO	6	78250	S	703	-98.681126	29.512697	1	1	2	2	2	2	3	0	1	1	2	18	51		
4	4587	5	17	3	0	1	HOME	SAN ANTONIO	6	78250	S	703	-98.681126	29.512697	1	1										16	29		
4	4587	5	17	3	1	11	OAK HILLS MEDICAL CENTER	SAN ANTONIO	6	78229	S	901	-98.571674	29.506697	14	8	3	2	2	2	3	0	1	1	2	16	56	17	59
4	4587	5	17	3	2	8	CONOCO	SAN ANTONIO	6	78240	S	442	-98.598377	29.491656	9	7	3	2	2	2	3	0	1	1	2	18	6	18	15
4	4587	5	17	3	3	8	HEB	SAN ANTONIO	6	78250	S	700	-98.643224	29.519198	12	7	3	2	2	2	3	0	1	1	2	18	30	18	43
4	4587	5	17	3	4	2	HOME	SAN ANTONIO	6	78250	S	703	-98.681126	29.512697	1	1	3	2	2	2	3	0	1	1	2	18	51		

Figure 3. Example of CATI Trip Data in Excel.

This was accomplished by shifting all of the arrival hour and minute values up one line and then copying, cutting and pasting them after the departure hour and minute columns. If the same trip was reported by more than one member of the household (e.g. multiple household members traveling together in the same vehicle at the same time), the duplicate trip(s) had to be removed from the dataset. In the example in Figure 3, trips made by the second and third household members are identical, therefore one set would be removed.

Each household member classified their trips based on the activity to which they were traveling, the purpose of the trip, the type of place, and the mode of travel. Keys to the coded information in each column of Figure 3 can be found in Appendix E, Tables E-8 and E-9. This information provided sufficient detail about each trip to determine the trip classification as home-based work (HBW), home-based other (HBO), or non-home-based (NHB).

Home-based work trips were those with one trip end at the home location and the other trip end at the work location. Home-based other trips were trips with one end at the home location and the other at a non-work location. Non-home-based trips were those that had neither trip end at the home location. The direction of travel is immaterial to trip classification. For example, a “home to work” trip and a “work to home” trip are both classified as HBW. The trip classification information was saved in a trip analysis master table that included the reported trip begin and end times and other information generated in Excel and Access (see Appendix C).

TRIP DETERMINATION - GPS DATA

Due to the complexities of trip determination with GPS data, a multi-step heuristic procedure was implemented to ensure that identified trip ends were determined as accurately as possible. The first step was conducted in Excel and was based on vehicle velocities and dwell times recorded by the GPS unit. The second step involved visual inspection of trips that were generated in Excel. This was done by importing the longitude-latitude information from the Excel GPS data into ArcGIS and overlaying it on a map of the study area's street network. Identification and correction of missing or false trip ends could then be performed.

In most cases, a vehicle's GPS unit was able to begin data acquisition from satellites within a few seconds of vehicle start-up and movement. This minimized the loss of data at the beginning of trips. A new trip began the second that the GPS unit's velocity reading exceeded zero. It should be noted that extremely small changes (± 0.00001 decimal degrees) in GPS readings due to satellite shifting occasionally resulted in the velocity being reported as greater than zero when in fact there was no vehicle movement. These velocities were treated as zero to ensure correct dwell time and trip time calculations.

A threshold of 120 seconds was used in Excel to determine the initial trip ends. This meant that whenever the vehicle velocity was zero for 120 seconds or more, a trip end was automatically inserted by an Excel formula. Past studies have shown this to be an appropriate amount of dwell time for determining trip ends (3).

A significant limitation of the 120-second threshold for automated trip-end determination in Excel was that legitimate short stops were missed if the vehicle was stopped for less than 2 minutes. Examples of trip types affected by this problem included travel to drive-through services or brief stops to pick someone up or drop them off. Drivers in such scenarios often stay in their vehicle or leave it only momentarily, but the vehicle may not remain stationary for a full 2 minutes. These types of missed trip ends comprised the vast majority of corrections identified in ArcGIS. Tables and charts showing the dwell length frequency distribution for all GPS trips recorded in the study is included in Appendix B.

Figure 4 shows an Excel screenshot of filtered and prepared GPS data (trip ends only) for the first set of CATI data shown in Figure 3. The "TRIP_END", "DIST", and "TRIP_NO" fields

were added to the matrix during analysis and populated using formulas. The speed values shown represent vehicle velocity in miles per hour the second before the trip began or ended. The distance values are cumulative totals in miles for that trip.

REC_TYPE	GPS_ID	DATE	TIME	LONG	LAT	ELEV	SPEED	HEAD	TRIP_END	DIST	TRIP_NO
5	133	5/17/2006	6:58:49	-98.680084	29.512441	256.9	0.00	102.4	TRIP START	0.00	1
5	133	5/17/2006	7:33:29	-98.524058	29.351433	164	5.25	10.1	TRIP END	21.72	1
5	133	5/17/2006	15:41:37	-98.523121	29.356007	169.8	0.00	20	TRIP START	0.00	2
5	133	5/17/2006	16:03:03	-98.556355	29.496992	253.9	4.88	85.7	TRIP END	12.53	2
5	133	5/17/2006	16:15:57	-98.556354	29.496921	257.9	0.00	290.1	TRIP START	0.00	3
5	133	5/17/2006	16:17:48	-98.559113	29.501954	253	3.78	305.2	TRIP END	0.43	3
5	133	5/17/2006	16:22:43	-98.559685	29.502306	253	0.00	324.3	TRIP START	0.00	4
5	133	5/17/2006	16:25:42	-98.55131	29.513432	255.7	2.99	187.2	TRIP END	1.00	4
5	133	5/17/2006	16:44:04	-98.551324	29.513331	269.7	0.00	354	TRIP START	0.00	5
5	133	5/17/2006	16:47:58	-98.56285	29.533239	253	2.14	173.2	TRIP END	1.88	5
5	133	5/17/2006	16:52:44	-98.562842	29.533177	224.9	0.00	190.6	TRIP START	0.00	6
5	133	5/17/2006	17:03:43	-98.570356	29.508878	293.8	2.18	6.8	TRIP END	2.52	6
5	133	5/17/2006	18:00:35	-98.570322	29.509129	280.7	0.00	319.9	TRIP START	0.00	7
5	133	5/17/2006	18:11:28	-98.598216	29.491548	228	2.16	71.9	TRIP END	2.46	7
5	133	5/17/2006	18:18:12	-98.598118	29.491576	224.9	0.00	85.7	TRIP START	0.00	8
5	133	5/17/2006	18:37:50	-98.680419	29.512478	257.9	4.79	166.8	TRIP END	6.94	8

Figure 4. Example of GPS Trip Data in Excel.

Visually verifying valid trip ends and detecting missing or false trip ends in ArcGIS was accomplished by analyzing vehicle paths and determining where stops or drop-offs were made. The second-by-second GPS data were graphically displayed in ArcGIS as colored dots overlaid on a map of thin green lines that represented the street network. Different colored dots were used to symbolize separate trips made by the same vehicle. Dots close together indicated relatively slow speeds, while those further apart indicated travel at higher rates of speed. Trip ends typically appeared as short gaps, diversions or loops off of roads and into driveways and parking lots. The last vehicle speed reading prior to trip ends was normally less than three miles per hour. Occasionally, a trip end was characterized by a longer detour off of a road, which ended at a stopping point. Then, the vehicle retraced its inbound path and a returned to the road on which it had been traveling. Common examples of missing trip ends identified in ArcGIS are circled in Figure 5. These stops lasted less than 120 seconds and were not automatically identified in excel.

If no missing or incorrectly placed trip ends were found in ArcGIS, the original Excel database of GPS trips for that vehicle was used to populate the GPS portion of the trip analysis master table. If revisions were necessary, the precise unique coordinates of the missing trip end were identified in ArcGIS. These coordinates were then located in the corresponding Excel file, and the 120-second dwell time threshold in the relevant line of data was manually shortened so that a

trip end would be automatically inserted. The data were then re-imported into ArcGIS to ensure proper trip-end placement. Although this process was time consuming and labor intensive, the use of GIS software to spatially display and inspect the GPS data greatly enhanced the accuracy of the trip-end determination process.

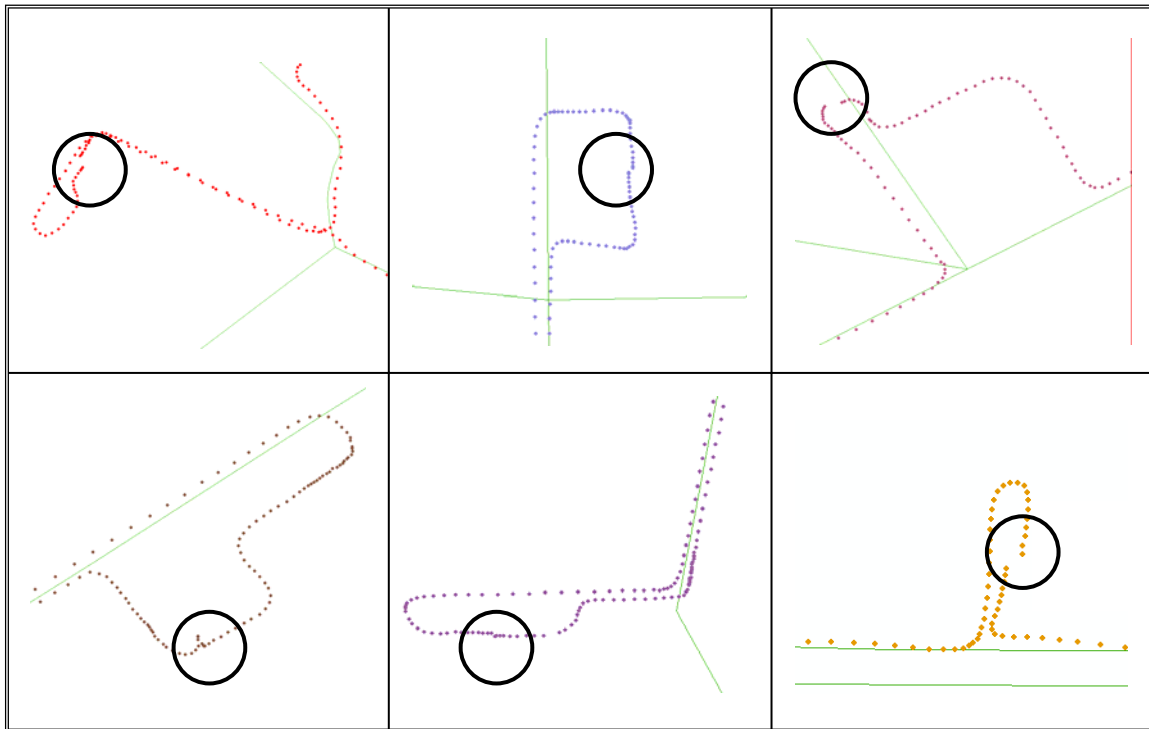


Figure 5. Examples of Visual Identification of Missed Trip Ends in ArcGIS.

In rare cases (such as unusually long delays at signalized intersections), the 120-second threshold used to insert trip ends in Excel was too short and resulted in erroneous trip-end placement. Identification of invalid trip ends of this type first involved visual assessment in ArcGIS. The latitude and longitude of questionable trip ends were plotted using a coordinate search engine such as MapQuest (6). These free services are capable of displaying the exact location of coordinates (entered as decimal degrees or degrees, minutes, seconds) on recent high-resolution aerial/satellite photos and street maps. If the trip end location was determined to be invalid, the dwell-time threshold for the relevant line of data in Excel was lengthened so that the trip was automatically removed. At no time were the CATI data used to correct the GPS data or vice versa. An example of an invalid trip end (signalized intersection) that was identified in ArcGIS and verified in an aerial photo is shown in Figure 6.

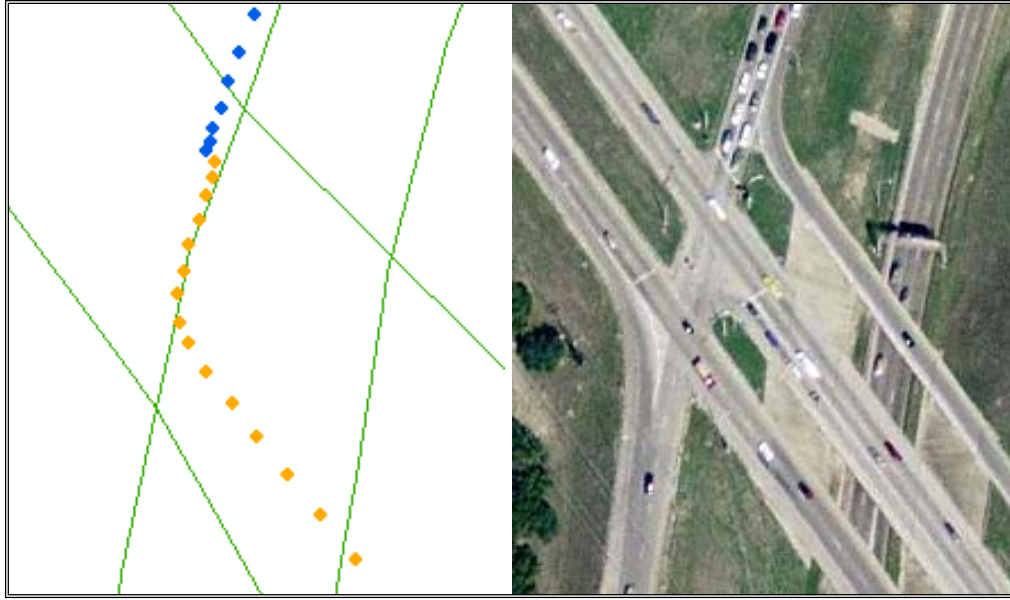


Figure 6. Example of Determination of an Invalid Trip End Using ArcGIS and Aerial Photos.

In order to compare the GPS and CATI data by trip purpose, latitude and longitude coordinates of home and work locations were determined by the data collection vendor based on information reported in the CATI. These geocoded locations were imported into ArcGIS and plotted on trip maps so that each GPS trip could be classified as home-based work, home-based other, or non-home-based. This information was then used to populate the GPS trip classification portion of the trip analysis master table.

COMPARING CATI AND GPS TRIPS

The trip analysis master table was created to facilitate side-by-side comparisons and statistical analyses of the CATI and GPS data. Because CATI respondents tend to roughly estimate trip begin and end times (rounding them to the nearest five, ten, or fifteen minute intervals), a considerable margin of error was permitted when attempting to fit CATI and GPS trips together.

Where a trip existed for one data collection method, but not for the other, the appropriate side of the table was left blank and the “TRIP ID” cell was colored red. A CATI trip that was reported to have occurred during the same general time frame as a GPS trip, but whose characteristics did not match the GPS trip’s, was included on the same line as the GPS trip and the “TRIP ID” cell was coded red. If GPS and CATI trip characteristics were similar for individual trips, the data were placed on the same line and the corresponding “TRIP ID” cell was colored dark green. For GPS and CATI trips that were similar only if two or more trips were linked (hypothetically combined to form a single trip), the respective “TRIP ID” cells were colored light green. If only the first and last trips of trips of the day were reported in the CATI, and a significant number of trips were missing, the corresponding “TRIP ID” cells were not linked but were colored red. Note that trip linking in the Master Table was a subjective procedure that was undertaken for visual comparison purposes only. It did not affect subsequent statistical analyses of the data.

A comparison of the data presented in Figures 3 and 4 provides an example of how the CATI and GPS datasets relate in the master table. The GPS data in Figure 4 roughly match the CATI data shown for the top vehicle in Figure 3. However, there is one additional trip in the GPS data for this household. Closer examination of the GPS data in ArcGIS shows that a valid trip end identified between trips 3 and 4 was not reported in the CATI (see circle in Figure 7). If GPS trips 3 and 4 were linked, the combined trip’s start and end times (16:15 and 16:25) would match what was reported in the CATI. This is illustrated by the light green “TRIP ID” cell coloration in the trip analysis master table (see Appendix C, page 107, 6th entry).

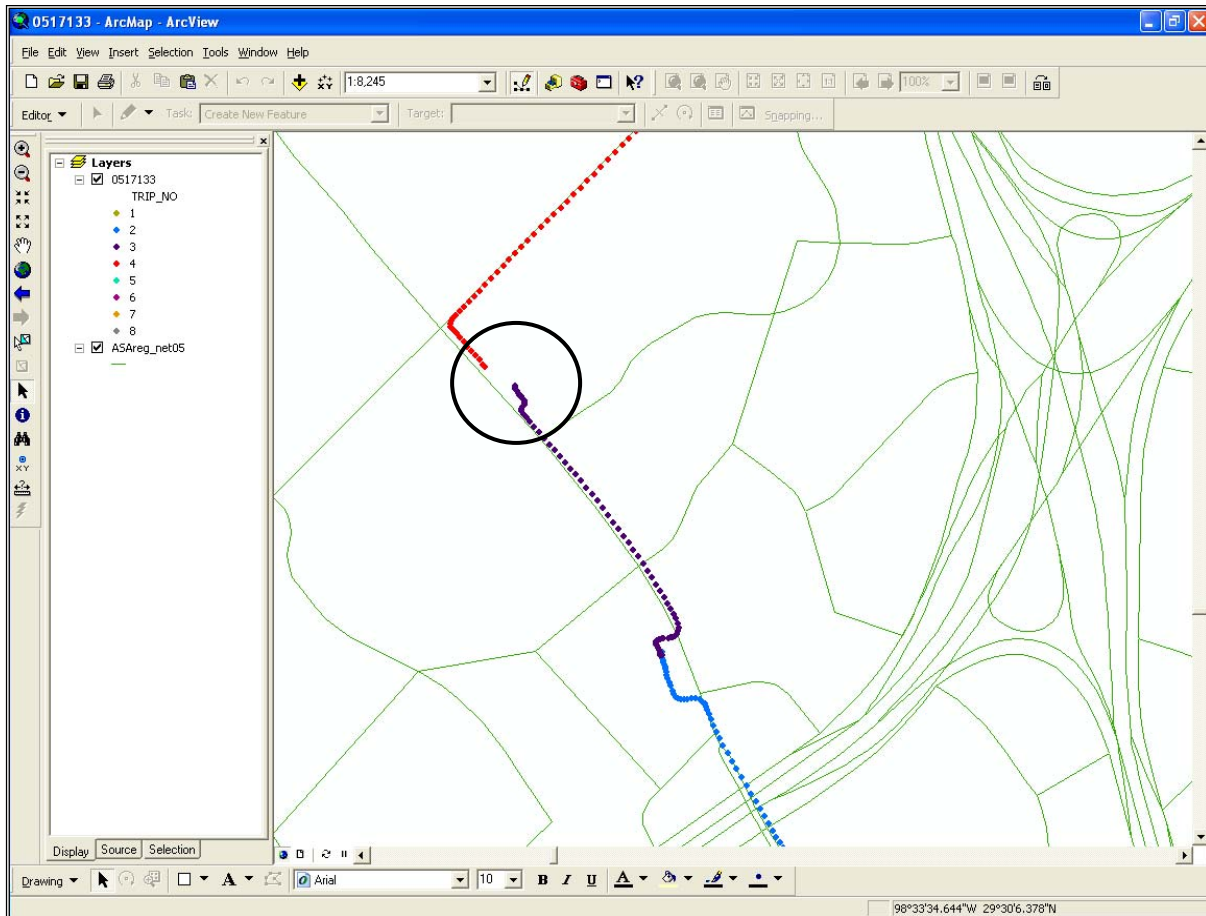


Figure 7. Example of a GPS Trip End Identified in ArcGIS but Not Reported in the CATI.

In addition to enabling a visual comparison of travel information collected in the CATI and GPS surveys, preparation of the trip analysis master table facilitated statistical analyses of the survey results.

SURVEY RESULTS

TRIPS BY TRIP PURPOSE

After analyzing vehicle trips for households participating in both surveys, the number of total trips, average trips per vehicle and average trips per household was determined by trip purpose. To enable comparison of the data, vehicles or households for which travel data were missing (either in the GPS survey, the CATI survey, or both) were excluded from analysis. This resulted in the under representation of zero-trip vehicles and households in the survey results. The “Trips/Vehicle” and “Trips/Household” values presented in Table 4 are therefore shown for the purposes of GPS and CATI data comparison only. Households referred to as “Full” were those for which comparison CATI and GPS data were available for all of the vehicles in the household. “Partial” households were those for which comparison CATI and GPS data were only available for some of the household’s vehicles. Because all relevant vehicle travel data were not available for Partial households, the trips/household metric could not be applied to the bottom two categories in Table 4.

Table 4. GPS and CATI Trips by Trip Purpose.

	HBW		HBO		NHB		Total	
	GPS	CATI	GPS	CATI	GPS	CATI	GPS	CATI
Full Households (434 Households, 688 Vehicles)								
Trips	362	480	2,014	1,894	2,503	1,741	4,879	4,115
Trips/Vehicle	0.53	0.70	2.93	2.75	3.64	2.53	7.09	5.98
Trips/Household	0.83	1.11	4.64	4.36	5.77	4.01	11.24	9.48
Partial Households (58 Households, 69 Vehicles)								
Trips	41	48	205	195	291	234	537	477
Trips/Vehicle	0.59	0.70	2.97	2.83	4.22	3.39	7.78	6.91
Full and Partial Households (492 Households, 757 Vehicles)								
Trips	403	528	2,219	2,089	2,794	1,975	5,416	4,592
Trips/Vehicle	0.53	0.70	2.93	2.76	3.69	2.61	7.15	6.07

HBW = home-based work trip HBO = home-based other trip NHB = non-home-based trip.

In the full households, a total of 4,879 GPS trips (4,115 CATI trips) were made using 688 vehicles in 434 households. This yielded an average of 7.09 GPS trips (5.98 CATI trips) per vehicle per day and 11.24 GPS trips (9.48 CATI trips) per household per day. The majority of these trips were non-home based and home-based other trips, with the difference between GPS and CATI totals primarily attributable to fewer CATI non-home based trips and more CATI home-based work trips.

Tables 5 and 6 show mean GPS and CATI household trip rates for full households (including variance and 95% confidence intervals), stratified by household size and household income. The results for the 4+ person, \$0-\$19,999/yr income cohort are shown in italics due to the small sample size (data for only three households were available).

Table 5. GPS Household Trip Rates by Household Size and Household Income.

Mean

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	8.1	11.6	12.2	12.3	10.7
\$20,000-\$34,999	6.1	8.9	11.9	12.3	9.5
\$35,000-\$49,999	8.6	8.5	11.3	14.9	10.3
\$50,000-\$74,999	4.8	9.8	11.2	13.8	10.9
\$75,000+	7.0	10.2	12.0	16.5	13.2
Weighted Average	7.0	9.6	11.7	15.0	11.2

Variance

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	22.9	35.4	35.4	76.3	34.3
\$20,000-\$34,999	10.3	31.7	65.3	18.7	35.7
\$35,000-\$49,999	46.3	37.4	60.8	80.5	57.0
\$50,000-\$74,999	5.2	30.4	20.5	51.9	40.9
\$75,000+	16.8	18.3	32.0	64.3	50.4
Weighted Average	23.8	28.2	38.2	58.8	47.1

95% Confidence Interval

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	(5.3,10.9)	(7.4,15.8)	(8.7,15.7)	(2.5,22.1)	(8.7,12.7)
\$20,000-\$34,999	(4.6,7.6)	(6.8,11)	(7.9,15.9)	(10,14.6)	(8.1,10.9)
\$35,000-\$49,999	(5.8,11.4)	(6.3,10.7)	(7.2,15.4)	(10.6,19.2)	(8.7,11.9)
\$50,000-\$74,999	(3.6,6)	(7.9,11.7)	(9.3,13.1)	(11.6,16)	(9.7,12.1)
\$75,000+	(3.7,10.3)	(8.9,11.5)	(9.8,14.2)	(14.5,18.5)	(12,14.4)
Weighted Average	(5.9,8.1)	(8.7,10.5)	(10.4,13)	(13.7,16.3)	(10.6,11.8)

Italic indicates n<5, n=number of households.

Table 6. CATI Household Trip Rates by Household Size and Household Income.

Mean

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	7.1	8.0	9.6	9.7	8.4
\$20,000-\$34,999	5.7	8.0	9.4	11.2	8.4
\$35,000-\$49,999	7.1	7.5	8.1	13.6	8.7
\$50,000-\$74,999	4.3	8.6	10.1	11.3	9.3
\$75,000+	6.7	8.4	9.6	13.9	11.0
Weighted Average	6.2	8.1	9.5	12.7	9.5

Variance

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	18.1	5.1	8.3	20.3	11.9
\$20,000-\$34,999	5.0	22.2	23.9	11.6	19.3
\$35,000-\$49,999	27.6	23.2	21.7	68.0	38.2
\$50,000-\$74,999	2.7	22.3	16.4	23.4	23.5
\$75,000+	9.5	7.7	19.2	39.2	30.8
Weighted Average	14.3	17.5	18.0	35.7	27.9

95% Confidence Interval

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	(4.6,9.6)	(6.4,9.6)	(7.9,11.3)	(4.6,14.8)	(7.2,9.6)
\$20,000-\$34,999	(4.7,6.7)	(6.2,9.8)	(7,11.8)	(9.4,13)	(7.4,9.4)
\$35,000-\$49,999	(4.9,9.3)	(5.8,9.2)	(5.6,10.6)	(9.7,17.5)	(7.4,10)
\$50,000-\$74,999	(3.5,5.1)	(6.9,10.3)	(8.4,11.8)	(9.8,12.8)	(8.4,10.2)
\$75,000+	(4.2,9.2)	(7.6,9.2)	(7.9,11.3)	(13.3,16.5)	(10.5,12.3)
Weighted Average	(5.3,7.1)	(7.4,8.8)	(8.6,10.4)	(12.2,14.2)	(9.1,10.1)

Italic indicates n<5, n=number of households.

The above data show a general rise in household trip rates as household size increases. No clear trend in household trips is observed with respect to household income in either the GPS or CATI survey. As expected, the number of GPS trips per household was higher than the number of CATI trips per household for every household size and income cohort. This was due to trip underreporting in the CATI survey.

TRIP UNDERREPORTING

The degree of CATI trip underreporting (survey respondent reporting fewer trips than he/she actually made) was determined by comparing aggregate trip data. Table 7 shows the total number of trips by trip type recorded in the CATI and GPS surveys for full households.

Table 7. Difference in GPS and CATI Trips by Trip Purpose for Full Households.

	HBW	HBO	NHB	Total
GPS Trips	362	2,014	2,503	4,879
CATI Trips	480	1,894	1,741	4,115
Trip Difference	-118	120	762	764
% Difference	-32.6%	6.0%	30.4%	15.7%

The table highlights differences in trip totals for all three trip types. Overall, there were 764 more trips identified in the GPS survey than were reported in the CATI survey. The most significant discrepancies were observed in the non-home based and home-based work trip types.

Examination of the survey data on a trip-by-trip basis revealed that specific kinds of non-home based trips were frequently underreported in the CATI. These tended to be short trips that were made between home and work, such as stopping at a gas station, convenience store, or a drive through. In other cases, non-home based trips between a work location and a non-home location (such as a lunch trip to a restaurant) were left out of the CATI.

The underreporting of these trips had the effect of raising the number of CATI home-based work trips and lowering the number of CATI home-based other and non-home based trips vis-à-vis the GPS survey (see Table 7). There were 32.6 percent more home-based work trips and 30.4 percent fewer non-home based trips identified in the CATI than in the GPS survey. The failure of CATI respondents to report certain trips may be related to a number of factors, including: improper diary use/forgetfulness, perceived lack of importance of the trip, desire to shorten length of survey, improper use of proxy respondents, privacy concerns, or other factors. Trip underreporting in the CATI and potential mitigation strategies is a topic requiring further research.

Another method of assessing underreporting in the CATI survey is to examine the difference in mean trip rates between the two survey methods. Table 8 provides this information for each household size and income cohort. The positive values observed in all cells reflect the consistently higher trip rates obtained from the GPS survey data.

Table 8. Difference in Mean Trip Rates (GPS – CATI) by Household Size and Income.

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	1.0	3.6	2.5	2.7	2.3
\$20,000-\$34,999	0.3	0.9	2.4	1.1	1.1
\$35,000-\$49,999	1.5	1.0	3.1	1.3	1.5
\$50,000-\$74,999	0.5	1.2	1.1	2.6	1.6
\$75,000+	0.3	1.9	2.4	2.6	2.3
Weighted Average	0.8	1.4	2.2	2.3	1.8

Italic indicates n<5, n=number of households.

Table 9 shows the difference in total GPS and CATI trips as a percentage of total GPS trips. Values for individual cohorts range from five to 31 percent and indicate the degree to which household trips were underreported in the CATI survey. Overall, the highest level of trip underreporting occurred among 3-person households (19 percent) and households in the \$0-\$19,999 income bracket (21 percent).

Table 9. Percent Difference in Trip Rates (GPS – CATI) Trips by Household Size and Income.

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	12%	31%	21%	22%	21%
\$20,000-\$34,999	6%	10%	21%	9%	12%
\$35,000-\$49,999	17%	12%	28%	9%	16%
\$50,000-\$74,999	10%	12%	10%	19%	15%
\$75,000+	5%	18%	20%	16%	17%
Weighted Average	12%	15%	19%	15%	15%

Italic indicates n<5, n=number of households.

The Trip Analysis Master Table in Appendix C provides a side-by-side comparison of GPS and CATI trips for each vehicle in the study. Individual trips are color coded to illustrate how well data obtained from the two surveys fit together. Red Trip ID cells indicate that no match between GPS and CATI trip characteristics could be made. Light green Trip ID cell coloration was used

for GPS and CATI trips that would have similar characteristics if trip linking (combining consecutive trips) was used. Dark green Trip ID cells denote individual GPS and CATI trips with similar trip characteristics.

HOME-BASED TOURS

Another metric that can be employed to compare GPS and CATI survey results is the number of home-based tours made by each vehicle. A home-based tour is a round trip in which the vehicle leaves home, makes one or more stops of any length, and then returns home. Smaller, internal tours within home-based tours, such as trips from work to a restaurant and back to work, were not considered.

The decision to include home-based tours in the analysis of survey results was made when it was determined that many GPS trips left out of the CATI were “internal” trips that occurred within a single home-based tour. By focusing on tours instead of trips, the effects of missing internal trips could be removed when comparing GPS and CATI data. The analysis of home-based tours also helped identify whether trip underreporting in the CATI resulted from missed internal trips or entire tours that were left out.

Table 10 shows the number of complete and incomplete home-based tours made by all vehicles in the study according to survey type.

Table 10. GPS Versus CATI Home-Based Tours for All Vehicles.

	Trips	Complete Tours	Incomplete Tours
GPS	5,416	1,256	115
CATI	4,592	1,283	51
Tour Difference	824	-27	64
% Difference	15.2%	-2.1%	55.7%

Overall, 1,256 complete tours and 115 incomplete tours were recorded in the GPS survey. A total of 1,283 complete tours and 51 incomplete tours were identified in the CATI data. Although the GPS and CATI survey data showed divergent trip and incomplete-tour totals, they differed by only 2.1 percent with respect to the number of complete tours. This illustrates the degree to which underreporting of trips by CATI survey respondents accounts for discrepancies between

the GPS and CATI travel data. Analysis of the tour data also indicated that there were 55.7 percent fewer incomplete tours reported in the CATI survey compared to the GPS survey. This reveals a propensity among CATI respondents to report their trips in terms of complete tours, regardless of actual travel on the assigned survey day.

TRIP DISTANCE

The final means of evaluating the GPS and CATI data was to compare vehicle distance traveled for each survey method. This analysis is helpful in determining the relationship between trip distances derived from in-vehicle GPS units versus those calculated based on Traffic Analysis Zone information contained in network skims (CATI methodology). Table 11 shows the total distance traveled, number of trips, and average trip distance obtained from the GPS and CATI surveys.

Table 11. GPS Versus CATI Distance Traveled for All Vehicles.

	Miles	Trips	Miles/Trip
GPS	27,896	5,416	5.15
CATI	25,799	4,592	5.62
Difference	2,097	824	-0.47
% Difference	7.5%	15.2%	-9.1%

Although the mileage values are relatively close, there were 824 more total trips recorded in the GPS survey than in the CATI survey. This yielded an average GPS trip length (5.15 miles/trip) that was almost 10 percent shorter than that calculated from the CATI data (5.62 miles/trip). Recall that the network skims method of CATI trip-length determination used in this study is based on TAZ centroid to centroid distances, not actual travel routes reported by survey participants.

Table 12 presents total distance traveled values for the GPS and CATI surveys, broken down by trip purpose. Home-based work trips, with average GPS and CATI trip distances of 10.14 and 9.69 miles respectively, were significantly longer than other trip types. However, they comprised only about 15 to 20 percent of the total miles traveled. Home-based other and non-home based

trips each accounted for approximately 40 to 45 percent of the total miles traveled for each survey type, but these trips were generally only half the length of home-based work trips.

Table 12. GPS Versus CATI Distance Traveled for All Vehicles by Trip Purpose.

	HBW		HBO		NHB		Total	
	GPS	CATI	GPS	CATI	GPS	CATI	GPS	CATI
Total Miles Traveled	4,087	5,115	10,798	10,628	13,010	10,056	27,896	25,799
Total Trips	403	528	2,219	2,089	2,794	1,975	5,416	4,592
Percent Share (of Mileage)	14.7%	19.8%	38.7%	41.2%	46.6%	39.0%	100.0%	100.0%
Average Miles per Trip	10.14	9.69	4.87	5.09	4.66	5.09	5.15	5.62

CONCLUSIONS

Results from the Austin/San Antonio GPS-enhanced household travel survey offer insight into some of the similarities and differences observed between CATI and GPS-derived travel information. The data and results presented here pertain to the combined Austin/San Antonio study area. Separate data and results for the Austin and San Antonio portions of the study area are provided in Appendix A.

Both the GPS and CATI data exhibited an overall rise in household trip rates with increasing household size. The mean trip rate for the smallest household size (1-person households) was 6.2 in the CATI survey and 7.0 in the GPS survey. Mean trip rates for the largest households (four or more persons) were 12.7 in the CATI survey and 15.0 in the GPS survey. Trip rates were consistently higher in the GPS survey, however, there were no clear trends in trip rates with respect to household income.

One of the clearest distinctions between the GPS and CATI household travel data was the higher number of total trips observed in the GPS survey. Overall, there were 5,416 trips identified in the GPS survey and 4,592 trips in the CATI survey. This difference was primarily attributable to underreporting of non-home based trips in the CATI survey. Many non-home based trips occur on the way to work or home from work, when the driver makes a quick stop at a gas station or other establishment. The frequent omission of these types of trips by CATI survey respondents increased the number of reported CATI home-based work trips and lowered the number of CATI home-based other and non-home based trips vis-à-vis the GPS survey. In Austin/San Antonio-area households for which all vehicle data were available, there were 32.6 percent more home-based work trips identified in the CATI than in the GPS survey. Conversely, there were 6.0 percent fewer home-based other trips and 30.4 percent fewer non-home based trips in the CATI than the GPS survey.

Another metric used to compare GPS and CATI survey results was the number of home-based tours made by each vehicle. By focusing on complete tours instead of trips, the effects of missing side trips (such as stopping at a gas station on the way home from work) could be removed when comparing the GPS and CATI data. The results of this analysis showed that having divergent trip and incomplete-tour totals, the two survey methods differed by only 2.1 percent with respect to

the number of complete tours. This illustrates the degree to which underreporting of trips by CATI survey respondents accounts for discrepancies between the GPS and CATI travel data. Analysis of the tour data also indicated that there were 55.7 percent fewer incomplete tours reported in the CATI survey compared to the GPS survey. This reveals a propensity among CATI respondents to report their trips in terms of complete tours, regardless of actual travel on the assigned survey day.

The final means of evaluating the data was to compare vehicle distance traveled for each survey method. Although total mileage values for the GPS and CATI surveys (27,896 miles and 25,799 miles respectively) were relatively close, the larger number of GPS trips identified yielded an average GPS trip length (5.15 miles/trip) that was almost 10 percent shorter than that calculated for the CATI data (5.62 miles/trip). Analysis of the distance traveled data by trip purpose showed that home-based work trips, with average GPS and CATI trip distances of 10.14 and 9.69 miles respectively, were approximately twice as long as than other trip types. However, home-based work trips were fewer in number and accounted for less than 20 percent of the total miles traveled.

In addition to providing valuable modeling data and insight into key differences between CATI and GPS-derived household travel data, the Austin/San Antonio GPS-enhanced travel survey highlighted the need for further research. Topics meriting investigation include more efficient household recruitment strategies, cost-effective survey administration techniques, and measures to reduce trip underreporting in the CATI survey.

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APPENDIX A
SEGREGATED AUSTIN AND SAN ANTONIO SURVEY RESULTS

Table A - 1A (Austin). Number of Completed Household Travel Surveys Versus Target Sample Size.

Size HH Income	1			2			3			4+			Total		
	C	T	%	C	T	%	C	T	%	C	T	%	C	T	%
\$0- \$19,999	111	78	43	91	85	7	31	40	-22	48	45	7	281	247	14
\$20,000- \$34,999	65	55	18	115	110	4	56	70	-20	76	75	1	312	310	1
\$35,000- \$49,999	58	50	16	108	85	27	52	80	-35	90	83	9	308	298	3
\$50,000- \$74,999	26	30	-15	99	100	-1	46	85	-46	80	90	-11	251	305	-18
\$75,000 +	19	30	-37	105	105	0	89	90	-1	135	115	18	348	340	2
Total	279	243	15	518	485	7	274	365	-25	429	408	5	1,500	1,500	0

C = Completed surveys T = Target number of surveys % = C/T expressed as % over or under.
Source: ETC Institute, Inc.

Table A - 1B (San Antonio). Number of Completed Household Travel Surveys Versus Target Sample Size.

Size HH Income	1			2			3			4+			Total		
	C	T	%	C	T	%	C	T	%	C	T	%	C	T	%
\$0- \$19,999	112	103	8	114	113	1	42	-98	-43	50	60	-17	318	330	-4
\$20,000- \$34,999	79	73	8	153	147	4	70	93	75	97	100	-3	399	413	-3
\$35,000- \$49,999	73	67	9	125	113	10	74	107	69	102	110	-8	374	397	-6
\$50,000- \$74,999	45	41	11	157	133	18	95	113	84	125	120	4	422	407	4
\$75,000 +	41	40	2	169	140	21	116	120	97	161	153	5	487	453	7
Total	350	324	8	718	646	11	397	486	82	535	543	-2	2,000	2,000	0

C = Completed surveys T = Target number of surveys % = C/T expressed as % over or under.
Source: ETC Institute, Inc.

Table A - 2A (Austin). Number of Completed GPS Surveys Versus Target Sample Size.

Size HH Income	1			2			3			4+			Total		
	C	T	%	C	T	%	C	T	%	C	T	%	C	T	%
\$0-\$19,999	5	8	-33	2	8	-73	6	5	18	1	5	-80	14	25	-44
\$20,000-\$34,999	7	5	37	10	10	1	2	8	-73	3	8	-60	22	30	-27
\$35,000-\$49,999	9	5	76	11	10	11	4	8	-47	4	8	-47	28	30	-7
\$50,000-\$74,999	5	2	108	9	10	-9	9	8	20	10	10	1	33	30	11
\$75,000+	2	2	-17	14	10	41	12	10	21	29	13	125	57	35	62
Total	28	23	24	46	47	-2	33	38	-12	47	43	10	154	150	3

C = Completed surveys T = Target number of surveys % = C/T expressed as % over or under.
Source: ETC Institute, Inc.

Table A - 2B (San Antonio). Number of Completed GPS Surveys Versus Target Sample Size.

Size HH Income	1			2			3			4+			Total		
	C	T	%	C	T	%	C	T	%	C	T	%	C	T	%
\$0-\$19,999	8	18	-54	8	18	-54	5	12	-58	3	12	-75	24	59	-59
\$20,000-\$34,999	12	12	1	22	23	-5	14	18	-20	12	18	-31	60	70	-14
\$35,000-\$49,999	13	12	9	23	23	0	14	18	-20	15	18	-14	65	70	-7
\$50,000-\$74,999	10	6	79	31	23	34	18	18	3	35	23	52	94	69	36
\$75,000+	4	6	-29	37	23	60	22	23	-5	45	30	50	108	82	32
Total	47	53	-10	121	110	10	73	88	-17	110	100	10	351	350	0

C = Completed surveys T = Target number of surveys % = C/T expressed as % over or under.
Source: ETC Institute, Inc.

Table A - 3A (Austin). Number of Useable Household Surveys Versus Target Household GPS Sample Size.

Size HH HH Income	1			2			3			4+			Total		
	U	T	%	U	T	%	U	T	%	U	T	%	U	T	%
\$0-\$19,999	3	8	-60	2	8	-73	6	5	18	1	5	-80	12	25	-52
\$20,000-\$34,999	6	5	18	9	10	-9	2	8	-73	3	8	-60	20	30	-33
\$35,000-\$49,999	9	5	76	11	10	11	4	8	-47	3	8	-60	27	30	-10
\$50,000-\$74,999	5	2	108	9	10	-9	8	8	7	10	10	1	32	30	8
\$75,000+	2	2	-17	14	10	41	12	10	21	28	13	117	56	35	60
Total	25	23	11	45	47	-4	32	38	-15	45	43	5	147	150	-2

U = Useable surveys T = Target number of surveys % = U/T expressed as % over or under.

Table A - 3B (San Antonio). Number of Useable Household Surveys Versus Target Household GPS Sample Size.

Size HH HH Income	1			2			3			4+			Total		
	U	T	%	U	T	%	U	T	%	U	T	%	U	T	%
\$0-\$19,999	8	18	-54	8	18	-54	5	12	-58	2	12	-83	23	59	-61
\$20,000-\$34,999	12	12	1	22	23	-5	14	18	-20	12	18	-31	60	70	-14
\$35,000-\$49,999	13	12	9	22	23	-5	14	18	-20	15	18	-14	64	70	-9
\$50,000-\$74,999	10	6	79	29	23	26	18	18	3	34	23	47	91	69	31
\$75,000+	4	6	-29	37	23	60	21	23	-9	45	30	50	107	82	31
Total	47	53	-10	118	110	7	72	88	-18	108	100	8	345	350	-1

U = Useable surveys T = Target number of surveys % = U/T expressed as % over or under.

Table A - 4A (Austin). GPS and CATI Trips by Trip Purpose.

	HBW		HBO		NHB		Total	
	GPS	CATI	GPS	CATI	GPS	CATI	GPS	CATI
Full Households (131 Households, 202 Vehicles)								
Trips	91	132	604	585	772	503	1,467	1,220
Trips/Vehicle	0.45	0.65	2.99	2.90	3.82	2.49	7.26	6.04
Trips/Household	0.69	1.01	4.61	4.47	5.89	3.84	11.20	9.31
Partial Households (16 Households, 19 Vehicles)								
Trips	12	16	64	62	112	105	188	183
Trips/Vehicle	0.63	0.84	3.37	3.26	5.89	5.53	9.89	9.63
Full and Partial Households (147 Households, 221 Vehicles)								
Trips	103	148	668	647	884	608	1,655	1,403
Trips/Vehicle	0.47	0.67	3.02	2.93	4.00	2.75	7.49	6.35

HBW = home-based work trip HBO = home-based other trip NHB = non-home-based trip.

Table A - 4B (San Antonio). GPS and CATI Trips by Trip Purpose.

	HBW		HBO		NHB		Total	
	GPS	CATI	GPS	CATI	GPS	CATI	GPS	CATI
Full Households (303 Households, 486 Vehicles)								
Trips	271	348	1,410	1,309	1,731	1,238	3,412	2,895
Trips/Vehicle	0.56	0.72	2.90	2.69	3.56	2.55	7.02	5.96
Trips/Household	0.89	1.15	4.65	4.32	5.71	4.09	11.26	9.55
Partial Households (42 Households, 50 Vehicles)								
Trips	29	32	141	133	179	129	349	294
Trips/Vehicle	0.58	0.64	2.82	2.66	3.58	2.58	6.98	5.88
Full and Partial Households (345 Households, 536 Vehicles)								
Trips	300	380	1,551	1,442	1,910	1,367	3,761	3,189
Trips/Vehicle	0.56	0.71	2.89	2.69	3.56	2.55	7.02	5.95

HBW = home-based work trip HBO = home-based other trip NHB = non-home-based trip.

Table A - 5A (Austin). GPS Household Trip Rates by Household Size and Household Income.

Mean

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	13.7	17.0	13.0	10.0	13.3
\$20,000-\$34,999	7.7	10.9	9.0	12.7	10.0
\$35,000-\$49,999	6.8	6.9	13.7	22.0	9.6
\$50,000-\$74,999	4.0	10.3	10.1	15.0	10.6
\$75,000+	6.0	8.5	9.0	15.8	12.4
Weighted Average	7.2	9.3	10.6	15.7	11.2

Variance

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	12.3	-	31.2	-	20.6
\$20,000-\$34,999	18.3	69.6	32.0	32.3	42.5
\$35,000-\$49,999	7.2	13.6	86.3	57.0	47.9
\$50,000-\$74,999	3.0	48.8	27.8	77.8	54.9
\$75,000+	8.0	7.4	24.7	42.2	42.5
Weighted Average	15.7	33.9	31.3	50.0	44.8

95% Confidence Interval

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	(9.7,17.7)	-	(8.5,17.5)	-	(10.6,16)
\$20,000-\$34,999	(4.3,11.1)	(5.5,16.3)	(1.1,16.9)	(6.2,19.2)	(7.2,12.8)
\$35,000-\$49,999	(5,8.6)	(4.5,9.3)	(3.2,24.2)	(13.5,30.5)	(6.8,12.4)
\$50,000-\$74,999	(2.5,5.5)	(5.4,15.2)	(6.2,14)	(9.3,20.7)	(7.9,13.3)
\$75,000+	(2.1,9.9)	(6.8,10.2)	(5.9,12.1)	(13.3,18.3)	(10.5,14.3)
Weighted Average	(5.6,8.8)	(7.4,11.2)	(8.5,12.7)	(13.5,17.9)	(10.1,12.3)

"-" indicates insufficient data for calculation. *Italic* indicates n<5, n=number of households.

Table A - 5B (San Antonio). GPS Household Trip Rates by Household Size and Household Income.

Mean

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	6.0	10.9	11.2	13.5	9.4
\$20,000-\$34,999	5.3	7.9	12.3	12.2	9.3
\$35,000-\$49,999	9.8	9.1	10.6	13.4	10.6
\$50,000-\$74,999	5.2	9.6	11.7	13.5	11.0
\$75,000+	7.5	10.8	13.7	17.0	13.7
Weighted Average	6.8	9.7	12.2	14.6	11.3

Variance

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	10.9	35.8	47.2	144.5	37.2
\$20,000-\$34,999	5.5	12.6	71.5	17.8	33.8
\$35,000-\$49,999	72.0	47.2	59.7	76.1	61.2
\$50,000-\$74,999	6.2	25.9	17.9	46.2	36.4
\$75,000+	24.3	20.8	29.3	81.2	54.6
Weighted Average	28.5	27.0	41.1	62.8	48.3

95% Confidence Interval

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	(3.7,8.3)	(6.5,15.3)	(5.2,17.2)	(-3.1,30.1)	(6.9,11.9)
\$20,000-\$34,999	(4,6.6)	(6.2,9.6)	(7.8,16.8)	(9.7,14.7)	(7.8,10.8)
\$35,000-\$49,999	(5.2,14.4)	(6.1,12.1)	(6,15.2)	(8.8,18)	(8.6,12.6)
\$50,000-\$74,999	(3.7,6.7)	(7.5,11.7)	(9.6,13.8)	(11.1,15.9)	(9.7,12.3)
\$75,000+	(2.7,12.3)	(9.2,12.4)	(11.1,16.3)	(14,20)	(12.2,15.2)
Weighted Average	(5.3,8.3)	(8.7,10.7)	(10.6,13.8)	(13,16.2)	(10.5,12.1)

"-" indicates insufficient data for calculation. *Italic* indicates n<5, n=number of households.

Table A - 6A (Austin). CATI Household Trip Rates by Household Size and Household Income.

Mean

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	12.0	9.0	9.5	10.0	10.2
\$20,000-\$34,999	6.5	10.0	9.0	8.7	8.7
\$35,000-\$49,999	6.2	6.6	11.0	14.3	8.0
\$50,000-\$74,999	4.2	8.0	9.6	10.8	8.6
\$75,000+	6.0	7.3	7.6	13.4	10.5
Weighted Average	6.6	8.0	9.0	12.4	9.3

Variance

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	9.0	-	5.5	-	6.0
\$20,000-\$34,999	5.9	42.8	18.0	0.3	22.9
\$35,000-\$49,999	3.7	10.0	63.0	121.3	29.3
\$50,000-\$74,999	4.7	22.6	23.0	12.4	20.1
\$75,000+	8.0	3.8	14.7	26.2	26.9
Weighted Average	9.3	18.7	17.7	27.0	23.9

95% Confidence Interval

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	(8.6,15.4)	-	(7.7,11.3)	-	(8.8,11.6)
\$20,000-\$34,999	(4.6,8.4)	(5.8,14.2)	(3.2,14.8)	(8,9.4)	(6.6,10.8)
\$35,000-\$49,999	(5,7.4)	(4.5,8.7)	(2.1,19.9)	(1.9,26.7)	(5.8,10.2)
\$50,000-\$74,999	(2.3,6.1)	(4.7,11.3)	(6,13.2)	(8.5,13.1)	(7,10.2)
\$75,000+	(2.1,9.9)	(6.1,8.5)	(5.2,10)	(11.4,15.4)	(9,12)
Weighted Average	(5.4,7.8)	(6.6,9.4)	(7.4,10.6)	(10.8,14)	(8.5,10.1)

"-" indicates insufficient data for calculation. *Italic* indicates n<5, n=number of households.

Table A - 6B (San Antonio). CATI Household Trip Rates by Household Size and Household Income.

Mean

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	5.3	7.9	9.8	9.5	7.5
\$20,000-\$34,999	5.3	7.0	9.5	11.9	8.3
\$35,000-\$49,999	7.8	7.9	7.4	13.4	9.1
\$50,000-\$74,999	4.4	8.8	10.3	11.4	9.6
\$75,000+	7.0	8.7	10.7	14.2	11.2
Weighted Average	5.9	8.2	9.7	12.8	9.6

Variance

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	9.1	5.8	13.7	40.5	12.8
\$20,000-\$34,999	4.6	10.6	26.1	12.5	18.4
\$35,000-\$49,999	44.7	29.0	12.5	64.9	42.0
\$50,000-\$74,999	2.0	23.1	14.5	27.0	24.8
\$75,000+	12.7	8.7	19.1	49.2	33.1
Weighted Average	17.1	16.2	18.2	39.8	29.6

95% Confidence Interval

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	(3.2,7.4)	(6.1,9.7)	(6.6,13)	(0.6,18.4)	(6,9)
\$20,000-\$34,999	(4.1,6.5)	(5.5,8.5)	(6.8,12.2)	(9.8,14)	(7.2,9.4)
\$35,000-\$49,999	(4.2,11.4)	(5.6,10.2)	(5.3,9.5)	(9.2,17.6)	(7.4,10.8)
\$50,000-\$74,999	(3.5,5.3)	(6.8,10.8)	(8.4,12.2)	(9.6,13.2)	(8.5,10.7)
\$75,000+	(3.5,10.5)	(7.7,9.7)	(8.6,12.8)	(11.9,16.5)	(10,12.4)
Weighted Average	(4.7,7.1)	(7.4,9)	(8.6,10.8)	(11.5,14.1)	(9,10.2)

"-" indicates insufficient data for calculation. *Italic* indicates n<5, n=number of households.

Table A - 7A (Austin). Difference in GPS and CATI Trips by Trip Purpose for Full Households.

	HBW	HBO	NHB	Total
GPS Trips	91	604	772	1,467
CATI Trips	132	585	503	1,220
Trip Difference	-41	19	269	247
% Difference	-45.1%	3.1%	34.8%	16.8%

Table A - 7B (San Antonio). Difference in GPS and CATI Trips by Trip Purpose for Full Households.

	HBW	HBO	NHB	Total
GPS Trips	271	1,410	1,731	3,412
CATI Trips	348	1,309	1,238	2,895
Trip Difference	-77	101	493	517
% Difference	-28.4%	7.2%	28.5%	15.2%

Table A - 8A (Austin). Difference in Mean Trip Rates (GPS – CATI) by Household Size and Income.

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	<i>1.7</i>	<i>8.0</i>	3.5	<i>0.0</i>	3.1
\$20,000-\$34,999	1.2	0.9	<i>0.0</i>	<i>4.0</i>	1.4
\$35,000-\$49,999	0.6	0.3	<i>2.7</i>	<i>7.7</i>	1.6
\$50,000-\$74,999	-0.2	2.3	0.6	4.2	2.0
\$75,000+	<i>0.0</i>	1.2	1.4	2.5	1.9
Weighted Average	0.6	1.3	1.7	3.3	1.9

Italic indicates n<5, n=number of households.

Table A - 8B (San Antonio). Difference in Mean Trip Rates (GPS – CATI) by Household Size and Income.

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	0.8	3.0	1.4	<i>4.0</i>	1.9
\$20,000-\$34,999	-0.1	0.9	2.8	0.3	1.1
\$35,000-\$49,999	2.1	1.3	3.3	-0.1	1.5
\$50,000-\$74,999	0.8	0.8	1.4	2.1	1.4
\$75,000+	<i>0.5</i>	2.1	3.0	2.7	2.5
Weighted Average	0.9	1.5	2.5	1.8	1.7

Italic indicates n<5, n=number of households.

Table A - 9A (Austin). Percent Difference in Mean Trip Rates (GPS – CATI) by Household Size and Income.

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	12%	47%	27%	0%	23%
\$20,000-\$34,999	15%	8%	0%	32%	13%
\$35,000-\$49,999	8%	5%	20%	35%	17%
\$50,000-\$74,999	-5%	22%	6%	28%	19%
\$75,000+	0%	14%	16%	16%	15%
Weighted Average	9%	14%	16%	21%	17%

Italic indicates n<5, n=number of households.

Table A - 9B (San Antonio). Percent Difference in Mean Trip Rates (GPS – CATI) by Household Size and Income.

Household Income	Household Size				Weighted Average
	1	2	3	4+	
\$0-\$19,999	13%	28%	13%	30%	20%
\$20,000-\$34,999	-2%	12%	23%	2%	11%
\$35,000-\$49,999	21%	14%	31%	-1%	14%
\$50,000-\$74,999	15%	8%	12%	16%	13%
\$75,000+	7%	19%	22%	16%	18%
Weighted Average	13%	15%	20%	13%	15%

Italic indicates n<5, n=number of households.

Table A - 10A (Austin). GPS Versus CATI Home-Based Tours for All Vehicles.

	Complete Tours	Incomplete Tours
GPS	366	39
CATI	390	15
Tour Difference	-24	24
% Difference	-6.6%	61.5%

Table A - 10B (San Antonio). GPS Versus CATI Home-Based Tours for All Vehicles.

	Complete Tours	Incomplete Tours
GPS	888	74
CATI	885	33
Tour Difference	3	41
% Difference	0.3%	55.4%

Table A - 11A (Austin). GPS Versus CATI Distance Traveled for All Vehicles.

	Miles	Trips	Miles/Trip
GPS	7,299	1,655	4.41
CATI	6,940	1,403	4.95
Difference	358	252	-0.54
% Difference	4.9%	15.2%	-12.2%

Table A - 11B (San Antonio). GPS Versus CATI Distance Traveled for All Vehicles.

	Miles	Trips	Miles/Trip
GPS	20,597	3,761	5.48
CATI	18,859	3,189	5.91
Difference	1,738	572	-0.44
% Difference	8.4%	15.2%	-8.0%

Table A - 12A (Austin). GPS Versus CATI Distance Traveled for All Vehicles by Trip Purpose.

	HBW		HBO		NHB		Total	
	GPS	CATI	GPS	CATI	GPS	CATI	GPS	CATI
Total Miles Traveled	798	1,211	3,027	3,027	3,474	2,702	7,299	6,940
Total Trips	103	148	668	647	884	608	1,655	1,403
Percent Share (of Mileage)	2.9%	4.7%	10.8%	11.7%	12.5%	10.5%	26.2%	26.9%
Average Miles per Trip	7.75	8.18	4.53	4.68	3.93	4.44	4.41	4.95

Table A - 12B (San Antonio). GPS Versus CATI Distance Traveled for All Vehicles by Trip Purpose.

	HBW		HBO		NHB		Total	
	GPS	CATI	GPS	CATI	GPS	CATI	GPS	CATI
Total Miles Traveled	3,289	3,904	7,771	7,601	9,536	7,353	20,597	18,859
Total Trips	300	380	1,551	1,442	1,910	1,367	3,761	3,189
Percent Share (of Mileage)	11.8%	15.1%	27.9%	29.5%	27.9%	28.5%	34.2%	73.1%
Average Miles per Trip	10.96	10.27	5.01	5.27	5.01	5.38	4.99	5.91

APPENDIX B
GPS DWELL LENGTH FREQUENCY

Table B - 1. GPS Dwell Length Frequency Distribution by Trip Purpose (All Trips).

Dwell Length (minutes)	Trip Purpose			
	HBW	HBO	NHB	Total
0 to < 2	4	166	282	452
2 to < 5	14	234	516	764
5 to < 10	12	164	411	587
10 to < 20	10	156	350	516
20 to < 30	8	90	211	309
30 to < 40	6	89	152	247
40 to < 50	9	61	116	186
50 to < 60 (1 hour)	4	75	83	162
60 (1 hour) to < 90 (1.5 hours)	20	138	168	326
90 (1.5 hours) to < 120 (2 hours)	10	113	97	220
120 (2 hours) to < 180 (3 hours)	25	126	98	249
180 (3 hours) to < 240 (4 hours)	27	61	70	158
240 (4 hours) to < 300 (5 hours)	24	34	59	117
300 (5 hours) to < 360 (6 hours)	17	27	38	82
360 (6 hours) to < 420 (7 hours)	8	27	24	59
420 (7 hours) to < 480 (8 hours)	14	15	13	42
≥ 480 (8 hours)	88	26	69	183
Final Destination	103	617	37	757
Totals	403	2,219	2,794	5,416

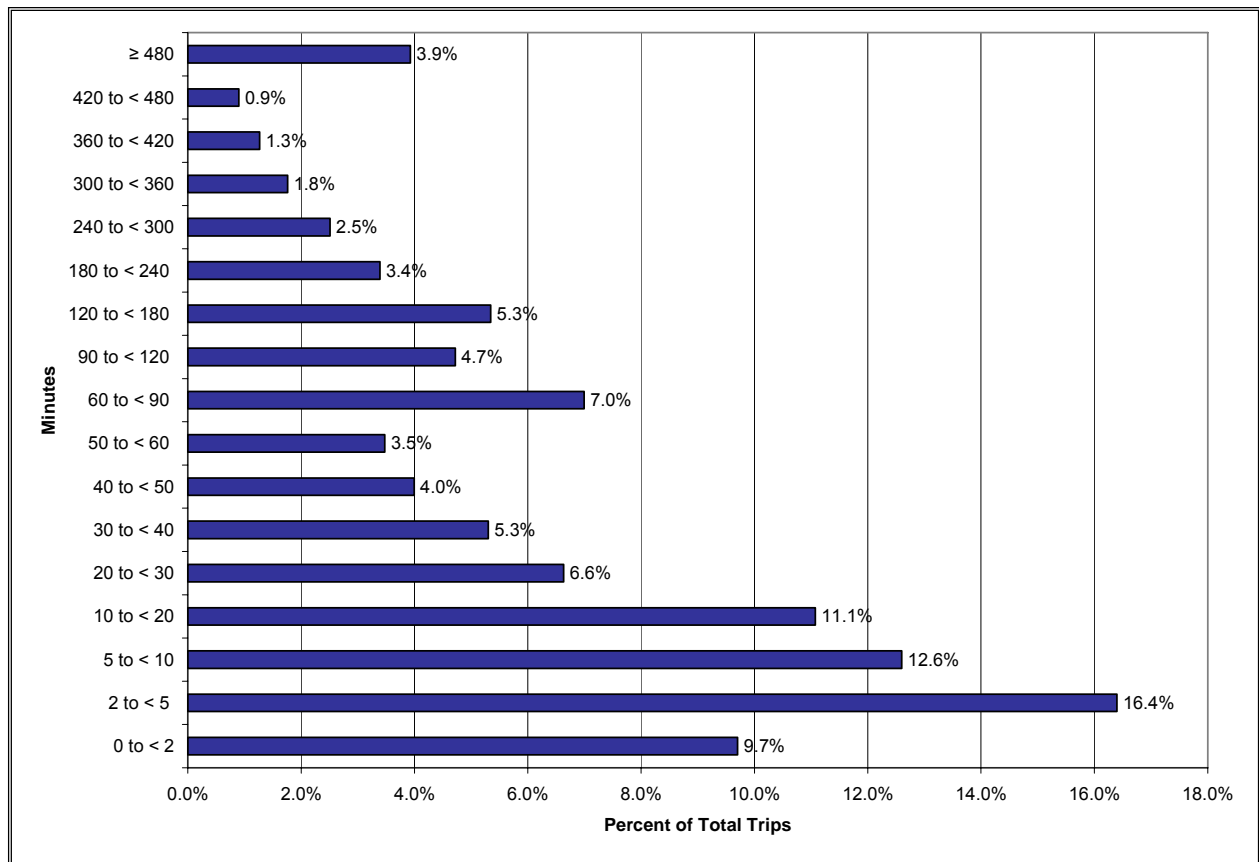


Figure B - 1. GPS Dwell Length Frequency Distribution – Combined Study Area (Non-Final Destination Trips).

Table B - 2. GPS Dwell Length Frequency Distribution by Trip Purpose (Austin Trips).

Dwell Length (minutes)	Trip Purpose			
	HBW	HBO	NHB	Total
0 to < 2	1	52	114	167
2 to < 5	3	74	165	242
5 to < 10	4	39	114	157
10 to < 20	2	45	116	163
20 to < 30	0	27	60	87
30 to < 40	2	33	53	88
40 to < 50	2	15	32	49
50 to < 60 (1 hour)	1	17	30	48
60 (1 hour) to < 90 (1.5 hours)	8	46	46	100
90 (1.5 hours) to < 120 (2 hours)	5	35	26	66
120 (2 hours) to < 180 (3 hours)	6	38	36	80
180 (3 hours) to < 240 (4 hours)	4	25	16	45
240 (4 hours) to < 300 (5 hours)	5	12	18	35
300 (5 hours) to < 360 (6 hours)	7	10	9	26
360 (6 hours) to < 420 (7 hours)	0	8	9	17
420 (7 hours) to < 480 (8 hours)	4	5	1	10
≥ 480 (8 hours)	23	8	23	54
Final Destination	26	179	16	221
Totals	103	668	884	1,655

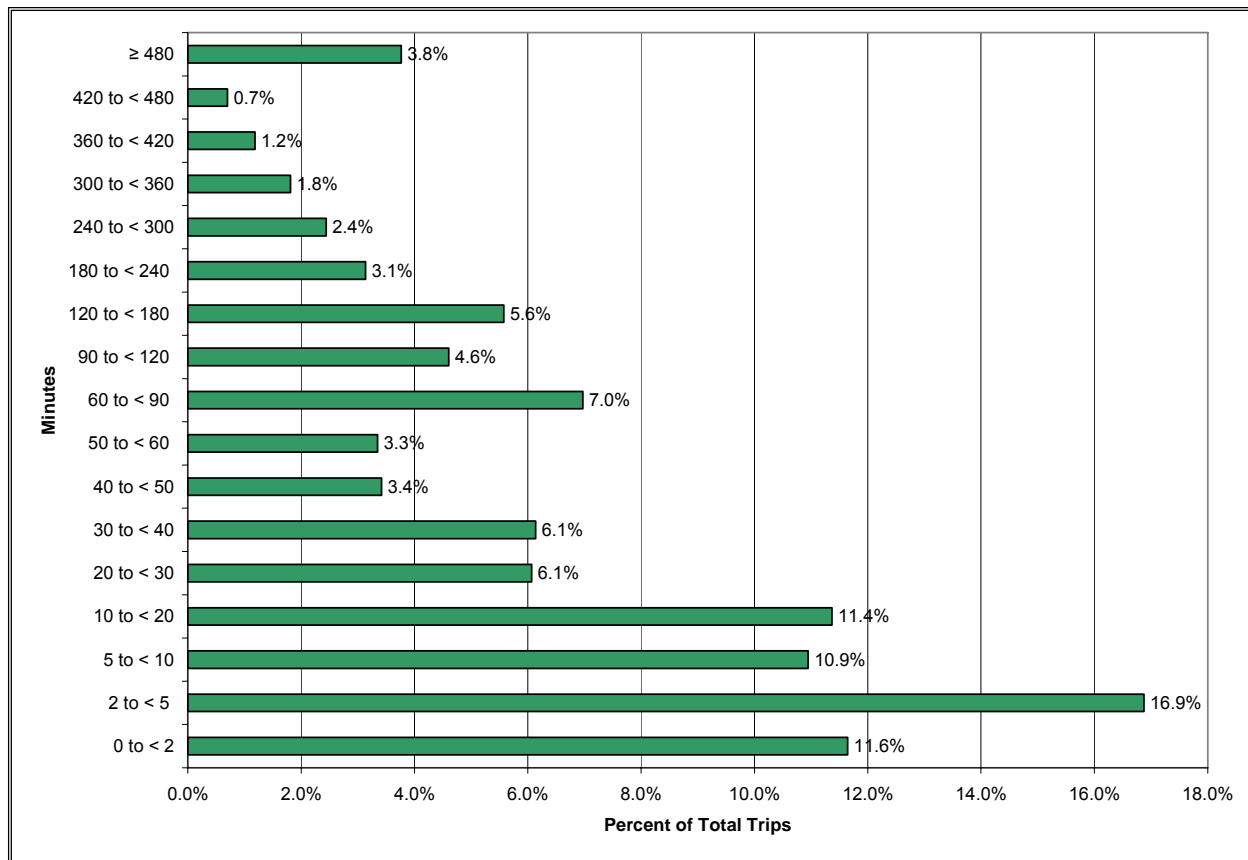


Figure B - 2. GPS Dwell Length Frequency Distribution – Austin (Non-Final Destination Trips).

Table B - 3. GPS Dwell Length Frequency Distribution by Trip Purpose (San Antonio Trips).

Dwell Length (minutes)	Trip Purpose			
	HBW	HBO	NHB	Total
0 to < 2	3	114	168	285
2 to < 5	11	160	351	522
5 to < 10	8	125	297	430
10 to < 20	8	111	234	353
20 to < 30	8	63	151	222
30 to < 40	4	56	99	159
40 to < 50	7	46	84	137
50 to < 60 (1 hour)	3	58	53	114
60 (1 hour) to < 90 (1.5 hours)	12	92	122	226
90 (1.5 hours) to < 120 (2 hours)	5	78	71	154
120 (2 hours) to < 180 (3 hours)	19	88	62	169
180 (3 hours) to < 240 (4 hours)	23	36	54	113
240 (4 hours) to < 300 (5 hours)	19	22	41	82
300 (5 hours) to < 360 (6 hours)	10	17	29	56
360 (6 hours) to < 420 (7 hours)	8	19	15	42
420 (7 hours) to < 480 (8 hours)	10	10	12	32
≥ 480 (8 hours)	65	18	46	129
Final Destination	77	438	21	536
Totals	300	1,551	1,910	3,761

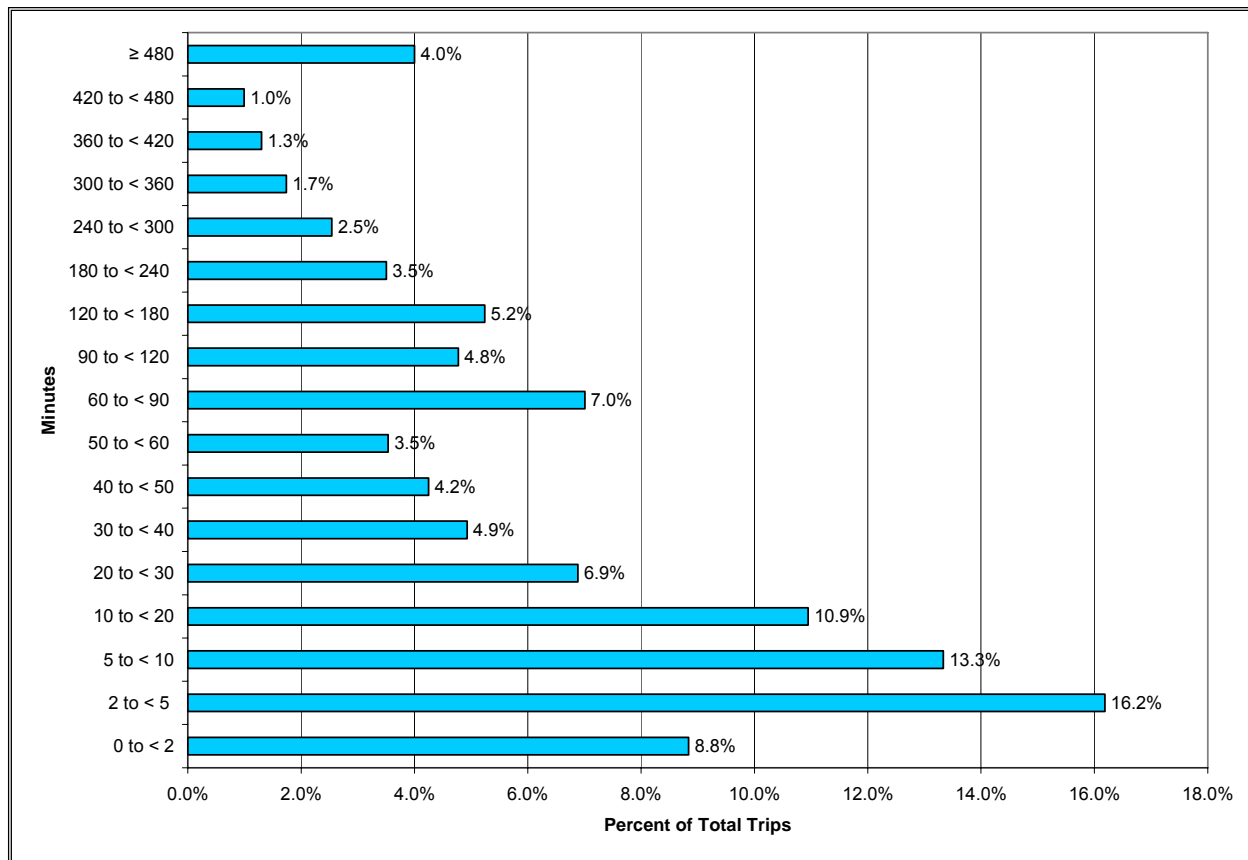


Figure B - 3. GPS Dwell Length Frequency Distribution – San Antonio (Non-Final Destination Trips).

APPENDIX C
TRIP ANALYSIS MASTER TABLE

Table C - 1. Trip Analysis Master Table.

Legend	
O/D	Origin to Destination
H	Home location
W	Work location
O	Other location
HBW	Home-Based Work trip
HBO	Home-Based Other trip
NHB	Non-Home-Based trip
-	Origin or continuation of trip
< or >	Destination of trip
x	"Other" to "Other" trip
	No match between GPS and CATI trip characteristics
	Similar GPS and CATI trip characteristics
	Similar Overall GPS and CATI trip characteristics if multiple trips linked

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey													
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D	Classification				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D	Classification					
						H	W	O	H	B	H	O	N	H	H	W	O	H	B	H	O	N	H	H	W	O	H	B	H
S	1/31/2006	4001	137	1	1	11:30:15	11:42:44	00:12:29	02:56:05	7.16	34.43	-	-	-	1	11:30:00	11:45:00	00:15:00	02:52:00	7.14	30.82	-	-	-	1				
					2	14:38:49	14:54:37	00:15:48	01:36:28	6.22	23.62	-	-	-	1	14:37:00	14:49:00	00:12:00	01:41:00	7.07	30.54	-	-	-	1				
					3	16:31:05	16:32:34	00:01:29	00:09:05	0.39	15.79	-	-	-	1	16:30:00	16:34:00	00:04:00	00:54:00	-	-	-	-	-	1				
					4	16:41:39	16:42:48	00:01:09	00:43:06	0.15	7.80	-	-	-	1	-	-	-	-	-	-	-	-	-	1				
					5	17:25:54	17:27:31	00:01:37	-	0.31	11.42	-	-	-	1	17:28:00	17:31:00	00:03:00	-	-	-	-	-	-	1				
Totals						00:32:32	05:24:44	14.23	26.24	0	4	1	00:34:00	05:27:00	14.21	25.08	0	4	0										
S	1/31/2006	4001	138	2	1	11:06:51	11:18:16	00:11:25	01:13:17	9.60	50.44	-	-	-	1	11:05:00	11:20:00	00:15:00	01:07:00	7.54	29.07	-	-	-	1				
					2	12:31:33	12:41:06	00:09:33	02:31:07	4.93	30.99	-	-	-	1	12:27:00	12:41:00	00:14:00	02:30:00	5.32	24.98	-	-	-	1				
					3	15:12:13	15:30:32	00:18:19	00:26:40	6.68	21.88	-	-	-	1	15:11:00	15:30:00	00:19:00	00:23:00	4.90	24.34	-	-	-	1				
					4	15:57:12	15:58:41	00:01:29	00:21:52	0.65	26.48	-	-	-	1	15:53:00	15:58:00	00:05:00	00:22:00	1.33	20.20	-	-	-	1				
					5	16:20:33	16:22:50	00:02:17	00:19:03	0.99	26.11	-	-	-	1	16:20:00	16:23:00	00:03:00	00:12:00	0.55	19.88	-	-	-	1				
					6	16:41:53	16:45:32	00:03:39	00:40:16	1.39	22.91	-	-	-	1	16:35:00	16:40:00	00:05:00	00:45:00	0.55	19.88	-	-	-	1				
					7	17:25:48	17:27:37	00:01:49	04:11:30	0.32	10.55	-	-	-	1	17:25:00	17:27:00	00:02:00	04:08:00	-	-	-	-	-	1				
					8	21:39:07	21:42:07	00:03:00	-	1.69	33.90	-	-	-	1	21:35:00	21:42:00	00:07:00	01:16:00	2.61	25.30	-	-	-	1				
					9	-	-	-	-	-	-	-	-	-	1	22:58:00	23:03:00	00:05:00	-	2.57	24.55	-	-	-	1				
Totals						00:51:31	09:43:45	26.27	30.59	1	5	2	01:15:00	10:43:00	25.37	20.30	1	6	2										
S	1/31/2006	4002	133	1	1	10:26:34	10:45:04	00:18:30	04:29:24	9.57	31.05	-	-	-	1	10:20:00	10:46:00	00:26:00	02:40:00	7.29	30.40	-	-	-	1				
					2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					3	15:14:28	15:27:34	00:13:06	-	4.63	21.19	-	-	-	1	13:26:00	13:43:00	00:17:00	01:30:00	5.08	32.25	-	-	-	1				
Totals						00:31:36	04:29:24	14.20	26.96	0	2	0	01:10:00	04:10:00	15.85	13.59	0	2	1										
S	1/31/2006	4003	118	1	1	07:32:49	07:38:55	00:06:06	03:00:24	3.85	37.84	-	-	-	1	7:33:00	7:40:00	00:07:00	02:05:00	4.07	31.76	-	-	-	1				
					2	10:39:19	10:55:35	00:16:16	00:37:26	12.37	45.63	-	-	-	1	9:45:00	10:06:00	00:21:00	00:39:00	11.53	35.72	-	-	-	1				
					3	-	-	-	-	-	-	-	-	-	1	10:45:00	11:00:00	00:15:00	00:45:00	11.53	35.42	-	-	-	1				
					4	11:33:01	11:52:19	00:19:18	00:11:55	12.87	40.02	-	-	-	1	11:45:00	11:51:00	00:06:00	00:24:00	1.86	31.44	-	-	-	1				
					5	12:04:14	12:09:55	00:05:41	06:21:54	1.13	11.89	-	-	-	1	12:15:00	12:22:00	00:07:00	05:43:00	2.54	30.60	-	-	-	1				
					6	18:31:49	18:41:16	00:09:27	-	3.94	25.01	-	-	-	1	18:05:00	18:15:00	00:10:00	-	4.11	30.00	-	-	-	1				
Totals						00:56:48	10:11:39	34.16	36.08	2	0	3	01:06:00	09:36:00	35.64	32.40	2	0	4										
S	1/31/2006	4005	132	1	1	7:49:48	8:17:32	00:27:44	00:00:38	9.92	21.46	-	-	-	1	8:00:00	8:30:00	00:30:00	00:01:00	8.58	27.09	-	-	-	1				
					2	8:18:10	8:43:31	00:25:21	00:29:18	9.82	23.25	-	-	-	1	8:31:00	9:00:00	00:29:00	01:10:00	9.06	27.75	-	-	-	1				
					3	9:12:49	9:14:18	00:01:29	00:05:54	0.39	15.58	-	-	-	1	-	-	-	-	-	-	-	-	-	-				
					4	9:20:12	9:22:29	00:02:17	00:56:52	0.76	19.98	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
					5	10:19:21	10:25:22	00:06:01	00:40:31	1.27	12.71	-	-	-	1	10:10:00	10:15:00	00:05:00	00:25:00	2.89	23.28	-	-	-	1				
					6	11:05:53	11:16:50	00:10:57	00:23:14	2.83	15.50	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
					7	11:40:04	11:49:32	00:09:28	00:07:33	2.59	16.41	-	-	-	1	10:40:00	10:55:00	00:15:00	00:06:00	2.15	22.87	-	-	-	1				
					8	11:57:05	11:59:25	00:02:20	00:03:20	0.45	11.45	-	-	-	1	11:01:00	11:03:00	00:02:00	-	1.01	22.20	-	-	-	1				
					9	-	-	-	-	-	-	-	-	-	1	11:13:00	11:30:00	00:17:00	06:30:00	7.53	25.37	-	-	-	1				
					10	12:02:45	12:04:28	00:01:43	01:51:53	0.56	19.41	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
					11	13:56:21	14:00:10	00:03:49	02:07:57	0.65	10.21	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
					12	16:08:07	16:31:54	00:23:47	01:34:24	8.33	21.01	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
					13	18:06:18	18:27:45	00:21:27	-	7.97	22.30	-	-	-	1	18:00:00	18:15:00	00:15:00	-	7.58	25.91	-	-	-	1				
Totals						02:16:23	08:21:34	45.53	20.03	0	8	4	01:53:00	08:22:00	38.80	20.60	0	4	3										
S	1/31/2006	4006	121	1	1	07:15:34	07:34:33	00:18:59	01:11:21	10.13	32.00	-	-	-	1	7:15:00	7:35:00	00:20:00	01:10:00	9.10	27.96	-	-	-	1				
					2	08:45:54	09:04:53	00:18:59	00:14:12	8.56	27.06	-	-	-	1	8:45:00	9:05:00	00:20:00	00:08:00	6.58	26.30	-	-	-	1				
					3	09:19:05	09:27:30	00:08:25	00:52:53	3.62	25.83	-	-	-	1	9:13:00	9:20:00	00:07:00	00:59:00	3.77	26.71	-	-	-	1				
					4	10:20:23	10:25:06	00:04:43	01:05:07	2.61	33.25	-	-	-	1	10:19:00	10:26:00	00:07:00	01:15:00	2.16	28.74	-	-	-	1				
					5	11:30:13	11:49:52	00:19:39	03:51:05	3.83	11.69	-	-	-	1	11:41:00	11:51:00	00:10:00	04:01:00	1.42	25.90	-	-	-	1				
					6	15:40:57	15:48:39	00:07:42	01:23:49	3.55	35.86	-	-	-	1	15:52:00	15:59:00	00:07:00	01:23:00	9.72	29.38	-	-	-	1				
					7	17:22:28	17:28:12	00:05:44	00:05:20	2.31	24.14	-	-	-	1	17:22:00	17:29:00	00:07:00	-	9.62	29.46	-	-	-	1				
					8	17:33:32	17:39:36	00:06:04	00:04:33	1.26	12.45	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
					9	17:44:09	17:58:13	00:14:04	-	4.82	20.57	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
Totals						01:54:19	08:48:20	47.72	25.04	0	6	3	01:18:00	08:56:00	42.37	32.59	0	6	1										
S	1/31/2006	4006	124	2	1	10:34:40	10:46:21	00:11:41	00:23:47	7.75	39.79	-	-	-	1	10:30:00	10:50:00	00:20:00	00:20:00	5.32	24.44	-	-	-	1				
					2	11:10:08	11:10:45	00:00:37	00:54:43	0.10	9.34	-	-	-	1	11:10:00	11:20:00	00:10:00	01:00:00	3.04	26.36	-	-	-	1				
					3	12:05:28	12:08:21	00:02:53	00:17:20	0.98	20.48	-	-	-	1	-	-	-	-	-	-	-	-	-	-				
					4	12:25:41	12:35:14	00:09:33	00:30:58	2.66	16.69	-	-	-	1	12:20:00	12:35:00	00:15:00	00:35:00	3.01	24.60	-	-	-	1				
					5	13:06:12	13:13:57	00:07:45	00:53:25	2.98	23.10	-	-	-	1	13:10:00	13:25:00	00:15:00	00:35:00	3.08	30.34	-	-	-	1				
					6	14:07:22	14:09:56	00:02:34	01:19:32	1.02	23.75	-	-	-	1	14:00:00	14:10:00	00:10:00	01:20:00	2.26	26.80	-	-	-	1				
					7	15:29:28																							

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																	
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification							
												H	W	O	H	B	H							B	O	N	H	B	O	N	H	B	O
S	1/31/2006	4009	145	2	1	06:15:00	06:19:12	00:04:12	00:10:41	0.15	2.08	-	-	-	-	-	-	06:16:00	06:17:00	00:01:00	00:09:00	0.78	22.29	-	-	-	-	-	-	1	1	1	1
					2	06:29:53	06:55:16	00:25:23	09:01:37	13.77	32.56	-	-	-	-	-	-	06:26:00	06:47:00	00:21:00	00:02:00	11.52	28.64	-	-	-	-	-	-	1	1	1	
					3	15:56:53	16:07:45	00:10:52	00:02:01	3.88	21.41	-	-	-	-	-	-	06:49:00	06:55:00	00:06:00	09:01:00	2.66	27.52	-	-	-	-	-	-	1	1	1	
					4	16:09:46	16:11:18	00:01:32	00:09:31	0.67	26.12	-	-	-	-	-	-	15:56:00	16:12:00	00:16:00	00:09:00	2.90	25.11	-	-	-	-	-	-	1	1	1	1
					5	16:20:49	16:38:02	00:17:13	00:07:07	5.26	18.34	-	-	-	-	-	-	16:21:00	16:50:00	00:29:00	03:26:00	8.57	36.42	-	-	-	-	-	-	1	1	1	1
					6	16:45:09	16:50:53	00:05:44	03:25:40	3.77	39.47	-	-	-	-	-	-	20:16:00	20:19:00	00:03:00	00:16:00	0.78	22.29	-	-	-	-	-	-	1	1	1	1
					7	20:16:33	20:18:10	00:01:37	00:17:14	0.47	17.42	-	-	-	-	-	-	20:35:24	20:37:24	00:02:00		0.78	22.29	-	-	-	-	-	-	1	1	1	1
					8	20:35:24	20:37:24	00:02:00		0.52	15.57	-	-	-	-	-	-	Totals					27.99	21.53					0	4	4	3	
					Totals	11:02:37	11:19:06	00:16:29	01:45:44	8.00	29.11	-	-	-	-	-	-	11:00:00	11:15:00	00:15:00	01:45:00	3.01	27.74	-	-	-	-	-	-	1	1	1	1
S	1/31/2006	4010	100	1	1	13:04:50	13:23:01	00:18:11		9.00	29.71	-	-	-	-	-	13:00:00	13:30:00	00:30:00	01:00:00	4.16	30.18	-	-	-	-	-	-	1	1	1	1	
					2	13:04:50	13:23:01	00:18:11		9.00	29.71	-	-	-	-	-	14:30:00	14:40:00	00:10:00		1.78	21.89	-	-	-	-	-	-	-	-	-	-	
					3							-	-	-	-	-																	
					Totals			00:34:40	01:45:44	17.00	29.42	-	-	-	-	-	00:55:00	02:45:00			8.95	9.76					0	2	0	2	1		
S	1/31/2006	4011	108	1	1	20:18:02	20:24:48	00:06:46		2.40	21.24	-	-	-	-	-	07:30:00	08:00:00	00:30:00	00:05:00	3.53	27.61	-	-	-	-	-	-	1	1	1	1	
					2							-	-	-	-	-	08:05:00	08:30:00	00:25:00		3.53	27.61	-	-	-	-	-	-	-	-	-	-	
					3							-	-	-	-	-																	
					Totals			00:06:46	00:00:00	2.40	21.24	-	-	-	-	-	00:55:00	00:05:00			7.06	7.70					0	2	0	2	0		
S	1/31/2006	4012	122	1	1	07:42:45	07:55:10	00:12:25	07:43:40	7.98	38.57	-	-	-	-	-	07:35:00	07:55:00	00:20:00	07:35:00	6.78	32.16	-	-	-	-	-	-	1	1	1	1	
					2	15:38:50	15:42:54	00:04:04	01:19:34	1.53	22.53	-	-	-	-	-	15:30:00	15:40:00	00:10:00	00:15:00	5.67	28.33	-	-	-	-	-	-	-	1	1	1	1
					3	17:02:28	17:06:36	00:04:08	00:56:08	2.30	33.46	-	-	-	-	-	15:55:00	16:00:00	00:05:00	01:00:00	1.44	23.74	-	-	-	-	-	-	-	1	1	1	1
					4	18:02:44	18:06:54	00:04:10		1.49	21.43	-	-	-	-	-	17:00:00	17:10:00	00:10:00	00:50:00	5.39	25.07	-	-	-	-	-	-	-	1	1	1	1
					5							-	-	-	-	-	18:00:00	18:10:00	00:10:00		5.36	27.07	-	-	-	-	-	-	-	-	-	-	
					Totals			00:24:47	09:59:22	13.30	32.20	-	-	-	-	-	00:55:00	09:40:00			24.93	28.77					1	3	1	3	1		
S	1/31/2006	4015	166	1	1	09:22:01	09:24:10	00:02:09	00:09:35	0.77	21.46	-	-	-	-	-	10:00:00	10:05:00	00:05:00	00:25:00	3.72	33.36	-	-	-	-	-	-	1	1	1	1	
					2	09:33:45	09:34:05	00:00:20	00:18:50	0.07	12.01	-	-	-	-	-	10:30:00	10:33:00	00:03:00	00:25:00	4.82	29.88	-	-	-	-	-	-	-	1	1	1	1
					3	09:52:55	09:57:19	00:04:24	01:17:18	1.48	20.16	-	-	-	-	-	10:58:00	11:05:00	00:07:00		2.06	25.97	-	-	-	-	-	-	-	1	1	1	1
					4	11:14:37	11:29:56	00:15:19	02:00:54	8.33	32.63	-	-	-	-	-																	
					5	13:30:50	13:41:42	00:10:52	01:39:05	6.66	36.75	-	-	-	-	-																	
					6	15:20:47	15:22:06	00:01:19		0.47	21.39	-	-	-	-	-																	
					Totals			00:34:23	05:25:42	17.77	31.01	-	-	-	-	-	00:15:00	00:50:00			10.61	42.44					0	2	2	2	1		
S	1/31/2006	4015	171	2	1	06:58:29	07:02:27	00:03:58	08:26:32	0.76	11.43	-	-	-	-	-	06:45:00	06:55:00	00:10:00	08:54:00	3.50	27.93	-	-	-	-	-	-	1	1	1	1	
					2	15:28:59	15:36:26	00:07:27		1.52	12.25	-	-	-	-	-	15:49:00	16:00:00	00:11:00		3.50	27.93	-	-	-	-	-	-	-	-	-	-	
					3							-	-	-	-	-																	
					Totals	7:40:44	7:44:45	00:04:01	00:00:54	0.90	13.48	-	-	-	-	-	07:35:00	07:45:00	00:10:00	00:05:00	7.00	20.06	-	-	-	-	-	-	2	0	0	0	
S	1/31/2006	4017	109	1	1	7:45:39	7:52:12	00:06:33	00:37:43	2.67	24.42	-	-	-	-	-	07:50:00	08:00:00	00:10:00	00:05:00	2.70	27.14	-	-	-	-	-	-	1	1	1	1	
					2	8:29:55	8:38:46	00:08:51	01:10:20	2.67	18.11	-	-	-	-	-	08:05:00	08:35:00	00:30:00	01:40:00	3.77	27.69	-	-	-	-	-	-	-	1	1	1	1
					3	9:49:06	9:58:17	00:09:11	00:47:21	2.71	17.70	-	-	-	-	-	10:15:00	10:30:00	00:15:00	00:45:00	3.73	28.62	-	-	-	-	-	-	1	1	1	1	
					4	10:45:38	10:48:36	00:02:58	00:46:31	0.86	17.42	-	-	-	-	-	11:15:00	11:30:00	00:15:00	00:25:00	4.90	35.13	-	-	-	-	-	-	-	1	1	1	1
					5	11:35:07	11:37:39	00:02:32	00:00:15	2.05	48.62	-	-	-	-	-	11:55:00	12:10:00	00:15:00	01:05:00	4.17	33.63	-	-	-	-	-	-	-	-	-	-	-
					6	11:37:54	11:40:24	00:02:30	00:23:34	0.90	21.57	-	-	-	-	-	13:15:00	13:30:00	00:15:00	01:30:00	5.04	25.54	-	-	-	-	-	-	-	1	1	1	1
					7	12:03:58	12:09:47	00:05:49	01:07:44	3.09	31.88	-	-	-	-	-	15:00:00	15:15:00	00:15:00	00:15:00	4.05	24.72	-	-	-	-	-	-	-	1	1	1	1
					8	13:17:31	13:28:20	00:10:49	01:37:07	4.62	25.63	-	-	-	-	-	15:00:00	15:15:00	00:15:00	00:15:00	4.99	32.83	-	-	-	-	-	-	-	1	1	1	1
					9	15:05:27	15:14:02	00:08:35	00:11:36	3.06	21.40	-	-	-	-	-	15:55:00	16:05:00	00:10:00	00:20:00	2.70	27.14	-	-	-	-	-	-	-	1	1	1	1
					10	15:25:38	15:33:29	00:07:51	00:00:40	4.68	35.78	-	-	-	-	-	16:25:00	16:35:00	00:10:00	00:05:00	2.35	25.78	-	-	-	-	-						

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey											CATI Survey															
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification	Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification					
												H	W	O									H	W	O			H	W	O		
S	1/31/2006	4026	153	1	1	07:14:49	07:17:51	00:03:02	00:02:26	0.89	17.51	-	-	-		1	1	07:10:00	07:12:00	00:02:00	00:05:00	0.93	23.45	-	-	-		1	1			
					2	07:20:17	07:36:34	00:16:17	06:14:26	6.19	22.80	x						07:17:00	07:20:00	00:03:00	00:05:00	0.78	22.94	x				1	1			
					3													07:25:00	07:38:00	00:13:00	06:12:00	5.42	27.65	x				1	1			
					4	13:51:00	14:01:20	00:10:20		5.08	29.49	-	-	-		1		13:50:00	14:05:00	00:15:00		5.49	31.52	-	-	-		1	1			
					Totals			00:29:39	06:16:52	12.15	24.59							00:33:00	06:22:00		12.62	22.95					0	2	2			
S	1/31/2006	4026	154	2	1	06:39:15	07:01:02	00:21:47	00:02:38	15.50	42.70	-	-	-		1	1	06:30:00	07:05:00	00:35:00	00:25:00	13.74	33.38	-	-	-		1	1			
					2	07:03:40	07:07:42	00:04:02	00:12:10	1.02	15.23	-	-	-																		
					3	07:19:52	07:28:26	00:08:34	00:02:22	2.92	20.44	-	-	-																		
					4	07:30:48	07:53:22	00:22:34	00:02:51	21.17	56.27	x						07:30:00	08:03:00	00:33:00	02:14:00	10.50	31.98	-	-	-				1		
					5	07:56:13	08:01:32	00:05:19	00:35:24	1.42	15.99	x																				
					6	08:36:56	08:37:14	00:00:18	01:42:02	0.03	6.88	x																				
					7	10:19:16	10:58:00	00:38:44	00:02:26	31.88	49.38	x						10:17:00	11:05:00	00:48:00	04:25:00	11.07	33.94	-	-	-				1		
					8	11:00:26	11:04:05	00:03:39	04:45:30	0.98	16.09	x																				
					9	15:49:55	16:08:32	00:18:57	00:03:58	13.08	41.43	-	-	-				15:30:00	16:00:00	00:30:00	00:05:00	13.11	30.18	-	-	-				1		
					10	16:12:30	16:21:44	00:09:14	00:02:29	3.62	23.49	-	-	-				16:05:00	16:10:00	00:05:00		1.75	23.49	-	-	-				1		
					11	16:24:13	16:26:37	00:02:24	00:04:37	0.34	8.61	x																				
					12	16:31:14	16:34:20	00:03:06	01:52:48	0.90	17.40	x																				
					13	18:27:08	18:28:10	00:01:02		0.24	13.93	-	-	-																		
					Totals			02:19:40	09:29:15	93.10	40.00							02:31:00	07:09:00		50.17	19.94					1	1	3			
S	1/31/2006	4026	155	3	1	06:25:45	06:43:11	00:17:26	12:40:56	13.60	46.79	-	-	-		1	1	06:20:00	06:42:00	00:22:00	12:34:00	11.75	28.87	-	-	-		1	1			
					2	19:24:07	19:25:45	00:01:38	03:32:48	0.63	23.04	-	-	-				19:16:00	19:25:00	00:09:00	03:20:00	2.73	23.64	-	-	-		1	1			
					3	22:58:33	23:04:16	00:05:43		4.67	49.05	-	-	-				22:45:00	23:00:00	00:15:00		9.95	34.51	-	-	-		1	1			
					Totals			00:24:47	16:13:44	18.90	45.75								00:46:00	15:54:00		23.83	31.08				1	1	1			
S	1/31/2006	4027	111	1	1	09:16:17	10:02:29	00:46:12	01:15:22	37.83	49.13	-	-	-		1	1	09:15:00	10:00:00	06:45:00	01:45:00	15.14	33.17	-	-	-		1	1			
					2	11:17:51	11:23:09	00:05:18	01:36:42	0.64	7.21	-	-	-																		
					3	12:59:51	13:22:41	00:22:50	00:13:55	0.40	1.06	-	-	-																		
					4	13:36:36	13:41:01	00:04:25	00:09:02	1.29	17.55	-	-	-																		
					5	13:50:03	13:53:38	00:03:35	00:15:08	1.12	18.69	-	-	-																		
					6	14:08:46	14:24:46	00:16:00	00:33:02	9.87	37.03	x																				
					7	14:57:48	16:03:44	01:05:56	01:39:27	57.24	52.09	x																				
					8	17:43:11	17:48:47	00:05:36	00:02:05	1.77	18.99	x						17:45:00	17:55:00	00:10:00		2.31	24.27	-	-	-				1		
					9	17:50:52	17:54:03	00:03:11		0.61	11.52	-	-	-																		
					Totals			03:15:27	06:09:04	128.91	39.57								07:20:00	02:20:00		30.89	4.21				0	2	1			
S	1/31/2006	4027	112	2	1	06:28:01	06:32:03	00:04:02	00:46:08	1.74	25.93	-	-	-		1	1	06:20:00	06:30:00	00:10:00	00:30:00	2.61	24.82	-	-	-		1	1			
					2	07:18:11	07:20:26	00:02:15	00:11:42	0.73	19.43	-	-	-				07:10:00	07:20:00	00:10:00	00:10:00	2.61	24.82	-	-	-		1	1			
					3	07:32:08	07:42:13	00:10:05	00:15:37	2.87	17.05	-	-	-				07:30:00	07:45:00	00:15:00	00:15:00	3.49	26.95	-	-	-		1	1			
					4	07:57:50	08:01:50	00:04:00	00:39:43	1.08	16.17	-	-	-		1	1	08:00:00	08:10:00	00:10:00	00:25:00	2.57	26.00	-	-	-		1	1			
					5	08:41:33	09:02:20	00:20:47	00:54:04	6.78	19.58	-	-	-				08:35:00	08:50:00	00:15:00	01:00:00	7.60	25.60	-	-	-		1	1			
					6	09:56:24	10:13:54	00:17:30	01:21:08	7.42	25.42	x						09:50:00	10:15:00	00:25:00	01:15:00	7.39	25.88	-	-	-		1	1			
					7	11:35:02	11:39:51	00:04:49	04:58:29	2.01	25.10	x						11:30:00	11:45:00	00:15:00	00:10:00	2.04	23.18	-	-	-		1	1			
					8							-	-	-				11:55:00	12:15:00	00:20:00	00:15:00	1.85	24.83	-	-	-		1	1			
					9							-	-	-				12:30:00	12:40:00	00:10:00	02:40:00	2.31	24.27	-	-	-		1	1			
					10							-	-	-				15:20:00	15:30:00	00:10:00	00:15:00	4.87	26.83	-	-	-		1	1			
					11							-	-	-				15:45:00	16:10:00	00:25:00	00:15:00	6.62	26.87	-	-	-		1	1			
					12	16:38:20	16:56:48	00:18:28		5.59	18.16	-	-	-				16:25:00	16:35:00	00:10:00		2.31	24.27	-	-	-		1	1			
					Totals			01:21:56	09:06:51	28.22	20.66								02:55:00	07:20:00		46.27	15.86				0	6	6			
S	1/31/2006	4027	113	3	1	18:26:53	18:30:37	00:03:44	00:20:23	0.56	9.05	-	-	-				18:00:00	18:10:00	00:10:00	00:35:00	1.59	24.97	-	-	-		1	1			
					2	18:51:00	18:55:09	00:04:09		0.71	10.26	-	-	-				18:45:00	18:55:00	00:10:00		1.59	24.97	-	-	-		1	1			
					Totals			00:07:53	00:20:23	1.27	9.69								00:20:00	00:35:00		3.18	9.54				0	2	0			
S	1/31/2006	4029	148	1	1	7:05:59	7:19:14	00:13:15	01:14:47	5.01	22.67	-	-	-		1	1	07:05:00	0													

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey															
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification	Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification				
												H	W	O									H	W	O			H	W	O	
S	1/31/2006	4031	146	1	1	09:40:20	09:54:25	00:14:05	00:14:32	5.63	24.00	-	-	-	-	1	1	09:30:00	09:40:00	00:10:00	00:15:00	6.85	27.55	-	-	-	-	1	1		
					2	10:06:57	10:12:41	00:03:44	04:57:27	1.24	19.98	-	-	-	-	1	1	09:55:00	10:00:00	00:05:00	05:15:00	3.20	24.68	-	-	-	-	1	1		
					3	15:10:08	15:26:13	00:16:05	00:16:02	6.84	25.52	-	-	-	-	1	1	15:15:00	15:25:00	00:10:00	00:15:00	7.32	28.82	-	-	-	-	1	1		
					4	15:42:15	15:54:51	00:12:36	00:24:27	5.00	23.80	-	-	-	-	1	1	15:40:00	15:55:00	00:15:00	00:15:00	5.47	27.30	-	-	-	-	1	1		
					5							-	-	-	-	1	1	16:10:00	16:15:00	00:05:00	00:15:00	1.62	23.65	-	-	-	-	1	1		
					6	16:19:18	16:29:15	00:09:57		5.55	33.47	-	-	-	-	1	1	16:30:00	16:45:00	00:15:00		4.55	30.27	-	-	-	-	1	1		
					Totals			00:56:27	05:52:28	24.27	25.80	-	-	-	-	1	3	1			01:00:00	06:15:00	29.01	29.01	-	-	-	-	1	3	2
S	1/31/2006	4031	147	2	1	8:33:16	8:36:06	00:02:50	00:00:12	0.98	20.78	-	-	-	-	1	1	08:15:00	08:20:00	00:05:00	00:02:00	2.02	24.29	-	-	-	-	1	1		
					2	8:36:18	8:41:17	00:04:59	02:05:15	1.69	20.31	-	-	-	-	1	1	08:22:00	08:28:00	00:06:00	02:12:00	2.02	24.29	-	-	-	-	1	1		
					3	10:46:32	11:05:54	00:19:22	00:01:41	17.10	52.98	-	-	-	-	1	1	10:40:00	11:10:00	00:30:00	01:05:00	17.05	39.47	-	-	-	-	1	1		
					4	11:07:35	11:12:37	00:05:02	01:10:14	2.10	24.99	-	-	-	-	1	1														
					5	12:22:51	12:26:07	00:03:16	01:14:41	0.60	11.11	-	-	-	-	1	1	12:15:00	12:18:00	00:03:00	01:32:00	2.34	30.99	x	-	-	-	-	1	1	
					6	13:40:48	14:02:49	00:22:01	00:30:30	21.61	58.88	-	-	-	-	1	1	13:50:00	14:12:00	00:22:00	00:23:00	20.20	43.32	x	-	-	-	-	1	1	
					7	14:33:19	14:42:42	00:09:23	00:53:35	3.31	21.18	-	-	-	-	1	1	14:35:00	14:48:00	00:13:00	00:47:00	1.86	28.91	x	-	-	-	-	1	1	
					8	15:36:17	15:49:02	00:12:45	00:16:27	5.69	26.79	-	-	-	-	1	1	15:35:00	15:48:00	00:13:00	00:07:00	6.73	33.68	x	-	-	-	-	1	1	
					9	16:05:29	16:15:03	00:09:34	00:57:51	2.16	13.52	-	-	-	-	1	1	15:55:00	16:00:00	00:05:00	00:15:00	-	-	x	-	-	-	-	1	1	
					10							-	-	-	-	1	1	16:15:00	16:22:00	00:07:00		2.02	24.29	-	-	-	-	1	1		
					11	17:12:54	17:19:35	00:06:41	01:50:36	1.72	15.45	-	-	-	-	1	1														
					12	19:10:11	19:12:11	00:02:00	00:03:25	0.11	3.44	-	-	-	-	1	1														
					13	19:15:36	19:17:49	00:02:13	00:01:07	0.59	16.05	-	-	-	-	1	1														
					14	19:18:56	19:40:26	00:21:30	02:48:37	9.45	26.37	-	-	-	-	1	1														
					15	22:29:03	22:29:19	00:00:16	00:04:45	0.05	10.60	-	-	-	-	1	1														
					16	22:34:04	22:40:43	00:06:39		2.22	20.07	-	-	-	-	1	1														
					Totals			02:08:31	11:58:56	69.39	32.38	-	-	-	-	0	6	9			01:44:00	06:23:00	54.24	31.29	-	-	-	-	0	4	5
S	1/31/2006	4035	150	1	1	7:52:38	8:05:55	00:13:17	00:00:18	4.40	19.88	-	-	-	-	1	1	07:50:00	08:05:00	00:15:00	00:02:00	5.34	27.46	-	-	-	-	1	1		
					2	8:06:13	8:19:02	00:12:49	00:56:31	5.08	23.78	-	-	-	-	1	1	08:07:00	08:20:00	00:13:00	00:56:00	5.33	27.36	-	-	-	-	1	1		
					3	9:15:33	9:16:27	00:00:54	00:38:53	0.24	15.74	-	-	-	-	1	1	09:16:00	09:17:00	00:01:00	01:40:00	-	-	-	-	-	-	1	1		
					4	9:55:20	10:05:55	00:10:35	04:12:38	4.04	22.92	-	-	-	-	1	1	10:57:00	11:06:00	00:09:00	03:10:00	3.45	24.58	-	-	-	-	1	1		
					5	14:18:33	14:26:17	00:07:44	00:06:28	2.33	18.11	-	-	-	-	1	1	14:16:00	14:26:00	00:10:00	00:05:00	3.04	26.36	-	-	-	-	1	1		
					6	14:32:45	14:38:23	00:05:38	00:02:33	1.67	17.78	-	-	-	-	1	1	14:31:00	14:38:00	00:07:00	00:02:00	0.82	25.36	-	-	-	-	1	1		
					7	14:40:56	14:52:09	00:11:13	00:06:43	2.28	12.22	-	-	-	-	1	1	14:40:00	14:50:00	00:10:00	00:08:00	2.21	26.21	-	-	-	-	1	1		
					8	14:58:52	15:02:58	00:04:06	00:02:03	1.32	19.30	-	-	-	-	1	1	14:58:00	15:08:00	00:10:00	00:02:00	1.45	27.10	-	-	-	-	1	1		
					9	15:05:01	15:20:04	00:15:03		4.98	19.85	-	-	-	-	1	1	15:10:00	15:20:00	00:10:00		5.33	27.36	-	-	-	-	1	1		
					Totals			01:21:19	06:06:07	26.34	19.44	-	-	-	-	1	3	5			01:25:00	06:05:00	26.97	19.04	-	-	-	-	1	3	5
S	1/31/2006	4036	139	1	1	5:01:08	5:02:51	00:01:43	00:03:43	20.41	20.41	-	-	-	-	1	1	05:01:00	05:03:00	00:02:00	00:04:00	6.97	25.00	-	-	-	-	1	1		
					2	5:08:55	5:11:23	00:02:28	02:30:20	0.59	14.35	-	-	-	-	1	1	05:07:00	05:12:00	00:05:00	02:28:00	0.91	20.00	-	-	-	-	1	1		
					3	7:41:43	7:46:00	00:04:17	00:00:51	0.76	10.61	-	-	-	-	1	1	07:40:00	07:46:00	00:06:00	00:00:00	0.67	21.05	-	-	-	-	1	1		
					4	7:46:51	7:51:54	00:05:03	00:05:07	0.94	11.13	-	-	-	-	1	1	07:46:00	07:52:00	00:06:00	00:01:00	0.67	21.05	-	-	-	-	1	1		
					5	7:57:01	8:05:32	00:08:31	00:01:49	2.42	17.07	-	-	-	-	1	1	07:53:00	08:07:00	00:14:00	00:01:00	2.51	23.24	-	-	-	-	1	1		
					6	8:07:21	8:20:45	00:13:24	00:25:07	3.97	17.77	-	-	-	-	1	1	08:08:00	08:22:00	00:14:00	05:22:00	3.76	22.90	-	-	-	-	1	1		
					7	13:45:52	13:47:26	00:01:34	00:00:15	0.52	19.75	-	-	-	-	1	1	13:44:00	13:55:00	00:11:00	00:31:00	1.36	19.85	-	-	-	-	1	1		
					8	13:47:41	13:54:20	00:06:39	00:32:12	1.02	9.21	-	-	-	-	1	1														
					9	14:26:32	14:49:04	00:22:32	00:05:27	10.77	28.68	-	-	-	-	1	1	14:26:00	14:32:00	00:06:00	00:01:00	1.54	19.70	-	-	-	-	1	1		
					10							-	-	-	-	1	1	14:33:00	14:49:00	00:16:00	00:05:00	6.16	26.34	-	-	-	-	1	1		
					11	14:54:31	15:11:30	00:16:59	00:02:50	10.61	37.47	-	-	-	-	1	1	14:54:00	15:15:00	00:21:00	00:04:00	8.97	30.32	-	-	-	-	1	1		
					12	15:14:20	15:31:41	00:17:21	00:05:11	7.08	24.48	-	-	-	-	1	1	15:19:00	15:33:00	00:14:00	00:57:00	6.00	27.38	-	-	-	-	1	1		
					13	16:27:52	16:50:59	00:23:07	00:05:36	7.74	20.09	-	-	-	-																

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																					
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification											
												H	W	O	H	B	H							B	O	N	H	B	O	N	H	B	O	N			
S	1/31/2006	4041	157	3	1	14:54:04	14:59:05	00:05:01	01:07:50	1.41	16.88	-	-	-	-	-	-	1	1	1	1	14:50:00	15:00:00	00:10:00	00:15:00	1.52	27.55	-	-	-	-	-	-	1	1	1	1
					2	16:06:55	16:08:58	00:02:03	01:33:12	0.78	22.86	<	-	-	-	-	-	1	1	1	1	16:03:00	16:12:00	00:09:00	01:27:00	2.09	25.96	<	-	-	-	-	1	1	1	1	
					3	17:42:10	17:48:22	00:06:12	00:38:00	2.15	20.82	<	-	-	-	-	-	1	1	1	1	17:39:00	17:46:00	00:07:00	00:34:00	2.02	24.14	<	-	-	-	-	1	1	1	1	
					4	18:26:22	18:28:24	00:02:02	01:09:55	0.34	10.08	<	-	-	-	-	-	1	1	1	1	18:20:00	18:26:00	00:06:00	01:09:00	0.57	21.51	<	-	-	-	-	1	1	1	1	
					5	19:38:19	19:39:47	00:01:28	00:17:52	0.07	2.81	<	-	-	-	-	-	1	1	1	1	19:35:00	19:40:00	00:05:00	00:20:00	-	-	<	-	-	-	-	1	1	1	1	
					6	19:57:39	20:07:09	00:09:30		3.33	21.02	<	-	-	-	-	-	1	1	1	1	20:00:00	20:08:00	00:08:00		2.78	24.57	<	-	-	-	-	1	1	1	1	
					7					8.08	18.46	<	-	-	-	-	-	0	4	2					00:47:00	04:31:00	9.87	12.60	<	-	-	-	0	4	3		
					Totals																																
S	1/31/2006	4043	117	1	1	08:43:53	08:47:33	00:03:40	01:32:59	1.31	21.48	<	-	-	-	-	1	1	1	1	08:35:00	08:45:00	00:10:00	01:35:00	0.79	23.82	<	-	-	-	-	1	1	1	1		
					2	10:20:32	10:29:18	00:08:46	01:54:40	2.84	19.43	<	-	-	-	-	-	1	1	1	1	10:20:00	10:35:00	00:15:00	01:50:00	2.11	25.68	<	-	-	-	-	1	1	1	1	
					3	12:23:58	12:29:34	00:05:36	01:15:33	1.57	16.85	<	-	-	-	-	-	1	1	1	1	12:25:00	12:33:00	00:08:00	01:12:00	1.73	26.48	<	-	-	-	-	1	1	1	1	
					4	13:45:07	13:50:54	00:05:47	03:50:05	2.29	23.77	<	-	-	-	-	-	1	1	1	1	13:45:00	13:57:00	00:12:00	03:43:00	1.73	26.48	<	-	-	-	-	1	1	1	1	
					5	17:40:59	18:11:01	00:30:02	03:59:07	11.40	22.78	<	-	-	-	-	-	1	1	1	1	17:40:00	17:52:00	00:12:00	04:08:00	1.73	26.48	<	-	-	-	-	1	1	1	1	
					6					8.82	48.24	<	-	-	-	-	-	1	1	1	1	22:00:00	22:15:00	00:15:00	00:03:00	9.81	35.46	<	-	-	-	-	1	1	1	1	
					7	22:10:08	22:21:06	00:10:58				<	-	-	-	-	-	1	1	1	1	22:18:00	22:35:00	00:17:00		10.50	32.16	<	-	-	-	-	1	1	1	1	
					Totals																																
S	1/31/2006	4044	173	1	1	07:46:00	07:55:27	00:09:27	03:53:39	2.91	18.48	>	-	-	-	-	1	1	1	1	07:40:00	07:56:00	00:16:00	03:51:00	2.91	23.85	>	-	-	-	-	1	1	1	1		
					2	11:49:06	11:54:33	00:05:27	01:14:13	1.92	21.09	>	-	-	-	-	-	1	1	1	1	11:47:00	11:55:00	00:08:00	01:13:00	1.52	25.19	>	-	-	-	-	1	1	1	1	
					3	13:08:46	13:14:16	00:05:30	00:12:17	1.84	20.06	>	-	-	-	-	-	1	1	1	1	13:08:00	13:15:00	00:07:00	00:13:00	1.52	25.19	>	-	-	-	-	1	1	1	1	
					4	13:26:33	13:27:25	00:00:52	07:17:08	0.27	18.83	>	-	-	-	-	-	1	1	1	1	13:28:00	13:28:00	00:00:00	07:16:00	-	-	>	-	-	-	-	1	1	1	1	
					5	20:44:33	20:46:36	00:02:03	00:02:32	0.74	21.74	>	-	-	-	-	-	1	1	1	1	20:44:00	20:54:00	00:10:00		2.91	23.85	>	-	-	-	-	1	1	1	1	
					6	20:49:08	20:54:43	00:05:35		1.72	18.43	>	-	-	-	-	-	1	1	1	1							>	-	-	-	-	1	1	1	1	
					Totals																																
S	1/31/2006	4044	174	2	1	18:41:41	18:44:00	00:02:19	00:04:56	0.67	17.33	>	-	-	-	-	1	1	1	1	18:37:00	18:45:00	00:08:00	00:33:00	0.79	21.03	>	-	-	-	-	1	1	1	1		
					2	18:48:56	18:52:14	00:03:18	00:32:53	0.61	11.01	>	-	-	-	-	-	1	1	1	1	18:48:00	18:55:00	00:07:00	00:25:00	1.19	21.38	>	-	-	-	-	1	1	1	1	
					3	19:25:07	19:27:42	00:02:35	01:19:23	0.63	14.60	>	-	-	-	-	-	1	1	1	1	19:20:00	19:25:00	00:05:00	01:15:00	1.19	21.83	>	-	-	-	-	1	1	1	1	
					4	20:47:05	20:48:54	00:01:49		0.52	17.11	>	-	-	-	-	-	1	1	1	1	20:40:00	20:45:00	00:05:00		0.75	21.03	>	-	-	-	-	1	1	1	1	
					Totals																																
S	1/31/2006	4053	110	1	1	14:39:48	15:09:18	00:29:30	01:09:39	15.62	31.77	>	-	-	-	-	1	1	1	1	14:30:00	14:35:00	00:05:00	00:05:00	0.62	24.16	>	-	-	-	-	1	1	1	1		
					2	16:18:57	16:53:32	00:34:35		15.67	27.18	>	-	-	-	-	-	1	1	1	1	14:40:00	15:10:00	00:30:00	01:08:00	12.64	29.92	>	-	-	-	-	1	1	1	1	
					3							>	-	-	-	-	-	1	1	1	1	16:18:00	16:50:00	00:32:00		12.73	29.98	>	-	-	-	-	1	1	1	1	
					Totals																																
S	1/31/2006	4077	107	1	1	10:38:54	10:40:19	00:01:25	01:22:10	0.41	17.33	>	-	-	-	-	1	1	1	1	10:35:00	10:40:00	00:05:00	00:05:00	0.91	20.45	>	-	-	-	-	1	1	1	1		
					2	12:02:29	12:17:57	00:15:28	01:01:14	4.38	16.99	>	-	-	-	-	-	1	1	1	1	10:45:00	10:50:00	00:05:00	00:34:00	5.44	30.48	>	-	-	-	-	1	1	1	1	
					3	13:19:11	13:30:52	00:11:41		4.13	21.20	>	-	-	-	-	-	1	1	1	1	11:24:00	12:18:00	00:54:00	01:00:00	5.16	29.57	>	-	-	-	-	1	1	1	1	
					4					8.92	18.73	>	-	-	-	-	-	0	2	1					11.51	7.19	>	-	-	-	-	0	2	2			
					Totals																																
S	1/31/2006	4079	151	1	1	08:39:25	08:59:32	00:20:07		18.58	55.41	>	-	-	-	-	1	1	1	1	08:45:00	09:08:00	00:23:00		8.62	29.45	>	-	-	-	-	1	1	1	1		
					2	07:45:48	08:16:21	00:30:33	03:20:03	8.33	16.36	>	-	-	-	-	-	0	1	0					00:23:00	00:00:00	8.62	22.49	>	-	-	-	0	1	0		
					3	11:36:24	11:40:45	00:04:21	00:32:23	1.12	15.45	>	-	-	-	-	-	1	1	1	1	11:35:00	11:41:00	00:06:00	00:30:00	0.77	20.09	>	-	-	-	-	1	1	1	1	
					4	12:13:08	12:15:09	00:02:01	00:08:31	0.07	2.14	>	-	-	-	-	-	1	1	1	1	12:11:00	12:15:00	00:04:00	00:05:00	-	-	>	-	-	-	-	1	1</			

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																			
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification							
												H	W	O	HWB	HBO	NHB	H							W	O	HWB	HBO	NHB						
S	2/1/2006	4052	179	1	1	07:31:36	07:47:43	00:16:07	03:19:06	6.06	22.58	-	-	-	1	1	1	1	07:30:00	07:50:00	00:20:00	03:40:00	5.79	27.06	-	-	-	1	1	1	1				
					2	11:06:49	11:10:00	00:03:11	00:11:11	1.56	10.48	-	-	-	1	1	1	1	11:30:00	11:35:00	00:05:00	00:10:00	-	-	-	-	-	1	1	1	1				
					3	11:21:11	11:23:20	00:02:09	01:02:29	0.72	20.22	-	-	-	1	1	1	1	11:45:00	11:50:00	00:05:00	00:55:00	-	-	-	-	-	1	1	1	1				
					4	12:25:49	12:28:01	00:02:12	04:37:44	0.62	16.87	-	-	-	1	1	1	1	12:45:00	12:50:00	00:05:00	04:10:00	-	-	-	-	-	1	1	1	1				
					5	17:05:45	17:34:55	00:29:10	00:16:35	15.31	31.49	-	-	-	1	1	1	1	17:00:00	17:30:00	00:30:00	00:20:00	10.95	29.92	-	-	-	-	-	1	1	1	1		
					6	17:51:30	18:01:28	00:09:58	00:10:50	3.35	20.17	-	-	-	1	1	1	1	17:50:00	18:00:00	00:10:00	00:15:00	2.97	28.51	-	-	-	-	-	1	1	1	1		
					7	18:12:18	18:15:42	00:03:24	00:04:30	1.30	22.96	-	-	-	1	1	1	1	18:15:00	18:20:00	00:05:00	00:05:00	1.48	24.94	-	-	-	-	-	1	1	1	1		
					8	18:20:12	18:30:12	00:10:00		3.31	19.84	-	-	-	1	1	1	1	18:25:00	18:40:00	00:15:00		3.81	27.51	-	-	-	-	-	1	1	1	1		
					Totals			01:16:11	09:42:25	31.23	24.60					1	1	6				01:35:00	09:35:00			25.00	15.79				1	1	6		
S	2/1/2006	4056	125	1	1	07:28:50	07:35:55	00:07:05	00:09:41	0.22	1.83	-	-	-	1	1	1	07:30:00	07:32:00	00:02:00	00:04:00	1.39	24.31	-	-	-	1	1	1	1					
					2	07:45:36	08:23:04	00:37:28	01:35:28	19.70	31.55	-	-	-	1	1	1	1	07:36:00	08:15:00	00:39:00	01:37:00	14.80	30.94	-	-	-	1	1	1	1				
					3	09:58:32	10:18:47	00:20:15	00:20:15	15.51	45.96	-	-	-	1	1	1	1	09:52:00	10:18:00	00:24:00	00:19:00	12.54	31.91	-	-	-	1	1	1	1				
					4	10:39:02	10:50:08	00:11:06	00:42:35	2.27	12.26	-	-	-	1	1	1	1	10:35:00	10:47:00	00:12:00	00:41:00	-	-	-	-	-	1	1	1	1				
					5	11:32:43	11:45:45	00:13:02	00:35:41	6.88	31.69	-	-	-	1	1	1	1	11:28:00	11:43:00	00:15:00	00:35:00	7.44	34.85	-	-	-	1	1	1	1				
					6	12:21:26	12:37:19	00:15:53	00:09:44	8.46	31.97	-	-	-	1	1	1	1	12:18:00	12:34:00	00:16:00	00:08:00	8.15	30.32	-	-	-	1	1	1	1				
					7	12:47:03	13:03:01	00:15:58	01:04:54	11.49	43.16	-	-	-	1	1	1	1	12:42:00	12:59:00	00:17:00	01:05:00	8.91	32.15	-	-	-	1	1	1	1				
					8	14:07:55	14:30:18	00:22:23	00:41:25	10.67	28.61	-	-	-	1	1	1	1	14:04:00	14:27:00	00:23:00	00:50:00	8.96	29.09	-	-	-	1	1	1	1				
					9	15:11:43	15:13:22	00:01:39	00:02:57	0.25	8.92	-	-	-	1	1	1	1	15:17:00	15:33:00	00:16:00	00:40:00	8.46	30.18	-	-	-	1	1	1	1				
					10	15:16:19	15:17:03	00:00:44	00:02:38	0.17	13.93	-	-	-	1	1	1	1	16:13:00	16:38:00	00:25:00		13.41	30.28	-	-	-	1	1	1	1				
					11	15:19:41	15:36:17	00:16:36	00:40:03	8.83	31.91	-	-	-	1	1	1	1																	
					12	16:16:20	16:39:49	00:23:29		18.11	46.26	-	-	-	1	1	1	1																	
Totals			03:05:38	06:05:21	102.56	33.15					1	3	8				03:09:00	05:59:00			83.86	26.62				1	3	6							
S	2/1/2006	4056	126	2	1	11:26:25	11:44:00	00:17:35	01:55:01	11.56	39.45	-	-	-	1	1	1	11:40:00	12:00:00	00:20:00	01:33:00	8.82	28.85	-	-	-	1	1	1	1					
					2	13:39:01	13:48:51	00:09:50	00:23:03	6.79	41.41	-	-	-	1	1	1	1	13:33:00	13:44:00	00:11:00	00:30:00	3.28	23.32	-	-	-	1	1	1	1				
					3	14:11:54	14:13:06	00:01:12	00:22:55	0.12	5.99	-	-	-	1	1	1	1	14:14:00	14:30:00	00:16:00	00:12:00	8.19	29.69	-	-	-	1	1	1	1				
					4	14:36:01	14:45:12	00:09:11	00:09:40	5.14	33.60	-	-	-	1	1	1	1	14:42:00	14:45:00	00:03:00	00:13:00	1.39	24.31	-	-	-	1	1	1	1				
					5	14:54:52	14:56:44	00:01:52	00:55:07	0.96	30.97	-	-	-	1	1	1	1	14:58:00	15:00:00	00:02:00	00:50:00	1.39	24.31	-	-	-	1	1	1	1				
					6	15:51:51	15:58:26	00:06:35	00:08:28	4.65	42.35	-	-	-	1	1	1	1	15:50:00	16:00:00	00:10:00	00:06:00	4.81	31.96	-	-	-	1	1	1	1				
					7	16:06:54	16:15:42	00:08:48	00:06:37	4.24	28.93	-	-	-	1	1	1	1	16:06:00	16:15:00	00:09:00	00:10:00	4.30	32.70	-	-	-	1	1	1	1				
					8	16:22:19	16:27:14	00:04:55	00:26:18	0.86	10.54	-	-	-	1	1	1	1	16:25:00	16:30:00	00:05:00	00:19:00	-	-	-	-	-	1	1	1	1				
					9	16:53:32	17:00:49	00:07:17	00:21:01	3.56	29.36	-	-	-	1	1	1	1	16:49:00	17:00:00	00:11:00	00:06:00	4.40	30.59	-	-	-	1	1	1	1				
					10	17:21:50	17:28:45	00:06:55		3.56	30.86	-	-	-	1	1	1	1	17:06:00	17:15:00	00:09:00		4.71	32.00	-	-	-	1	1	1	1				
Totals			01:14:10	04:48:10	41.45	33.53					0	4	6				01:36:00	03:59:00			41.29	25.81				0	6	4							
S	2/1/2006	4057	160	1	1	08:32:49	08:45:55	00:13:06	03:08:07	5.75	25.41	-	-	-	1	1	1	08:30:00	08:48:00	00:18:00	03:02:00	5.93	27.58	-	-	-	1	1	1	1					
					2	11:54:02	11:51:55	00:07:53	01:13:48	4.76	36.19	-	-	-	1	1	1	1	11:50:00	12:05:00	00:15:00	01:10:00	4.75	33.57	-	-	-	1	1	1	1				
					3	13:15:43	13:27:37	00:11:54	00:09:31	5.44	27.43	-	-	-	1	1	1	1	13:15:00	13:27:00	00:12:00	00:09:00	2.92	25.99	-	-	-	1	1	1	1				
					4	13:37:08	13:52:35	00:15:27	07:04:02	5.78	22.44	-	-	-	1	1	1	1	13:36:00	13:52:00	00:16:00	07:03:00	5.93	27.58	-	-	-	1	1	1	1				
					5	20:56:37	21:08:31	00:11:54		5.57	28.09	-	-	-	1	1	1	1	20:55:00	21:08:00	00:13:00		5.93	27.56	-	-	-	1	1	1	1				
Totals			01:00:14	11:35:28	27.09	26.99					3	1	1				01:14:00	11:24:00			25.46	20.64				3	1	1							
S	2/1/2006	4057	190	2	1	16:30:34	16:32:22	00:01:48	00:06:45	0.53	17.77	-	-	-	1	1	1	16:26:00	16:30:00	00:04:00	00:05:00	1.45	24.79	-	-	-	1	1	1	1					
					2	16:39:07	16:40:38	00:01:31	00:40:51	0.52	20.61	-	-	-	1	1	1	16:35:00	16:38:00	00:03:00	00:41:00	0.93	26.32	-	-	-	1	1	1	1					
					3	17:21:29	17:42:37	00:21:08	01:18:52	5.27	14.97	-	-	-	1	1	1	17:19:00	17:40:00	00:21:00	00:58:00	4.68	28.00	-	-	-	1	1	1	1					
					4	19:01:29	19:16:59	00:15:30		8.27	24.27	-	-	-	1	1	1	1	18:38:00	19:15:00	00:37:00		5.93	27.56	-	-	-	1	1	1	1				
Totals			00:39:57	02:06:28	12.60	18.92					0	2	2				01:05:00	01:44:00			12.99	11.99				0	2	2							
S	2/1/2006	4058	307	1	1	10:35:15	10:39:54	00:04:39	00:08:08	1.59	20.51	-	-	-	1	1	1	10:30:00	10:40:00	00:10:00	00:35:00	1.85	24.18	-	-	-	1	1	1	1					
					2	10:49:02	10:50:20	00:02:18	00:20:03	0.32	8.22	-	-	-	1	1	1	1	10:45:00	10:50:00	00:05:00	00:02:00	0.50	10.00	-	-									

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey											CATI Survey																												
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification			Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification																			
												H	W	O	HBW	HBO							NHB	H	W	O	HBW	HBO	NHB																
S	2/21/2006	4109	133	2	1	08:10:04	08:16:25	00:06:21	00:02:47	1.70	16.10	-	-	-	-	-	1	1		08:19:00	08:30:00	00:11:00	02:25:00	4.25	36.48	-	-	-	1	1															
						08:19:12	08:31:28	00:12:16	02:25:07	5.51	26.96	-	-	-	-	-	-	-	-	-	1	1		10:55:00	17:30:00	06:35:00		4.27	36.19	-	-	-	1	1											
						10:56:35	12:20:19	01:23:44	03:52:32	71.96	51.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						16:12:51	16:28:00	00:15:09	00:03:03	8.36	33.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						16:31:03	16:31:25	00:00:22	00:02:52	0.06	9.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						16:34:17	17:29:32	00:55:15		53.99	58.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Totals						02:53:07	06:26:21	141.57	49.07												06:48:00	02:25:00	8.52	1.26																					
S	2/21/2006	4110	118	1	1	7:43:45	7:53:12	00:09:27	00:00:08	3.64	23.12	-	-	-	-	-	-	-	07:35:00	07:48:00	00:13:00	00:01:00	4.31	32.53	-	-	-	1	1																
					2	7:53:20	8:02:34	00:09:14		3.99	25.92	-	-	-	-	-	-	-	-	-	-	-	07:49:00	08:00:00	00:11:00		3.87	30.67	-	-	-	1	1												
Totals						00:18:41	00:00:08	7.63	24.51													00:24:00	00:01:00	8.18	20.43																				
S	2/21/2006	4110	136	2	1	06:04:27	08:09:11	00:04:44	00:03:56	2.40	30.40	-	-	-	-	-	-	-	05:50:00	20:05:00	14:15:00	00:10:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					2	06:13:07	07:22:27	01:09:20	11:58:53	51.35	44.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					3	19:21:20	20:05:33	00:44:13		50.83	68.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					4																																								
Totals					01:58:17	12:02:49	104.58	53.05													14:18:00	00:10:00	0.00	0.00																					
S	2/21/2006	4111	151	1	1	7:45:01	7:57:08	00:12:07	00:02:25	5.64	27.94	-	-	-	-	-	-	-	07:45:00	08:35:00	00:50:00	00:55:00	40.47	42.53	-	-	-	1	1																
					2	7:59:33	8:37:07	00:37:34	00:54:39	26.91	42.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					3	9:31:46	9:43:45	00:11:59	00:32:36	8.13	40.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					4	10:16:21	10:19:43	00:03:22	00:14:48	0.67	11.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					5	10:34:31	10:41:53	00:07:22	00:09:45	2.14	17.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					6	10:51:38	10:53:58	00:02:20	00:38:25	0.40	10.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					7	11:32:23	11:35:05	00:02:42	00:00:08	0.58	12.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					8	11:35:13	12:00:42	00:25:29	00:59:42	10.11	23.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					9	13:00:24	13:06:24	00:06:00	00:02:22	0.40	4.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					10	13:06:46	13:10:27	00:03:41	00:03:20	1.31	21.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					11	13:13:47	13:24:51	00:11:04	00:02:28	10.26	55.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					12	13:27:19	13:57:06	00:29:47		22.75	45.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Totals					02:33:27	03:38:38	89.31	34.92													02:34:00	03:36:00	94.07	36.65																					
S	2/21/2006	4112	306	1	1	7:38:44	7:47:13	00:08:29	09:30:53	0.82	5.78	-	-	-	-	-	-	-	07:35:00	07:40:00	00:05:00	00:15:00	4.36	32.05	-	-	-	1	1																
					2	17:18:06	17:27:24	00:09:18	00:00:22	0.86	5.53	-	-	-	-	-	-	-	-	-	-	-	17:15:00	17:27:00	00:12:00	00:02:00	3.11	30.18	-	-	-	1	1												
					3	17:27:46	17:37:41	00:09:55	01:09:22	0.61	3.71	-	-	-	-	-	-	-	-	-	-	-	-	17:29:00	17:38:00	00:09:00	01:10:00	1.77	28.17	-	-	-	1	1											
					4	18:47:03	18:53:17	00:06:14	01:40:38	0.66	6.39	-	-	-	-	-	-	-	-	-	-	-	-	-	18:48:00	18:55:00	00:07:00	01:35:00	1.60	26.37	-	-	-	1	1										
					5	20:33:55	20:39:13	00:05:18	00:00:41	0.45	5.05	-	-	-	-	-	-	-	-	-	-	-	-	-	20:30:00	20:32:00	00:02:00	00:10:00	1.60	26.37	-	-	-	1	1										
					6	20:39:54	20:47:51	00:07:57		0.54	4.07	-	-	-	-	-	-	-	-	-	-	-	-	-	20:42:00	20:56:00	00:14:00		-	-	-	-	-	1	1										
Totals					00:47:11	12:21:56	3.94	5.01													01:04:00	12:17:00	14.95	14.02																					
S	2/21/2006	4112	102	2	1	07:43:45	08:16:52	00:33:07	00:31:04	26.85	48.65	-	-	-	-	-	-	-	07:05:00	07:07:00	00:02:00	00:33:00	1.86	24.16	-	-	-	1	1																
					2	08:47:56	09:17:17	00:29:21	00:04:16	26.88	54.96	-	-	-	-	-	-	-	-	-	-	-	07:40:00	08:19:00	00:39:00	00:30:00	22.15	40.49	-	-	-	1	1												
					3	09:21:33	09:23:09	00:01:36	00:06:00	0.56	20.96	-	-	-	-	-	-	-	-	-	-	-	-	08:49:00	09:19:00	00:30:00	00:04:00	21.98	40.91	-	-	-	1	1											
					4	09:29:09	09:34:02	00:04:53	00:02:54	0.31	3.75	-	-	-	-	-	-	-	-	-	-	-	-	-	09:23:00	09:25:00	00:02:00	00:14:00	-	-	-	-	-	1	1										
					5	09:36:56	09:43:47	00:06:51	00:04:07	2.73	23.95	-	-	-	-	-	-	-	-	-	-	-	-	-	09:39:00	09:46:00	00:07:00	00:04:00	3.34	26.68	-	-	-	1	1										
					6	09:47:54	09:50:59	00:03:05	00:38:50	0.84	16.29	-	-	-	-	-	-	-	-	-	-	-	-	-	09:50:00	09:53:00	00:03:00	00:38:00	1.86	24.16	-	-	-	1	1										
					7	10:29:49	10:33:06	00:03:17	00:54:37	0.84	15.33	-	-	-	-	-																													

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey													CATI Survey														
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification	Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification						
												H	W	O									H	W	O			H	W	O			
S	2/21/2006	4129	182	2	1	8:06:53	8:19:05	00:10:12	00:00:25	5.74	33.76	-	-	-	-	1	1	08:05:00	08:12:00	00:07:00	00:01:00	7.72	43.13	-	-	-	-	1	1				
					2	8:19:30	8:27:39	00:08:09	04:48:28	4.47	32.91	-	-	-	-	1	1	08:13:00	08:20:00	00:07:00	05:07:00	7.86	39.33	-	-	-	-	1	1				
					3	13:16:07	13:17:59	00:01:52	00:02:28	0.46	14.84	-	-	-	-	1	1																
					4	13:20:27	13:20:48	00:00:21	00:02:49	0.05	8.80	-	-	-	-	1	1																
					5	13:23:37	13:24:01	00:00:24	00:02:01	0.05	7.87	-	-	-	-	1	1																
					6	13:26:02	13:34:48	00:08:46	00:04:05	5.55	37.99	-	-	-	-	1	1	13:27:00	13:32:00	00:05:00	00:05:00	5.63	43.36	-	-	-	-	1	1				
					7	13:38:53	13:47:28	00:08:35	00:21:49	2.29	15.98	-	-	-	-	1	1	13:37:00	13:48:00	00:11:00	00:21:00	5.10	35.38	-	-	-	-	1	1				
					8	14:09:17	14:12:12	00:02:55	00:35:18	0.74	15.22	-	-	-	-	1	1	14:09:00	14:15:00	00:06:00	00:33:00	2.78	29.47	-	-	-	-	1	1				
					9	14:47:30	14:49:23	00:01:53	00:08:23	0.63	20.21	-	-	-	-	1	1	14:48:00	14:50:00	00:02:00	00:10:00	-	-	-	-	-	-	1	1				
					10	14:57:46	15:01:59	00:04:13	00:04:42	0.77	11.01	-	-	-	-	1	1	15:00:00	15:05:00	00:05:00	00:05:00	1.77	28.10	-	-	-	-	1	1				
					11	15:06:41	15:12:46	00:06:05	00:00:27	1.58	15.61	-	-	-	-	1	1	15:10:00	15:20:00	00:10:00	02:10:00	6.53	41.46	-	-	-	-	1	1				
					12	15:13:13	15:16:51	00:03:38	00:04:29	0.68	11.23	-	-	-	-	1	1																
					13	15:21:20	15:31:54	00:10:34	01:59:56	6.46	36.66	-	-	-	-	1	1																
					14	17:31:50	17:40:23	00:08:33	00:03:46	4.92	34.52	-	-	-	-	1	1	17:30:00	17:40:00	00:10:00	00:05:00	3.86	37.54	-	-	-	-	1	1				
					15	17:44:09	17:47:56	00:03:47	00:00:12	1.30	20.67	-	-	-	-	1	1	17:45:00	17:50:00	00:05:00	00:01:00	2.51	30.18	-	-	-	-	1	1				
					16	17:48:08	17:59:39	00:11:31	01:17:12	6.88	35.83	-	-	-	-	1	1	17:51:00	18:00:00	00:09:00	01:17:00	5.79	42.47	-	-	-	-	1	1				
					17	19:16:51	19:25:18	00:08:27	00:52:38	6.66	47.28	-	-	-	-	1	1	19:17:00	19:28:00	00:11:00	00:52:00	6.65	41.96	-	-	-	-	1	1				
					18	20:17:56	20:26:42	00:08:46	01:37:07	6.53	44.73	-	-	-	-	1	1	20:20:00	20:31:00	00:11:00	02:29:00	6.79	40.14	-	-	-	-	1	1				
					19	22:03:49	22:14:28	00:10:39	00:06:13	5.71	32.15	-	-	-	-	1	1	23:00:00	23:10:00	00:10:00	00:10:00	7.72	43.13	-	-	-	-	1	1				
					20	22:20:41	22:24:36	00:03:55	00:02:30	1.85	28.32	-	-	-	-	1	1	23:20:00	23:25:00	00:05:00	00:13:00	3.65	32.06	-	-	-	-	1	1				
					21	22:27:06	22:36:00	00:08:54		5.48	36.97	-	-	-	-	1	1	23:38:00	23:45:00	00:07:00		5.79	42.47	-	-	-	-	1	1				
Totals						02:12:09	12:14:58	68.81	31.24	0	12	9	02:01:00	13:39:00	62.99	31.23	0	10	6														
S	2/21/2006	4130	138	1	1	9:53:39	9:55:43	00:02:04	00:00:25	0.37	10.64	-	-	-	1	1	09:50:00	10:00:00	00:10:00	00:08:00	2.91	29.80	-	-	-	-	1	1					
					2	9:56:08	10:04:18	00:08:10	00:05:52	1.28	9.42	-	-	-	-	1	1																
					3	10:10:10	10:13:30	00:03:20	00:06:56	1.34	24.07	-	-	-	-	1	1	10:08:00	10:13:00	00:05:00	00:05:00	3.00	28.94	-	-	-	-	1	1				
					4	10:20:26	10:27:59	00:07:33	00:08:58	0.94	7.47	-	-	-	-	1	1	10:18:00	10:22:00	00:04:00	00:14:00	-	-	-	-	-	-	1	1				
					5	10:36:57	10:50:03	00:13:06	01:42:16	3.78	17.32	-	-	-	-	1	1	10:36:00	10:38:00	00:02:00	01:52:00	1.77	28.17	-	-	-	-	1	1				
					6	12:32:19	12:37:39	00:05:20	03:02:04	1.96	22.02	-	-	-	-	1	1	12:30:00	12:36:00	00:06:00	03:03:00	1.98	26.46	-	-	-	-	1	1				
					7	15:39:43	15:47:05	00:07:22	01:24:50	2.72	22.16	-	-	-	-	1	1	15:39:00	15:49:00	00:10:00	02:01:00	1.70	25.44	-	-	-	-	1	1				
					8	17:11:55	17:17:34	00:05:39	00:02:45	2.04	21.69	-	-	-	-	1	1	17:50:00	18:00:00	00:10:00	02:55:00	18.45	42.11	-	-	-	-	1	1				
					9	17:20:19	17:57:33	00:37:14	02:56:31	20.58	33.16	-	-	-	-	1	1																
					10	20:54:04	21:28:34	00:34:30	00:03:10	20.82	36.21	-	-	-	-	1	1	20:55:00	21:05:00	00:10:00		18.40	42.25	-	-	-	-	1	1				
					11	21:31:44	21:37:00	00:05:16		2.03	23.12	-	-	-	-	1	1																
Totals						02:09:34	09:33:47	57.85	26.79	0	6	5	00:57:00	10:18:00	48.21	50.75	0	6	2														
S	2/21/2006	4131	126	1	1	07:10:51	07:30:55	00:20:04	03:58:25	6.01	17.96	-	-	-	1	1	07:10:00	07:17:00	00:07:00	00:31:00	12.73	38.34	-	-	-	-	1	1					
					2																												
					3																												
					4	11:29:20	11:32:51	00:03:31	01:31:47	1.68	28.62	-	-	-	-	1	1	11:29:00	11:34:00	00:05:00	01:31:00	2.56	31.48	-	-	-	-	1	1				
					5	13:04:38	13:09:32	00:04:54	04:43:00	1.92	23.48	-	-	-	-	1	1	13:05:00	13:10:00	00:05:00	04:43:00	2.52	31.97	-	-	-	-	1	1				
					6	17:52:32	17:55:18	00:02:46	00:03:40	1.04	22.51	-	-	-	-	1	1	17:53:00	17:56:00	00:03:00	00:03:00	1.07	26.75	-	-	-	-	1	1				
					7	17:58:58	18:06:22	00:07:24	00:03:13	2.43	19.73	-	-	-	-	1	1	17:59:00	18:07:00	00:08:00	00:03:00	2.58	27.74	-	-	-	-	1	1				
					8	18:09:35	18:16:27	00:06:52	00:32:12	1.54	13.41	-	-	-	-	1	1	18:10:00	18:17:00	00:07:00	00:32:00	11.80	39.78	-	-	-	-	1	1				
					9	18:48:39	18:56:03	00:07:24	01:53:15	2.44	19.82	-	-	-	-	1	1	18:49:00	18:57:00	00:08:00	02:06:00	12.73	38.34	-	-	-	-	1	1				
					10	20:49:18	20:50:41	00:01:23	01:12:05	0.18	7.75	-	-	-	-	1	1																
					11	21:02:46	21:07:26	00:04:40		2.02	25.96	-	-	-	-	1	1	21:03:00	21:09:00	00:06:00		12.73	38.34	-	-	-	-	1	1				
					Totals						00:58:58	12:57:37	19.25	19.59	1	3	5	01:00:00	12:59:00	62.02	62.02	0	4	6									
					S	2/21/2006	4131	161	3	1	08:30:32	08:40:26	00:09:54	00:14:25	3.57	21.66	-	-	-	1	3	08:29:00	08:39:00	00:10:00	00:15:00	12.41	38.34	-	-	-	-	1	1
										2	08:54:51	08:56:23	00:01:32	00:06:33	0.35	13.57	-	-	-	-	1	08:54:00	08:56:00	00:02:00	00:05:00	0.56	27.32	-	-	-	-	1	1
3	09:02:56	09:10:07	00:07:11	00:20:28						2.85	23.78	-	-	-	-	1	09:01:00	09:09:00	00:08:00	00:20:00	1.88	24.90	-	-	-	-	1	1					
4	09:30:35	09:35:06	00:04:31	04:16:39						1.74	23.15	-	-	-	-	1	09:29:00	09:34:00	00:05:00	04:16:00	12.73	38.34	-	-	-	-	1	1					
5	13:51:45	14:04:49	00:13:04	00:09:50						7.85	36.03	-	-	-	-	1	1	13:50:00	14:04:00	00:14:00	00:10:00	12.94	37.87	-	-	-	-	1	1				

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification			Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification					
												H	W	O	H	B	N							H	B	N	H	W	O	H	B	N
S	2/28/2006	4203	189	2	1	05:03:49	05:29:35	00:25:46	11:28:16	25.23	58.75	-	>	1	1	0	0	0	05:00:00	05:28:00	00:28:00	11:27:00	19.88	31.46	-	>	1	1	0	0	0	
					2	16:57:51	17:38:46	00:40:55		25.17	36.91	<	-	1					16:55:00	18:00:00	01:05:00		19.98	31.70	<	-	1	1	0	0	0	
					Totals		01:06:41	11:28:16		50.40	45.35			2	0	0	0			01:33:00	11:27:00		39.86	25.72			2	0	0	0	0	
S	2/28/2006	4205	160	1	1	10:23:57	10:29:13	00:05:16	00:11:03	1.94	22.08	-	>	1	1	1	1	10:22:00	10:30:00	00:08:00	00:10:00	1.98	24.05	-	>	1	1	1	1	1		
					2	10:40:16	10:56:21	00:16:05	01:17:50	8.38	31.27	<	-	x					10:40:00	10:50:00	00:10:00	01:28:00	6.75	28.13	<	-	x					
					3	12:14:11	12:26:19	00:12:08	00:02:21	5.21	25.79	<	-	x		1	1	1	12:18:00	12:28:00	00:10:00	00:02:00	4.22	28.77	<	-	x					
					4	12:28:40	12:43:43	00:15:03	01:14:07	5.31	21.16	<	-	x		1	1	1	12:30:00	12:42:00	00:12:00	01:12:00	4.63	26.76	<	-	x					
					5	13:57:50	14:04:01	00:06:11	00:09:11	1.53	14.80	<	-	x		1	1	1	13:54:00	14:00:00	00:06:00	00:14:00	0.54	23.31	<	-	x					
					6	14:13:12	14:17:10	00:03:58	02:10:30	0.82	12.34	<	-	x		1	1	1	14:14:00	14:16:00	00:02:00	02:10:00	0.54	23.31	<	-	x					
					7	16:27:40	16:37:32	00:09:52		4.41	26.81	<	-	x		1	1	1	16:26:00	16:39:00	00:13:00		4.63	26.76	<	-	x					
					Totals		01:08:33	05:05:02		27.59	24.15			0	4	3	3			01:01:00	05:16:00		23.29	22.91			0	4	3	3	3	
S	2/28/2006	4205	197	2	1	07:40:43	07:50:56	00:10:13	00:03:37	2.81	16.53	-	>	1	1	1	1	07:30:00	07:45:00	00:15:00	00:05:00	2.21	25.85	-	>	1	1	1	1	1		
					2	07:54:33	08:06:02	00:10:29	03:57:11	4.00	22.91	<	-	1	1	1	1	07:50:00	08:00:00	00:10:00	04:20:00	4.47	27.79	<	-	1	1	1	1	1		
					3	12:02:13	12:16:33	00:14:20	00:58:47	6.01	25.17	<	-	1	1	1	1	12:20:00	12:35:00	00:15:00	01:25:00	5.12	28.47	<	-	1	1	1	1	1		
					4	13:15:20	13:28:38	00:13:18	03:37:43	6.10	27.51	<	-	1	1	1	1	14:00:00	14:15:00	00:15:00	00:50:00	5.13	28.11	<	-	1	1	1	1	1		
					5	17:06:21	17:17:04	00:10:43	00:06:22	3.97	22.23	<	-	1	1	1	1	15:05:00	15:20:00	00:15:00	02:05:00	4.47	28.26	<	-	1	1	1	1	1		
					6	17:23:26	17:34:22	00:10:56		3.26	17.88	<	-	1	1	1	1	17:25:00	17:35:00	00:10:00		2.21	25.85	<	-	1	1	1	1	1		
					Totals		01:09:59	08:43:40		26.16	22.42			2	2	2	2			01:20:00	08:45:00		23.61	17.71			2	2	2	2	2	
S	2/28/2006	4207	132	1	1	03:55:37	04:10:29	00:14:52	08:56:15	11.17	45.08	-	>	1	1	1	1	03:48:00	04:09:00	00:21:00	08:56:00	13.16	32.72	-	>	1	1	1	1	1		
					2	13:06:44	13:25:22	00:18:38	00:31:28	12.77	41.13	<	-	1	1	1	1	13:05:00	13:30:00	00:25:00	00:25:00	13.36	32.37	<	-	1	1	1	1	1		
					3	13:56:50	14:06:20	00:09:30	00:38:11	3.84	24.27	<	-	1	1	1	1	13:55:00	14:05:00	00:10:00	00:35:00	3.61	23.99	<	-	1	1	1	1	1		
					4	14:44:31	14:47:59	00:03:28	00:14:44	1.40	24.27	<	-	1	1	1	1	14:40:00	14:47:00	00:07:00	00:23:00	1.15	27.49	<	-	1	1	1	1	1		
					5	15:02:43	15:05:36	00:02:53	00:35:15	1.28	26.53	<	-	1	1	1	1	15:10:00	15:16:00	00:06:00	00:14:00	1.15	27.49	<	-	1	1	1	1	1		
					6	15:40:51	15:50:46	00:09:55	03:34:53	3.64	22.02	<	-	1	1	1	1	15:30:00	15:41:00	00:11:00	03:49:00	3.61	24.01	<	-	1	1	1	1	1		
					7	19:25:39	19:35:02	00:09:23	00:55:25	3.27	20.90	<	-	1	1	1	1	19:30:00	19:41:00	00:11:00	00:53:00	3.61	23.99	<	-	1	1	1	1	1		
					8	20:30:27	20:38:58	00:08:31		3.47	24.45	<	-	1	1	1	1	20:34:00	20:46:00	00:12:00		3.61	24.01	<	-	1	1	1	1	1		
					Totals		01:17:10	15:26:11		40.84	31.75			2	4	2	2			01:43:00	15:15:00		43.26	25.20			2	4	2	2	2	
S	2/28/2006	4208	114	1	1	06:22:20	06:42:22	00:20:02	00:02:14	15.96	47.80	-	>	1	1	1	1	06:20:00	06:39:00	00:19:00	08:23:00	13.50	35.23	-	>	1	1	1	1	1		
					2	06:44:36	06:45:19	00:00:43	08:12:00	0.16	13.57	<	-	1	1	1	1															
					3	14:57:19	14:57:28	00:00:09	00:09:38	0.03	10.03	<	-	1	1	1	1															
					4	15:07:06	15:07:38	00:00:32	00:06:13	0.09	10.44	<	-	1	1	1	1	15:02:00	15:10:00	00:08:00	00:10:00	-										
					5	15:13:51	15:35:13	00:21:22	00:05:36	17.69	49.67	<	-	1	1	1	1	15:20:00	15:35:00	00:15:00	00:10:00	12.82	33.55	<	-	1	1	1	1	1		
					6	15:40:49	15:42:20	00:01:31	00:05:18	0.66	26.08	<	-	1	1	1	1	15:45:00	16:00:00	00:15:00		3.50	31.82	<	-	1	1	1	1	1		
					7	15:47:38	15:54:12	00:06:34		2.87	26.25	<	-	1	1	1	1															
					Totals		00:50:53	08:40:59		37.48	44.17			1	1	5	5			00:57:00	08:43:00		29.82	31.39			1	1	2	2	2	
S	2/28/2006	4209	115	1	1	10:49:52	11:25:57	00:36:05	01:03:02	59.00	59.00	-	>	1	1	1	1	10:00:00	11:30:00	01:30:00	02:30:00	31.07	41.81	-	>	1	1	1	1	1		
					2	12:28:59	12:43:11	00:14:12	00:02:10	8.05	34.03	<	-	1	1	1	1															
					3	12:45:21	13:07:56	00:22:35	00:20:39	18.75	49.83	<	-	1	1	1	1															
					4	13:28:35	13:46:47	00:18:12	02:49:50	20.14	66.38	<	-	1	1	1	1															
					5							<	-	1	1	1	1	14:00:00	15:00:00	01:00:00	01:30:00	32.20	42.06	<	-	1	1	1	1	1		
					6							<	-	1	1	1	1	16:30:00	16:45:00	00:15:00		1.67	28.79	<	-	1	1	1	1	1		
					7	16:36:37	16:41:15	00:04:38	00:18:25	1.90	24.56	<	-	1	1	1	1															
					8	16:59:40	17:01:20	00:01:40	00:02:09	0.21	7.38	<	-	1	1	1	1															
					9	17:03:29	17:08:18	00:04:49	00:03:03	3.19	39.80	<	-	1	1	1																

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey														
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification	Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification					
												H	W	O								H	W	O		H	W	O		
S	2/28/2006	4240	180	1	1	7:13:20	7:22:18	00:08:58	06:38:31	2.18	14.58	<	-	-	1	07:09:00	07:15:00	00:06:00	00:01:00	-	-	-	<	-	-	1	1			
					2	14:00:49	14:16:45	00:15:56	01:24:04	13.47	50.72	<	-	-	1	13:57:00	14:15:00	00:18:00	01:22:00	10.52	34.76	<	-	-	1	1	1	1		
					3	15:40:49	15:55:54	00:15:05	00:39:49	13.03	51.83	<	-	-	1	15:37:00	15:53:00	00:16:00	00:40:00	10.13	36.29	<	-	-	1	1	1	1		
					4	16:35:43	16:46:14	00:10:31	00:25:20	4.39	25.03	<	-	-	1	16:33:00	16:37:00	00:04:00	00:01:00	-	-	-	-	-	1	1	1	1		
					5	17:11:34	17:18:43	00:07:09	00:00:45	3.62	30.36	<	-	-	1	17:09:00	17:15:00	00:06:00	00:02:00	3.24	32.95	<	-	-	1	1	1	1		
					6	17:19:28	17:23:29	00:04:01	02:10:16	1.42	21.24	<	-	-	1	17:17:00	17:21:00	00:04:00	-	-	-	-	-	1	1	1	1			
					7	19:33:45	19:37:55	00:04:10	00:06:24	1.44	20.76	<	-	-	1	-	-	-	-	-	-	-	-	1	1	1	1			
					8	19:44:19	19:47:55	00:03:36	-	1.88	31.37	<	-	-	1	-	-	-	-	-	-	-	-	1	1	1	1			
					Totals	01:09:26	11:25:09	41.43	35.80	0	7	1	01:05:00	09:07:00	27.23	25.14	0	6	2											
					S	2/28/2006	4240	196	2	1	06:11:19	06:34:38	00:23:19	13:17:05	19.99	51.44	>	-	1	06:08:00	06:30:00	00:22:00	13:19:00	15.15	33.38	>	-	1	1	1
					2	19:51:43	20:11:12	00:19:29	-	18.77	57.79	>	-	1	19:49:00	20:11:00	00:22:00	-	15.38	35.41	>	-	1	1	1					
Totals	00:42:48	13:17:05	38.76	54.33	2	0	0	00:44:00	13:19:00	30.53	41.63	2	0	0																
S	2/28/2006	4242	192	1	1	11:31:34	11:33:46	00:02:12	00:26:27	1.06	28.79	>	-	1	11:30:00	11:37:00	00:07:00	00:28:00	2.74	29.84	>	-	1	1	1					
					2	12:00:13	12:04:29	00:04:16	00:06:01	1.86	26.11	>	-	1	12:05:00	12:10:00	00:05:00	00:05:00	3.95	30.04	>	-	1	1	1					
					3	12:10:30	12:20:58	00:10:28	00:02:59	8.24	47.22	>	-	1	12:15:00	12:19:00	00:04:00	00:20:00	2.62	29.22	>	-	1	1	1					
					4	12:23:57	12:46:24	00:22:27	00:02:12	9.11	24.34	>	-	1	-	-	-	-	-	-	-	1	1	1						
					5	12:48:36	12:55:00	00:06:24	00:38:53	4.18	39.22	>	-	1	12:39:00	12:54:00	00:15:00	00:31:00	4.65	27.30	>	-	1	1	1					
					6	13:33:53	13:43:40	00:09:47	00:54:00	5.44	33.37	>	-	1	13:25:00	13:40:00	00:15:00	00:55:00	4.66	27.28	>	-	1	1	1					
					7	14:37:40	14:54:39	00:16:59	00:48:34	9.00	31.80	>	-	1	14:35:00	14:54:00	00:19:00	00:44:00	8.30	30.51	>	-	1	1	1					
					8	15:43:13	15:49:16	00:06:03	00:09:09	1.66	16.50	>	-	1	15:38:00	15:48:00	00:10:00	00:10:00	2.07	30.59	>	-	1	1	1					
					9	15:58:25	16:01:11	00:02:46	00:02:16	0.32	7.01	>	-	1	-	-	-	-	-	-	-	-	1	1						
					10	16:03:27	16:04:43	00:01:16	00:10:40	0.30	14.05	>	-	1	-	-	-	-	-	-	-	-	1	1						
					11	16:15:23	16:36:58	00:21:35	-	9.41	26.16	>	-	1	15:58:00	16:36:00	00:38:00	-	7.38	27.97	>	-	1	1	1					
					Totals	01:44:13	03:21:11	50.58	29.12	0	4	7	01:53:00	03:13:00	36.37	19.31	0	6	2											
S	2/28/2006	4243	154	1	1	10:11:09	10:18:08	00:06:59	00:03:47	2.19	18.80	>	-	1	10:10:00	10:18:00	00:08:00	00:05:00	2.17	24.99	>	-	1	1	1					
					2	10:21:55	10:31:24	00:09:29	00:09:53	2.87	18.18	>	-	1	10:23:00	10:30:00	00:07:00	00:10:00	2.50	25.95	>	-	1	1	1					
					3	10:41:17	10:45:34	00:04:17	00:04:57	1.86	26.05	>	-	1	10:40:00	10:45:00	00:05:00	00:03:00	1.19	24.97	>	-	1	1	1					
					4	10:50:31	10:59:40	00:09:09	00:39:12	2.78	18.24	>	-	1	10:48:00	11:00:00	00:12:00	00:30:00	1.99	24.67	>	-	1	1	1					
					5	17:38:52	17:45:27	00:06:35	00:11:15	2.05	18.65	>	-	1	17:30:00	17:40:00	00:10:00	00:15:00	-	-	>	-	1	1	1					
					6	17:56:42	18:00:06	00:03:24	01:14:35	0.77	13.53	>	-	1	17:55:00	18:00:00	00:05:00	01:10:00	1.12	22.94	>	-	1	1	1					
					7	19:14:41	19:20:47	00:06:06	00:38:47	2.00	19.67	>	-	1	19:10:00	19:20:00	00:10:00	00:40:00	1.44	24.00	>	-	1	1	1					
					8	19:59:34	20:10:50	00:11:16	00:51:46	3.66	19.67	>	-	1	20:00:00	20:05:00	00:05:00	00:03:00	5.67	27.94	>	-	1	1	1					
					9	21:02:36	21:14:08	00:11:32	-	3.19	16.58	>	-	1	21:00:00	21:05:00	00:05:00	00:05:00	1.53	26.61	>	-	1	1	1					
					10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1						
					11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1						
Totals	01:08:47	09:54:12	21.36	18.63	0	6	3	01:16:00	09:49:00	20.14	15.90	0	6	5																
S	2/28/2006	4243	143	2	1	07:21:22	07:40:50	00:19:28	09:23:30	6.33	19.51	>	-	1	07:20:00	07:40:00	00:20:00	09:20:00	5.70	36.11	>	-	1	1	1					
2	17:04:20	17:19:50	00:15:30	-	7.15	27.67	>	-	1	17:00:00	17:20:00	00:20:00	-	5.72	34.42	>	-	1	1	1										
Totals	00:34:58	09:23:30	13.48	23.13	1	0	1	00:40:00	09:20:00	11.42	17.13	1	0	1																
S	2/28/2006	4244	161	1	1	06:57:43	07:08:28	00:10:45	09:43:15	3.34	18.63	>	-	1	06:50:00	07:00:00	00:10:00	09:40:00	1.94	29.47	>	-	1	1	1					
2	16:51:43	17:00:13	00:08:30	-	2.76	19.48	>	-	1	16:40:00	16:50:00	00:10:00	-	1.94	29.47	>	-	1	1	1										
Totals	00:19:15	09:43:15	6.10	19.01	2	0	0	00:20:00	09:40:00	3.88	11.64	2	0	0																
S	2/28/2006	4244	147	2	1	08:06:43	08:10:20	00:03:37	00:16:33	1.19	19.72	>	-	1	08:05:00	08:10:00	00:05:00	00:20:00	1.89	28.14	>	-	1	1	1					
					2	08:26:53	08:32:03	00:05:10	00:08:20	1.33	15.46	>	-	1	08:30:00	08:35:00	00:05:00	00:05:00	1.50	28.94	>	-	1	1	1					
					3	08:40:23	08:47:24	00:07:01	00:02:59	2.43	20.82	>	-	1	08:40:00	08:42:00	00:02:00	00:03:00	2.67	28.56	>	-	1	1	1					
					4	08:50:23	08:51:37	00:01:14	00:06:15	0.31	14.89	>	-	1	08:45:00	08:55:00	00:10:00	00:05:00	1.89	28.14	>	-	1	1	1					
					5	08:57:52	09:04:31	00:06:39	00:24:17	2.46	22.18	>	-	1	09:00:00	09:05:00	00:05:00	00:25:00	3.36	31.35	>	-	1	1	1					
					6	09:28:48	09:30:02	00:01:14	00:02:32	0.22	10.86	>	-	1	09:30:00	09:35:00	00:05:00	00:10:00	-	-	>	-	1	1						
					7	09:32:34	09:39:45	00:07:11	00:06:31	2.87	24.01	>	-	1	-	-	-	-	-	-	-	1	1							
					8	09:46:16	10:01:30	00:15:14	01:48:57	11.99	47.22	>	-	1	09:45:00	10:05:00	00:20:00	01:45:00	15.23	37.60	>	-	1	1	1					
					9	11:50:27	12:07:15	00:16:48	00:35:23	13.74	49.09	>	-	1	11:50:00	12:10:00	00:20:00	00:35:00	10.66	31.66	>	-	1	1	1					
					10	12:42:38	12:54:10	00:11:32	00:09:21	4.84	25.15	>	-	1	12:45:00	12:56:00	00:11:00	00:10:00	5.02	28.39	>	-	1	1	1					
					11	13:03:31	13:07:25	00:03:54	00:03:38	1.27	19.61	>	-	1	13:06:00	13:15:00	00:09:00	00:10:00	2.12	28.97	>	-	1	1	1					
					12	13:11:03	13:14:58	00:03:55	00:15:43	1.34	20.48	>	-	1	-	-	-	-	-	-	-	1	1							
					13	13:30:41	13:33:29	00:02:48	04:45:45	0.49	10.48	>	-	1	13:25:00	13:31:00	00:06:00	00:20:00	2.12	28.97	>	-	1	1	1					
					14	18:19:14	18:24:40	00:05:26	01:09:29	1.72	18.96	>	-	1	18:20:00	18:23:00	00:03:00	00:01:00	1.89	28.14	>	-	1	1	1					
					15	19:34:09	19:39:00	00:04:51	00:																					

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey											CATI Survey												
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D							
												H	W	O	N							H	W	O	N	H	W	O	N
S	2/28/2006	4251	186	1	1	04:35:43	04:36:41	00:00:58	00:02:36	0.27	16.91	-	-	-	-	04:45:00	04:50:00	00:05:00	00:02:00	2.12	28.97	-	-	-	-	1	1	1	1
					2	04:39:17	04:52:31	00:13:14	00:53:12	12.66	58.31	<	-	-	-	04:52:00	04:59:00	00:07:00	00:31:00	12.06	31.61	<	-	-	-	1	1	1	1
					3	15:45:43	16:06:15	00:20:32	00:13:48	13.09	38.26	<	-	-	1	15:30:00	15:45:00	00:15:00	00:20:00	13.92	37.71	<	-	-	1	1	1	1	
					4	16:20:03	16:23:03	00:03:00	00:41:58	1.01	20.11	<	-	-	1	16:05:00	16:10:00	00:05:00	00:20:00	-	-	<	-	-	1	1	1	1	
					5	17:05:01	17:09:09	00:04:08		1.20	17.48	<	-	-	1	16:30:00	16:35:00	00:05:00		-	-	<	-	-	1	1	1	1	
					Totals			00:41:52	11:51:34	28.44	40.75				1	3	1		00:37:00	11:13:00	28.10	45.57			1	3	1	1	
S	2/28/2006	4253	104	1	1	08:03:53	08:11:36	00:07:43	04:14:14	3.13	24.35	-	-	-	07:46:00	07:53:00	00:07:00	00:06:00	5.35	26.86	-	-	-	1	1	1	1		
					2	12:25:50	12:30:19	00:04:29	01:35:24	2.19	29.30	<	-	-	1	11:44:00	11:59:00	00:15:00	00:11:00	9.05	37.32	<	-	-	1	1	1	1	
					3	14:05:43	14:06:03	00:00:20	00:24:37	0.04	7.70	<	-	-	1	12:10:00	12:30:00	00:20:00	01:20:00	8.58	39.97	<	-	-	1	1	1	1	
					4	14:30:40	14:34:03	00:03:23	00:09:21	1.45	25.67	<	-	-	1	13:50:00	13:52:00	00:02:00	00:07:00	2.63	27.64	<	-	-	1	1	1	1	
					5	14:43:24	14:44:51	00:01:27	00:18:30	0.36	14.72	<	-	-	1	13:59:00	14:06:00	00:07:00	00:23:00	1.28	23.93	<	-	-	1	1	1	1	
					6	15:03:21	15:05:26	00:02:05	00:02:32	0.38	11.08	<	-	-	1	14:29:00	14:33:00	00:04:00	00:09:00	-	-	<	-	-	1	1	1	1	
					7	15:07:58	15:12:04	00:04:06		1.90	27.85	<	-	-	1	14:42:00	14:44:00	00:02:00	00:21:00	3.20	24.68	<	-	-	1	1	1	1	
					8							<	-	-	1	15:05:00	15:11:00	00:06:00		5.35	26.86	<	-	-	1	1	1		
					Totals			00:23:33	06:44:38	9.45	24.09				0	4	3		01:16:00	06:09:00	41.15	32.49			0	4	5	5	
S	2/28/2006	4253	145	2	1	05:32:08	05:44:56	00:12:48	06:11:31	6.21	29.12	-	-	-	05:25:00	05:30:00	00:05:00	06:25:00	7.39	32.20	-	-	-	1	1	1	1		
					2	11:56:27	12:05:57	00:09:30	01:34:04	4.94	31.17	<	-	-	1	11:55:00	13:50:00	01:55:00	09:15:00	7.86	32.93	<	-	-	1	1	1	1	
					3	13:40:01	13:52:33	00:12:32	09:14:08	8.68	41.55	<	-	-	1	23:05:00	23:24:00	00:19:00		8.58	39.97	<	-	-	1	1	1	1	
					4	23:06:41	23:21:37	00:14:56		9.12	36.63	<	-	-	1					-	-	<	-	-	1	1	1	1	
					Totals			00:49:46	16:59:43	28.94	34.90				1	1	2		02:19:00	15:40:00	23.83	30.29			1	1	1	1	
S	2/28/2006	4254	170	1	1	6:55:49	6:59:08	00:03:19	00:00:59	0.99	17.90	-	-	-	06:58:00	07:00:00	00:02:00	00:05:00	0.87	24.51	-	-	-	1	1	1	1		
					2	7:00:07	7:17:35	00:17:28	09:52:24	13.77	47.29	<	-	-	1	07:05:00	07:22:00	00:17:00	09:38:00	12.42	35.57	<	-	-	1	1	1	1	
					3	17:09:59	17:44:36	00:34:37	00:28:24	14.25	24.70	<	-	-	1	17:00:00	17:49:00	00:49:00	00:27:00	12.60	33.45	<	-	-	1	1	1	1	
					4	18:13:00	18:22:10	00:09:10	00:09:50	2.49	16.29	<	-	-	1	18:16:00	18:27:00	00:11:00	00:07:00	2.53	22.49	<	-	-	1	1	1	1	
					5	18:32:00	18:43:20	00:11:20	01:00:52	3.06	16.22	<	-	-	1	18:34:00	18:49:00	00:15:00	00:59:00	3.13	29.76	<	-	-	1	1	1	1	
					6	19:44:12	19:52:01	00:07:49		2.66	20.42	<	-	-	1	19:48:00	20:00:00	00:12:00		2.50	25.04	<	-	-	1	1	1	1	
					Totals			01:23:43	11:32:29	37.22	26.67				1	3	2		01:46:00	11:16:00	34.05	19.27			1	3	2	2	
S	2/28/2006	4254	177	2	1	6:29:58	6:49:03	00:19:05	00:45:59	5.23	16.46	-	-	-	06:32:00	06:50:00	00:18:00	00:55:00	5.40	24.16	-	-	-	1	1	1	1		
					2	7:35:02	7:40:39	00:05:37	00:00:24	0.74	7.95	<	-	-	1	07:05:00	07:46:00	00:41:00	00:05:00	-	-	<	-	-	1	1	1	1	
					3	7:41:03	7:49:59	00:08:56	04:55:52	1.04	6.99	<	-	-	1	07:51:00	08:00:00	00:09:00	04:50:00	-	-	<	-	-	1	1	1	1	
					4	12:45:51	13:01:57	00:16:06	04:05:09	3.18	11.86	<	-	-	1	12:50:00	12:52:00	00:02:00	00:01:00	-	-	<	-	-	1	1	1	1	
					5	17:07:06	17:14:16	00:07:10	01:25:00	1.54	12.87	<	-	-	1	12:53:00	13:01:00	00:08:00	03:59:00	3.78	25.43	<	-	-	1	1	1	1	
					6	18:19:56	18:46:50	00:27:54		2.07	16.39	<	-	-	1	17:00:00	17:20:00	00:20:00	01:22:00	1.26	20.71	<	-	-	1	1	1	1	
					7							<	-	-	1	18:42:00	19:00:00	00:18:00		1.94	24.61	<	-	-	1	1	1		
					Totals			01:04:28	11:12:24	13.81	12.85				0	2	4		01:16:00	11:12:00	12.38	17.77			0	2	5	5	
S	2/28/2006	4255	162	1	1	07:18:51	07:54:39	00:35:48	02:59:05	18.91	31.69	-	-	-	07:17:00	07:58:00	00:39:00	03:04:00	18.80	36.90	-	-	-	1	1	1	1		
					2	10:53:44	10:57:46	00:04:02	00:24:13	1.11	16.52	<	-	-	1	11:00:00	11:02:00	00:02:00	00:18:00	-	-	<	-	-	1	1	1	1	
					3	11:21:59	11:25:48	00:03:49	02:27:50	0.99	15.50	<	-	-	1	11:20:00	11:22:00	00:02:00	02:33:00	-	-	<	-	-	1	1	1	1	
					4	13:53:38	14:16:27	00:22:49	04:41:55	18.07	47.52	<	-	-	1	13:55:00	14:16:00	00:21:00	04:44:00	15.81	33.25	<	-	-	1	1	1	1	
					5	18:58:22	19:01:56	00:03:34	00:05:13	1.48	24.94	<	-	-	1	19:00:00	19:16:00	00:16:00	00:46:00	4.53	32.71	<	-	-	1	1	1	1	
					6	19:07:09	20:15:20	01:08:11	00:21:43	10.01	8.81	<	-	-	1	20:02:00	20:30:00	00:28:00	00:06:00	9.85	32.35	<	-	-	1	1	1	1	
					7	20:37:03	20:42:18	00:05:15	00:09:36	1.73	19.74	<	-	-	1	20:36:00	20:45:00	00:09:00	00:11:00	2.79	32.01	<	-	-	1	1	1	1	
					8	20:51:54	20:57:16	00:05:22		1.81	20.19	<	-	-	1	20:56:00	21:00:00	00:04:00		2.86	29.64	<	-	-	1	1	1	1	
					Totals			02:28:50	11:09:35	54.10	21.81				0	4	4		02:01:00	11:42:00	54.64	27.09			0	4	4	4	
S	2/28/2006	4255	105	2	1	10:01:58	10:02:46	00:00:48	00:16:09	0.13	10.05	-	-	-	10:00:00	10:05:00	00:05:00	00:10:00	-	-	-	-	-	1	1	1	1		
					2	10:24:40	10:29:26	00:04:46	00:05:17	2.08	26.18	<	-	-	1	10:15:00	10:30:00	00:15:00	00:03:00	4.87	30.66	<	-	-	1	1	1	1	
					3	10:34:43	10:56:21	00:21:38	00:11:17	15.95	44.23	<	-	-	1	10:33:00	10:50:00	00:17:00	00:10:00	16.22	39.07								

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																	
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D											
												H	W	O								H	W	O									
S	3/8/2006	4329	127	1	1	7:01:30	7:16:35	00:15:05	00:00:29	10.40	41.36	-	-	-	-	1	1	07:01:00	07:16:00	00:15:00	00:03:00	8.04	27.42	-	-	-	-	1	1				
					2	7:17:04	7:51:33	00:34:29	04:07:14	19.48	33.89	-	-	-	-	1	1	07:19:00	07:52:00	00:33:00	04:06:00	14.06	28.07	-	-	-	-	1	1				
					3	11:58:47	12:11:07	00:12:20	00:49:42	8.64	42.01	-	-	-	-	1	1	11:58:00	12:18:00	00:20:00	00:43:00	6.48	27.44	-	-	-	-	1	1				
					4	13:00:49	13:12:08	00:11:19	00:04:48	7.37	39.09	-	-	-	-	1	1	13:01:00	13:19:00	00:18:00	00:05:00	7.62	36.49	-	-	-	-	1	1				
					5	13:16:56	13:28:42	00:11:46	03:14:33	10.00	50.99	-	-	-	-	1	1	13:24:00	13:30:00	00:06:00	01:12:00	9.33	32.40	-	-	-	-	1	1				
					6	16:43:15	17:21:22	00:38:07	00:02:18	19.58	30.83	-	-	-	-	1	1	14:42:00	17:22:00	02:40:00	00:03:00	13.19	27.95	-	-	-	-	1	1				
					7	17:23:40	17:44:15	00:20:35	00:02:32	6.68	19.47	-	-	-	-	1	1																
					8	17:46:47	17:57:47	00:11:00		3.80	20.75	-	-	-	-	1	1	17:25:00	17:59:00	00:34:00		8.20	28.79	-	-	-	-	1	1				
Totals						02:34:41	08:21:36	85.95	33.34		0	2	6			04:46:00	06:12:00	66.92	14.04		0	2	5										
S	3/8/2006	4331	135	1	1	17:01:15	17:14:48	00:13:33	00:04:46	8.65	38.29	-	-	-	1	1	17:08:00	17:33:00	00:25:00	01:25:00	9.81	34.00	-	-	-	-	1	1					
					2	17:19:34	17:24:38	00:05:04	01:26:02	2.24	26.50	x	x	1	1																		
					3	18:50:40	19:01:32	00:10:52	00:06:41	7.37	40.70	x	x	1	1	18:58:00	19:11:00	00:13:00	00:07:00	4.95	30.56	x	x	1	1								
					4	19:08:13	19:19:37	00:11:24	00:14:46	5.54	29.14	x	x	1	1	19:18:00	19:29:00	00:11:00	00:15:00	4.68	28.71	x	x	1	1								
					5	19:34:23	19:42:00	00:07:37		4.22	33.21	-	-	-	-	1	1	19:44:00	19:46:00	00:02:00		3.41	37.82	-	-	-	-	1	1				
Totals						00:48:30	01:52:15	28.01	34.65		0	2	3			00:51:00	01:47:00	22.85	26.88		0	2	2										
S	3/8/2006	4332	144	1	1	06:32:37	06:49:02	00:16:25	10:40:17	10.91	39.89	-	-	-	1	1	06:25:00	06:50:00	00:25:00	10:40:00	11.48	35.62	-	-	-	-	1	1					
					2	17:29:19	17:44:23	00:15:04	00:04:56	10.79	42.98	-	-	-	-	1	1	17:30:00	17:50:00	00:20:00		11.44	36.03	-	-	-	-	1	1				
					3	17:49:19	17:50:49	00:01:30		0.69	27.61	-	-	-	-	1	1																
Totals						00:32:59	10:45:13	22.40	40.74		1	1	1			00:45:00	10:40:00	22.92	30.56		2	0	0										
S	3/8/2006	4335	110	1	1	16:09:15	16:14:55	00:05:40	00:18:59	1.19	12.62	-	-	-	1	1	15:30:00	15:40:00	00:10:00	00:10:00	3.52	24.33	-	-	-	-	1	1					
					2	16:33:54	16:48:44	00:14:50	00:02:10	3.20	12.93	-	-	-	-	1	1	15:50:00	16:00:00	00:10:00	00:25:00	3.21	22.42	x	x	1	1						
					3	16:50:54	16:53:13	00:02:19	00:07:35	0.34	8.85	x	x	1	1	16:25:00	16:45:00	00:20:00	00:15:00	5.44	30.48	x	x	1	1								
					4	17:00:48	17:01:04	00:00:16	00:21:31	0.02	3.98	x	x	1	1																		
					5	17:22:35	17:43:36	00:21:01	00:28:35	5.59	15.97	x	x	1	1	17:17:00	17:53:00	00:36:00	00:24:00	4.04	27.39	-	-	-	-	1	1						
					6	18:12:11	18:22:46	00:10:35	00:08:11	3.94	22.33	x	x	1	1																		
					7	18:30:57	18:31:40	00:00:43	00:00:21	0.16	12.98	x	x	1	1	17:00:00	17:20:00	00:20:00		4.52	30.20	-	-	-	-	1	1						
					8	18:32:01	19:01:37	00:29:36	01:12:40	10.65	21.59	x	x	1	1																		
					9	20:14:17	20:28:36	00:14:19		5.08	21.30	-	-	-	-	1	1																
Totals						01:39:19	02:40:02	30.17	18.23		0	4	5			01:00:00	00:50:00	16.69	16.69		0	2	2										
S	3/8/2006	4336	113	1	1	08:08:05	08:21:42	00:13:37	05:29:08	5.97	26.30	-	-	-	1	1	08:10:00	08:30:00	00:20:00	05:15:00	4.71	26.12	-	-	-	-	1	1					
					2	13:50:50	14:04:22	00:13:32	01:00:43	10.19	45.17	-	-	-	-	1	1	13:45:00	14:10:00	00:25:00	01:00:00	9.83	36.14	-	-	-	-	1	1				
					3	15:05:05	15:17:55	00:12:50	00:06:39	12.07	56.44	-	-	-	-	1	1	15:10:00	15:25:00	00:15:00	00:05:00	12.53	37.25	-	-	-	-	1	1				
					4	15:24:34	15:25:34	00:01:00	02:24:40	0.22	13.20	-	-	-	-	1	1	15:30:00	15:32:00	00:02:00	02:13:00	4.04	27.39	-	-	-	-	1	1				
					5	17:50:14	18:04:15	00:14:01	00:18:58	3.67	15.70	-	-	-	-	1	1	17:45:00	17:53:00	00:08:00	00:24:00	4.04	27.39	-	-	-	-	1	1				
					6	18:23:13	18:24:15	00:01:02	01:55:08	0.22	16.45	-	-	-	-	1	1	18:17:00	18:20:00	00:03:00	01:55:00	4.04	26.52	-	-	-	-	1	1				
					7	20:19:23	20:28:15	00:08:52		3.68	24.93	-	-	-	-	1	1	20:15:00	20:37:00	00:22:00		4.04	26.52	-	-	-	-	1	1				
Totals						01:04:54	11:15:16	36.08	33.36		1	3	3			01:35:00	10:52:00	35.15	22.20		1	3	3										
S	3/8/2006	4337	128	1	1	08:05:09	08:11:56	00:06:47	00:28:11	2.05	18.17	-	-	-	1	1	08:00:00	08:09:00	00:09:00	00:22:00	2.92	26.39	-	-	-	-	1	1					
					2	08:40:07	08:57:02	00:16:55	02:54:18	5.81	20.60	-	-	-	-	1	1	08:31:00	09:00:00	00:29:00	02:46:00	4.78	29.24	-	-	-	-	1	1				
					3	11:51:20	11:59:33	00:08:13	00:43:48	1.52	11.10	-	-	-	-	1	1	11:46:00	12:00:00	00:14:00	00:40:00	1.55	19.70	-	-	-	-	1	1				
					4	12:43:21	13:02:23	00:19:02	06:12:00	7.13	22.48	-	-	-	-	1	1	12:40:00	13:00:00	00:20:00	06:10:00	6.96	26.50	-	-	-	-	1	1				
					5	19:14:23	19:20:23	00:06:00	02:41:58	1.20	12.01	-	-	-	-	1	1	19:10:00	19:20:00	00:10:00	00:40:00	0.75	25.86	-	-	-	-	1	1				
					6	22:02:21	22:05:07	00:02:46		0.89	19.40	-	-	-	-	1	1	20:00:00	20:10:00	00:10:00		0.76	25.91	-	-	-	-	1	1				
Totals						00:59:43	13:00:15	18.61	18.70		0	4	2			01:32:00	10:38:00	17.72	11.56		0	4	2										
S	3/8/2006	4338	201	1	1	08:46:13	08:55:45	00:09:32	00:03:31	4.49	28.28	-	-	-	1	1	08:45:00	09:00:00	00:15:00	06:00:00	3.84	22.81	-	-	-	-	1	1					
					2	08:59:16	08:59:53	00:00:37	05:48:57	0.02	1.76	-	-	-	-	1	1	15:00:00	15:15:00	00:15:00	00:30:00	4.85	25.66	-	-	-	-	1	1				
					3	14:48:50	14:59:01	00:10:11	00:23:41	9.77	36.97	-	-	-	-	1	1	15:45:00	16:15:00	00:30:00		3.62	28.43	-	-	-	-	1	1				
					4	15:22:42	15:29:30	00:06:48		3.58	31.57	-	-	-	-	1	1																
Totals						00:27:08	06:16:09	14.36	31.76		1	1	2			01:00:00	06:30:00	12.31	12.31		1	1	1										
S	3/8/2006	4338	187	2	1																												

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey													
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification		Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification					
												H	W	H	B							H	B	H	W	H	B	H	B
S	5/2/2006	4404	196	2	1	7:32:07	7:37:48	00:05:41	00:00:24	1.21	12.78	-	-	1	1	07:30:00	07:35:00	00:05:00	00:05:00	-	-	-	-	1	1				
					2	7:38:12	7:40:27	00:02:15	00:26:34	0.68	18.29	-	-	1	1	07:40:00	07:45:00	00:05:00	00:20:00	-	-	-	-	1	1				
					3	8:07:01	8:10:52	00:03:51	00:00:32	1.24	19.40	-	-	1	1	08:05:00	08:10:00	00:05:00	00:05:00	-	-	-	-	1	1				
					4	8:11:24	8:15:53	00:04:29	00:14:14	1.35	18.12	-	-	1	1	08:15:00	08:20:00	00:05:00	00:10:00	-	-	-	-	1	1				
					5	8:30:07	8:34:15	00:04:08	00:00:16	1.44	20.96	-	-	1	1	08:30:00	08:35:00	00:05:00	00:05:00	2.32	28.94	-	-	-	-	1	1		
					6	8:34:31	8:38:51	00:04:20	02:45:59	1.48	20.48	-	-	1	1	08:40:00	08:45:00	00:05:00	02:40:00	2.32	28.94	-	-	-	-	1	1		
					7	11:24:50	11:26:58	00:02:08	01:18:54	0.62	17.32	-	-	1	1	11:25:00	11:30:00	00:05:00	01:05:00	-	-	-	-	1	1				
					8	12:45:52	12:51:00	00:05:08	00:19:51	2.08	24.36	-	-	1	1	12:35:00	12:45:00	00:10:00	00:30:00	1.69	27.93	-	-	-	-	1	1		
					9	13:10:51	13:16:04	00:05:13	00:07:54	2.22	25.57	-	-	1	1	13:15:00	13:25:00	00:10:00	00:05:00	1.69	27.93	-	-	-	-	1	1		
					10	13:23:58	13:26:50	00:02:52	01:52:58	1.04	21.68	-	-	1	1	13:30:00	13:35:00	00:05:00	01:40:00	-	-	-	-	1	1				
					11	15:19:48	15:26:23	00:06:35	00:04:15	1.60	14.57	-	-	1	1	15:15:00	15:20:00	00:05:00	00:05:00	-	-	-	-	1	1				
					12	15:30:38	15:34:15	00:03:37	00:28:19	1.04	17.20	-	-	1	1	15:25:00	15:30:00	00:05:00	00:05:00	-	-	-	-	1	1				
					13																								
					14																								
					15	16:02:34	16:11:54	00:09:20		2.87	18.43	-	-	1	1	16:05:00	16:10:00	00:05:00	00:25:00	2.32	28.94	-	-	-	-	1	1		
Totals					04:03:07	07:40:10			18.87	18.99			0	10	3	01:25:00	07:25:00	12.66	8.94			0	12	3					
S	5/2/2006	4405	170	2	1	6:40:19	6:55:28	00:15:09	00:03:26	9.70	38.40	-	-	1	1	06:37:00	06:54:00	00:17:00	02:26:00	8.98	40.30	-	-	1	1				
					2	6:58:54	9:54:26	02:55:32	01:01:18	22.30	7.62	-	-	1	1	09:20:00	11:17:00	01:57:00	00:23:00	6.52	36.56	-	-	1	1				
					3	10:55:44	11:19:04	00:23:20	00:25:40	14.67	37.71	-	-	1	1	11:40:00	11:56:00	00:16:00	00:09:00	3.66	26.55	-	-	1	1				
					4	11:44:44	11:46:10	00:01:26	00:00:04	0.14	5.79	-	-	1	1														
					5	11:46:14	11:57:49	00:11:35	00:09:29	4.85	25.10	-	-	1	1														
					6	12:07:18	12:13:34	00:06:16	00:51:50	1.79	17.14	-	-	1	1	12:05:00	12:11:00	00:06:00	00:54:00	3.22	30.96	-	-	1	1				
					7	13:05:24	13:15:13	00:09:49		4.73	28.89	-	-	1	1	13:05:00	13:14:00	00:09:00		6.42	38.52	-	-	1	1				
Totals					02:14:40	11:32:17			81.66	36.38			1	2	3	01:58:00	08:52:00	79.72	40.54			1	1	3					
S	5/2/2006	4405	305	1	1	04:23:41	04:27:54	00:04:13	02:46:30	0.79	11.23	-	-	1	1														
					2	07:14:24	08:00:08	00:45:44	08:01:50	36.99	48.53	-	-	1	1	07:15:00	08:00:00	00:45:00	08:13:00	28.95	43.66	-	-	1	1				
					3	16:01:58	16:09:38	00:07:40	00:11:55	3.74	29.27	-	-	1	1	16:13:00	16:18:00	00:05:00	00:06:00	4.03	28.99	-	-	1	1				
					4	16:21:33	16:28:06	00:06:33	00:26:16	3.49	31.99	-	-	1	1	16:24:00	16:34:00	00:10:00	00:23:00	4.04	28.75	-	-	1	1				
					5	16:54:22	18:01:09	01:06:47	00:05:46	34.87	31.33	-	-	1	1	16:57:00	17:50:00	00:53:00	00:10:00	33.40	43.77	-	-	1	1				
					6	18:06:55	18:10:38	00:03:43		1.78	28.77	-	-	1	1	18:00:00	18:05:00	00:05:00		2.30	42.07	-	-	1	1				
Totals					02:14:40	11:32:17			81.66	36.38			1	2	3	01:58:00	08:52:00	79.72	40.54			1	1	3					
S	5/2/2006	4407	307	1	1	06:57:37	07:20:42	00:23:05	04:43:49	14.43	37.50	-	-	1	1	06:57:00	07:21:00	00:24:00	04:44:00	11.77	39.12	-	-	1	1				
					2	12:04:31	12:09:38	00:05:07	00:40:11	1.84	21.63	-	-	1	1	12:05:00	12:10:00	00:05:00	00:40:00	1.48	23.62	-	-	1	1				
					3	12:49:49	12:54:12	00:04:23	02:13:17	1.75	23.99	-	-	1	1	12:50:00	12:55:00	00:05:00	04:05:00	1.48	23.62	-	-	1	1				
					4	15:07:29	15:08:12	00:00:43	01:24:01	0.56	46.69	-	-	1	1														
					5	16:32:13	16:36:02	00:03:49	00:26:24	0.82	12.83	-	-	1	1														
					6																								
					7	17:02:26	17:10:54	00:08:28	00:28:18	4.89	34.68	-	-	1	1	17:00:00	17:30:00	00:30:00	01:25:00	11.72	39.11	-	-	1	1				
					8	17:39:12	17:54:27	00:15:15	01:02:44	7.97	31.37	-	-	1	1														
					9	18:57:11	19:03:38	00:06:27	00:05:32	4.05	37.69	-	-	1	1	18:55:00	19:00:00	00:05:00	00:12:00	2.15	29.05	-	-	1	1				
					10	19:09:10	19:11:55	00:02:45		1.19	25.96	-	-	1	1	19:12:00	19:17:00	00:05:00		2.45	30.06	-	-	1	1				
Totals					01:10:02	11:04:16			37.51	32.13			1	1	7	01:14:00	11:06:00	31.05	25.16			2	2	2					
S	5/2/2006	4408	156	1	1	08:27:43	08:39:11	00:11:28	00:11:55	8.86	46.38	-	-	1	1	08:24:00	08:39:00	00:15:00	00:11:00	8.05	34.06	-	-	1	1				
					2	08:51:06	09:02:15	00:11:09	05:30:22	9.34	50.28	-	-	1	1	08:50:00	09:02:00	00:12:00	05:29:00	8.32	38.37	-	-	1	1				
					3	14:32:37	14:43:44	00:11:07	00:09:23	8.85	47.76	-	-	1	1	14:31:00	14:45:00	00:14:00	00:07:00	8.05	34.06	-	-	1	1				
					4	14:53:07	15:06:17	00:13:10	00:14:28	5.01	22.82	-	-	1	1	14:52:00	15:04:00	00:12:00	00:16:00	3.60	24.22	-	-	1	1				
					5	15:20:45	15:34:11	00:13:26	01:07:44	7.92	35.37	-	-	1	1	15:20:00	15:45:00	00:25:00	00:58:00	8.14	28.18	-	-	1	1				
					6	16:41:55	16:58:18	00:16:23	00:07:51	10.62	38.88	-	-	1	1	16:43:00	17:15:00	00:32:00	00:10:00	16.35	34.80	-	-	1	1				
					7	17:06:09	17:18:42	00:12:33	00:08:26	6.90	32.98	-	-	1	1														
					8	17:27:08	17:37:52	00:10:44		4.78	26.70	-	-	1	1	17:25:00	17:38:00	00:13:00		5.23	33.28	-	-	1	1				
Totals					01:40:00	07:30:09			62.27	37.36			0	4	4	02:03:00	07:11:00	57.74	28.17			0	4	3					
S	5/2/2006	4408	176	2	1	06:16:01	06:23:06	00:07:05	01:27:36	5.27	44.67	-	-	1	1	06:12:00	06:23:00	00:11:00	01:26:00	5.70	36.77	-	-	1	1				
					2	07:50:42	08:11:30	00:20:48	02:02:19	12.69	36.62	-	-	1	1	07:49:00	08:11:00	00:22:00	02:02:00	10.22	32.90	-	-	1	1				
					3	10:13:49	10:23:49	00:10:00	01:35:01	3.41	20.49	-	-	1	1	10:13:00	10:21:00	00:08:00	01:32:00	-	-	-	-	1	1				
					4	11:58:50	12:00:25	00:01:35	00:38:48	0.51	19.31	-	-	1	1	11:53:00	11:57:00	00:04:00	00:44:00	-	-	-	-	1	1				
					5	12:39:13	12:51:18	00:12:05	05:47:58	3.89	19.32	-	-	1	1	12:41:00	12:53:00	00:12:00	05:43:00	-									

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey											CATI Survey																											
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification			Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification																	
												H	W	O	HBW	HBO	NHB							H	W	O	HBW	HBO	NHB															
S	5/2/2006	4449	199	2	1	6:22:09	6:40:06	00:17:57	09:01:13	8.04	26.88	-	-	-	1	1	1	06:20:00	06:40:00	00:20:00	09:00:00	10.01	33.37	-	-	-	1	1	1	06:20:00	06:40:00	00:20:00	09:00:00	10.01	33.39	-	-	-	1	1	1			
					2	15:41:19	15:45:50	00:02:31	00:00:28	0.77	18.38	-	-	-	1	1	1	15:40:00	16:05:00	00:25:00																								
					3	15:44:18	16:01:12	00:16:54		7.54	26.75	-	-	-	1	1	1																											
					Totals			00:37:22	09:01:41	16.35	26.25	-	-	-	1	1	1				00:45:00	09:00:00	20.00	26.67	-	-	-	2	0	0														
S	5/2/2006	4451	171	2	1	07:57:46	08:04:34	00:06:48	00:03:55	3.72	32.80	-	-	-	1	1	1	07:45:00	07:53:00	00:08:00	00:02:00	2.32	28.94	-	-	-	1	1	1	07:45:00	07:53:00	00:08:00	00:02:00	2.32	28.94	-	-	-	1	1	1			
					2	08:08:29	08:50:10	00:41:41	00:34:47	28.48	41.00	-	-	-	1	1	1	08:10:00	08:50:00	00:40:00	03:38:00	17.67	39.90	-	-	-	1	1	1	08:10:00	08:50:00	00:40:00	03:38:00	17.67	39.90	-	-	-	1	1	1			
					3	12:31:57	12:37:00	00:05:03	00:09:25	2.48	29.44	-	-	-	1	1	1	12:28:00	12:35:00	00:07:00	00:08:00	12.28	29.44	-	-	-	1	1	1	12:28:00	12:35:00	00:07:00	00:08:00	12.28	29.44	-	-	-	1	1	1			
					4	12:46:25	12:49:35	00:03:10	00:18:23	1.42	26.89	-	-	-	1	1	1	12:43:00	12:47:00	00:04:00	00:17:00	3.45	24.35	-	-	-	1	1	1	12:43:00	12:47:00	00:04:00	00:17:00	3.45	24.35	-	-	-	1	1	1			
					5	13:07:58	13:22:22	00:14:24	00:34:38	6.53	27.21	-	-	-	1	1	1	13:04:00	13:25:00	00:21:00	03:35:00	4.52	25.42	-	-	-	1	1	1	13:04:00	13:25:00	00:21:00	03:35:00	4.52	25.42	-	-	-	1	1	1			
					6	17:06:00	18:11:16	01:05:16	00:26:22	29.65	27.26	-	-	-	1	1	1	17:00:00	18:12:00	01:12:00	00:23:00	20.81	39.94	-	-	-	1	1	1	17:00:00	18:12:00	01:12:00	00:23:00	20.81	39.94	-	-	-	1	1	1			
					7	18:37:38	18:41:13	00:03:35	00:05:01	2.12	35.56	-	-	-	1	1	1	18:35:00	18:45:00	00:10:00	00:05:00	2.15	29.05	-	-	-	1	1	1	18:35:00	18:45:00	00:10:00	00:05:00	2.15	29.05	-	-	-	1	1	1			
					8	18:46:14	18:52:28	00:06:14		6.61	25.09	-	-	-	1	1	1	18:50:00	19:00:00	00:10:00		2.45	30.06	-	-	-	1	1	1	18:50:00	19:00:00	00:10:00		2.45	30.06	-	-	-	1	1	1			
					Totals			02:26:11	08:28:31	77.01	31.61	-	-	-	1	3	4				03:02:00	08:13:00	62.74	28.52	-	-	-	1	3	5														
S	5/2/2006	4451	189	3	1	7:16:43	7:21:09	00:04:26	00:02:57	2.41	32.65	-	-	-	1	1	1	07:16:00	07:22:00	00:06:00	00:06:00	3.93	36.81	-	-	-	1	1	1	07:16:00	07:22:00	00:06:00	00:06:00	3.93	36.81	-	-	-	1	1	1			
					2	7:24:06	7:30:56	00:06:50	08:19:26	3.89	34.20	-	-	-	1	1	1	07:28:00	07:31:00	00:03:00	08:16:00	4.67	33.20	-	-	-	1	1	1	07:28:00	07:31:00	00:03:00	08:16:00	4.67	33.20	-	-	-	1	1	1			
					3	15:50:22	15:52:18	00:01:56	00:01:05	0.58	18.02	-	-	-	1	1	1	15:47:00	15:51:00	00:04:00	00:17:00	2.32	28.94	-	-	-	1	1	1	15:47:00	15:51:00	00:04:00	00:17:00	2.32	28.94	-	-	-	1	1	1			
					4	15:53:23	15:56:27	00:02:04	00:20:36	0.49	14.24	-	-	-	1	1	1																											
					5	16:16:03	16:25:05	00:09:02	00:03:36	3.50	23.24	-	-	-	1	1	1	16:08:00	16:21:00	00:13:00	00:05:00	3.75	31.16	-	-	-	1	1	1	16:08:00	16:21:00	00:13:00	00:05:00	3.75	31.16	-	-	-	1	1	1			
					6	16:28:41	16:42:40	00:13:59	00:07:30	4.76	20.42	-	-	-	1	1	1	16:26:00	16:39:00	00:13:00	00:07:00	3.64	32.99	-	-	-	1	1	1	16:26:00	16:39:00	00:13:00	00:07:00	3.64	32.99	-	-	-	1	1	1			
					7	16:50:10	16:52:10	00:02:00	00:04:39	0.22	6.47	-	-	-	1	1	1	16:46:00	16:48:00	00:02:00	00:03:00	1.20	30.25	-	-	-	1	1	1	16:46:00	16:48:00	00:02:00	00:03:00	1.20	30.25	-	-	-	1	1	1			
					8	16:56:49	17:01:56	00:05:07	00:01:43	2.23	26.18	-	-	-	1	1	1	16:51:00	16:58:00	00:07:00	00:01:00	2.46	28.72	-	-	-	1	1	1	16:51:00	16:58:00	00:07:00	00:01:00	2.46	28.72	-	-	-	1	1	1			
					9	17:03:39	17:13:45	00:10:06	00:28:34	3.07	18.21	-	-	-	1	1	1	16:59:00	17:10:00	00:11:00	00:27:00	2.67	28.56	-	-	-	1	1	1	16:59:00	17:10:00	00:11:00	00:27:00	2.67	28.56	-	-	-	1	1	1			
					10	17:42:19	17:44:03	00:01:44	00:04:13	0.33	11.37	-	-	-	1	1	1	17:37:00	17:40:00	00:03:00	00:03:00	-	-	-	-	-	1	1	1	17:37:00	17:40:00	00:03:00	00:03:00	-	-	-	-	-	1	1	1			
					11	17:48:16	17:51:57	00:03:41	00:07:23	0.60	9.74	-	-	-	1	1	1	17:43:00	17:48:00	00:05:00	00:06:00	-	-	-	-	-	1	1	1	17:43:00	17:48:00	00:05:00	00:06:00	-	-	-	-	-	1	1	1			
					12	17:59:20	18:09:23	00:10:03	00:13:21	3.55	21.17	-	-	-	1	1	1	17:54:00	18:05:00	00:11:00	00:13:00	-	-	-	-	-	1	1	1	17:54:00	18:05:00	00:11:00	00:13:00	-	-	-	-	-	1	1	1			
					13	18:22:44	18:30:09	00:07:25	00:06:56	2.76	22.34	-	-	-	1	1	1	18:18:00	18:33:00	00:15:00		2.45	30.06	-	-	-	1	1	1	18:18:00	18:33:00	00:15:00		2.45	30.06	-	-	-	1	1	1			
					14	18:37:05	18:37:44	00:00:39		0.18	16.20	-	-	-	1	1	1																											
					Totals			01:19:02	10:01:59	28.56	21.68	-	-	-	0	5	9				01:33:00	09:44:00	31.29	20.19	-	-	-	0	4	8														
S	5/2/2006	4451	301	1	1	06:44:56	06:57:34	00:12:38	04:29:47	5.08	24.13	-	-	-	1	1	1	06:45:00	06:58:00	00:13:00	04:28:00	4.75	30.68	-	-	-	1	1	1	06:45:00	06:58:00	00:13:00	04:28:00	4.75	30.68	-	-	-	1	1	1			
					2	11:27:21	11:39:29	00:12:08	00:12:47	4.59	22.68	-	-	-	1	1	1	11:26:00	11:40:00	00:14:00	00:10:00	2.99	31.64	-	-	-	1	1	1	11:26:00	11:40:00	00:14:00	00:10:00	2.99	31.64	-	-	-	1	1	1			
					3	11:52:16	11:57:09	00:04:53	00:07:10	1.78	21.91	-	-	-	1	1	1	11:50:00	11:56:00	00:06:00	00:09:00	1.59	27.98	-	-	-	1	1	1	11:50:00	11:56:00	00:06:00	00:09:00	1.59	27.98	-	-	-	1	1	1			
					4	12:04:19	12:13:48	00:09:29	00:32:50	4.69	29.67	-	-	-	1	1	1	12:05:00	12:14:00	00:09:00	00:32:00	5.29	30.91	-	-	-	1	1	1	12:05:00	12:14:00	00:09:00	00:32:00	5.29	30.91	-	-	-	1	1	1			
					5	12:46:38	12:56:09	00:09:31	00:43:08	4.53	28.59	-	-	-	1	1	1	12:46:00	12:56:00	00:10:00	00:43:00	5.29	30.91	-	-	-																		

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey													
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification	Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Classification		
												H	W	O									H	W	O				
S	5/16/2006	4539	183	1	1	07:58:51	08:10:37	00:11:46	00:17:30	8.23	41.98	-	-	-	-	1	07:55:00	08:17:00	00:22:00	00:08:00	-	-	-	-	1	1			
					2	08:28:07	08:41:29	00:13:22	00:02:37	1.39	51.14	x	x	x	1	08:25:00	09:59:00	01:34:00	02:02:00	-	-	-	-	x	x	x	1	1	
					3	08:44:06	08:52:08	00:08:02	00:10:37	5.67	42.38	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
					4	09:02:45	09:09:47	00:07:02	00:26:44	6.32	53.93	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					5	09:36:31	09:38:50	00:02:19	00:13:10	0.93	24.01	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					6	09:52:00	10:00:27	00:08:27	02:02:14	6.30	44.71	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					7	12:02:41	12:10:51	00:08:10	00:23:18	6.27	46.07	-	-	-	1	12:01:00	13:11:00	01:10:00	00:19:00	25.97	41.31	-	-	-	-	-	-	1	1
					8	12:34:09	13:11:30	00:37:21	00:20:05	34.75	55.83	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					9	13:31:35	13:59:31	00:27:56	00:05:12	29.00	62.28	-	-	-	1	13:30:00	13:59:00	00:29:00	00:06:00	25.67	41.30	-	-	-	-	-	-	x	1
					10	14:04:43	14:11:13	00:06:30	00:03:27	4.30	39.70	-	-	-	1	14:05:00	18:36:00	04:31:00	-	-	-	-	-	-	-	-	-	-	1
					11	14:14:40	14:20:48	00:06:08	00:02:35	3.45	33.72	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					12	14:23:23	14:25:08	00:01:45	00:05:07	0.17	5.72	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					13	14:30:15	14:55:02	00:24:47	00:06:23	17.26	41.79	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					14	15:01:25	15:03:56	00:02:31	00:02:18	0.06	1.50	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					15	15:06:14	15:08:44	00:02:30	02:40:07	0.03	4.09	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					16	17:46:51	17:50:03	00:03:12	00:05:47	0.09	1.70	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					17	17:55:50	17:57:49	00:01:59	00:04:01	0.70	21.10	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					18	18:01:50	18:34:30	00:32:40	-	23.48	43.12	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals						03:24:27	07:11:12	158.40	46.49	0	4	14	08:06:00	02:35:00	51.64	6.38	0	4	1	0	4	1	0	4	1				
S	5/16/2006	4540	305	1	1	10:58:54	11:02:56	00:04:02	01:25:01	1.53	22.79	-	-	-	1	10:58:00	11:05:00	00:07:00	01:23:00	1.11	24.13	-	-	-	1	1			
					2	12:27:57	12:34:01	00:06:04	00:07:35	2.20	21.75	-	-	-	1	12:28:00	12:35:00	00:07:00	00:07:00	1.81	20.92	-	-	-	-	x	1		
					3	12:41:36	12:43:33	00:01:57	00:01:00	0.15	4.62	-	-	-	1	12:42:00	12:43:00	00:01:00	00:02:00	-	-	-	-	-	-	-	x	1	
					4	12:44:33	12:51:53	00:07:20	02:48:43	2.37	19.36	-	-	-	1	12:45:00	12:52:00	00:07:00	02:49:00	1.81	20.92	-	-	-	-	-	-	x	1
					5	15:40:36	15:47:31	00:06:55	-	13.30	-	-	-	1	15:41:00	15:49:00	00:08:00	-	1.11	24.13	-	-	-	-	-	-	-	-	1
Totals						02:26:18	04:22:19	7.78	17.75	0	2	3	00:30:00	04:21:00	5.84	11.68	0	2	3	0	2	3	0	2	3				
S	5/16/2006	4541	302	1	1	7:05:05	7:05:56	00:00:51	00:00:34	0.15	10.60	-	-	-	1	07:00:00	07:55:00	00:55:00	08:35:00	15.25	33.22	-	-	-	1	1			
					2	7:06:30	7:46:38	00:40:08	00:00:15	21.49	32.13	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-		
					3	7:46:53	7:48:40	00:01:47	08:59:20	0.24	8.06	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-		
					4	16:48:00	17:22:01	00:34:01	-	20.61	36.35	-	-	-	1	16:30:00	17:17:00	00:47:00	-	15.30	32.65	-	-	-	-	-	-	1	
					Totals						01:16:47	09:00:09	42.48	33.20	1	1	2	01:42:00	08:35:00	30.55	17.97	2	0	0	1	2	0	0	
S	5/16/2006	4542	109	1	1	07:33:20	07:37:57	00:04:37	00:10:02	1.20	15.66	-	-	-	1	07:35:00	07:45:00	00:10:00	00:03:00	1.73	24.48	-	-	-	1	1			
					2	07:47:59	08:06:06	00:18:07	02:05:14	7.84	25.97	-	-	-	1	07:48:00	08:06:00	00:18:00	01:54:00	7.08	29.24	-	-	-	-	x	1		
					3	10:11:20	10:16:53	00:05:33	00:54:53	3.77	40.80	-	-	-	1	10:00:00	10:17:00	00:17:00	00:52:00	5.80	38.80	-	-	-	-	-	1		
					4	11:11:46	11:27:39	00:15:53	02:55:29	10.41	39.33	-	-	-	1	11:09:00	11:27:00	00:18:00	02:53:00	8.24	35.39	-	-	-	-	-	1		
					5	14:23:08	14:29:49	00:06:41	00:22:18	1.78	18.84	-	-	-	1	14:20:00	14:29:00	00:09:00	00:22:00	1.73	24.48	-	-	-	-	-	-	1	
					6	14:51:07	15:08:56	00:17:49	01:22:57	5.76	19.39	-	-	-	1	14:51:00	15:09:00	00:18:00	01:20:00	6.51	30.59	-	-	-	-	-	x	1	
					7	16:31:53	16:37:41	00:05:48	00:41:20	2.30	23.81	-	-	-	1	16:29:00	16:37:00	00:08:00	00:39:00	2.73	31.26	-	-	-	-	-	-	1	
					8	17:19:01	17:36:19	00:17:18	-	8.48	29.41	-	-	-	1	17:16:00	18:00:00	00:44:00	-	5.96	30.85	-	-	-	-	-	-	-	1
Totals						01:30:46	08:32:13	41.55	27.47	0	4	4	02:22:00	08:03:00	39.78	16.81	0	4	4	0	4	4							
S	5/16/2006	4544	200	1	1	06:02:19	06:23:52	00:21:33	13:55:58	14.66	40.80	-	-	-	1	05:50:00	06:25:00	00:35:00	13:50:00	13.21	29.75	-	-	-	1	1			
					2	20:19:50	20:39:54	00:20:04	-	13.20	39.47	-	-	-	1	20:15:00	20:41:00	00:26:00	-	13.19	29.88	-	-	-	-	-	1		
Totals						00:41:37	13:55:58	27.86	40.16	2	0	0	01:01:00	13:50:00	26.40	25.97	2	0	0	2	0	0							
S	5/16/2006	4544	168	2	1	05:42:08	06:04:40	00:22:32	03:40:19	16.06	42.78	-	-	-	1	05:30:00	05:42:00	00:12:00	04:01:00	16.87	34.68	-	-	-	1	1			
					2	09:44:59	10:00:30	00:15:31	01:02:27	11.64	44.99	-	-	-	1	09:43:00	09:59:00	00:16:00	01:02:00	12.53	36.71	-	-	-	-	x	1		
					3	11:02:57	11:11:12	00:08:15	00:17:25	2.92	21.20	-	-	-	1	11:01:00	11:10:00	00:09:00	00:17:00	3.92	31.24	-	-	-	-	-	x	1	
					4	11:28:37	11:33:51	00:05:14	01:33:53	1.81	20.74	-	-	-	1	11:27:00	11:33:00	00:06:00	01:32:00	1.68	25.71	-	-	-	-	-	-	x	1
					5	13:07:44	13:34:57	00:27:13	03:36:53	16.33	35.96	-	-	-	1	13:05:00	13:34:00	00:29:00	03:34:00	16.87	34.68	-	-	-	-	-	-	x	1
					6	17:11:20	17:46:29	00:35:09	00:16:24	15.15	25.86	-	-	-	1	17:08:00	17:45:00	00:37:00	00:16:00	14.87	36.73	-	-	-	-	-	-	x	1
					7	18:02:53	18:08:46	00:05:53	-	1.61	16.42	-	-	-	1	18:01:00	18:08:00	00:07:00	-	2.34	25.71	-	-	-	-	-	-	-	x
Totals						01:59:47	10:26:51	65.50	32.81	1	1	5	01:56:00	10:42:00	69.08	35.73	1	1	5										
S	5/16/2006	4547	110	1	1	6:07:14	6:47:54	00:40:40	05:00:25	26.69	39.38	-	-	-	1	06:05:00	06:45:00	00:40:00	05:00:00	22.21	42.21	-	-	-	1	1			
					2	11:48:19	11:51:10	00:02:51	00:46:57	0.59	12.50	-	-	-</															

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey														
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification			Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification			
												H	W	O	HBW	HBO	NHB							H	W	O	HBW	HBO	NHB	
S	5/16/2006	4559	146	1	1	6:28:30	6:49:13	00:20:43	08:44:01	14.61	42.32	- >	1	1	1	6:30:00	6:50:00	00:20:00	08:45:00	14.31	34.87	- >	1	1	1					
					2	17:33:14	15:53:06	00:19:52	03:33:39	12.48	37.70	- >	1	1	1	15:35:00	16:30:00	00:55:00	00:05:00	14.27	35.35	- >	1	1	1					
					3	15:56:45	16:03:27	00:06:42	00:08:24	2.06	18.43	- >	1	1	1															
					4	16:11:51	16:16:08	00:04:17	00:02:22	1.26	17.67	- >	1	1	1															
					5	16:18:30	16:24:08	00:05:38	00:00:39	0.91	9.71	- >	1	1	1															
					6	16:24:47	16:27:25	00:02:38	00:05:36	0.68	15.39	- >	1	1	1															
					7	16:33:01	16:37:31	00:04:30	01:02:05	0.93	12.40	- >	1	1	1															
					8																									
					9	17:39:36	18:12:47	00:33:11	00:02:36	18.07	32.67	- >	1	1	1															
					10	18:15:23	18:20:19	00:04:56	00:36:54	0.86	10.41	- >	1	1	1															
					11	18:57:13	18:58:33	00:01:20	00:00:05	0.24	10.85	- >	1	1	1															
					12	18:58:38	19:24:19	00:25:41	15:59:59	15.59	36.42	- >	1	1	1															
Totals						02:09:28	10:46:21	67.68	31.37																					
S	5/16/2006	4560	132	1	1	10:21:49	10:39:17	00:17:28	00:58:49	13.78	47.33	- >	1	1	1	10:15:00	10:40:00	00:25:00	01:50:00	63.77	22.51	- >	2	4	0					
					2	11:36:06	11:37:29	00:01:23	01:03:31	0.22	9.41	- >	1	1	1	12:30:00	12:35:00	00:05:00	01:00:00	13.38	42.23	- >	1	1	1					
					3	12:41:00	12:45:46	00:04:46	01:34:25	1.05	13.15	- >	1	1	1	13:35:00	13:50:00	00:15:00	00:50:00	15.26	40.60	- >	1	1	1					
					4	14:20:11	14:35:40	00:15:29	01:34:21	11.58	44.89	- >	1	1	1	14:40:00	15:00:00	00:20:00	01:08:00	13.80	33.58	- >	1	1	1					
					5	16:10:01	16:18:51	00:08:50	01:13:30	2.17	14.71	- >	1	1	1	16:08:00	16:20:00	00:12:00	01:10:00	2.38	22.35	- >	1	1	1					
					6	17:32:21	17:47:44	00:15:23	00:57:06	4.76	18.56	- >	1	1	1	17:30:00	17:45:00	00:15:00	00:58:00	7.09	29.54	- >	1	1	1					
					7	18:44:50	18:58:30	00:13:40	7:42	32.57	- >	1	1	1	18:43:00	19:05:00	00:22:00		6.42	31.06	- >	1	1	1						
Totals						01:16:59	07:19:42	40.97	31.93																					
S	5/16/2006	4564	128	1	1	06:29:53	07:17:50	00:47:57	10:03:59	31.76	39.74	- >	1	1	1	6:30:00	7:20:00	00:50:00	10:10:00	24.17	31.24	- >	1	1	1					
					2	17:21:49	16:29:59	01:08:10	00:20:50	31.58	27.79	- >	1	1	1	17:30:00	18:30:00	01:00:00	00:15:00	24.17	30.61	- >	1	1	1					
					3	18:50:49	18:03:24	00:12:35	01:57:55	7.46	35.57	- >	1	1	1	18:45:00	19:05:00	00:20:00	01:50:00	9.89	39.25	- >	1	1	1					
					4	21:01:19	21:14:58	00:13:39		7.45	32.76	- >	1	1	1	20:55:00	21:15:00	00:20:00		9.89	39.25	- >	1	1	1					
Totals						02:22:21	12:22:44	78.25	32.98																					
S	5/16/2006	4567	111	1	1	7:11:10	7:16:00	00:04:50	00:00:18	2.02	25.12	- >	1	1	1	07:08:00	07:19:00	00:11:00	00:03:00	2.39	31.45	- >	1	1	1					
					2	7:16:18	7:54:35	00:38:17	10:13:38	19.86	31.12	- >	1	1	1	07:22:00	07:50:00	00:28:00	10:15:00	17.19	32.79	- >	1	1	1					
					3	18:08:13	18:40:56	00:32:43		19.93	36.55	- >	1	1	1	18:05:00	18:42:00	00:37:00		16.77	30.07	- >	1	1	1					
Totals						01:15:50	10:13:56	41.81	33.08																					
S	5/16/2006	4569	182	1	1	8:40:46	8:49:21	00:08:35	01:05:30	6.02	42.10	- >	1	1	1	08:35:00	08:50:00	00:15:00	01:10:00	5.75	31.54	- >	1	1	1					
					2	9:54:51	10:07:22	00:12:31	00:42:59	4.31	20.68	- >	1	1	1	10:00:00	10:20:00	00:20:00	01:10:00	4.96	26.69	- >	1	1	1					
					3	10:50:21	10:55:56	00:05:35	00:51:24	1.33	14.32	- >	1	1	1															
					4	11:47:20	11:49:47	00:02:27	00:00:31	0.25	6.05	- >	1	1	1	11:30:00	11:40:00	00:10:00	03:20:00	2.90	20.69	- >	1	1	1					
					5	11:50:18	12:11:06	00:20:48	02:57:21	10.32	29.76	- >	1	1	1															
					6	15:08:27	15:13:46	00:05:19	00:04:35	1.54	17.40	- >	1	1	1	15:00:00	15:30:00	00:30:00	00:10:00	9.32	30.19	- >	1	1	1					
					7	15:18:21	15:38:58	00:20:37	02:54:33	14.20	41.33	- >	1	1	1	15:40:00	16:10:00	00:30:00		10.65	30.18	- >	1	1	1					
					8	18:33:31	18:44:02	00:10:31	01:31:35	3.68	21.02	- >	1	1	1															
					9	20:15:37	20:19:55	00:04:18	00:09:08	1.81	25.21	- >	1	1	1															
					10	20:29:03	20:32:55	00:03:52		1.74	27.01	- >	1	1	1															
Totals						01:34:33	10:17:36	45.21	28.69																					
S	5/16/2006	4570	106	1	1	06:48:19	06:56:41	00:08:22	00:04:43	7.72	55.39	- >	1	1	1	6:35:00	6:37:00	00:02:00	00:10:00	0.96	23.90	- >	1	1	1					
					2	07:01:24	07:30:46	00:29:22	07:48:21	23.57	48.16	- >	1	1	1	06:47:00	07:25:00	00:38:00	07:50:00	23.08	36.21	- >	1	1	1					
					3	15:19:07	15:48:38	00:29:31	01:23:47	25.44	51.72	- >	1	1	1	15:15:00	16:10:00	00:55:00	00:50:00	22.86	34.91	- >	1	1	1					
					4	17:12:25	17:29:41	00:17:16	01:05:09	10.03	34.85	- >	1	1	1	17:00:00	17:30:00	00:30:00	01:10:00	8.84	34.35	- >	1	1	1					
					5	18:34:50	18:43:29	00:08:39	00:02:18	4.31	29.91	- >	1	1	1	18:40:00	18:55:00	00:15:00	00:59:00	8.89	33.48	- >	1	1	1					
					6	18:45:47	18:48:48	00:03:01	00:04:01	0.58	11.50	- >	1	1	1															
					7	18:52:49	18:58:00	00:05:11	00:57:21	4.20	48.65	- >	1	1	1															
					8	19:55:21	19:56:41	00:01:20		0.28	12.54	- >	1	1	1	19:54:00	19:57:00	00:03:00	00:52:00	0.96	23.90	- >	1	1	1					
					9																									
Totals						01:42:42	11:25:40	76.13	44.48																					
S	5/16/2006	4570	129	2	1	11:56:37	12:02:15	00:05:38	00:02:21	3.09	32.93	- >	1	1	1	11:55:00	12:15:00	00:20:00	01:25:00	7.29	28.59	- >	1	1	1					
					2	12:04:36	12:12:34	00:07:58	01:28:55	3.77	28.42	- >	1	1	1															
					3	13:41:29	13:59:34	00:18:05	02:25:34	7.90	26.21	- >	1	1	1	13:40:00	14:00:00	00:20:00	02:24:00	7.29	28.48	- >	1	1	1					
					4	16:25:08	16:30:05	00:04:57	02:51:46	1.99	24.17	- >	1	1	1	16:24:00	16:30:00	00:06:00	02:50:00	1.77	28.32	- >	1	1	1					
					5	19:21:51	19:26:20	00:04:29		1.83	24.49	- >	1	1	1	19:20:00	19:27:00	00:07:00		1.77	28.32	- >	1	1	1					
Totals						00:41:07	06:48:36	18.59	27.13		</																			

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																		
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D												
												H	W	O								H	W	O										
S	5/16/2006	4581	122	2	1	8:39:41	8:40:43	00:01:02	00:02:17	0.34	19.60	-	-	-	-	1	1	08:35:00	08:40:00	00:05:00	00:05:00	3.99	25.04	-	-	-	-	1	1					
					2	8:43:00	8:57:04	00:14:04	00:26:17	7.73	32.97	x	x	x	x	1	1	08:45:00	08:55:00	00:10:00	00:30:00	4.87	30.41	x	x	x	x	1	1					
					3	9:23:21	9:30:05	00:06:44	00:03:50	2.77	24.70	x	x	x	x	1	1	09:25:00	09:50:00	00:25:00	00:05:00	14.93	40.39	x	x	x	x	1	1					
					4	9:33:55	9:50:37	00:16:42	00:06:00	13.19	47.38	x	x	x	x	1	1																	
					5	9:56:37	9:59:29	00:02:52	00:27:26	1.46	30.64	x	x	x	x	1	1	09:55:00	10:00:00	00:05:00	00:25:00	6.03	35.16	x	x	x	x	1	1					
					6	10:26:55	10:31:06	00:04:11	00:04:37	1.96	28.15	x	x	x	x	1	1	10:25:00	11:00:00	00:35:00	00:05:00	21.65	42.77	x	x	x	x	1	1					
					7	10:35:43	10:57:27	00:21:44	00:01:16	15.94	44.01	x	x	x	x	1	1																	
					8	10:58:43	11:04:00	00:05:17	00:02:31	1.52	17.30	x	x	x	x	1	1																	
					9	11:06:31	11:14:00	00:07:29	00:30:55	7.16	57.42	x	x	x	x	1	1	11:05:00	11:20:00	00:15:00	00:25:00	8.94	39.24	x	x	x	x	1	1					
					10	11:44:55	11:56:16	00:11:21	01:53:12	2.85	15.09	-	-	-	-	1	1	11:45:00	12:00:00	00:15:00	01:45:00	2.58	23.31	-	-	-	-	1	1					
					11	13:49:28	13:57:41	00:08:13	00:43:28	5.47	39.92	-	-	-	-	1	1	13:45:00	14:00:00	00:15:00	00:40:00	5.31	30.61	-	-	-	-	1	1					
					12	14:41:09	14:42:47	00:01:38	00:07:57	0.53	19.51	-	-	-	-	1	1	14:40:00	14:50:00	00:10:00	00:00:00			-	-	-	-	1	1					
					13	14:50:44	15:09:14	00:18:30	00:04:04	8.16	26.47	-	-	-	-	1	1	14:50:00	15:05:00	00:15:00	00:10:00	5.12	32.13	-	-	-	-	1	1					
					14	15:13:18	15:15:42	00:02:24	00:02:33	0.70	17.46	-	-	-	-	1	1	15:15:00	15:30:00	00:15:00	02:15:00	2.20	31.13	-	-	-	-	1	1					
					15	15:18:15	15:24:39	00:06:24	00:24:01	3.34	31.32	-	-	-	-	1	1																	
					16	17:48:40	18:02:02	00:13:22		5.75	25.81	-	-	-	-	1	1	17:45:00	18:00:00	00:15:00		6.35	32.43	-	-	-	-	1	1					
Totals						02:21:57	07:00:24	78.88	33.34	0	4	12	03:00:00	06:25:00	81.97	27.32	0	4	8															
S	5/16/2006	4582	140	1	1	7:24:25	7:36:52	00:12:27	04:50:52	6.53	31.48	-	-	-	1	1	07:20:00	07:35:00	00:15:00	04:50:00	5.21	24.56	-	-	-	1	1							
					2	12:27:44	12:33:39	00:05:55	00:04:17	1.01	10.20	-	-	-	-	1	12:25:00	12:35:00	00:10:00	00:05:00	0.76	22.69	-	-	-	1	1							
					3	12:37:56	12:41:01	00:03:05	00:00:31	1.10	21.36	-	-	-	-	1	12:40:00	12:50:00	00:10:00	01:35:00	0.76	22.69	-	-	-	1	1							
					4	12:41:32	12:44:56	00:03:24	01:44:00	0.56	9.87	-	-	-	-	1																		
					5	14:28:56	14:37:01	00:08:05	00:00:57	3.03	22.47	-	-	-	-	1	14:25:00	14:30:00	00:05:00	00:10:00	2.16	22.86	-	-	-	-	1	1						
					6	14:37:58	14:46:01	00:08:03	01:20:00	2.54	18.95	-	-	-	-	1	14:40:00	14:50:00	00:10:00	01:10:00	2.05	22.04	-	-	-	-	1	1						
					7	16:06:01	16:17:45	00:11:44	01:07:44	4.96	25.36	-	-	-	-	1	16:00:00	16:30:00	00:30:00	00:50:00	5.24	24.62	-	-	-	-	1	1						
					8	17:25:29	17:49:52	00:24:23	00:21:54	8.12	19.97	-	-	-	-	1	17:20:00	17:40:00	00:20:00	00:20:00	7.12	30.96	-	-	-	-	1	1						
					9	18:11:46	18:35:10	00:23:24	00:08:12	8.56	21.94	-	-	-	-	1	18:00:00	18:30:00	00:30:00	02:30:00	7.19	30.90	-	-	-	-	1	1						
					10	18:43:22	18:48:44	00:05:22	00:25:14	1.09	12.17	-	-	-	-	1																		
					11	19:13:58	19:15:23	00:01:25	00:06:10	0.39	16.65	-	-	-	-	1																		
					12	19:21:33	19:22:33	00:01:00	00:15:14	0.37	21.99	-	-	-	-	1																		
					13	19:37:47	19:41:59	00:04:12	00:03:08	0.89	12.73	-	-	-	-	1																		
					14	19:45:07	19:47:48	00:02:41	02:26:17	0.93	20.71	-	-	-	-	1																		
					15	22:14:05	22:21:38	00:07:33	00:00:51	1.95	15.48	-	-	-	-	1	21:00:00	21:15:00	00:15:00	00:00:00	2.17	23.13	-	-	-	-	1	1						
					16	22:22:29	22:29:12	00:06:43		2.06	18.43	-	-	-	-	1	21:15:00	21:30:00	00:15:00		2.44	22.77	-	-	-	-	1	1						
Totals						02:09:26	12:55:21	44.08	20.43	2	8	6	02:40:00	11:30:00	35.10	13.16	2	4	4															
S	5/17/2006	4584	108	1	1	07:33:08	07:38:01	00:04:53	00:00:21	1.30	15.92	-	-	-	1	1	07:00:00	07:30:00	00:30:00	00:05:00	2.73	25.47	-	-	-	1	1							
					2	7:38:22	7:42:48	00:04:26	02:05:45	1.18	16.03	-	-	-	-	1	07:35:00	08:05:00	00:30:00	01:40:00	2.73	25.47	-	-	-	1	1							
					3	9:48:33	9:54:18	00:05:45	00:51:58	2.02	21.08	-	-	-	-	1	09:45:00	09:54:00	00:09:00	00:51:00	2.50	25.30	-	-	-	1	1							
					4	10:46:16	10:53:05	00:06:49	00:33:30	2.84	25.01	-	-	-	-	1	10:45:00	10:53:00	00:08:00	00:33:00	2.78	27.17	-	-	-	1	1							
					5	11:26:35	11:35:15	00:08:40	00:03:22	2.51	17.39	-	-	-	-	1	11:26:00	11:41:00	00:15:00		1.45	23.97	-	-	-	1	1							
					6	11:38:37	11:39:05	00:00:28		0.09	11.06	-	-	-	-	1																		
Totals						00:31:01	03:34:56	9.94	19.23	0	4	2	01:32:00	03:09:00	12.19	7.95	0	4	1															
S	5/17/2006	4585	139	1	1	07:34:52	07:39:28	00:04:36	00:16:09	1.14	14.88	-	-	-	1	1	07:35:00	07:40:00	00:05:00	00:15:00	3.28	27.68	-	-	-	1	1							
					2	07:55:37	08:27:13	00:31:36	01:57:52	10.33	19.61	-	-	-	-	1	07:55:00	08:00:00	00:05:00	02:40:00	7.12	26.78	-	-	-	1	1							
					3	10:25:05	10:36:13	00:11:08	05:12:54	4.76	25.68	-	-	-	-	1	10:40:00	11:00:00	00:20:00	04:45:00	4.99	26.59	-	-	-	1	1							
					4	15:49:07	15:49:24	00:00:17	00:25:26	0.05	11.62	-	-	-	-	1	15:45:00	15:49:00	00:04:00	00:22:00			-	-	-	-	1	1						
					5	16:14:50	16:17:44	00:02:54	00:41:24	0.68	14.08	-	-	-	-	1	16:11:00	16:20:00	00:09:00	00:35:00	1.21	23.50	-	-	-	1	1							
					6	16:59:08	17:04:02	00:04:54	00:08:54	1.88	23.00	-	-	-	-	1	16:55:00	17:00:00	00:05:00	00:10:00	1.21	23.50	-	-	-	1	1							
					7	17:12:56	17:18:16	00:05:20	00:02:35	1.21	13.60	-	-	-	-	1	17:10:00	17:30:00	00:20:00		5.38	27.54	-	-	-	1	1							
Totals						01:08:04	08:45:14	23.85	20.55	0	2	6	01:08:00	08:47:00	23.19	20.46	1	1	5															
S	5/17/2006	4587	105	1	1	16:30:08	16:55:45	00:25:37	01:05:03	9.44	22.12	-	-	-	1	1	16:29:00	16:56:00	00:27:00	01:03:00	8.16	27.60	-	-	-	1	1							
					2	18:00:48	18:11:17	00:10:29	00:04:52	2.50	14.30	-	-	-	-	1	17:59:00	18:06:00	00:07:00	00:09:00	2.48	24.72	-	-	-	1	1							
					3	18:16:09	18:31:18	00:15:09	00:12:05	4.18	16.56	-	-	-	-	1	18:15:00	18:30:00																

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																					
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification				Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification											
												H	W	O	HBW	HBO	NHB							H	W	O	HBW	HBO	NHB								
S	5/17/2006	4592	306	1	1	7:37:05	7:41:50	00:04:45	00:00:53	1.37	17.28	-	-	-	1	1					07:35:00	07:40:00	00:05:00	00:05:00	-	-	-	1	1								
					2	7:42:43	7:44:52	00:02:09	02:53:04	0.74	20.64	<	-	-	1	1							07:45:00	07:50:00	00:05:00	02:40:00	-	-	-	1	1						
					3	10:37:56	10:50:40	00:12:44	01:39:32	10.17	47.93	<	-	-	1	1							10:30:00	10:44:00	00:14:00	01:51:00	9.20	35.09	<	-	-	1	1				
					4	12:30:12	12:37:47	00:07:35	00:11:31	3.10	24.56	<	-	-	1	1							12:35:00	12:45:00	00:10:00	00:20:00	2.63	24.24	<	-	-	1	1				
					5	12:49:18	13:03:34	00:14:16	00:21:28	8.42	35.41	<	-	-	1	1							13:05:00	13:15:00	00:10:00	00:15:00	7.12	23.85	<	-	-	1	1				
					6	13:25:02	13:34:55	00:09:53	00:51:15	5.96	36.16	<	-	-	1	1							13:30:00	13:40:00	00:10:00	00:50:00	5.22	29.22	<	-	-	1	1				
					7	14:26:10	14:46:23	00:20:13	00:53:13	13.31	39.51	<	-	-	1	1							14:30:00	14:49:00	00:19:00	00:46:00	11.78	35.45	<	-	-	1	1				
					8	15:39:36	15:41:40	00:02:04	00:02:08	0.83	24.07	<	-	-	1	1							15:35:00	15:40:00	00:05:00	00:03:00	-	-	-	1	1						
					9	15:43:48	15:45:34	00:01:46	01:49:17	0.71	24.19	<	-	-	1	1							15:43:00	15:48:00	00:05:00	01:47:00	-	-	-	1	1						
					10	17:34:51	17:48:13	00:13:22	00:54:19	7.24	32.50	<	-	-	1	1							17:35:00	17:50:00	00:15:00	00:50:00	6.52	32.60	<	-	-	1	1				
					11	18:42:32	18:44:14	00:01:42	00:17:15	0.25	8.91	<	-	-	1	1							18:40:00	18:42:00	00:02:00	00:18:00	-	-	-	1	1						
					12	19:01:29	19:08:53	00:07:24	00:13:18	2.14	17.37	<	-	-	1	1							19:00:00	19:08:00	00:08:00	00:17:00	1.70	22.06	<	-	-	1	1				
					13	19:22:11	19:31:02	00:08:51	00:25:10	1.38	9.33	<	-	-	1	1							19:25:00	19:30:00	00:05:00	00:35:00	1.52	22.57	<	-	-	1	1				
					14	19:56:12	20:05:30	00:09:18		4.48	28.92	<	-	-	1	1							20:05:00	20:15:00	00:10:00		3.90	26.96	<	-	-	1	1				
Totals						01:56:02	10:32:23	60.10	31.08					1	7	6			02:03:00	10:37:00	49.39	24.09				1	7	6									
S	5/17/2006	4594	125	1	1	11:19:02	11:23:47	00:04:45	00:02:22	1.86	23.45	-	-	-	1	1			11:08:00	11:22:00	00:14:00	00:25:00	2.83	25.46	<	-	-	1	1								
					2	11:26:09	11:26:23	00:00:14	00:21:57	0.02	6.23	<	-	-	1	1					11:47:00	11:55:00	00:08:00	00:01:00	2.83	25.46	<	-	-	1	1						
					3	11:48:20	11:54:58	00:06:38		2.11	19.08	<	-	-	1	1						11:56:00	11:57:00	00:01:00		-	-	-	1	1							
					Totals						00:11:37	00:24:19	3.99	20.61				0	2	1			00:23:00	00:26:00	5.66	14.77				0	2	1					
A	10/5/2005	1002	192	1	1														07:03:00	07:08:00	00:05:00	00:02:00	0.89	26.31	<	-	-	1	1								
					2																	07:10:00	07:15:00	00:05:00	05:52:00	0.89	26.31	<	-	-	1	1					
					3	13:07:56	13:18:00	00:10:04	00:12:39	3.86	22.99	-	>	-	1	1						13:07:00	13:20:00	00:13:00	00:15:00	5.48	33.18	<	-	-	1	1					
					4	13:30:39	13:47:02	00:16:23	00:23:17	13.98	51.20	-	>	-	1	1						13:35:00	13:48:00	00:13:00	00:49:00	12.02	35.97	<	-	-	1	1					
					5	14:10:19	14:18:26	00:08:07	00:04:54	2.28	16.82	<	-	-	1	1						14:37:00	15:22:00	00:45:00	01:08:00	12.42	35.72	<	-	-	1	1					
					6	14:23:20	14:43:31	00:20:11	00:00:14	15.77	46.88	<	-	-	1	1																					
					7	14:43:45	14:53:37	00:09:52	00:05:05	4.97	30.21	<	-	-	1	1																					
					8	14:58:42	15:02:33	00:03:51	01:43:35	0.50	7.74	<	-	-	1	1																					
					9	16:46:08	16:47:31	00:01:23	00:02:15	0.49	21.05	<	-	-	1	1							16:30:00	16:47:00	00:17:00	00:00:00	4.70	33.14	<	-	-	1	1				
					10	16:49:46	17:01:19	00:11:33	01:07:09	4.58	23.78	<	-	-	1	1							16:47:00	16:52:00	00:05:00	00:28:00	0.89	26.31	<	-	-	1	1				
					11	18:08:28	19:05:30	00:57:02	00:03:14	28.95	30.45	<	-	-	1	1							17:20:00	19:45:00	02:25:00	03:02:00	30.12	39.25	<	-	-	1	1				
					12	19:08:44	19:27:52	00:19:08	00:02:17	11.39	35.72	<	-	-	1	1																					
					13	19:30:09	19:34:32	00:04:23	00:02:17	2.02	27.71	<	-	-	1	1																					
					14	19:36:49	19:45:38	00:08:49	00:00:33	2.58	17.53	<	-	-	1	1																					
					15	19:46:11	19:56:10	00:09:59	00:00:14	3.85	23.16	<	-	-	1	1																					
					16	20:58:01	19:58:37	00:02:13	00:00:13	0.77	20.87	<	-	-	1	1																					
					17	19:58:50	20:00:08	00:01:18	00:02:53	0.71	32.89	<	-	-	1	1																					
					18	20:03:01	20:08:46	00:05:45	00:03:13	3.02	31.49	<	-	-	1	1																					
					19	20:11:59	20:16:34	00:04:35	01:49:02	1.58	20.67	<	-	-	1	1																					
					20	22:05:36	22:23:55	00:18:19	00:05:02	10.30	33.75	<	-	-	1	1																					
					21	22:28:57	23:12:25	00:43:28	00:30:03	35.45	48.93	<	-	-	1	1																					
					22	23:42:28	23:47:07	00:04:39	00:02:36	1.70	21.99	<	-	-	1	1							22:47:00	23:43:00	00:56:00		30.59	38.92	<	-	-	1	1				
					23	23:49:43	23:53:39	00:03:56		2.31	35.22	<	-	-	1	1																					
Totals						04:24:58	06:20:45	151.04	34.20				0	3	18			05:04:00	11:36:00	98.00	19.34				0	5	4										
A	10/5/2005	1003	187	1	1	11:09:37	11:13:22	00:03:45	03:25:35	0.66	10.64	<	-	-	1	1			11:07:00	11:08:00	00:01:00	00:02:00	24.62	39.27	<	-	-	1	1								
					2	14:38:57	14:46:13	00:07:16	01:56:42	2.16	17.80	<	-	-	1	1					11:10:00	11:15:00	00:05:00	03:23:00	24.72	39.08	<	-	-	1	1						
					3	16:42:55	16:45:51	00:02:56	00:16:32	0.77	15.76	<	-	-	1	1																					

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey											
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification		Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification			
												H	W	H	B							H	B	H	W	H	B
A	3/21/2006	2003	124	1	1	11:36:14	11:58:41	00:22:27	01:08:45	13.34	35.66	-	-	1	1	11:34:00	11:58:00	00:24:00	01:07:00	13.22	35.14	-	-	1	1		
					2	13:07:26	13:24:21	00:16:55	00:21:31	4.27	15.15	-	-	1	1	13:05:00	13:24:00	00:19:00	00:20:00	5.12	33.10	-	-	1	1		
					3	13:45:52	14:00:49	00:14:57	00:00:28	5.73	22.98	x	x	1	1	13:44:00	14:00:00	00:16:00	00:59:00	6.15	34.55	-	-	1	1		
					4	14:01:17	14:02:35	00:01:18	00:56:20	0.22	10.21	-	-	1	1												
					5	14:58:55	14:59:26	00:00:31	00:00:35	0.15	17.91	x	x	1	1	14:59:00	15:12:00	00:13:00	01:18:00	5.80	34.73	-	-	1	1		
					6	15:00:01	15:12:14	00:12:13	01:19:42	4.78	23.48	x	x	1	1												
					7	16:31:56	16:41:16	00:09:20	00:33:47	2.49	15.99	x	x	1	1	16:30:00	16:38:00	00:08:00	00:36:00	3.96	30.42	-	-	1	1		
					8	17:15:03	17:37:13	00:22:10		11.61	31.44	-	-	1	1	17:14:00	17:37:00	00:23:00		11.56	34.77	-	-	1	1		
					Totals			01:39:51	04:21:08	42.60	25.60			0	2	6			01:43:00	04:20:00	45.81	26.69			0	2	4
A	3/21/2006	2003	123	2	1	05:44:13	05:59:33	00:15:20	00:02:38	9.08	35.55	-	-	1	1	05:40:00	06:02:00	00:22:00	12:05:00	10.86	35.16	-	-	1	1		
					2	06:02:11	06:03:45	00:01:34	12:10:39	0.36	13.88	-	-	1	1												
					3	18:14:24	18:29:10	00:14:46		9.21	37.43	-	-	1	1	18:07:00	18:25:00	00:18:00		10.57	35.16	-	-	1	1		
					Totals			00:31:40	12:13:17	18.66	35.35			1	1	1			00:40:00	12:05:00	21.23	31.85			2	0	0
A	3/21/2006	2004	200	1	1	7:04:04	7:16:39	00:12:35	08:58:41	4.83	23.04	-	-	1	1	07:05:00	07:20:00	00:15:00	08:55:00	4.30	27.39	-	-	1	1		
					2	16:15:20	16:25:07	00:09:47	00:25:19	3.83	23.48	-	-	1	1	16:15:00	16:30:00	00:15:00	00:20:00	3.51	26.52	-	-	1	1		
					3	16:50:26	16:56:10	00:05:44		1.20	12.58	-	-	1	1	16:50:00	17:05:00	00:15:00		1.38	25.17	-	-	1	1		
					Totals			00:28:06	09:24:00	9.86	21.06			1	1	1			00:45:00	09:15:00	9.19	12.25			1	1	1
A	3/21/2006	2005	152	1	1	08:56:19	09:05:27	00:09:08	08:43:22	4.38	28.80	-	-	1	1	08:50:00	09:05:00	00:15:00	08:45:00	3.50	30.39	-	-	1	1		
					2	17:48:49	17:57:05	00:08:16	00:55:14	1.67	12.14	-	-	1	1	17:50:00	18:00:00	00:10:00	00:50:00	1.60	25.40	-	-	1	1		
					3	18:52:19	18:53:56	00:01:37	00:20:45	0.11	3.97	-	-	1	1	18:50:00	18:55:00	00:05:00	00:20:00	0.80	27.12	-	-	1	1		
					4	19:14:41	19:20:02	00:05:21		2.91	32.59	-	-	1	1	19:15:00	19:25:00	00:10:00		2.05	32.11	-	-	1	1		
Totals			00:24:22	09:59:21	9.07	22.33			1	1	2			00:40:00	09:55:00	7.95	11.93			1	1	2					
A	3/21/2006	2007	192	1	1	09:47:43	09:56:47	00:09:04	08:04:26	3.06	20.28	-	-	1	1	09:50:00	10:00:00	00:10:00	08:00:00	3.46	30.48	-	-	1	1		
					2	18:01:13	18:09:32	00:08:19		2.58	18.65	-	-	1	1	18:00:00	18:10:00	00:10:00		3.35	29.47	-	-	1	1		
					3			00:17:23	08:04:26	5.65	19.50	-	-	2	0	0			00:20:00	08:00:00	6.81	20.43	-	-	2	0	0
					Totals			00:27:38	12:18:01	11.74	25.64			0	1	7			00:47:00	12:28:00	16.54	21.11			0	2	7
A	3/21/2006	2007	171	2	1	09:17:20	09:23:39	00:06:19	04:21:26	2.93	27.82	-	-	1	1	09:15:00	09:22:00	00:07:00	04:43:00	3.80	30.12	-	-	1	1		
					2	13:45:05	13:47:50	00:02:45	00:05:29	0.99	21.65	-	-	1	1	14:05:00	14:08:00	00:03:00	00:07:00	1.21	22.48	-	-	1	1		
					3	13:53:19	13:55:21	00:02:02	00:03:03	0.20	5.99	-	-	1	1	14:15:00	14:18:00	00:03:00	00:06:00	1.21	22.48	-	-	1	1		
					4	13:58:24	13:59:02	00:00:38	06:42:35	0.13	12.57	-	-	1	1	14:24:00	14:25:00	00:01:00	06:10:00	-	-	-	-	1	1		
					5	20:41:37	20:45:17	00:03:40	00:10:54	2.07	33.95	-	-	1	1	20:35:00	20:45:00	00:10:00	00:10:00	1.66	23.27	-	-	1	1		
					6	20:56:11	21:01:46	00:05:35	00:51:46	2.25	24.13	-	-	1	1	20:55:00	20:57:00	00:02:00	00:03:00	-	-	-	-	1	1		
					7	21:53:32	21:58:05	00:04:33	00:02:48	2.50	32.96	-	-	1	1	21:00:00	21:03:00	00:03:00	00:52:00	1.99	25.51	-	-	1	1		
					8	22:00:53	22:02:49	00:01:56		0.66	20.99	-	-	1	1	21:55:00	22:05:00	00:10:00		3.87	30.43	-	-	1	1		
					Totals			00:28:18	12:18:01	11.74	25.64			0	1	7			00:47:00	12:28:00	16.54	21.11			0	2	7
A	3/21/2006	2008	127	1	1	06:49:36	07:01:28	00:11:52	09:20:11	8.49	42.91	-	-	1	1	06:45:00	07:00:00	00:15:00	09:20:00	7.24	35.32	-	-	1	1		
					2	16:21:39	16:36:07	00:14:28	00:57:50	6.25	25.91	-	-	1	1	16:20:00	16:35:00	00:15:00	01:00:00	5.74	35.51	-	-	1	1		
					3	17:33:57	17:41:36	00:07:39		3.48	27.26	-	-	1	1	17:35:00	17:45:00	00:10:00		3.08	28.47	-	-	1	1		
					Totals			00:33:59	10:18:01	18.21	32.15			1	1	1			00:40:00	10:20:00	16.06	24.09			1	1	1
A	3/21/2006	2008	115	2	1	7:28:43	7:55:06	00:26:23	02:29:43	13.01	29.59	-	-	1	1	07:30:00	07:56:00	00:26:00	02:26:00	11.93	36.39	-	-	1	1		
					2	10:24:49	10:31:16	00:06:27	01:14:25	2.60	24.14	-	-	1	1	10:22:00	10:31:00	00:09:00	01:13:00	3.33	32.92	-	-	1	1		
					3	11:45:41	11:51:29	00:05:48	00:00:23	1.85	19.18	-	-	1	1	11:44:00	12:01:00	00:17:00	06:02:00	3.33	32.92	-	-	1	1		
					4	11:51:52	11:56:44	00:04:52	06:08:35	1.68	20.73	-	-	1	1												
					5	18:05:19	18:42:05	00:36:46		11.90	19.42	-	-	1	1	18:03:00	18:51:00	00:48:00		11.97	36.33	-	-	1	1		
Totals			01:20:16	09:53:06	31.04	23.20			2	0	3			01:40:00	09:41:00	30.56	18.34			2	0	2					
A	3/21/2006	2009	185	1	1	8:05:15	8:06:20	00:01:05	00:03:40	0.51	28.49	-	-	1	1	08:00:00	08:03:00	00:03:00	00:05:00	3.65	29.96	-	-	1	1		
					2	8:10:00	8:12:04	00:02:04	00:13:49	0.21	6.06	-	-	1	1	08:08:00	08:11:00	00:03:00	00:13:00	1.20	29.39	-	-	1	1		
					3	8:24:42	8:35:19	00:10:37	00:00:21	4.91	27.75	-	-	1	1	08:24:00	08:34:00	00:10:00	00:02:00	3.52	30.00	-	-	1	1		
					4	8:35:40	8:50:04	00:14:24	04:40:24	5.46	22.73	-	-	1	1	08:36:00	08:49:00	00:13:00	04:40:00	3.59	29.47	-	-	1	1		
					5	13:30:28	13:53:24	00:22:56	00:16:25	10.00	26.17	-	-	1	1	13:29:00	13:59:00	00:30:00	00:09:00	10.33	31.78	-	-	1	1		
					6	14:09:49	14:32:43	00:22:54	00:35:42	9.29	24.34	-	-	1	1	14:08:00	14:31:00	00:23:00	00:36:00	10.72	32.03	-	-	1	1		
					7	15:08:25	15:12:45	00:04:20	03:16:52	0.83	11.45	-	-	1	1	15:07:00	15:12:00	00:05:00	03:15:00	1.20	29.39	-	-	1	1		
					8	18:29:37	18:42:43	00:13:06	01:22:35	4.33	19.84	-	-	1	1	18:27:00	18:44:00	00:17:00	01:20:00	4.67	31.52	-	-	1	1		
					9	20:05:18	20:16:05	00:10:47		4.42	24.59	-	-	1	1	20:04:00	20:15:00	00:11:00		4.66	31.59	-	-	1	1		
Totals			01:42:13	10:28:37	39.96	23.46																					

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey											CATI Survey												
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification			Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification		
												H	W	O	HBW	HBO	NHB							H	W	O	HBW	HBO	NHB
A	3/22/2006	2016	184	1	1	06:54:10	07:01:12	00:07:02	03:35:52	3.54	30.21	-	-	-	1	1	0	06:50:00	07:00:00	00:10:00	03:30:00	3.36	30.13	-	-	-	1	1	0
					2	10:37:04	10:38:25	00:01:21	01:54:48	0.19	8.27	-	-	-	1	1	0	10:30:00	10:35:00	00:05:00	00:05:00	1.16	23.75	-	-	-	1	1	0
					3	12:33:13	12:45:19	00:12:06	00:03:22	9.41	46.66	-	-	-	1	1	0	12:30:00	12:45:00	00:15:00	00:05:00	1.16	23.75	-	-	-	1	1	0
					4	12:48:41	12:58:57	00:10:16	00:16:06	3.39	19.79	-	-	-	1	1	0	12:50:00	12:55:00	00:05:00	00:20:00	2.18	26.27	-	-	-	1	1	0
					5	13:15:03	13:23:34	00:08:31	02:56:33	6.08	42.82	-	-	-	1	1	0	13:15:00	13:20:00	00:05:00	02:40:00	2.73	26.17	-	-	-	1	1	0
					6	16:20:07	16:26:36	00:06:29		2.81	26.00	-	-	-	1	1	0	16:00:00	16:15:00	00:15:00		3.36	30.13	-	-	-	1	1	0
					Totals						00:45:45	08:46:41	25.41	33.33				2	0	4			01:00:00	08:25:00	15.15	15.15			
A	3/22/2006	2020	129	1	1	08:04:49	08:19:17	00:14:28	00:17:08	5.03	20.84	-	-	-	1	1	0	08:05:00	08:20:00	00:15:00	00:25:00	6.48	32.37	-	-	-	1	1	0
					2	08:36:25	08:46:10	00:09:45	00:12:11	3.01	18.53	-	-	-	1	1	0	08:45:00	09:00:00	00:15:00	00:15:00	7.14	35.70	-	-	-	1	1	0
					3	08:58:21	09:18:17	00:19:56	00:34:02	8.79	26.46	-	-	-	1	1	0	09:15:00	09:35:00	00:20:00	00:25:00	5.06	33.51	-	-	-	1	1	0
					4	09:52:19	09:59:32	00:07:13	00:42:09	2.63	21.90	-	-	-	1	1	0	10:00:00	10:10:00	00:10:00	00:25:00	2.44	28.88	-	-	-	1	1	0
					5	10:41:41	10:45:53	00:04:12	00:11:58	1.66	23.70	-	-	-	1	1	0	10:35:00	10:45:00	00:10:00	00:15:00	1.91	28.51	-	-	-	1	1	0
					6	10:57:51	11:13:10	00:15:19	01:38:10	7.49	29.33	-	-	-	1	1	0	11:00:00	11:08:00	00:08:00	00:08:00	5.56	33.39	-	-	-	1	1	0
					7	12:51:20	13:16:19	00:24:59		19.19	46.09	-	-	-	1	1	0	13:00:00	13:25:00	00:25:00		17.77	39.30	-	-	-	1	1	0
Totals						01:35:52	03:35:38	47.80	29.91				0	2	5			01:48:00	03:32:00	46.36	25.76				0	2	6		
A	3/22/2006	2020	103	2	1	05:54:52	06:13:02	00:18:10	08:55:41	10.77	35.58	-	-	-	1	1	0	05:50:00	06:20:00	00:30:00	08:40:00	8.57	30.66	-	-	-	1	1	0
					2	15:08:43	15:27:22	00:18:39		11.15	35.86	-	-	-	1	1	0	15:00:00	15:30:00	00:30:00		8.60	30.64	-	-	-	1	1	0
Totals						00:36:49	08:55:41	21.92	35.72				2	0	0			01:00:00	08:40:00	17.17	17.17				2	0	0		
A	3/22/2006	2020	131	3	1	07:14:18	07:41:17	00:26:59		11.39	25.33	-	-	-	1	1	0	07:30:00	08:00:00	00:30:00		11.44	35.42	-	-	-	1	1	0
Totals						00:26:59	00:00:00	11.39	25.33				0	1	0			00:30:00	00:00:00	11.44	22.88				0	1	0		
A	3/22/2006	2024	102	1	1	10:54:14	11:00:18	00:06:04	00:17:38	2.50	24.70	-	-	-	1	1	0	10:53:00	11:00:00	00:07:00	00:18:00	4.44	32.57	-	-	-	1	1	0
					2	11:17:54	11:35:43	00:17:49	00:06:36	7.34	24.71	-	-	-	1	1	0	11:18:00	11:37:00	00:19:00	00:05:00	7.77	31.87	-	-	-	1	1	0
					3	11:42:19	11:49:25	00:07:06	00:31:00	3.48	29.38	-	-	-	1	1	0	11:42:00	11:50:00	00:08:00	00:23:00	4.27	30.36	-	-	-	1	1	0
					4	12:20:25	12:28:37	00:08:12	00:07:48	2.49	24.12	-	-	-	1	1	0	12:13:00	12:28:00	00:15:00	00:07:00	3.63	32.60	-	-	-	1	1	0
					5	12:34:25	12:41:43	00:07:18	00:02:05	4.15	34.11	-	-	-	1	1	0	12:35:00	12:43:00	00:08:00	00:01:00	5.31	35.92	-	-	-	1	1	0
					6	12:43:48	12:44:04	00:00:16	04:54:03	0.04	8.70	-	-	-	1	1	0	12:44:00	12:45:00	00:01:00	04:52:00	-	-	-	-	-	1	1	0
					7	17:38:07	17:52:05	00:13:58	00:05:08	4.75	20.41	-	-	-	1	1	0	17:37:00	17:54:00	00:17:00	00:04:00	4.44	32.57	-	-	-	1	1	0
					8	17:57:13	18:29:55	00:32:42	02:38:12	21.79	39.98	-	-	-	1	1	0	17:58:00	18:40:00	00:42:00	02:25:00	22.93	40.96	-	-	-	1	1	0
					9	21:08:07	21:31:52	00:23:45	00:02:11	21.24	53.65	-	-	-	1	1	0	21:05:00	21:34:00	00:29:00	00:06:00	22.94	41.26	-	-	-	1	1	0
					10	21:34:03	21:43:40	00:09:37	00:05:45	4.63	28.88	-	-	-	1	1	0	21:40:00	21:45:00	00:05:00	00:09:00	1.87	30.08	-	-	-	1	1	0
					11	21:49:25	21:51:37	00:02:12		0.88	23.97	-	-	-	1	1	0	21:54:00	21:57:00	00:03:00		3.02	33.49	-	-	-	1	1	0
Totals						02:06:59	08:50:24	73.28	34.63				1	1	9			02:34:00	08:30:00	80.62	31.41				1	1	9		
A	3/22/2006	2041	179	2	1	5:40:50	5:51:25	00:10:35	05:25:28	5.56	34.63	-	-	-	1	1	0	05:40:00	05:52:00	00:12:00	05:23:00	5.00	30.55	-	-	-	1	1	0
					2	11:16:53	11:27:00	00:10:12	03:16:52	5.04	31.53	-	-	-	1	1	0	11:16:00	11:28:00	00:12:00	03:16:00	5.05	30.58	-	-	-	1	1	0
					3	14:43:57	14:55:54	00:11:57	00:28:21	4.14	29.67	-	-	-	1	1	0	14:44:00	14:58:00	00:12:00	00:29:00	3.08	26.63	-	-	-	1	1	0
					4	15:24:15	15:28:56	00:04:41	01:24:55	0.81	20.79	-	-	-	1	1	0	15:25:00	15:30:00	00:05:00	01:25:00	0.32	21.82	-	-	-	1	1	0
					5	16:53:51	17:04:29	00:10:38	00:05:10	2.24	10.32	-	-	-	1	1	0	16:55:00	17:00:00	00:05:00	00:12:00	2.45	27.22	-	-	-	1	1	0
					6	17:09:39	17:11:32	00:01:53	00:32:26	0.43	12.63	-	-	-	1	1	0	17:18:00	17:20:00	00:02:00	00:25:00	0.61	20.00	-	-	-	1	1	0
					7	17:43:58	17:55:55	00:11:57	00:02:06	3.42	13.83	-	-	-	1	1	0	17:45:00	18:07:00	00:22:00	00:31:00	7.98	32.66	-	-	-	1	1	0
					8	17:58:01	18:06:38	00:08:37	00:51:36	4.95	17.19	-	-	-	1	1	0	18:38:00	19:00:00	00:22:00	00:20:00	7.77	33.28	-	-	-	1	1	0
					9	18:58:14	19:08:51	00:10:37	00:09:11	4.32	34.48	-	-	-	1	1	0	18:58:00	19:00:00	00:22:00	00:20:00	7.77	33.28	-	-	-	1	1	0
					10	19:18:02	19:24:45	00:06:43		1.75	24.41	-	-	-	1	1	0	19:20:00	19:25:00	00:05:00		1.57	27.23	-	-	-	1	1	0
Totals						01:27:50	12:16:05	32.86	22.31				2	2	6			01:38:00	12:07:00	33.83	20.71				2	2	5		
A	3/22/2006	2043	113	1	1	11:56:51	12:09:52	00:13:01	00:04:53	7.49	34.52	-	-	-	1	1	0	11:53:00	12:07:00	00:14:00	00:03:00	7.26	31.25	-	-	-	1	1	0
					2	12:14:45	12:25:44	00:10:59	00:49:23	3.54	19.33	-	-	-	1	1	0	12:10:00	12:22:00	00:12:00	00:40:00	2.61	30.17	-	-	-	1	1	0
					3	13:06:07	13:18:21	00:12:14	01:08:22	7.38	36.19	-	-	-	1	1	0	13:02:00	13:15:00	00:14:00	01:05:00	5.40	35.58	-	-	-	1	1	0
					4	14:26:43	14:36:04	00:09:21	00:14:21	5.28	33.87	-	-	-	1	1	0	1											

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey										
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification		Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D		Classification		
												H	W	H	B							H	B	H	W	H
A	4/25/2006	2139	109	1	1	8:08:09	8:09:28	00:01:19	00:02:17	0.60	27.43	-	-	1	1	08:00:00	08:10:00	00:10:00	00:00:00	1.86	28.91	-	-	1	1	
					2	8:11:45	8:13:04	00:01:19	00:03:32	0.03	19.43	-	-	1	1	08:10:00	08:20:00	00:10:00	00:10:00	1.86	28.91	-	-	1	1	
					3	8:13:36	8:16:54	00:03:18	00:06:19	1.21	22.01	-	-	1	1	-	-	-	-	-	-	-	-	-	-	
					4	8:23:13	8:23:58	00:00:45	00:13:12	0.15	12.38	-	-	1	1	-	-	-	-	-	-	-	-	-	-	
					5	8:37:10	8:42:27	00:05:17	00:01:35	2.38	27.01	-	-	1	1	08:30:00	08:35:00	00:05:00	00:05:00	4.39	31.28	-	-	1	1	
					6	8:44:02	8:44:46	00:00:44	00:00:15	0.11	8.61	-	-	1	1	08:40:00	08:50:00	00:10:00	00:05:00	-	-	-	-	1	1	
					7	8:45:01	8:45:42	00:00:41	00:06:19	0.10	8.85	-	-	1	1	-	-	-	-	-	-	-	-	-	-	
					8	8:52:01	8:59:16	00:07:15	00:03:54	2.28	18.83	-	-	1	1	08:55:00	09:05:00	00:10:00	04:30:00	4.40	31.28	-	-	1	1	
					9	9:03:10	9:07:59	00:04:49	04:15:50	1.64	20.39	-	-	1	1	-	-	-	-	-	-	-	-	-	-	
					10	13:23:49	13:33:44	00:09:55	00:03:23	4.27	25.85	-	-	1	1	13:35:00	13:40:00	00:05:00	00:05:00	4.39	31.28	-	-	1	1	
					11	13:37:07	13:38:00	00:00:53	01:10:20	0.41	27.99	-	-	1	1	13:45:00	13:50:00	00:05:00	00:03:00	-	-	-	-	1	1	
					12	14:48:20	14:55:06	00:06:46	00:21:56	2.04	18.13	-	-	1	1	13:53:00	13:55:00	00:02:00	00:50:00	-	-	-	-	1	1	
					13	15:17:02	15:23:18	00:06:16	00:14:55	1.47	14.07	-	-	1	1	14:45:00	14:55:00	00:10:00	00:20:00	2.56	30.48	-	-	1	1	
					14	15:38:13	15:45:13	00:07:00	00:01:00	2.65	22.67	-	-	1	1	15:30:00	15:40:00	00:10:00	00:05:00	1.86	28.91	-	-	1	1	
					15	15:46:13	15:52:11	00:05:58	01:01:07	2.70	27.14	-	-	1	1	15:45:00	15:55:00	00:10:00	01:05:00	3.53	31.19	-	-	1	1	
					16	16:53:18	17:03:14	00:09:56	00:02:23	5.26	31.77	-	-	1	1	-	-	-	-	3.60	31.21	-	-	1	1	
					17	17:05:37	17:21:45	00:16:08	03:58:43	8.09	30.08	-	-	1	1	17:00:00	17:20:00	00:20:00	04:00:00	13.28	36.84	-	-	1	1	
					18	21:20:28	21:40:07	00:19:39	-	13.68	41.77	-	-	1	1	21:20:00	21:55:00	00:35:00	-	13.35	36.88	-	-	1	1	
					Totals			01:47:58	11:44:00	49.46	27.49	-	-	1	7	10		02:27:00	11:28:00	55.08	22.48	-	-	2	6	6
A	4/25/2006	2140	190	1	1	7:23:49	7:25:56	00:02:07	00:00:18	0.78	21.97	-	-	1	1	07:22:00	07:25:00	00:03:00	00:01:00	-	-	-	-	1	1	
					2	7:26:14	7:33:28	00:07:14	00:01:25	2.74	22.76	-	-	1	1	07:26:00	07:28:00	00:02:00	00:01:00	1.63	27.17	-	-	1	1	
					3	7:34:53	7:41:20	00:06:27	02:43:09	2.21	20.56	-	-	1	1	07:29:00	07:35:00	00:06:00	00:00:00	1.63	27.17	-	-	1	1	
					4	10:24:29	10:29:38	00:05:09	00:07:46	2.31	26.91	-	-	1	1	07:35:00	07:40:00	00:05:00	02:42:00	1.63	27.17	-	-	1	1	
					5	10:37:24	10:39:16	00:01:52	00:37:33	0.40	12.86	-	-	1	1	10:22:00	10:29:00	00:07:00	00:06:00	1.90	28.86	-	-	1	1	
					6	11:16:49	11:21:18	00:04:29	01:41:33	2.55	34.06	-	-	1	1	10:35:00	10:38:00	00:03:00	00:37:00	3.43	30.76	-	-	1	1	
					7	13:02:51	13:07:00	00:04:09	01:36:13	2.05	29.64	-	-	1	1	11:15:00	11:20:00	00:05:00	01:41:00	1.63	27.17	-	-	1	1	
					8	14:43:13	14:45:30	00:02:17	00:04:20	0.74	19.49	-	-	1	1	13:01:00	13:06:00	00:05:00	01:36:00	-	-	-	-	1	1	
					9	14:49:50	14:58:51	00:09:01	00:01:02	1.74	11.58	-	-	1	1	14:42:00	14:44:00	00:02:00	00:07:00	-	-	-	-	1	1	
					10	14:59:53	15:05:20	00:05:27	00:00:24	1.64	18.09	-	-	1	1	14:51:00	14:58:00	00:07:00	00:01:00	-	-	-	-	1	1	
					11	15:05:44	15:08:28	00:02:44	01:20:15	0.95	20.85	-	-	1	1	14:59:00	15:04:00	00:05:00	00:01:00	-	-	-	-	1	1	
					12	16:28:43	16:33:12	00:04:29	00:08:11	2.05	27.48	-	-	1	1	15:05:00	15:07:00	00:02:00	01:20:00	1.63	27.17	-	-	1	1	
					13	16:41:23	16:47:47	00:06:24	00:15:09	3.27	30.69	-	-	1	1	16:27:00	16:32:00	00:05:00	00:07:00	3.30	28.70	-	-	1	1	
					14	17:02:56	17:06:08	00:03:12	00:55:30	1.51	28.23	-	-	1	1	16:39:00	16:47:00	00:08:00	00:14:00	1.88	27.45	-	-	1	1	
					15	18:01:38	18:06:48	00:05:10	00:00:19	2.03	23.76	-	-	1	1	17:01:00	17:05:00	00:04:00	00:55:00	1.63	27.17	-	-	1	1	
					16	18:07:07	18:12:48	00:05:41	01:23:55	2.03	21.47	-	-	1	1	18:00:00	18:06:00	00:06:00	01:23:00	1.63	27.17	-	-	1	1	
					17	19:36:43	19:41:46	00:05:03	00:00:33	2.05	24.34	-	-	1	1	18:06:00	18:12:00	00:06:00	01:23:00	1.63	27.17	-	-	1	1	
					18	19:42:19	19:48:30	00:06:11	-	2.08	20.20	-	-	1	1	19:35:00	19:41:00	00:06:00	00:00:00	1.63	27.17	-	-	1	1	
					19							-	-	1	1	19:41:00	19:47:00	00:06:00	00:00:00	1.63	27.17	-	-	1	1	
					20							-	-	1	1	19:47:00	19:48:00	00:01:00	-	-	-	-	-	-	-	
					Totals			01:27:06	10:57:35	33.15	22.84	-	-	0	12	6		01:34:00	10:52:00	23.55	15.03	-	-	0	12	8
A	4/25/2006	2140	138	2	1	6:01:11	6:11:13	00:10:02	00:53:00	4.92	29.39	-	-	1	1	05:55:00	06:05:00	00:10:00	01:00:00	5.27	31.00	-	-	1	1	
					2	7:04:13	7:16:37	00:12:24	01:02:24	5.09	24.65	-	-	1	1	07:05:00	07:15:00	00:10:00	00:55:00	5.27	31.00	-	-	1	1	
					3	8:19:01	8:22:16	00:03:15	00:00:19	1.58	29.14	-	-	1	1	08:10:00	08:15:00	00:05:00	00:01:00	1.90	28.86	-	-	1	1	
					4	8:22:35	8:28:57	00:06:22	08:00:40	2.18	20.59	-	-	1	1	08:16:00	08:30:00	00:14:00	07:50:00	1.90	28.86	-	-	1	1	
					5	16:29:37	16:37:29	00:07:52	00:46:45	3.15	24.03	-	-	1	1	16:20:00	16:38:00	00:18:00	00:00:00	-	-	-	-	1	1	
					6	17:24:14	17:34:36	00:10:22	00:00:36	3.42	19.81	-	-	1	1	16:38:00	17:00:00	00:22:00	00:36:00	11.72	34.27	-	-	1	1	
					7	17:34:42	17:37:14	00:02:32	00:00:48	0.62	14.74	-	-	1	1	17:36:00	17:58:00	00:22:00	00:02:00	13.54	35.98	-	-	1	1	
					8	17:38:02	17:51:48	00:13:46	00:02:46	4.25	18.51	-	-	1	1	-	-	-	-	-	-	-	-	-	-	
					9	17:54:34	17:58:34	00:04:00	-	1.58	23.64	-	-	1	1	18:00:00	18:05:00	00:05:00	-	1.90	28.86	-	-	1	1	
					Totals			01:10:35	10:46:48	26.79	22.77	-	-	0	6	3		01:46:00	10:24:00	41.50	23.49	-	-	0	6	2
A	4/25/2006	2141	134	1	1	07:43:18	08:06:37	00:23:19	04:30:36	9.56	24.60	-	-	1	1	07:27:00	08:00:00	00:33:00								

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey																
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification	Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification							
												H	W	O								H	W	O		H	W	O				
A	4/26/2006	2167	197	1	1	08:54:27	09:02:16	00:07:49	00:37:57	3.43	26.33	-	-	-	1	1	08:50:00	09:04:00	00:14:00	00:44:00	4.46	33.16	-	-	-	1	1					
					2	09:40:13	09:41:11	00:00:58	00:06:10	0.20	12.28	-	-	-	1	1	09:48:00	09:58:00	00:10:00	00:24:00	3.79	35.53	-	-	-	1	1					
					3	09:47:21	09:53:21	00:06:00	00:28:24	1.99	19.86	-	-	-	1	1	10:22:00	10:37:00	00:15:00	00:31:00	4.77	29.51	-	-	-	1	1					
					4	10:21:45	10:35:15	00:13:30	00:31:31	5.41	24.05	-	-	-	1	1	11:08:00	11:11:00	00:03:00	00:31:00	1.18	28.21	-	-	-	1	1					
					5	11:06:46	11:09:45	00:02:59	00:39:13	0.92	18.49	-	-	-	1	1	17:42:00	17:49:00	00:07:00	00:21:00	4.46	33.16	-	-	-	1	1					
					6	17:48:58	18:01:19	00:12:21	01:59:32	3.57	17.37	-	-	-	1	1	20:02:00	20:09:00	00:07:00		4.46	33.16	-	-	-	1	1					
					7	20:00:51	20:07:45	00:06:54		3.33	28.93	-	-	-																		
					Totals			00:50:31	10:22:47	18.85	22.38			0	4	3			00:56:00	10:23:00	23.12	24.77			0	4	2					
					A	4/26/2006	2168	199	1	1	7:26:07	7:54:13	00:28:06	00:02:18	8.83	18.85	-	-	-	1	1	07:15:00	07:30:00	00:15:00	00:15:00	3.16	28.77	-	-	-	1	1
										2	7:56:31	8:01:02	00:04:31	02:21:26	1.23	16.40	-	-	-	1	1	07:45:00	08:00:00	00:15:00	08:07:00	5.55	30.19	-	-	-	1	1
3	10:22:28	10:30:54	00:08:26	00:08:32						1.63	11.57	-	-	-	1	1																
4	10:39:26	10:42:16	00:02:50	02:33:33						0.72	15.17	-	-	-	1	1																
5	13:15:49	13:17:25	00:01:36	00:01:39						0.39	14.53	-	-	-	1	1																
6	13:19:04	13:21:17	00:02:13	00:43:42						0.63	16.95	-	-	-	1	1																
7	14:04:59	14:10:40	00:05:41	02:57:57						1.26	13.28	-	-	-	1	1																
8	17:08:37	17:12:36	00:03:59	00:02:31						0.74	11.18	-	-	-	1	1	16:07:00	16:10:00	00:03:00	00:50:00	0.95	24.68	-	-	-	1	1					
9	17:15:07	17:36:33	00:21:26	00:06:40						4.75	13.31	-	-	-	1	1	17:00:00	17:15:00	00:15:00	00:01:00	5.82	27.94	-	-	-	1	1					
10	17:43:13	17:51:29	00:08:16							2.93	21.24	-	-	-			17:16:00	17:30:00	00:14:00		3.11	29.48	-	-	-	1	1					
Totals			01:27:04	08:58:18	23.10	15.92			0	2	8			01:02:00	09:13:00	18.59	17.99			0	2	3										
A	4/26/2006	2174	105	1	1	06:47:53	06:50:27	00:02:34	00:05:53	1.41	33.04	-	-	-	1	1	06:43:00	06:48:00	00:05:00	00:03:00	0.95	27.67	-	-	-	1	1					
					2	06:56:20	07:01:47	00:05:27	05:36:55	2.00	22.06	-	-	-	1	1	06:51:00	07:01:00	00:10:00	05:39:00	0.95	27.67	-	-	-	1	1					
					3	12:38:42	12:42:04	00:03:22	00:17:07	1.13	20.06	-	-	-	1	1	12:40:00	12:47:00	00:07:00	00:11:00	2.99	28.52	-	-	-	1	1					
					4	12:59:11	13:04:04	00:04:53	00:02:09	3.01	36.99	-	-	-	1	1	12:58:00	13:05:00	00:07:00	00:12:00	3.59	28.64	-	-	-	1	1					
					5	13:06:13	13:06:46	00:00:33	00:10:50	0.09	10.27	-	-	-	1	1																
					6	13:17:36	13:19:58	00:02:22	00:18:56	1.05	26.63	-	-	-	1	1	13:17:00	13:21:00	00:04:00	00:17:00	3.46	31.65	-	-	-	1	1					
					7	13:38:54	13:39:54	00:01:00	00:26:43	0.12	7.46	-	-	-	1	1	13:38:00	13:41:00	00:03:00	00:25:00	-	-	-	-	-	-	-	-	-	-		
					8	14:06:37	14:15:46	00:09:09		3.93	25.75	-	-	-			14:06:00	14:17:00	00:11:00		6.42	31.83	-	-	-	1	1					
					Totals			00:29:20	06:58:33	12.75	26.08			0	4	4			00:47:00	06:47:00	18.36	23.44			0	4	3					
					A	4/26/2006	2175	172	1	1	10:51:09	10:52:29	00:01:20	00:11:51	0.48	21.79	-	-	-	1	1	10:45:00	10:50:00	00:05:00	00:10:00	1.11	31.71	-	-	-	1	1
2	11:04:20	11:08:50	00:04:30	01:16:35						1.90	25.31	-	-	-	1	1	11:00:00	11:07:00	00:07:00	01:13:00	2.88	34.29	-	-	-	1	1					
3	12:25:25	12:25:46	00:00:21	01:18:57						0.04	7.06	-	-	-	1	1	12:20:00	12:25:00	00:05:00	00:20:00	1.79	32.06	-	-	-	1	1					
4																12:45:00	12:50:00	00:05:00	00:55:00	-	-	-	-	-	-	-	-					
5	13:44:43	13:45:24	00:00:41	00:13:34						0.02	2.10	-	-	-	1	1	13:45:00	13:50:00	00:05:00	00:10:00	-	-	-	-	-	-	-					
6	13:58:58	14:07:14	00:08:16	00:23:07						3.00	21.80	-	-	-	1	1	14:00:00	14:10:00	00:10:00	00:20:00	2.66	35.87	-	-	-	1	1					
7	14:30:21	14:36:19	00:05:58	00:17:37						2.30	23.17	-	-	-	1	1	14:30:00	14:40:00	00:10:00	00:05:00	3.00	34.29	-	-	-	1	1					
8	14:53:56	14:58:46	00:04:50							1.99	24.69	-	-	-	1	1	14:45:00	14:55:00	00:10:00		3.00	34.29	-	-	-	1	1					
Totals			00:25:56	03:41:41						9.74	22.54			0	4	3			00:57:00	03:13:00	14.44	15.20			0	4	4					
A	4/26/2006	2176	307	1						1	8:24:37	8:41:32	00:16:55	00:16:55	6.02	21.35	-	-	-	1	1	08:00:00	08:20:00	00:20:00	00:40:00	6.02	30.00	-	-	-	1	1
					2	8:58:27	9:13:33	00:15:06	00:50:15	6.11	24.28	-	-	-	1	1	09:00:00	09:30:00	00:30:00	00:30:00	5.98	29.95	-	-	-	1	1					
					3	10:03:48	10:10:10	00:06:22	00:04:02	3.82	36.00	-	-	-	1	1	10:00:00	10:30:00	00:30:00	02:20:00	19.95	39.93	-	-	-	1	1					
					4	10:14:12	10:36:21	00:22:09	01:56:32	16.57	44.90	-	-	-	1	1																
					5	12:32:53	12:34:05	00:01:12	00:05:18	0.11	5.29	-	-	-	1	1																
					6	12:39:23	12:47:11	00:07:48	01:17:51	1.81	13.92	-	-	-	1	1	12:50:00	13:00:00	00:10:00	01:05:00	3.32	34.11	-	-	-	1	1					
					7	14:05:02	14:28:25	00:23:23	00:22:04	16.96	43.52	-	-	-	1	1	14:05:00	14:27:00	00:22:00	00:43:00	11.09	40.13	-	-	-	1	1					
					8	14:50:29	14:52:49	00:02:20	00:13:56	0.88	22.65	-	-	-	1	1																
					9	15:06:45	15:15:38	00:08:53	00:02:15	2.52	17.01	-	-	-	1	1	15:10:00	15:19:00	00:09:00	00:21:00	4.87	31.56	-	-	-	1	1					
					10	15:17:53	15:36:39	00:18:46	01:11:64	6.23	26.67	-	-	-	1	1	15:40:00	16:00:00	00:20:00	01:05:00	6.11	32.88	-	-	-	1	1					
11	16:53:22	17:55:51	01:02:29	02:45:06	16.18	15.53	-	-	-	1	1	17:05:00	17:30:00	00:25:00	03:30:00	14.82	34.94	-	-	-	1	1										
12	20:40:57	21:05:05	00:24:08		15.91	39.55	-	-	-			21:00:00	21:30:00	00:30:00		14.74	36.47	-	-	-	1	1										
Totals			03:29:31	09:10:57	95.23	27.27			0	6	6			03:16:00	10:14:00	86.90	26.60			0	6	3										
A	4/26/2006	2176	174	2	1	7:06:52	7:13:23	00:06:31	00:14:06	3.89	35.80	-	-	-	1	1	07:15:00	07:22:00	00:07:00	00:10:00	3.44	30.26	-	-	-	1	1					
					2	7:27:29	7:37:22	00:09:53	00:02:33	5.27	32.02	-	-	-	1	1	07:32:00	07:37:00	00:05:00	00:02:00	6.98	37.66	-	-	-	1	1					
					3	7:39:55	7:43:03	00:03:08	00:00:13	0.27	5.25	-	-	-	1	1	07:39:00	07:41:00														

Study Area	Travel Date	HH ID	GPS ID	Veh. ID	Trip ID	GPS Survey										CATI Survey													
						Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification			Begin Time	End Time	Trip Duration	Activity Time	Distance (mi)	Speed (mph)	O/D			Classification		
												H	W	O	H	B	N							H	B	N	H	W	O
A	5/17/2006	2208	181	2	1	08:12:48	08:46:56	00:34:08	07:23:26	11.70	20.56	-	-	-	1	1	1	08:10:00	08:43:00	00:33:00	07:42:00	9.29	34.05	-	-	-	1	1	1
					2	16:10:22	16:42:37	00:32:15	11.88	22.10	-	-	-	1	1	1	16:25:00	16:55:00	00:30:00	07:42:00	9.19	33.91	-	-	-	1	1	1	
Totals						01:06:23	07:23:26	23.58	21.31					1	0	1	01:03:00	07:42:00	18.48	17.60				2	0	0			
A	5/17/2006	2209	316	1	1	14:51:30	14:52:37	00:01:07	00:09:00	0.17	9.23	-	-	-	1	1	14:45:00	14:48:00	00:03:00	00:07:00	0.80	22.54	-	-	-	1	1	1	
					2	15:01:37	15:09:10	00:07:33	00:20:14	2.85	22.66	x	x	x	1	1	14:55:00	15:04:00	00:09:00	00:16:00	2.47	28.45	x	x	x	1	1	1	
Totals						00:02:49	00:29:14	2.92	22.65								00:06:00	00:23:00	3.27	25.49				1	1	1			
A	5/17/2006	2214	176	1	1	10:13:43	10:16:32	00:02:49	00:08:28	1.66	35.36	-	-	-	1	1	10:30:00	10:40:00	00:10:00	00:15:00	3.69	32.32	-	-	-	1	1	1	
					2	10:25:00	10:35:18	00:10:18	00:01:43	6.46	37.61	x	x	x	1	1	10:55:00	11:10:00	00:15:00	00:50:00	-	-	x	x	x	1	1	1	
Totals						00:24:37	08:45:52	9.69	23.62					0	3	2	00:42:00	05:28:00	10.01	14.30				0	2	3			
A	5/17/2006	2216	144	1	1	16:17:43	16:28:34	00:10:51	00:39:30	7.73	42.75	-	-	-	1	1	16:15:00	16:30:00	00:15:00	00:35:00	7.58	37.37	-	-	-	1	1	1	
					2	17:08:04	17:19:38	00:11:34	00:08:58	2.68	13.89	x	x	x	1	1	17:05:00	17:15:00	00:10:00	00:15:00	2.60	28.78	x	x	x	1	1	1	
Totals						00:37:35	01:04:14	17.52	27.96					0	2	2	00:45:00	01:15:00	16.66	22.21				0	2	2			
A	5/17/2006	2216	167	2	1	09:02:52	09:10:00	00:07:08	00:44:38	6.07	51.07	-	-	-	1	1	08:50:00	09:00:00	00:10:00	01:05:00	7.13	33.69	-	-	-	1	1	1	
					2	09:54:38	09:55:14	00:00:36	00:14:39	0.12	12.37	x	x	x	1	1	10:05:00	10:25:00	00:20:00	00:30:00	32.45	44.76	x	x	x	1	1	1	
Totals						00:59:51	10:32:18	38.44	38.53					0	4	6	01:13:00	10:29:00	129.60	106.52				0	6	1			
A	5/17/2006	2220	171	1	1	7:44:36	8:04:59	00:20:23	00:01:38	9.52	28.01	-	-	-	1	1	07:44:00	08:03:00	00:19:00	00:03:00	8.43	33.95	-	-	-	1	1	1	
					2	8:06:37	8:10:05	00:03:28	12:06:38	1.40	24.22	x	x	x	1	1	08:06:00	08:10:00	00:04:00	12:05:00	1.48	26.12	x	x	x	1	1	1	
Totals						00:49:31	13:23:45	24.04	29.13					0	4	1	00:52:00	13:22:00	22.45	25.90				0	4	1			
A	5/17/2006	2221	309	1	1	08:56:29	09:01:06	00:04:37	05:41:35	2.28	29.60	-	-	-	1	1	08:50:00	09:00:00	00:10:00	05:45:00	3.43	30.09	-	-	-	1	1	1	
					2	14:42:41	14:48:54	00:06:13	00:02:15	2.89	27.88	x	x	x	1	1	14:45:00	14:55:00	00:10:00	00:05:00	2.78	27.99	x	x	x	1	1	1	
Totals						00:51:01	13:29:09	23.34	27.45					0	3	4	01:07:00	13:18:00	22.70	20.33				0	3	5			
A	5/17/2006	2222	304	1	1	08:39:40	08:40:59	00:01:19	00:03:10	0.30	13.85	-	-	-	1	1	08:40:00	08:42:00	00:02:00	00:02:00	0.80	22.54	-	-	-	1	1	1	
					2	08:44:09	09:02:38	00:18:29	00:28:55	12.69	41.18	x	x	x	1	1	08:44:00	09:04:00	00:20:00	12:21:00	13.00	39.02	x	x	x	1	1	1	
Totals						00:27:47	12:21:40	15.41	33.28					0	1	4	00:44:00	12:31:00	32.87	44.82				0	2	3			

APPENDIX D
TRAVEL DIARY AND OTHER SURVEY PACKAGE MATERIALS



Austin Regional Household Activity/ Travel Survey

[DATE]

Greetings:

The Texas Department of Transportation (TxDOT), in cooperation with the Capital Area Metropolitan Planning Organization (CAMPO), is conducting a survey of 1,500 households in the metropolitan Austin area to better understand how and why people in your area travel. The information from the survey is one of the most important data collection efforts for the region. The results will be used by TxDOT and local communities to plan future transportation improvements for the area.

Your household was selected at random to participate in this survey. Although your participation is voluntary, we hope you will consider making it a priority to ensure that residents of your area are properly represented.

In a few days, a trained interviewer from a survey research firm, ETC Institute, will call and ask you some questions about your household. ETC Institute has been contracted by TxDOT to administer the survey. The information you provide will be kept confidential and will only be used for statistical purposes.

If you have any questions about the Austin Regional Household Activity/Travel Survey, please contact the project manager, Jay Schaefer, at 1-888-801-5368. Thank you in advance for your participation.

Sincerely,

A handwritten signature in black ink that reads "Charlie Hall".

Charlie Hall
Travel Survey Program Manager
Texas Department of Transportation



[DATE]

Dear «NAME»:

Thank you for agreeing to take part in the *Austin Regional Household Activity/Travel Survey*. ETC Institute, a survey research firm, is currently administering this important survey on behalf of the Texas Department of Transportation and the Capital Area Metropolitan Planning Organization (CAMPO). By sharing your household's travel information, you are helping to determine and plan for the transportation needs of the metropolitan Austin area, Travis county, and the surrounding growth areas of Hays, Williamson, Bastrop, and Caldwell counties in central Texas.

As we explained in our recent telephone call, this packet provides the materials your household will need to record your activities and travel for our interview, including an activity/travel diary for each member of your household. **An example of how to complete the activity/travel diary is provided on the back of each diary.**

After your assigned travel day, an ETC Institute interviewer will call you to collect your household's information. Please do not mail in the diaries until we have spoken with you on the telephone. If all of the survey is completed over the phone, you will not need to mail back the diaries. We would like to talk to each person age 16 or older individually, but ask that an adult respond for younger household members.

Please remember that the information you give us will be used for research purposes only. Nothing will be shared that could identify you or your household. We really appreciate your participation – it is extremely important for planning future transportation in your area.

If you have any questions, please call the survey team toll-free at 1-888-801-5368.

Thank you once again for participating in the survey.

Sincerely,

Chris Tatham
Senior Vice-President
ETC Institute
ctatham@etcinstitute.com

THINGS TO REMEMBER

Individual Activity/Travel Diaries are enclosed for **each member** of your household. The activity/travel diary will help members of your household keep track of their activities and trips on their travel day.

- Please ensure that an **INDIVIDUAL ACTIVITY/TRAVEL DIARY** is completed for EVERYONE in your household. For young children or persons with disabilities, please have another member of your household (i.e., parent) complete the activity/travel diary. If your child goes on a field trip while at school, please ensure that the activity and trip are recorded.
- **Record ALL activities that require travel that you make on your travel day, including walking and biking trips.** Please record ALL locations you traveled to and how you got there. Include all changes in location you made, no matter how short, whether you were traveling by vehicle, bus, bike, walking, or other means. Each member of your household should complete his or her own diary whenever possible. Even if your travel on the assigned travel day is not typical, we still want to know about it. If you are uncertain about whether to include a location, go ahead and record it.
- Please ensure that the INDIVIDUAL ACTIVITY/TRAVEL DIARY is completed on your assigned travel day.
- **Everyone should complete the travel diary on the same date.**
- Your travel day begins at 3:00 am on the day shown on the orange card and goes until 3:00 am the next day. *(If you are at work at 3:00 am, begin your travel diary at work).*
- Please ask all members of your household who are completing the activity/travel diary to carry an activity/travel diary with him/her on the travel day and to record each activity and trip after it is made. **Be sure to record each place that you go, not just your final destination.** For example, if you stop for gas on your way home from work, record the activity/trip from work to the gas station and the activity/trip from the gas station to your home separately.
- **Please provide complete addresses whenever possible** for each destination you visit. *Include the street prefix (E, N, S, W) and the street suffix (Ave, St, Lane, Terr) when applicable. For example write 123 W. Main St not 123 Main.*
- If 2 or more persons in the household travel together, the trip should appear on each person's travel diaries.

Questions???

Please call the toll-free travel survey "helpline" at 1-888-801-5368.

Each person completes an activity/travel diary for **ONE** day

See Example on back page

Circle your travel date: Monday Tuesday Wednesday Thursday Friday

Write Travel Date: _____

Person's Age: _____ Gender: Male Female

2006-07 AUSTIN REGIONAL HOUSEHOLD ACTIVITY/TRAVEL SURVEY



Instructions

Please tell us about **ALL locations you traveled to, what you did, and how you got there, beginning at 3 a.m.** Include all changes in location you made whether you were traveling by vehicle, bus, bike, walking, or other means. Give us as much information as you can about each location or place you stopped, no matter how short. For example, if you stop to get gas on your way to work, please record both locations separately. Also, **try to record as much detail about the address as possible.** For example, write 123 N. Main Street instead of 123 Main.

If you have any questions, please call 1-888-801-5368

ETC Institute

School Information

Do you currently attend school? Yes No
(This includes all levels of school, from day care to college.)

If you do not currently attend school, please go to the "Work Information" section on the next page.

What type of school do you attend?

Day Care/Preschool

K-12 (Elementary – High School)

If your answer to the question is below this line, please also answer the question below.

Vocational or trade school

Post-secondary (College, professional school)

Other (Specify): _____

Are you enrolled for 12 or more hours? Yes No

Bike Use

Of the last seven days,
How many did you ride a bike? ____ days

What was the most common purpose for your bike trip(s)?

Work

School

Shopping

Visiting

Recreation/Exercise

Other (Specify): _____

Work Information

Do you currently work on a regular basis? Yes No

If you do not currently work, please go to the "Start Location" section.

How many different jobs do you have? _____

If you have more than one job, please refer to the job at which you spend the most hours for the following questions.

In which type of industry do you work?

Agriculture, forestry, fishing and hunting, mining

Construction

Manufacturing

Wholesale trade

Retail Trade

Transportation, warehousing, utilities

Information

Finance, insurance, real estate, rental, leasing

Professional, scientific, management, administrative, and water management services

Education, health, social services

Arts, entertainment, recreation, accommodation, and food service

Other services (except public administration)

Public administration

Of the last seven days,
how many did you work at home? ____ days

What is the location of your workplace?

Name of Employer

Type of Business

Street Address

City, County State

Zip Code

& _____
Nearest Intersecting Streets

Is this location an office in the home
or a business operated out of the home? Yes No

Start Location: At 3:00 am today, were you . . . ?

At Home

Please proceed to "Location 1" on the next page.

Traveling (you were driving or flying at 3:00 am today)

What type of transportation were you using?

- Car, van, truck Motorcycle or moped
 Bicycle Taxi
 Walk School Bus
 Service vehicle Cargo transport vehicle
 Transit Bus (Specify Route: _____)
 Other _____

Were you the . . . ? driver passenger

Including yourself, how many TOTAL people were in the vehicle? _____

Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____

Was this a . . . ? Carpool Vanpool Neither

Please indicate the following about the vehicle:

Year _____ Make/Model _____

Was this your household's vehicle? Yes No

At Work, or

At Another Location

What is the Name of this Location? _____

What Type of Place/Business Is This? _____

Street Address (be as specific as possible) _____

City _____ County _____ State _____

Zip Code (if known) _____

Nearest Intersecting Streets _____ & _____

At what time did you leave your starting location? _____

Location 1: Where did you go first?

When did you arrive at this location?

_____ : _____ AM PM

What is the Name of this Location? _____

What Type of Place/Business Is This? _____

Street Address (be as specific as possible) _____

Nearest Intersecting Streets _____ & _____

City _____ County _____ State _____

Zip Code (if known) _____

Did you walk **more than a block** from a parking lot or bus stop to get to this location?

- Yes If YES: where did you park? _____
 No

How did you get to Location 1?

What was the primary type of transportation you used?

- Car, van, truck Motorcycle or moped
 Bicycle Taxi
 Walk School Bus
 Service vehicle Cargo transport vehicle
 Transit Bus (Specify Route: _____)
 Other _____

If you used a car, van, or truck for this trip . . .

Were you the . . . ? driver passenger

Including yourself, how many TOTAL people were in the vehicle? _____

Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____

Was this a . . . ? Carpool Vanpool Neither

Please indicate the following about the vehicle:

Year _____ Make/Model _____

Was this your household's vehicle? Yes No

How much did you pay to park? \$ _____

What did you do here?

What did you do at this location? (check all that apply)

- Return Home from your primary job
 Return Home for another reason
 Meal/Eat
 Work
 Work Related
 School
 Personal Business: _____
 Volunteer/Civic
 Shop
 Social/Recreation/Entertainment
 Pick-Up/Drop-Off Passenger
 Change Mode (e.g., car to bus): _____

When did you leave this location?

_____ : _____ AM PM

----- OR -----

This was the last place I went today

If You Forgot a Stop Anywhere Between This Location and Location 2, Provide the Information Below:

For what reason did you stop between Location 1 and 2? _____ Number of minutes stopped: _____

Where did you stop? _____
Name of Stop Location Address or Nearest Intersection City, County, and State

Location 2: Where did you go next?	How did you get to Location 2?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM <hr/> What is the Name of this Location? <hr/> What Type of Place/Business Is This? <hr/> Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets _____ City County State _____ Zip Code (if known) _____ <hr/> Did you walk more than a block from a parking lot or bus stop to get to this location? <input type="checkbox"/> Yes If YES: where did you park? _____ <input type="checkbox"/> No _____	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____ <hr/> If you used a car, van, or truck for this trip . . . Were you the . . . ? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? _____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____ Was this a . . . ? Carpool Vanpool Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____ <hr/> When did you leave this location? ____ : ____ AM PM ----- OR ----- <input type="checkbox"/> This was the last place I went today

If You Forgot a Stop *Anywhere* Between This Location and Location 3, Provide the Information Below:

For what reason did you stop between Location 2 and 3? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Location 3: Where did you go next?	How did you get to Location 3?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM <hr/> What is the Name of this Location? <hr/> What Type of Place/Business Is This? <hr/> Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets _____ City County State _____ Zip Code (if known) _____ <hr/> Did you walk more than a block from a parking lot or bus stop to get to this location? <input type="checkbox"/> Yes If YES: where did you park? _____ <input type="checkbox"/> No _____	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____ <hr/> If you used a car, van, or truck for this trip . . . Were you the . . . ? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? _____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____ Was this a . . . ? Carpool Vanpool Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____ <hr/> When did you leave this location? ____ : ____ AM PM ----- OR ----- <input type="checkbox"/> This was the last place I went today

If You Forgot a Stop *Anywhere* Between This Location and Location 4, Provide the Information Below:

For what reason did you stop between Location 3 and 4? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Location 4: <i>Where did you go next?</i>	How did you get to Location 4?	What did you do here?
<p>When did you arrive at this location? ____ : ____ AM PM</p> <p>What is the Name of this Location? _____</p> <p>What Type of Place/Business Is This? _____</p> <p>Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets</p> <p>City _____ County _____ State _____</p> <p>Zip Code (if known) _____</p> <p>Did you walk more than a block from a parking lot or bus stop to get to this location? <input type="checkbox"/> Yes If YES: where did you park? <input type="checkbox"/> No _____</p>	<p>What was the primary type of transportation you used?</p> <p><input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____</p> <p style="background-color: #e0e0e0; padding: 2px;"><i>If you used a car, van, or truck for this trip . . .</i></p> <p>Were you the . . . ? <input type="checkbox"/> driver <input type="checkbox"/> passenger</p> <p>Including yourself, how many TOTAL people were in the vehicle? _____</p> <p>Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____</p> <p>Was this a . . . ? Carpool Vanpool Neither</p> <p>Please indicate the following about the vehicle: Year _____ Make/Model _____</p> <p>Was this your household's vehicle? Yes No</p> <p>How much did you pay to park? \$ _____</p>	<p>What did you do at this location? (check all that apply)</p> <p><input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (e.g., car to bus): _____</p> <p style="background-color: #e0e0e0; padding: 2px;">When did you leave this location?</p> <p>____ : ____ AM PM</p> <p>----- OR -----</p> <p style="text-align: center;">This was the last place I went today</p>

If You Forgot a Stop *Anywhere* Between This Location and Location 5, Provide the Information Below:

For what reason did you stop between Location 4 and 5? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Location 5: <i>Where did you go next?</i>	How did you get to Location 5?	What did you do here?
<p>When did you arrive at this location? ____ : ____ AM PM</p> <p>What is the Name of this Location? _____</p> <p>What Type of Place/Business Is This? _____</p> <p>Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets</p> <p>City _____ County _____ State _____</p> <p>Zip Code (if known) _____</p> <p>Did you walk more than a block from a parking lot or bus stop to get to this location? <input type="checkbox"/> Yes If YES: where did you park? <input type="checkbox"/> No _____</p>	<p>What was the primary type of transportation you used?</p> <p><input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____</p> <p style="background-color: #e0e0e0; padding: 2px;"><i>If you used a car, van, or truck for this trip . . .</i></p> <p>Were you the . . . ? <input type="checkbox"/> driver <input type="checkbox"/> passenger</p> <p>Including yourself, how many TOTAL people were in the vehicle? _____</p> <p>Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____</p> <p>Was this a . . . ? Carpool Vanpool Neither</p> <p>Please indicate the following about the vehicle: Year _____ Make/Model _____</p> <p>Was this your household's vehicle? Yes No</p> <p>How much did you pay to park? \$ _____</p>	<p>What did you do at this location? (check all that apply)</p> <p><input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____</p> <p style="background-color: #e0e0e0; padding: 2px;">When did you leave this location?</p> <p>____ : ____ AM PM</p> <p>----- OR -----</p> <p style="text-align: center;">This was the last place I went today</p>

If You Forgot a Stop *Anywhere* Between This Location and Location 6, Provide the Information Below:

For what reason did you stop between Location 5 and 6? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Location 6: Where did you go next?	How did you get to Location 6?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____
What is the Name of this Location? _____ What Type of Place/Business Is This? _____ Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets _____ City _____ County _____ State _____ _____ Zip Code (if known) _____	<div style="background-color: #e0e0e0; padding: 2px;">If you used a car, van, or truck for this trip . . .</div> Were you the . . .? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? _____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____ Was this a . . .? Carpool Vanpool Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	<div style="background-color: #e0e0e0; padding: 2px;">When did you leave this location?</div> ____ : ____ AM PM ----- OR ----- This was the last place I went today
If You Forgot a Stop <u>Anywhere</u> Between This Location and Location 7, Provide the Information Below:		
For what reason did you stop between Location 6 and 7? _____		Number of minutes stopped: _____
Where did you stop? _____ <small>Name of Stop Location</small>		_____ <small>Address or Nearest Intersection</small>
		_____ <small>City, County, and State</small>

Location 7: Where did you go next?	How did you get to Location 7?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____
What is the Name of this Location? _____ What Type of Place/Business Is This? _____ Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets _____ City _____ County _____ State _____ _____ Zip Code (if known) _____	<div style="background-color: #e0e0e0; padding: 2px;">If you used a car, van, or truck for this trip . . .</div> Were you the . . .? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? _____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____ Was this a . . .? Carpool Vanpool Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	<div style="background-color: #e0e0e0; padding: 2px;">When did you leave this location?</div> ____ : ____ AM PM ----- OR ----- This was the last place I went today
If You Forgot a Stop <u>Anywhere</u> Between This Location and Location 8, Provide the Information Below:		
For what reason did you stop between Location 7 and 8? _____		Number of minutes stopped: _____
Where did you stop? _____ <small>Name of Stop Location</small>		_____ <small>Address or Nearest Intersection</small>
		_____ <small>City, County, and State</small>

Location 8: Where did you go next?	How did you get to Location 8?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM <hr/> What is the Name of this Location? <hr/> What Type of Place/Business Is This? <hr/> Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets _____ County _____ State _____ City _____ County _____ State _____ Zip Code (if known) _____	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____ <hr/> If you used a car, van, or truck for this trip . . . Were you the . . . ? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? _____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____ Was this a . . . ? Carpool Vanpool Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____ <hr/> When did you leave this location? ____ : ____ AM PM ----- OR ----- This was the last place I went today

If You Forgot a Stop Anywhere Between This Location and Location 9, Provide the Information Below:

For what reason did you stop between Location 8 and 9? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Location 9: Where did you go next?	How did you get to Location 9?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM <hr/> What is the Name of this Location? <hr/> What Type of Place/Business Is This? <hr/> Street Address (be as specific as possible) _____ & _____ Nearest Intersecting Streets _____ County _____ State _____ City _____ County _____ State _____ Zip Code (if known) _____	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____ <hr/> If you used a car, van, or truck for this trip . . . Were you the . . . ? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? _____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? _____ Was this a . . . ? Carpool Vanpool Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____ <hr/> When did you leave this location? ____ : ____ AM PM ----- OR ----- This was the last place I went today

If You Forgot a Stop Anywhere Between This Location and Location 10, Provide the Information Below:

For what reason did you stop between Location 9 and 10? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Location 10: Where did you go next?	How did you get to Location 10?	What did you do here?
When did you arrive at this location? ____ : ____ AM PM <hr/> What is the Name of this Location? <hr/> What Type of Place/Business Is This? <hr/> Street Address (be as specific as possible) <hr/> & Nearest Intersecting Streets <hr/> City County State <hr/> Zip Code (if known) <hr/> Did you walk more than a block from a parking lot or bus stop to get to this location? <input type="checkbox"/> Yes If YES: where did you park? <input type="checkbox"/> No	What was the primary type of transportation you used? <input type="checkbox"/> Car, van, truck <input type="checkbox"/> Motorcycle or moped <input type="checkbox"/> Bicycle <input type="checkbox"/> Taxi <input type="checkbox"/> Walk <input type="checkbox"/> School Bus <input type="checkbox"/> Service vehicle <input type="checkbox"/> Cargo transport vehicle <input type="checkbox"/> Transit Bus (Specify Route: _____) <input type="checkbox"/> Other _____ <hr/> If you used a car, van, or truck for this trip . . . Were you the . . .? <input type="checkbox"/> driver <input type="checkbox"/> passenger Including yourself, how many TOTAL people were in the vehicle? ____ Including yourself, how many people from YOUR HOUSEHOLD were in the vehicle? ____ Was this a . . .? <input type="checkbox"/> Carpool <input type="checkbox"/> Vanpool <input type="checkbox"/> Neither Please indicate the following about the vehicle: Year _____ Make/Model _____ Was this your household's vehicle? Yes No How much did you pay to park? \$ _____	What did you do at this location? (check all that apply) <input type="checkbox"/> Return Home from your primary job <input type="checkbox"/> Return Home for another reason <input type="checkbox"/> Meal/Eat <input type="checkbox"/> Work <input type="checkbox"/> Work Related <input type="checkbox"/> School <input type="checkbox"/> Personal Business: _____ <input type="checkbox"/> Volunteer/Civic <input type="checkbox"/> Shop <input type="checkbox"/> Social/Recreation/Entertainment <input type="checkbox"/> Pick-Up/Drop-Off Passenger <input type="checkbox"/> Change Mode (car to bus): _____ <hr/> When did you leave this location? ____ : ____ AM PM ----- OR ----- <input type="checkbox"/> This was the last place I went today

If You Forgot a Stop *Anywhere* Between This Location and the "Additional Locations" Provide the Information Below:

For what reason did you stop between Location 10 and 11? _____ Number of minutes stopped: _____

Where did you stop? _____

Name of Stop Location Address or Nearest Intersection City, County, and State

Additional Locations	Questions?
----------------------	------------

Use the additional sheets provided if you have more than 10 Locations where you made a stop.

If you have any questions, please call **1-800-801-5368** toll-free.

**ETC Institute
725 W. Frontier Circle
Olathe, KS 66061**

Comments

Thank you for your participation in this important survey.



Austin Regional Household Activity/ Travel Survey

DATE

<NAME>
<ADDRESS>
<CITY> <STATE> <ZIP>

Dear <NAME>:

On behalf of the Texas Department of Transportation and the Capital Area Metropolitan Planning Organization (CAMPO), ETC Institute would like to thank you for your participation in the 2006 Austin Regional Household Activity/Travel Survey.

By sharing your household's activity and travel information, you are helping to determine and plan for the transportation needs of the greater Austin area.

If you have any questions, please give me a call toll-free at 888-801-5268.

Sincerely,

Chris Tatham
Project Manager
ETC Institute

APPENDIX E
DATA FILE FORMATS

Table E - 1. GPS Data File Format.

Item #	Variable Name	Variable Description	Data Type	Just.	Field Width	Coll. Stage	Verify Stage	Values	Formal and Full Text
GR-1	RECTYPE	Record Type	I	RJ	2	A	NA	GPS Record Type =5	CORRECTED DATA
GR-2	GPS_ID	GPS Receiver Unit ID No.	A	LJ	20	GPS	NA	AAA1234567	
GR-3	Unit_ID	ID No. Linked to Admin File	I	RJ	3	A	NA		
GR-4	GMT_DATE	Greenwich Mean Time Date Stamp	I	RJ	10	GPS	NA	MM/DD/YYYY (include leading zero for single month or day)	
GR-5	GMT_TIME	Greenwich Mean Time Time Stamp	I	RJ	5	GPS	NA	HH:MM (Military Time – include leading zero for single hour or minute)	
GR-6	LOC_DATE	Local Date Stamp	I	RJ	10	GPS	NA	MM/DD/YYYY (include leading zero for single month or day)	
GR-7	LOC_TIME	Local Time Stamp	I	RJ	5	GPS	NA	HH:MM (Military Time – include leading zero for single hour or minute)	
GR-8	LAT_RAW	Latitude	F	RJ	16	GPS	NA	Degrees	XXX.XXXXXX deg
GR-9	LONG_RAW	Longitude	F	RJ	16	GPS	NA	Degrees	XXX.XXXXXX deg
GR-10	ELEV_RAW	Elevation	F	RJ	16	GPS	NA	Meters	
GR-11	VELOCITY	Velocity	F	RJ	8	GPS	NA	Meters/second	0..514.00m/s
GR-12	HEADING	Direction of Vehicle	F	RJ	6	GPS	NA	True north	0.0..359.9 deg

Source: Land Air Sea Systems, Inc.

Table E - 2. CATI Household Data File Format.

Item	Begin	End	Type	Format	Description
1. Record Type	1	2	Numeric RJ	I2	Code indicating type of record. Here it should be 1.
2. Sample Number	3	9	Numeric RJ	I7	Unique non-zero number assigned to each household participating in survey.
3. Phone	10	21	Alphanum. LJ	A12	Phone number of household.
4. Month	22	23	Numeric RJ	I2	Month of travel day.
5. Day	24	25	Numeric RJ	I2	Day of the month of travel.
6. Day of Week	26	26	Numeric RJ	I1	Day of the week travel was recorded; 1-Monday, 2-Tuesday, 3-Wednesday, 4-Thursday, 5-Friday.
7. Advance Letter	27	28	Numeric RJ	I2	Code indicating if household received advance letter; 1-Yes, 2-No, 98-Don't Know, 99-Refused.
8. Address	29	88	Alphanum. LJ	A60	Street address or nearest cross streets of household.
9. City	89	118	Alphanum. LJ	A30	City where household is located.
10. Zip Code	119	123	Numeric RJ	I5	Zip code of household address.
11. HH County	124	125	Numeric RJ	I2	Code indicating county in which household is located: 1- Bastrop, 2- Caldwell, 3- Hays, 4- Travis, 5- Williamson, 6- Bexar, 7- Comal, 8- Guadalupe, 9- Kendall, 10- Wilson, 98 – Don't Know, 99- Refused
12. HH Study Area	126	126	Alphanum	I1	Code indicating study area in which household address/TAZ zone is located. Use 'A' if zone is in the CAMPO study area, and 'S' if the zone is in the SABCMPPO study area. Field should be left blank if location is not within one of these two MPO study areas.
13. HH Zone	127	131	Numeric RJ	I5	TAZ number where household is located. The HH address must be coded to a zone in one of the MPOs modeling areas. Unknown zones should be coded 88888.

Item	Begin	End	Type	Format	Description
14. Longitude	132	141	Numeric RJ	F10.6	Longitude of household address. If unknown, it should be coded 888.8888.
15. Latitude	142	151	Numeric RJ	F10.6	Latitude of household address. If unknown, it should be coded 888.8888.
16. Number Persons	152	153	Numeric RJ	I2	Number of persons living in residence.
17. Number Employed	154	155	Numeric RJ	I2	Number of persons in household that are employed either full or part time.
18. Vehicles Available	156	157	Numeric RJ	I2	Number of cars, vans, light trucks, motorcycles available for use by the HH; 98-Don't Know, 99-Refused.
19. Vehicles Owned / Leased	158	159	Numeric RJ	I2	Combined number of cars, vans, light trucks, motorcycles owned or leased by members of the household, 98-Don't know 99-Refused.
20. Bikes	160	161	Numeric RJ	I2	Number of working bicycles available for use by members of household; 98-Don't know, 99-Refused.
21. Residence	162	163	Numeric RJ	I2	Code indicating the type of residence. See below for code definitions.
22. Other Residence	164	188	Alphanum. LJ	A25	If residence is coded as "other", this field contains a description of the type of residence.
23. Tenure	189	190	Numeric RJ	I2	Code indicating number of years at residence; 0-<1yr, 1-one year, 2-two years, 3-three years, 4-four years, 5-five or more years, 98-Don't Know, 99-Refused.
24. Previous Residence	191	191	Numeric RJ	I1	If tenure was less than five years, this code indicates if previous residence was in one of the 9 modeling area counties; 1-Yes, 2-No, 8-Don't Know, 9-Refused.
25. Previous Zip Code	192	196	Numeric RJ	I5	If tenure was less than five years, this is the zip code of the previous residence.
26. HH Factors	197	216	Alphanum LJ	A20	Code indicating factors that influenced their decision to locate in their current household. If more than one, separate code numbers by comma. See code definitions.

Item	Begin	End	Type	Format	Description
27. Other Factors	217	246	Numeric RJ	A30	Other factors influencing their decision to locate in their current household.
28. Income	247	248	Numeric RJ	I2	Code indicating combined annual income of all household members. See codes below.
29. Sample HH Income	249	250	Numeric RJ	I2	Household income stratification for sampling quota. 1=<20k, 2=20k - <35k, 3=35k - <50k, 4=50k - <75k, 5= 75k or more.
30. Day Visitors	251	252	Numeric RJ	I2	Number of non-family persons that stopped at this residence for any reason on the travel day; 98-Don't Know, 99-Refused.
31. Overnight Visitors	253	254	Numeric RJ	I2	Number of overnight visitors at this residence during their travel day. 98-Don't Know, 99-Refused.
32. Delivery Vehicle	255	255	Numeric RJ	I1	Code indicating if someone in household drives a form of delivery vehicle; 1-Yes, 2-No, 8-Don't Know, 9-Refused.
33. Number Delivery Driver	256	257	Numeric RJ	I2	Number of persons in household that are delivery drivers or travel within study area as part of their work.
34. Phone Service	258	259	Numeric RJ	I2	Number of times within past 12 months household was without telephone service.
35. Time Without	260	261	Numeric RJ	I2	Code indicating the average length of time household was without phone service. See code definitions below.
36. HH Vehicle Use by Non HH Number	262	263	Numeric RJ	I2	Code indicating if one or more of the HH vehicles were used by a non-household member of the travel day. 1-Yes, 2-No, 3 – Zero vehicle household, 98-Don't Know, 99-Refused.
Item	Begin	End	Type	Format	Description
37. Share Phone	264	265	Numeric RJ	I2	Number of households that share a phone line with this household.
38. GPS House	266	266	Numeric RJ	I1	Code indicating if household vehicles had GPS equipment installed for GPS survey. 1-Yes, 2-No
39. Total HH Trips	267	269	Numeric RJ	I3	The total combined number of all trips made by all persons in the household on the assigned travel day.

Source: Texas Transportation Institute.

Table E - 3. CATI Household Data File Format Codes.

21. RESIDENCE	26. HH FACTORS	35. TIME WITHOUT
1 – Unattached Single Family Home	1 – Price of Property	1 – Less than one week
2 – Condo	2 – Taxes	2 – one week to less than two weeks
3 – Duplex	3 – Proximity to Work	3 – two weeks to less than three month
4 – Apartment	4 – School District	4 – one month to less than four months
5 – Mobile Home	5 – Proximity to School	5 – three months to less than six months
6 – Other	6 – Character of Neighborhood or Area	6 - six months to less than one year
98 – Don't Know	7 – Access to Public Transportation	7 – one year or more
99 – Refused	8 – Security / Safety	98 – Don't know
	9 – Other	99 – Refused
	98 – Don't Know	
	99 – Refused	
28. HOUSEHOLD INCOME CODES		
1 – Less than \$5,000	7 - \$30,000 to \$34,999	13 - \$100,000 to \$124,999
2 - \$5,000 to \$9,999	8 - \$35,000 to \$39,999	14 - \$125,000 to \$149,999
3 - \$10,000 to \$14,999	9 - \$40,000 to \$49,999	15 - \$150,000 or more
4 - \$15,000 to \$19,999	10 - \$50,000 to \$59,999	
5 - \$20,000 to \$24,999	11 - \$60,000 to \$74,999	98 – Don't Know
6 - \$25,000 to \$29,999	12 - \$75,000 to \$99,999	99 – Refused

Source: Texas Transportation Institute.

Table E - 4. CATI Person Data File Format.

Item	Begin	End	Type	Format	Description
1. Record Type	1	2	Numeric RJ	I2	Code indicating type of record, here it should be 2.
2. Sample Number	3	9	Numeric RJ	I7	Unique non-zero number assigned to each household participating in survey. This number should match the sample number of the above record.
3. Person Number	10	12	Numeric RJ	I3	Number assigned to each person in the household with 0 assumed to be the head of household.
4. Relationship	13	14	Numeric RJ	I2	Code indicating relationship of person to the head of household. See code definitions below.
5. Head of household	15	16	Numeric RJ	I2	Code indicating the person number in the household considered to be the head of household
6. Sex	17	18	Numeric RJ	I2	Sex of person; 1-Male, 2-Female, 98- Don't Know, 99 - Refused.
7. Ethnicity	19	20	Numeric RJ	I2	Race or ethnicity of person. See code definitions below.
8. Ethnicity Other	21	80	Alphanum RJ	A60	Description of other ethnicity which is not included in code definitions.
9. Age	81	83	Numeric RJ	I3	Age of person. 998-Don't know, 999 - Refused.
10. Licensed Driver	84	85	Numeric RJ	I2	Code indicating if person is a licensed driver; 1-Yes, 2-No, 98 - Don't Know, 99-Refused.
11. Employment	86	87	Numeric RJ	I2	Code indicating if person is employed in a paying or volunteer job; 1-Yes, 2-No, 98 – Don't Know, 99-Refused.
12. Employment Status	88	89	Numeric RJ	I2	If person is employed, this is a code number indicating the person's employment status. See code definitions.
13. Hours	90	92	Numeric RJ	I3	On average, the number of hours worked per week. 998 – Don't know, 999-varies from week to week.

Item	Begin	End	Type	Format	Description
14. Not Employed	93	94	Numeric RJ	I2	Code indicating current status if person is not employed. See code definitions below.
15. Not Employed Other	95	154	Alphanumeric LJ	A60	Description of employment status if none of the options in the employment status code is applicable.
16. Delivery	155	156	Numeric RJ	I2	Code indicating if person is a delivery driver or not; 1-Yes, 2-No, 98 – Don't Know, 99-Refused.
17. Transporting Cargo	157	158	Numeric RJ	I2	Code indicating if vehicle is transporting cargo; 1-Yes, 2-No, 98 – Don't Know, 99-Refused.
18. Comm. Service	159	160	Numeric RJ	I2	Code indicating if vehicle is for commercial service; 1-Yes, 2-No, 98 – Don't Know, 99-Refused
19. Flex Time	161	162	Numeric RJ	I2	Code indicating if person's employer allows them to work flexible hours or the hours are fixed; 1-Flexible / Variable, 2-Fixed / Unchanging, 98-Don't Know, 99-Refused.
20. Job	163	164	Numeric RJ	I2	Code indicating if person has more than one paying job; 1-Yes, 2-No, 98-Don't Know, 99-Refused.
21. Employer Name	165	224	Alphanumeric. LJ	A60	Name of person's primary employer.
22. Workplace Type	225	226	Numeric RJ	I2	Code indicating type of workplace where person is employed. See code definitions below.
23. Other Workplace	227	256	Alphanumeric. LJ	A30	Description of workplace type if "other" is coded.
24. Home Office	257	258	Numeric RJ	I2	Code indicating if workplace is a home office or business operated out of the home; 1 = Yes, 2-No, 98 – Don't Know, 99 - Refused.

Item	Begin	End	Type	Format	Description
25. Telecommute	259	260	Numeric RJ	I2	If employed 30 or more hours per week, code indicating if person works from home or telecommutes on a regular basis; 1 = Yes, 2-No, 98 – Don't Know, 99 – Refused.
26. Workplace Address	261	320	Alphanum. LJ	A60	Street address of workplace or nearest intersecting street names.
27. Workplace City	321	350	Alphanum. LJ	A30	City where workplace is located.
28. Workplace County	351	352	Numeric RJ	I2	Code indicating county in which household is located: 1- Bastrop, 2- Caldwell, 3- Hays, 4- Travis, 5- Williamson, 6- Bexar, 7- Comal, 8- Guadalupe, 9- Kendall, 10- Wilson, 96-Other, 98 – Unknown, 99- Refused
29. Zip Code	353	357	Numeric RJ	I5	Zip code or workplace address.
30. Work Study Area	358	358	Alphanum	I1	Code indicating study area in which work address and TAZ zone is located. Use 'A' if zone is in the CAMPO study area, and 'S' if the zone is in the SABCMPO study area. Field should be left blank if location is not within one of these two MPO study areas.
31. Work Zone	359	363	Numeric RJ	I5	Zone where workplace is located. Those in one of the MPOs modeling area counties should be coded to an urban or rural TAZ. If unknown but in one of the modeling area counties it should be coded 08888. Locations outside of either of the two modeling areas but within Texas should be coded using the Statewide Zone System. Unknown locations outside of the modeling area counties but within Texas should be coded 6666. Addresses in Mexico should be coded 07777. Addresses outside of Texas and Mexico should be coded using 09999.

Item	Begin	End	Type	Format	Description
32. Longitude	364	373	Numeric RJ	F10.6	Longitude of workplace location. If within either of the modeling area counties, but unknown it should be coded 888.8888. If outside either of the modeling area counties but within Texas and unknown it should be coded as 6666. Locations in Mexico should be coded 777.7777 and addresses outside of Texas and Mexico should be coded 999.9999.
33. Latitude	374	383	Numeric RJ	F10.6	Latitude of workplace location. If within either of the modeling area counties, but unknown it should be coded 888.8888. If outside the modeling area counties, but within Texas and unknown it should be coded as 6666. Locations in Mexico should be coded 777.7777 and addresses outside of Texas and Mexico should be coded 999.9999.
34. Days Worked	384	385	Numeric RJ	I2	Number of days per week person typically works. 98-Don't Know, 99-Refused.
35. Work at Home	386	387	Numeric RJ	I2	Out of the last seven days, the number of days worked at home instead of going to work. Valid responses 0-7, 98-Don't Know, 99-Refused.
36. Second Job Type	388	389	Numeric RJ	I2	Code indicating type of workplace where person works at second job. See code definitions below.
37. Second Job Other	390	449	Alphanum. LJ	A60	Description of workplace type for second job if "other" is coded.
38. Second Job Employment Status	450	451	Numeric RJ	I2	If person is employed in a second job, this is a code number indicating the person's employment status related to the second job. See code definitions below.

Item	Begin	End	Type	Format	Description
39. Total Hours	452	454	Numeric RJ	I3	Total hours on average person works per week at all jobs. 888-Don't know, 999-Refused.
40. Primary Occupation	455	456	Numeric RJ	I2	Code indicating the type of occupation for primary job. See code definitions below
41. Primary Industry	457	458	Numeric RJ	I2	Code indicating the type of industry worked in for primary job. See code definition below.
42. Secondary Occupation	459	460	Numeric RJ	I2	Code indicating the type of occupation for secondary job. See code definitions below
43. Secondary Industry	461	462	Numeric RJ	I2	Code indicating the type of industry worked in for secondary job. See code definition below.
44. Student Status	463	464	Numeric RJ	I2	Code indicating if person is enrolled in any type of school; 1-Yes, 2-No, 98-Don't Know, 99-Refused.
45. School Type	465	466	Numeric RJ	I2	Code indicating type of school attended. See code definitions below.
46. School Type Other	467	526	Alphanum. LJ	A60	Description of 'other' if other is coded as school type.
47. Hours Enrolled	527	528	Numeric RJ	I2	If person is enrolled in a college, trade school, etc., code indicates if person is enrolled for 12 or more hours; 1-Yes, 2-No, 98-Don't know, 99-Refused.
48. Bike Use	529	530	Numeric RJ	I2	Number of days person rode bike in last seven days. 98-Don't Know, 99-Refused.
49. Bike Purpose	531	532	Numeric RJ	I2	Code indicating the most common trip purpose for person's bike trips. See code definitions below.
50. Disability	533	534	Numeric RJ	I2	Code indicating if person has transportation disability; 1-Yes, 2-No, 98-Don't Know, 99-Refused.

Item	Begin	End	Type	Format	Description
51. Travel	535	536	Numeric RJ	I2	Code indicating if person traveled on the designated travel day; 1-Yes, 2-No, 96-Indication person was out of town or away from the residence for the entire day and night of their travel day.
52 Person trips	537	539	Numeric RJ	I3	The total number of trips the person made on his/her travel day.
53. Why No Travel	540	599	Alphanum LJ	A60	Description of why the person did not make any trips on the travel day.
54. Diary Use	600	601	Numeric RJ	I2	Code indicating if person used diary or if information is based on memory or provided by a proxy. 1 – yes, used diary; 2 – no, did not use diary; 3 – Did not receive diary; 98 – Don't Know; 99 – Refused
55. Data Retrieval Method	602	603	Numeric RJ	I2	Code indicating how data was retrieved: 01 – respondent, 02 – proxy, 03 – mailed diary, 04 – internet, 98 – Don't know; 99 – Refused
56. Proxy ID	604	605	Numeric RJ	I2	This item identifies the person by person number who provided the information by proxy. 98 – Don't know; 99 – Refused
57. Date Data was Retrieved.	606	609	Numeric RJ	I4	The month and day the data was retrieved. Record all months as 2 digits and all days as 2 digits with the month preceding the day. Example: April 1 st should be coded as 0401.

Source: Texas Transportation Institute.

Table E - 5. CATI Person Data File Format Codes.

4. RELATIONSHIP	7. ETHNICITY	14. STATUS FOR NOT EMPLOYED
1 – Husband / Wife / Unmarried Partner	1 – Black / African American	1 – Retired
2 – Mother / Father / In-law	2 – Hispanic / Mexican American	2 – Disability Status
3 – Brother / Sister / In-law	3 – Asian / Pacific Islander	3 – Homemaker
4 – Grandfather / Grandmother	4 – Native American	4 – Looking for Work
5 – Grandson / Granddaughter	5 – White / Caucasian	5 – Not Looking for Work
6 – Son / Daughter / In-law	6 – Other Group	6.- Student
7 – Aunt / Uncle	98 – Don't Know	7 – Other
8 – Other Relative	99 – Refused	98 – Don't Know
9 – Other Non-Relative		99 – Refused
10 – Household Help		
98 – Don't Know / Refused		
99 – Refused		
20, 34. TYPE OF WORK PLACE	43. SCHOOL TYPE	47. BIKE TRIP PURPOSE
1. Office (Non-government)	1 – Day Care / Pre-School	1 – Work
2. Office (Government)	2 – K-12 th	2 – School
3. Retail/Shopping/Gas	3 – Post Secondary, College, Trade	3 – Shopping
4. Industrial/Manufacturing/Warehouse	4 – Other	4 – Visiting
5. Medical	98 – Don't Know	5 – Recreation / Exercise
6. Education – Day Care/K-12	99 – Refused	6 – Other
7. Education – College, trade school, other		96 - Child
8. Residential		98 – Don't Know
9. Airport		99 – Refused
10. Eating Establishment		
96 – Other		
98 – Don't Know		
99 – Refused		
12, 36. EMPLOYMENT STATUS		
1 Employed full time 30 or more hours per week		
2 Employed part time less than 30 hours per week		
3 Self employed full time 30 or more hours per week		
4 Self employed part time less than 30 hours per week		
98. – Don't Know		

38, 40. OCCUPATION	39, 41. INDUSTRY
01 – Management, professional, and related occupations	01 – Agriculture, forestry, fishing and hunting, mining
02 – Service occupations	02 – Construction
03 – Sales and office occupations	03 – Manufacturing
04 – Farming, fishing, and forestry occupations	04 – Wholesale trade
05 – Construction, extraction, and maintenance occupations	05 – Retail trade
06 – Production, transportation, and material moving occupations	06 – Transportation, warehousing, utilities
96 – Not applicable (unemployed / student / retired)	07 – Information
98 – Don't know	08 – Finance, insurance, real estate, rental and leasing
99 – Refused	09 – Professional, scientific, management, administrative, and waste management services
	10 – Education, health, and social services
	11 – Arts, entertainment, recreation, accommodation, and food services
	12 – Other services (except public administration)
	13 – Public Administration
	96 – Not Applicable – (unemployed, student, retired)
	98 – Don't Know
	99 – Refused

Source: Texas Transportation Institute.

Table E - 6. CATI Vehicle Data File Format.

Item	Begin	End	Type	Format	Description
1. Record Type	1	2	Numeric RJ	I2	Code indicating type of record, here it should be 3.
2. Sample Number	3	9	Numeric RJ	I7	Unique non-zero number assigned to each household in survey.
3. Vehicle Number	10	11	Numeric RJ	I2	Unique non-zero number assigned to vehicle.
4. Type of Vehicle	12	13	Numeric RJ	I2	Code indicating type of vehicle. See code definitions below.
5. Other Vehicle Type	14	48	Alphanum LJ	A35	Other vehicle type not listed in vehicle code below.
6. Year	49	52	Numeric RJ	I4	Year vehicle was manufactured; 9998-Don't Know, 9999-Refused.
7. Make	53	54	Numeric RJ	I2	Make of vehicle. See code below.
8. Other Make	55	114	Alphanum LJ	A60	Specify other make of vehicle if not included in vehicle make code below.
9. Model	115	174	Alphanum. LJ	A60	Model of vehicle.
10. Type of Fuel	175	175	Numeric RJ	I1	Type of fuel used by vehicle; 1- Gasoline, 2-Diesel, 3- Propane, 4- Natural Gas, 5- Electricity, 6-Other, 7- Hybrid, 8-Don't Know, 9-Refused.
11. Other Fuel Type	176	190	Alphanum. LJ	A15	Other type of fuel specified.
12. Commercial Use	191	192	Numeric RJ	I2	Code indicating if vehicle is used for commercial purposes; 1-Yes, 2-No, 98-Don't Know, 99-Refused.
13. Odometer Reading	193	200	Numeric RJ	I8	Odometer reading on vehicle at beginning of travel day. Don't Know, 99999998. Refused, 99999999.
14. Ownership	201	202	Numeric RJ	I2	Code indicating ownership of this vehicle. 1 – Owned or leased by HH or member of HH, 2 – Owned or leased by another person, 98-Don't Know, 99-Refused
15. Non HH Vehicle Number	203	204	Numeric RJ	I2	If one or more household vehicles used by non-household member, this is the number of the vehicle that was used.

Item	Begin	End	Type	Format	Description
16. Non HH Use	205	205	Numeric RJ	11	Code indicating if vehicle was used by a non-household member on the travel day. 1 – Yes, 2 – No, 8 – Don't Know, 9 – Refused.
17. Lighter Working	206	206	Numeric RJ	11	Code Indicating if the lighter in the vehicle is working; 1-Yes, 2-No, 8-Don't Know; 9-Refused

Source: Texas Transportation Institute.

Table E - 7. CATI Vehicle Data File Format Codes.

4. Type of Vehicle Codes		
1. Motorcycle (includes mopeds)		
2. Car (includes station wagons)		
3. Van (mini and passenger)		
4. Sport Utility Vehicle		
5. Pickup Truck		
6. Cargo Transport		
7 Commercial or Service Vehicle		
9. Other		
98 – Don't Know		
99 – Refused		
7. Vehicle Make Codes		
01 – Acura	29 – Plymouth	57 – Gillig
02 – Audi	30 – Pontiac	58 – Grumman
03 – BMW	31 – Porsche	59 – Imperial
04 – Buick	32 – Range/Land Rover	60 – International Harvester / Navistar
05 – Cadillac	33 – Saab	61 – Iveco / Magirus
06 – Chevrolet	34 – Saturn	62 – Kenworth
07 – Chrysler	35 – Subaru	63 – Lancia
08 – Dodge	36 – Suzuki	64 – Mack
09 – Ford	37 – Toyota	65 – MCI
10 – Geo	38 – Volkswagen	66 – Merkur
11 – GMC	39 – Volvo	67 – MG
12 – Harley Davidson	40 – Yamaha	68 – Moto-Guzzi
13 – Honda	41 – Daewoo	69 – Norton
14 – Hyundai	42 – Alfa Romeo	70 – Peterbuilt
15 – Infiniti	43 – AM General	71 – Peugeot
16 – Isuzu	44 – AMC	72 – Renault
17 – Jaguar	45 – Austin / Austin Healey	73 – Sterling
18 – Jeep	46 – Bluebird	74 – Thomas Built
19 – Kawasaki	47 – Brockway	75 – Triumph
20 – KIA	48 – BSA	76 – White / Autocar-White GMC
21 – Lexus	49 – Daihatsu	77 – Yugo
22 – Lincoln	50 – Diamond Reo / Reo	78 – Other Make Moped
23 – Mazda	51 – Ducati	79 – Other Make Motorcycle
24 – Mercury	52 – Eagle	97 – Other (specify)
25 – Mercedes-Benz	53 – Eagle Coach	98 – Don't Know
26 – Mitsubishi	54 – Fiat	99 – Refused
27 – Nissan/Datsun	55 – Freightliner	
28 – Oldsmobile	56 – FWD	

Source: Texas Transportation Institute.

Table E - 8. CATI Trip Data File Format.

Item	Begin	End	Type	Format	Description
1. Record Type	1	2	Numeric RJ	I2	Code indicating type of record. Here it should be 4.
2. Sample Number	3	9	Numeric RJ	I7	Unique non-zero number assigned to each household participating in survey. This number must match the number used for the same household and recorded in the Household Data File.
3. Month	10	11	Numeric RJ	I2	Month of survey day.
4. Day	12	13	Numeric RJ	I2	Day of the month of the survey.
5. Person Number	14	15	Numeric RJ	I2	Number assigned to the person doing this activity.
6. Activity/Trip Number	16	17	Numeric RJ	I2	The first trip/activity for each person will be recorded as 0 for where their day began. Each subsequent trip/activity should be numbered sequentially as 1, 2, 3, etc.
7. Activity Type Code	18	19	Numeric RJ	I2	Code indicating the type of activity. See activity codes below. This may be posted coded. For activity 0 (where day began), this should be coded as a 1 if it began at home, 4 if day began at work, or as 20 if it began at another location. If this is coded as 20, the activity description should be included in item 8.
8. Activity Description	20	79	Alphanum LJ	A60	Description of Activity.
9. Location	80	109	Alphanum. LJ	A30	Name of location where activity took place.
10. Location Address	110	169	Alphanum. LJ	A60	Street address of location or name of nearest intersecting streets.
11. Location City	170	199	Alphanum. LJ	A30	Name of city where location is.
12. Location County	200	201	Numeric RJ	I2	Code indicating county where location is; 1- Bastrop, 2- Caldwell, 3- Hays, 4- Travis, 5- Williamson, 6- Bexar, 7- Comal, 8- Guadalupe, 9- Kendall, 10 – Wilson, 98 – Unknown, 99- Refused

Item	Begin	End	Type	Format	Description
13. Zip Code	202	206	Numeric RJ	I5	Zip code of location address.
14. Exit Route Name	207	256	Alphanum LJ	A50	If location is outside of the SABCMPO or CAMPO modeling area, this is the name of the highway/route/road used to exit the applicable study area.
15. Exit Route Zip Code	257	261	Numeric RJ	I5	Zip code for route exiting the study area.
16. Study Area	262	262	Alphanum	I1	Code indicating study area in which activity address/TAZ zone is located. Use 'A' if zone is in the CAMPO study area, and 'S' if the zone is in the SABCMPO study area. Field should be left blank if location is not within one of these two MPO study areas.
17. Zone Number	263	267	Numeric RJ	I5	Zone number of location address. If in a SABCMPO or CAMPO modeling area county but location unknown, it should be coded 08888. Locations in Mexico should be coded 07777 and addresses outside of SABCMPO and CAMPO modeling area counties, but within Texas should be coded using the Statewide Zone System. Unknown locations outside of SABCMPO and CAMPO modeling area counties but within the state of Texas should be coded 06666. Addresses outside of Texas and Mexico should be coded using 09999.
18. Longitude	268	277	Numeric RJ	F10.6	Longitude of location. If within SABCMPO and CAMPO modeling area counties, but unknown it should be coded 888.8888. If outside SABCMPO and CAMPO modeling area counties but within Texas and unknown it should be coded as 6666. Locations in Mexico should be coded 777.7777 and addresses outside of Texas and Mexico should be coded 999.9999.

Item	Begin	End	Type	Format	Description
19. Latitude	278	287	Numeric RJ	F10.6	Latitude of location. If within SABCMPPO and CAMPO modeling area counties, but unknown it should be coded 888.8888. If outside SABCMPPO and CAMPO modeling area counties but within Texas and unknown it should be coded as 6666. Locations in Mexico should be coded 777.7777 and addresses outside of Texas and Mexico should be coded 999.9999.
20. Type of Place	288	289	Numeric RJ	I2	Code indicating the type of place at this location. If coded as "other", specify in the next field. See code definitions below.
21. Other Place	290	309	Alphanum. LJ	A20	Description of "other" type of place where activity occurred.
22. Purpose	310	311	Numeric RJ	I2	Purpose of trip, developed based on the activity type in Item 7. See code definitions below.
23. Mode of Travel	312	313	Numeric RJ	I2	Code indicating mode of travel used in traveling to this location. See travel mode code definitions below.
24. Other Mode	314	343	Alphanum. LJ	A30	If "other" is coded in mode of travel, this is the description of the "other" mode.
25. Number of People	344	345	Numeric RJ	I2	If travel was by private vehicle, this is the number of persons in the vehicle, including the person driving. Non-private vehicle modes should be coded 96.
26. HH Members	346	347	Numeric RJ	I2	Of those in the vehicle, how many were household (HH) members.
27. Persons on Trip	348	357	Alphanum LJ	A10	Who was/were the HH members traveling with you? Code person numbers separated by commas.
28. Non HH Members	358	359	Numeric RJ	I2	Compute Non HH Members using information from items 24 and 25.
29.HH Vehicle	360	360	Numeric RJ	I1	Was a HH vehicle used to make this trip? 1=Yes, 2=No, 8-Don't Know, 9-Refused.

Item	Begin	End	Type	Format	Description
30. Vehicle Used	361	362	Numeric RJ	I2	If household vehicle was used for travel, this is the vehicle number (must correspond with vehicle number in household record). If other vehicle is used, this should be coded as 99.
31. Body Type	363	364	Numeric RJ	I2	See code set for body type.
32. Other Body Type	365	399	Alphanum LJ	A35	If body type is not in code set, describe body type.
33. Other Vehicle Year	400	403	Numeric RJ	I4	Year of "other" vehicle used for trip. 9998-Don't Know, 9999-Refused.
34. Other Vehicle Make	404	405	Numeric RJ	I2	Make of "other" vehicle used for trip. See code set.
35. Other Vehicle Make Description	406	465	Alphanum. LJ	A60	If make of other vehicle is coded as other, this field contains a description of the vehicle make
36. Other Vehicle Model	466	525	Alphanum. LJ	A60	Model of "other" vehicle used for trip.
37. Other Vehicle Fuel	526	527	Numeric RJ	I2	Code indicating type of fuel used by "other" vehicle; 1-Gasoline, 2-Diesel, 3-Propane, 4- Natural Gas, 5- Electricity, 6-Other, 7-Hybrid, 98-Don't Know, 99-Refused.
38. Other Fuel	528	544	Alphanum. LJ	A17	Description of "other" fuel for "other" vehicle, if not in fuel code above.
39. Other Vehicle Commercial Use	545	546	Numeric RJ	I2	Code indicating if "other" vehicle used for commercial purposes; 1-Yes, 2-No, 98-Don't Know, 99-Refused.
40. To Bus Stop	547	548	Numeric RJ	I2	Code indicating if they walked more than one block to get to bus stop; 1-Yes, 2-No, 98-Don't Know, 99-Refused.
41. To Activity	549	550	Numeric RJ	I2	Code indicating if they parked or got off bus more than one block from this activity; 1-Yes, 2-No, 98-Don't Know, 99- Refused.

Item	Begin	End	Type	Format	Description
42. Off Bus Location	551	600	Alphanum. LJ	A50	Street address or nearest intersecting streets where person got off of bus.
43. Parking Location	601	650	Alphanum. LJ	A50	Street address of nearest intersecting streets where vehicle was parked.
44. Parking Cost	651	657	Numeric RJ	F7.2	Amount paid for parking.
45. Payment Method	658	659	Numeric RJ	I2	Time period for parking cost payment; 1-Hourly, 2-Daily, 3-Weekly, 4-Monthly, 5-Annually, 98-Other, 99-Don't Know / Refused.
46. Arrival Hour	660	661	Numeric RJ	I2	Hour that person arrived at this location. This hour should be in terms of military time. If this is activity 0, this should be blank since this is where they began their day.
47. Arrival Minute	662	663	Numeric RJ	I2	Minute that person arrived at this location. If this is activity 0, this should be blank since this is where they began their day.
48. Departure Hour	664	665	Numeric RJ	I2	Hour that person departed this location. This hour should be in terms of military time. If this is the last activity, this should be blank.
49. Departure Minute	666	667	Numeric RJ	I2	Minute that person departed this location. If this is the last activity for this person, this should be blank.

Source: Texas Transportation Institute.

Table E - 9. CATI Trip Data File Format Codes.

19. TYPE OF PLACE CODES	
1. Residential	1. Residential
2. Residential Type Workplace	2. Residential Type Workplace
3. Construction Site	3. Construction Site
4. Transportation stop (Bus, Train)	4. Transportation stop (Bus, Train)
5. Automotive Dealer/Repair	5. Automotive Dealer/Repair
6. Bank / Financial Institution	6. Bank / Financial Institution
7. Barber/Beauty/Nail Salon	7. Barber/Beauty/Nail Salon
8. Bookstore/Newstand	8. Bookstore/Newsstand
9. Convenience / Drug Store	9. Convenience / Drug Store
10. Government/City/County/State/Federal Offices	10. Government/City/County/State/Federal Offices
11. Offices (Non-Government)	11. Offices (Non-Government)
12. Grocery	12. Grocery
7. ACTIVITY TYPES	
1 – At Home; primary job related	12– Other Services
2 – At Home; other	13– Social / Recreational
3 – At Home; job and non-job related	14– Eat Out
4 – Work	15– Civic Activities (including church)
5 – Work Related	16 – Pick-up / Drop-off Person at Work
6 – School; post secondary, college, trade	17 – Pick-up / Drop-off Person at School / Day Care
7 – School; secondary-day care, kindergarten, elementary, middle, high	18 – Pick-up / Drop-off Person at Other
8 – Incidental Shopping; gas, groceries, etc.	19 – Change Mode of Travel
9 – Major Shopping; clothes, appliances, etc.	20 – Other Activity (specify)
10 – Banking	98 – Don't Know
11– Personal Business; laundry, dry cleaning, barber, medical, etc	99 – Refused

21. TRIP PURPOSE CODES	22. MODE OF TRAVEL CODES
1 – Home (Act. Codes 1,2,3)	1 – Walk
2 – Meal/Eat (14)	2 – Auto / Van / Truck Driver
3 – Work (Act. Codes 4)	3 – Auto / Van / Truck Passenger
4 – Work Related (Act. Code 5)	4 – Carpool Driver
5 – School; K thru 12 (Act. Codes 7)	5 – Carpool Passenger
6 – School; Post Secondary (Act. Code 6)	6 – Vanpool Driver
7 – Shopping (Act. Codes 8,9)	7 – Vanpool Passenger
8 – Personal (Act. Codes 10,11,12,15)	8 – Commercial Vehicle Driver
9 – Social / Recreation (Act. Codes 13,)	9 – Commercial Vehicle Passenger
10 – Pick-up Drop-off Other (Act. Code 16,17,18)	10 – Bus
11 – Change Mode (Act. Code 19)	11 – School Bus
12 – Other (Act. Code 20)	12 – Taxi / Paid Limo
98 – Don't Know	13 – Bicycle
99 – Refused	14 – Motorcycle / Moped
	15 – Other
	98 – Don't Know
	99 – Refused

Source: Texas Transportation Institute.