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2014 Southern Nevada Household Travel Survey Final Report

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1. Introduction and Executive Summary

In May of 2013, the Regional Transportation Commission of Southern Nevada (RTC) issued a request for proposals seeking professional services for the 2014 Household Travel Survey (HTS). Information collected as a part of the HTS will be incorporated into the RTC Travel Demand Model (TDM) update, used in support of advanced model development and analyzed to provide an assessment of current travel behavior in the Las Vegas region.

RTC contracted with Westat to conduct the 2014 HTS. The initial contract called for collection of demographic and travel data for 4,000 households. In the summer of 2014, RTC secured funds to add 3,000 additional surveys for a total of 7,000. To achieve this total, Westat recruited 11,545 households from an address-based sampling frame (ABS) using web and computer-assisted telephone interviews (CATI). A total of 7,072 households reported travel details via either web, CATI, or mail-back options.

The survey also included a random selection of a 10% subsample of households to take part in a global positioning system (GPS) technology-based component of the study, the purpose of which was to assess the level of trip under-reporting from the self-reported component of the survey. Each GPS participating household agreed to have all members between the ages of 16 and 75 carry a GPS device to passively record travel details for three full days, with the first day assigned as their travel day to also record their trips using the travel log. There were 1,168 GPS households recruited into the survey, of which 857 completed both phases (GPS and log reporting) of the survey.

The survey collected socio-demographic data and a one-day (24-hour) period of household travel behavior during weekdays (Monday through Friday). The survey covered the RTC modeling domain, which includes the RTC Travel Demand Model (TDM) area (i.e., the Las Vegas Valley, which includes City of Las Vegas, City of North Las Vegas, City of Henderson, unincorporated Clark County areas within the Las Vegas Valley and the core of Boulder City).

The dataset was weighted and expanded to the 2012 American Community Survey 5-Year estimates (2008-2012) and the results of the data match those control totals. That process yielded the following socio-demographic and travel behavior observations:

- Boulder City and Clark County Paradise have a higher representation of 1- and 2-person households than the region as a whole; conversely, the City of North Las Vegas has fewer 1- and 2-person households that the regional average
- Clark County - Unincorporated, East Las Vegas, and the City of North Las Vegas have the highest proportions of larger households (those with 4 or more people) at 27% or higher compared to the regional average of 25%
- Boulder City and the City of Henderson have the highest share of households with incomes above $75,000 per year at 37.8% and 42.5%, respectively. In contrast, the region as a whole averages 29.1% of such households, with East Las Vegas and Clark County Paradise having the fewest at 10.7% and 22.3%, respectively
- Boulder City, Clark County – Paradise, and East Las Vegas have a notably higher proportion of households with no workers than the region average of 24.2% at 33.4%, 29.6%, and 32.7%, respectively
- Regarding households with one or more children, the regional average of 32% was exceeded by City of North Las Vegas (45.2%) and East Las Vegas (35.1%)
- Clark County – Paradise and East Las Vegas have a greater share of households with no personal vehicles than the regional average of 8.3% at 17.5% and 16.8%, respectively, whereas Clark County Unincorporated (1.3%), Clark County – Southwest (3.6%), and the City of Henderson (3.4%) have a significantly lower share of such households
- Regarding households with no licensed drivers, the regional average of 5.1%
    - This is exceeded by East Las Vegas (11.6%) and Clark County – Paradise (10.2%).
    - The share of transit trips for households in these jurisdictions also outpaces the regional average of 4% at 8% and 7%, respectively
    - Similarly, the share of non-motorized trips in East Las Vegas (18%) and Clark County – Paradise (19%) outpaces the regional share of 12%
- The average length of a work-related trip in the region is 22.7 minutes and 8.7 miles long.
    - Clark County Unincorporated workers have the shortest average commute time (4.9 minutes) and distance (1.8 miles)
    - Boulder City residents spend an average of 19.4 minutes to travel 9.3 miles.
    - The longest commutes are experienced by residents in the City of North Las Vegas and East Las Vegas at 25 and 24.2 minutes, respectively
- A review of work commute times by race shows white residents with an average commute time of 21.9 minutes have a commute time lower than the regional average (22.7)
    - All other residents have longer average commutes, though only residents identifying as Native Hawaiian or Pacific Islander are significantly longer at 30.8 minutes
    - Looking at average distance, persons identifying as either "African American or Black" and "American Indian, Alaskan Native" travel 7.7 and 7.6 miles which is lower than the 8.7 mile average for the region. However, this is offset by the fact that their average length of commute exceeds the regional average.
- Both genders have work commutes equivalent to the regional average
    - This is also true for school trips and other, discretionary trips like shopping and running errands
- Only Boulder City has a notably shorter average for school commute trip times at 10.2 minutes (versus the regional average of 16.4 minutes)
    - East Las Vegas has the longest average time for school commutes at 18.8 minutes

2. Survey Overview

2.1. Sample Design

2.1.1. Sample Frame and Selection

An address-based sample (ABS) frame was developed to identify all residential addresses in the study area and then a randomly selected sample of those addressed were invited to participate in the HTS. The ABS was selected from the United States Postal Service (USPS) Computerized Delivery Sequence File and included all street addresses in the geographic region of Clark County, including Las Vegas Valley which contains City of Las Vegas, City of North Las Vegas, City of Henderson, unincorporated Clark County areas within the Las Vegas Valley, and the core part of Boulder City. An attempt was made to match each sampled address with a landline telephone number. In cases where an address was matched to a telephone number, the phone number may have been used to contact a non-responding sampled address during the data collection process. All sampled addresses were eligible to participate in the study.

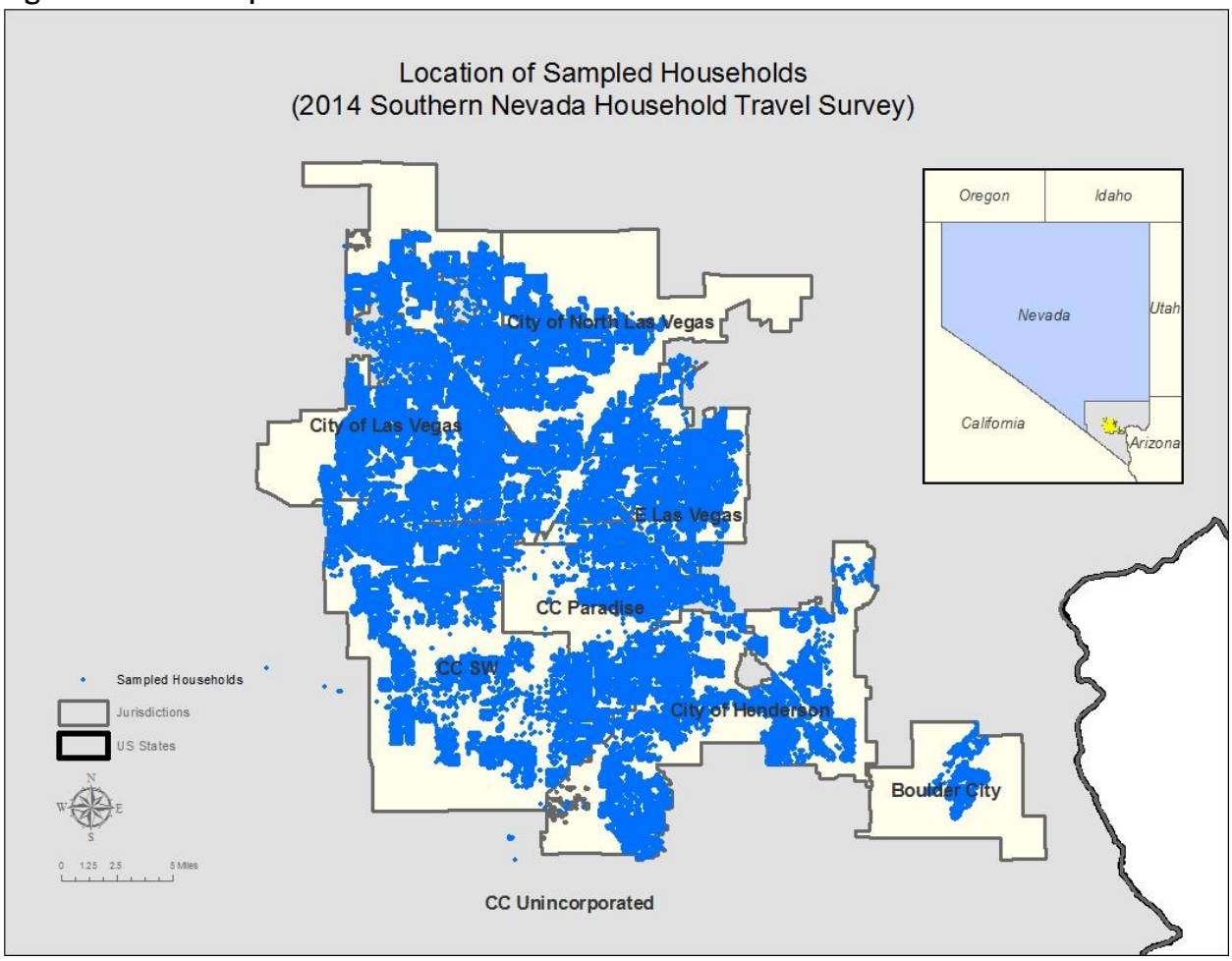
Based on pre-survey response rate assumptions, a sample of 146,000 residential addresses were selected for inclusion in the HTS to achieve the goal of 4,000 completed households. With spring data collection indicating a better-than-anticipated response rate, and with the addition of 3,000 surveys, 32,000 residential addresses were added to the original sample frame amount for a total of 178,000 addresses. Including households sampled in the pilot survey, a final grand total of 181,000 households were invited to participate in the HTS.

2.1.2. Sample Preparation

Prior to the beginning of data collection, the sampled addresses were assigned to release groups. Each release group was comprised of addresses that were representative of the entire modeling domain. Release groups are used to control the timing and amount of sample released. Multiple release groups of addresses were mailed invitations and reminder postcards simultaneously. Each release group contained 2,000 addresses, allowing the release of the sample to be managed effectively and efficiently as data collection proceeded.

The ABS sampling and release group strategy is designed to provide the best opportunity to achieve the sample objectives for geographic and socio-demographic distributions, day-of-week distributions, and to manage workflow. Figure 1 shows the locations of all sampled addresses.

Figure 1. Sampled Household Locations



To achieve a balanced day-of-week distribution, the sample was also randomly assigned a specified weekday (Monday to Friday) travel day with 20 percent of the sample assigned to each of the five travel days. A calendar date was selected based on the day of week assignment, and then a specific travel date was assigned during the recruitment survey.

The next step was to randomly select addresses to be invited to participate in the GPS subsample. A total of 40 percent of all sampled addresses were selected to be invited to participate in this part of the study. Prior to the completion of the recruitment survey, flagged addresses were evaluated to ensure that they were eligible to participate in the technology survey before being invited to do so. Details about eligibility for the technology subsample are discussed in the GPS Subsample section of this report.

2.2. Survey Methodology

The HTS was initially designed to collect travel behavior data from 4,000 households in the region beginning in the spring of 2014 and continuing through the fall of 2014. In the summer of 2014, RTC funded an additional 3,000 surveys, and an additional sample was drawn to achieve a new total of 7,000 completed surveys. The study was designed as a mixed-mode survey providing web and telephone options for the recruitment survey and web, telephone, and mail participation options for the retrieval or travel survey. In addition to the traditional self-report one-day travel survey, a three-day GPS subsample was included in the HTS. This section of the report describes the survey instruments design and the data variables captured in the survey instruments.

2.2.1. Survey Recruitment and Retrieval Instruments

The HTS instrument was designed to collect key analytic data required to support the development of travel demand and forecasting models. The survey instrument collected specific data items for each person age 5 and older in the household, including the travel behavior data for one weekday (24-hour period, Monday through Friday).

While these data are important, it is critical that they be collected in a way that minimizes respondent burden. The recruitment and retrieval surveys were administered using an integrated web survey software system that was used for both computer-assisted self-interviews (CASI) and computer-assisted telephone interviewing (CATI). The surveys completed by web or telephone methods used the same underlying questions, branching, format, and logic checks. The web-based recruitment and retrieval instruments were accessible to participants via the project-specific public website. Each household was assigned a unique PIN during the initial outreach mailings allowing secure access to both questionnaires. Survey staff entered data contained on the travel logs received by mail into this same database, using the same web system.

The recruitment questionnaire collected key TDM-focused demographic information about each household including income, household size, type of housing, and information about vehicle ownership. This questionnaire also asked for demographic characteristics about each member of the household such as age, gender, work, and student status, among others. At the conclusion of the recruitment survey, households were assigned a travel date. Households were also asked to indicate their preferred mode of contact for future reminders; options included telephone calls, text messages, and emails. This information allowed Westat to tailor the reminder and subsequent re-contact attempts to the participant's preference.

Travel day details were collected through the TripBuilder™ component of the web survey software system, with an integrated online map that enabled real-time geocoding to collect accurate travel details. Travel details were collected in two steps. The first step was the creation of a sequential list of places visited and basic attributes, including arrival and departure times, mode of travel, place type, location information, and travel companions. The second step collected additional place details, such as activities engaged in at each place, and parking and transit fare information.

The following sections list the key information that was verified, collected, or derived about each completed household. A full detailed list of variables are provided in a separate data codebook for reference.

2.2.1.1. Household Data

Household-level details were collected for each household in the final dataset. Among the variables reported in the data are:

- Household size
- Household income
- Number of vehicles
- Number of bicycles in working condition

2.2.1.2. Person Data

Specific questions were asked about each household member living in the home on the date the recruitment survey was completed. Key person-level variables collected about household members include:

- Age
- Gender
- Relationship of all household members to the recruit survey respondent
- Licensed driver status (age eligible)
- Employment status (age eligible)
- If employed, additional data items related to work
- Student status

- If a student, additional data items related to school
- Highest level of education earned
- Hispanic origin
- Race

2.2.1.3. Travel Day Trip Data

The travel day began at 3 a.m. on the assigned date of travel. Data were collected for each trip made by each household member (age 5 and older) throughout the day until 2:59 a.m. the following day. Key trip-related details collected include:

- Trip start and end locations
- Trip start and end times
- Mode of travel
- If household vehicle was used, additional data items related to the vehicle and passengers
- Primary activity at each location (trip purpose)

2.3. Branding and Public Outreach

The RTC acknowledged the importance of a well-crafted public outreach effort as a critical component of the success of the survey. The public relations department of RTC utilized three tools and strategies to facilitate an effective public outreach effort.

First, the branding developed for the survey was designed to be consistent with existing RTC brands in order to leverage the well-established RTC brand. Figure 2 shows the final artwork for the HTS logo and a special variation of the RTC logo with the added words "BROUGHT TO YOU BY". Because RTC is well known and respected in the region, all participant materials also included this RTC logo to add legitimacy to the survey.

Figure 2. Study Logo

Second, a website was developed to be consistent with the existing RTC site. The color scheme and design of the site were intentionally similar to the RTC main website so that participants would see an immediate connection between the survey and the RTC. A short, descriptive web address, or uniform resource locator (URL) was used to allow for easy dictation to, and recall by participants (SNVtravelsurvey.com). The site included an informational video featuring the RTC General Manager, and served primarily as a portal for joining the survey for prospective participants, and secondarily as a means for participants to access information and view frequently asked questions (FAQs) along with press releases and links to external media coverage.

Finally, press releases were developed and distributed at key stages of the survey effort. The releases were timed in conjunction with the commencement of each phase of the survey data collection efforts to increase survey recognition by potential respondents, to provide legitimacy of the survey, and emphasize its importance to the region.

2.4. Data Collection

The data collection began with letters of invitation mailed in January 2014 to sampled addresses and ended with final travel data collection in early January 2015. The official study travel dates spanned two data collection periods. The first period of travel dates began on Monday, March 10, 2014 and with the last travel date on Friday, May 23, 2014. The second period began on Monday, August 25, 2014 with the final travel date of Friday, January 9, 2015. Holidays, which coincided with public school holidays, were excluded from the valid set of assigned travel dates.

The survey data collection process included the recruitment of participants, various reminder contacts distributed across the field period, and the retrieval of the travel day data. The following sections describe this process in more detail.

2.4.1. Recruitment Process

Recruitment began by mailing a letter of invitation to participate in the survey to sampled addresses. The letter informed the recipient about the purpose of the study and encouraged participants to self-recruit online and provided the website URL and a personal identification number (PIN) to gain access to the survey associated with the address. The letter also informed the recipient that each participating household would be eligible for various incentives. (See Appendix 6.1.1 for the advance letter.)

Invitation letters were mailed to 178,000 addresses in the region. A letter was sent regardless of whether or not the sampled address had a phone match. The letter was addressed to "city" resident (e.g., Las Vegas Resident), printed on project branded letterhead and signed by Tina Quigley, RTC General Manager. All mailed materials included a toll-free number to reach the study team if respondents had questions or preferred to participate by phone.

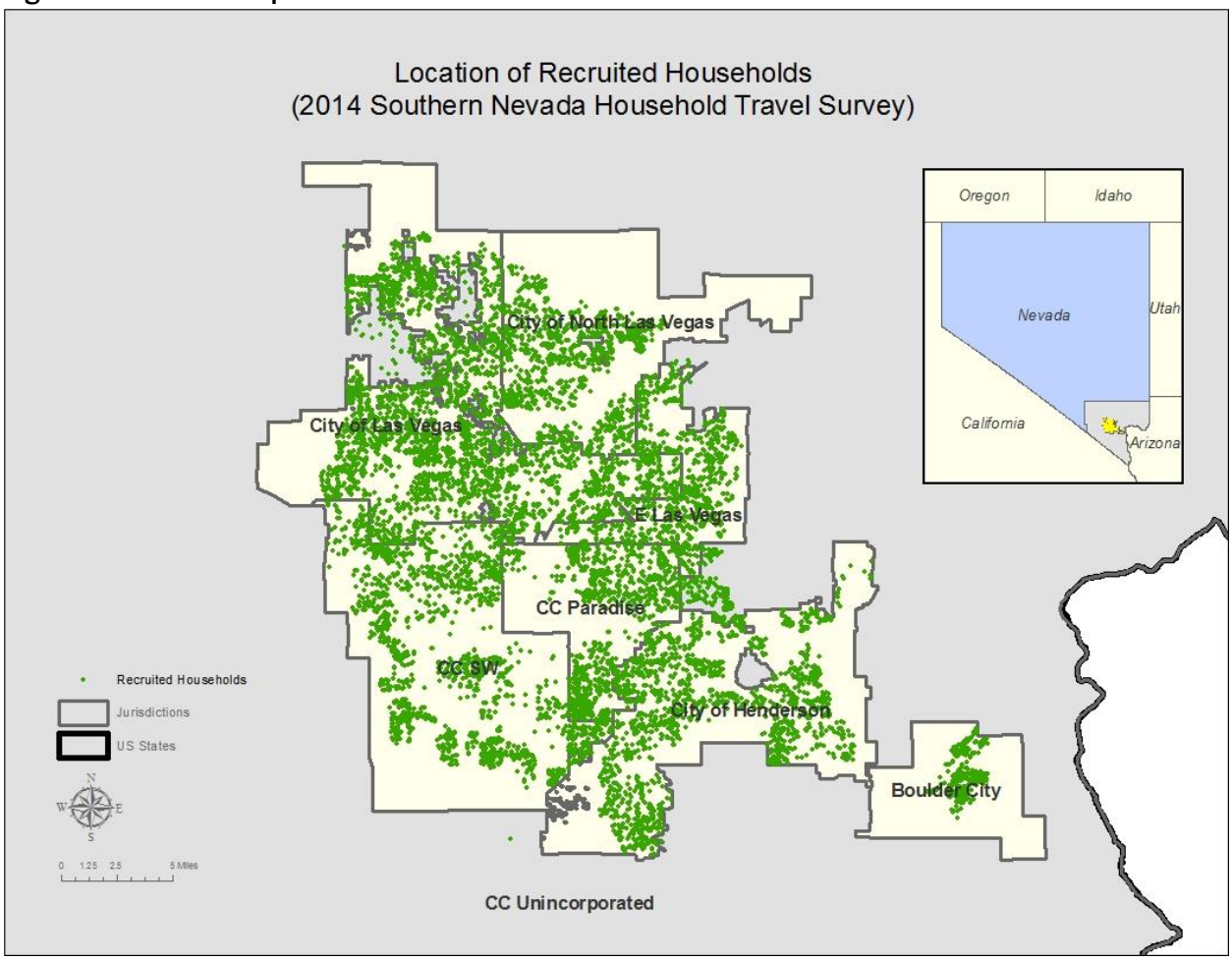
Up to two reminder postcards were mailed to each sampled address across the region. Mailed materials included a toll-free number to allow respondents to call the study team if they had questions or preferred to participate by phone. The third postcard was a targeted postcard, used to improve the recruitment of Spanish-speaking households. This postcard included a unique toll-free number that was dedicated to field incoming Spanish inquiries.

Attempts to recruit sampled households into the study also included telephone contacts. Recipients of the mailed materials were given the option to self-recruit themselves or speak with one of Westat's survey team over the phone. Most households (91 percent) completed the recruitment process online. If a household had not self-recruited and a telephone number was available, telephone interviewers attempted to recruit households until the targeted recruitment goals had been met. Table 1 shows the target and actual number of recruitment responses for each of the eight jurisdictions. The home locations of all recruited households are shown in Figure 3.

Table 1. Target and Actual Recruited Households by Sample Region

Jurisdiction	Target	Actual	Percentage
Boulder City	330	397	120%
City of Henderson	1,640	1,801	110%
City of Las Vegas	3,503	3,639	104%
City of North Las Vegas	1,097	1,075	98%
Clark County Paradise	1,275	1,230	96%
Clark County SW	2,273	1,996	88%
Clark County Unincorporated	337	316	94%
E Las Vegas	985	1,091	111%
Total	**11,667**	**11,545**	**99%**

Figure 3. Participant Household Locations – Recruited Households



2.4.1.1. Recruitment Reminder Contacts (Postcards)

The study protocol included sending each address in the sample a reminder postcard seven days after the advance letter was sent. Up to three postcards were sent to each sampled address. Responding households were purged from the reminder files (see Appendix 6.1 for examples of the reminder postcards).

2.4.1.2. Travel Date Assignment

When the sample was initially selected, each address was randomly assigned to a day of the week (Monday through Friday). Specific calendar dates were assigned at the time the household was recruited into the study based on the day of week that they were assigned when sampled. The goal was to have an even distribution of 20% of households to each of the five days of the week. During

the recruitment survey, households agreeing to participate were assigned the next available date that fell on the pre-assigned day of the week, beginning seven days after the recruitment date. Travel days were scheduled seven days after the recruitment interview to allow sufficient time for individualized travel logs to be prepared and mailed to each recruited household. Households were also given the option to print the travel logs themselves. This allowed for a shorter delay in the assignment of the travel date including the potential for the travel date to be assigned the next day (in cases where the participant had a day of week assigned that would allow for it). Table 2 shows the distribution of recruited households by day of week.

Table 2. Unweighted Distribution of Recruited Households by Day of Week

Household Travel Day	Frequency	Percentage
Monday	2,266	20%
Tuesday	2,396	21%
Wednesday	2,289	20%
Thursday	2,276	19%
Friday	2,318	20%
Total	**11,545**	**100%**

2.4.1.3. Recruitment Confirmation

When a household provided an email address or text message contact number during the recruitment survey, they received a follow-up automated recruitment confirmation message via their preferred contact mode. This message confirmed that their recruitment survey data were successfully received and provided to them the toll-free phone number to reach a study team member if they had questions.

2.4.2. Travel Log and Pre-Travel Date Contacts

Between recruitment into the study and the actual travel behavior data collection, other steps were taken to enhance household participation and provide materials to assist in the process. These efforts are presented in the following sections.

2.4.2.1. Travel Log Mailing

Once recruited, each household was mailed a travel log packet. The mailing included a letter thanking the household for agreeing to participate, instructions regarding how to participate, individualized travel logs for each household member age 5 and older, and an example log that

showed how to complete the log. These materials were available online for those who chose to download the materials, rather than receive them through the mail.

The instructions asked household members to use the travel log (on the assigned travel day) as a tool to help each household member record all trips made beginning at 3 a.m. on that date through 2:59 a.m. the following day. Instructions were provided regarding how to report travel online or over the phone. The letter indicated that all completed households would receive a $10 incentive (or $25 if all steps were completed online). (See Appendices XX and XX for the letter and travel log.)

2.4.2.2. Pre-Travel Day Reminder Contacts

The day before the assigned travel day, each household was contacted by their preferred method to be reminded of their travel day (phone, email or text message). If contacted by phone, Westat verified that all travel day materials had been received and ensured any questions were answered. Email reminders allowed participants to respond to the email with questions. Study team members responded to each participant email in a timely manner.

2.4.3. Retrieval Process

In total, there were 7,072 completed households in the sampled region. Households were encouraged to self-report their data online; however, a telephone interview option and mail-back option were also available.

2.4.3.1. Post-Travel Day Reminder Contacts

A series of electronic reminders were delivered to recruited households in an attempt to improve survey response. Beginning the day after the travel date, up to five reminder prompts were sent as text messages or emails depending on the contact preference requested by the household. These reminders included the households' PIN and links to the public website.

2.4.3.2. Retrieval Details

Households were able to begin reporting their travel day trip and activity details by web or CATI beginning the day after the travel day. Households preferring to complete by telephone with an interviewer were called the first day after their assigned travel day. Those preferring to complete by web were also called if the household had not reported their travel by the third day after the travel

day. However, this was reduced to the second day for the fall data collection effort in hopes that contacting a household closer to the travel date would achieve the maximum response rate sooner after the travel date than later. In some cases households required rescheduling of their travel date for various reasons including the entire household being out of the study area on the originally scheduled travel date, misplaced diaries, etc. These requests were accommodated whenever possible.

The retrieval questionnaire data was collected using Westat's TripBuilder Web™ (TBW) web-based software that enabled all participants regardless of response mode to provide travel and activity details while geocoding each reported locations in real-time. TBW uses a built-in mapping interface developed with the Google Maps Application Program Interface (API).

2.4.3.3. Definition of a Complete Survey

Households where all members reported travel details for the assigned travel day were considered complete and subsequently included in the final data deliverable file assuming that all edit checks and post processing errors were able to be cleared. There was an allowance for large households with 4 or more members, where, if all but one member reported travel details, the household could still be included as a complete. However, the dataset included no households of this type.

2.4.4. Sample Monitoring

Recruitment and retrieval results were monitored daily. Each sample mail group was monitored to assess sample yields. As noted earlier, fewer addresses were required than originally estimated to reach the targeted completes; therefore, the sample release plan was adjusted accordingly.

Figure shows the percentage of recruited households by recruitment mode. Although participants were encouraged to self-recruit online, providing response choices allowed each participant the option to select the mode of participation that best suited him or her without recruiting more households than necessary. Overall, 91 percent of all recruited households took advantage of the self-recruiting option.

Figure 4. Recruitment Response Mode (CATI & Web)

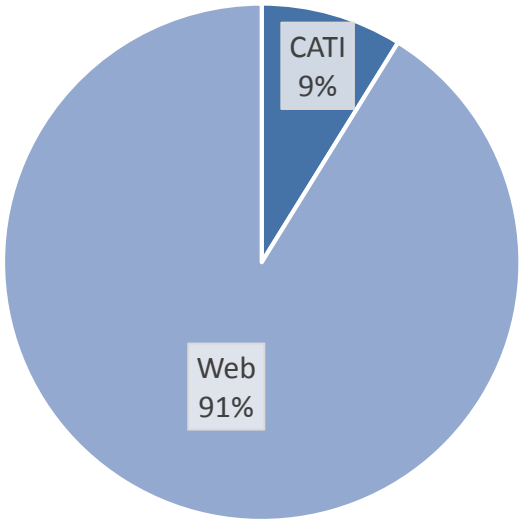


Table 2 presents the distribution of recruited households across day of week and Table 3 presents the completed households by day of week. The retrieved household percentages presented here are similar to the recruited results presented in Table 2. The weighted figures in Table 3 show that the weighting process did not substantially change the distribution of travel across the five days of the week as compared to the unweighted results, i.e., close to 20% of the total count of households were assigned to travel on each of the five days.

Table 3. Distribution of Retrieved Households by Day of Week

	Unweighted		Weighted	
Household Travel Day	Frequency	Percentage	Frequency	Percentage
Monday	1,394	20%	136,952	20%
Tuesday	1,501	21%	147,484	21%
Wednesday	1,399	20%	136,194	20%
Thursday	1,371	19%	133,859	19%
Friday	1,407	20%	135,882	20%
Total	**7,072**	**100%**	**690,372**	**100%**

Retrieval percentages by response mode are presented in Figure and show the use of each of the modes was generally well distributed across the final sample.

Figure 5. Retrieval Response Mode (CATI, Mail & Web)

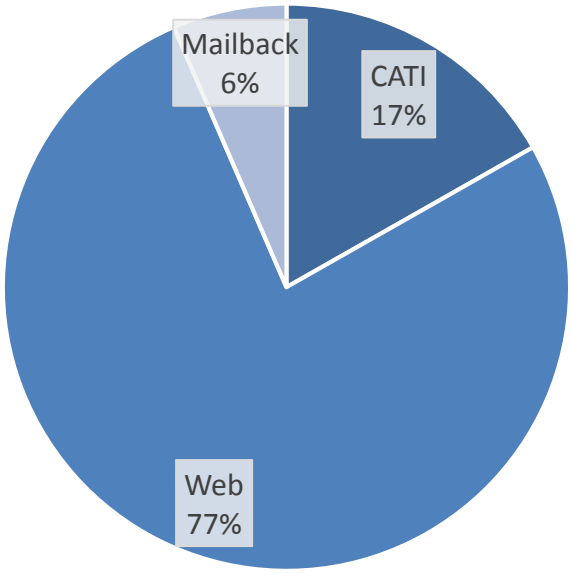
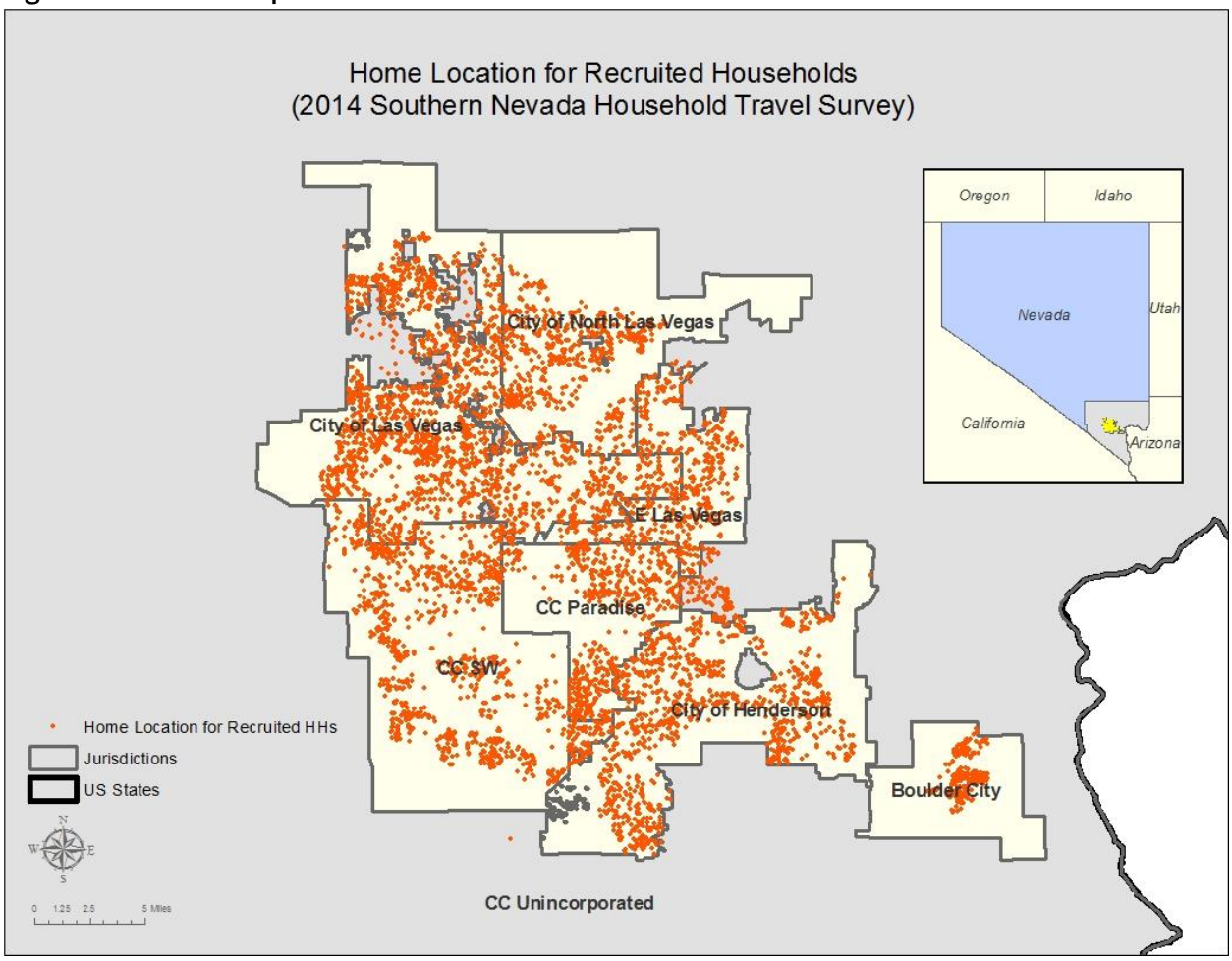


Table 4 shows the jurisdiction-level completion goals for the study. Sample in City of North Las Vegas, Clark County Paradise, and Clark County SW performed less well compared to sampled households in other jurisdictions. Figure shows how the participating households are distributed across the region.

Table 4. Overall Retrieved Households Summary by Region

Jurisdiction	Target	Actual	Percentage
Boulder City	198	276	139%
City of Henderson	984	1,181	120%
City of Las Vegas	2,102	2,207	105%
City of North Las Vegas	658	624	95%
Clark County Paradise	765	715	93%
Clark County SW	1,364	1,257	92%
Clark County Unincorporated	202	205	101%
E Las Vegas	591	607	103%
Total	**7,000**	**7,072**	**101%**

Figure 6. Participant Household Locations – Retrieved Households



2.4.5. Demographic Characteristics of Survey Participants

In Table 5, several unweighted demographic variables captured in the survey are compared to those same variables reported in the 2009 – 2013 American Community Survey (ACS) 5-Year Estimates for the region. Consistent with most survey samples, many of the hard-to-survey populations are underrepresented in the HTS data (e.g., larger households, Hispanic households, and young adults). In the expansion step, survey weights were adjusted to achieve consistency with various demographic categories of the full population (obtained from the most recent ACS). When survey weights are applied to the survey data, survey estimates reflect the population. Characteristics or categories of some of the hard-to-reach populations were used to define the expansion cells in HTS. Data weighting is discussed in Section 4.

Table 5. Unweighted Demographic Results Compared to 2009 – 2013 ACS 5-Year Estimates

Demographic		Retrieved Households	ACS
Total Households		7,072	710,058
Household Size	1	29.3%	27.0%
	2	40.5%	32.4%
	3	14.0%	15.5%
	4+	16.2%	25.0%
Household Vehicles	0	11.4%	8.6%
	1	37.5%	40.3%
	2	35.9%	39.6%
	3+	15.2%	15.9%
Race	White	67.0%	66.6%
	African American	9.4%	10.6%
	Other	18.6%	22.8%
	Don't Know/Refused	4.9%	-
Hispanic	Yes	14.4%	29.4%
	No	83.5%	70.6%
	Don't Know/Refused	2.1%	-
Participant Gender	Male	47.7%	50.3%
	Female	51.5%	49.7%
	Don't Know/Refused	0.8%	-
Participant Age Distribution	<18 years old	18.2%	24.7%
	18 - 24	5.9%	9.2%
	25 - 54	39.5%	43.1%
	55 - 64	14.7%	11.2%
	65+	17.3%	11.9%
	Don't Know/Refused	4.4%	-

2.5. Survey Response Rates

Response rates were calculated for both the recruitment and retrieval stages of the survey. The recent decline in survey response rates has been well documented. The shift from random digit dialing (RDD) to address-based sampling (ABS) frames provides many benefits to targeted sampling and coverage bias, but only adds to the diminishing response rate issue. In general, approximately 40 to 50 percent of all sampled addresses are matched to a telephone number, and about 15 percent of those matches generally prove to be bad matches (e.g., not associated with the sampled address). Because more than half of the sampled households are only reachable by mail in the ABS sample design, passive refusals happen at a high rate. Response rates achieved from ABS frames are largely dependent on the salience of the study, the presentation of the recruitment materials, and public outreach campaigns.

The recruitment rate ($R_{Recruit}$) in surveys using an ABS is calculated by dividing responding households by eligible addresses.

$$R_{Recruit} = \frac{Recruited\ Households}{Sampled\ Addresses\ -\ Postal\ Non-Deliverable}$$

The retrieval rate ($R_{Retrieve}$) is the percentage of households that completed the study after agreeing to participate.

$$R_{Retrieve} = \frac{Retrieved\ Households}{Recruited\ Households}$$

The final response rate (R_{Final}) is the product of the recruitment and retrieval rates.

$$R_{Final} = R_{Recruit} \times R_{Retrieve} = \frac{Retrieved\ Households}{Sampled\ Addresses - Postal\ Non-Deliverable}$$

Table 6 shows the recruitment, retrieval and overall response rates for the HTS by jurisdiction. Boulder City had the highest rates of response in all three measures, whereas E Las Vegas had some of the lowest in all three measures. However, the rates in each jurisdiction were sufficient to yield enough completed cases across all eight jurisdictions.

Table 6. Response Rates by Jurisdiction

Jurisdiction	Recruitment	Retrieval	Response
Boulder City	7.94%	69.5%	5.52%
City of Henderson	7.09%	65.6%	4.65%
City of Las Vegas	6.70%	60.6%	4.06%
City of North Las Vegas	6.36%	58.0%	3.69%
Clark County Paradise	6.24%	58.1%	3.62%
Clark County SW	5.67%	63.0%	3.57%
Clark County Unincorporated	6.07%	64.9%	3.94%
E Las Vegas	5.81%	55.6%	3.23%
Total	**6.40%**	**61.3%**	**3.92%**

As expected in all voluntary surveys there is some level of item non-response. The programming for the HTS did not allow participants to skip questions; however, participants could provide a "don't know" or "prefer not to answer" response to most survey questions. Table 7 presents variables with the highest level of non-response. For households that refused income in the initial, recruitment stage, a follow-up with broader categories was presented in retrieval. This resulted in a reduction of

income non-response from 834 to 490 households for a final non-response rate of 6.9%. The person non-response for "reason for not traveling" and "number of jobs" were the only person-level variables to exceed 5% non-response.

Table 7. Item Non-Response

Non-response Variable	Frequency	Total Queried	Percentage	Weighted Frequency	Weighted Percentage
Household Income - Follow-up	490	7,072	6.9%	43,991	6.4%
Reason for not traveling	169	2,329	7.3%	21,747	7.8%
Number of Jobs	375	7,431	5.0%	52,212	5.7%
Age Follow-up	100	2,329	4.3%	10,536	3.8%
Level of Education	454	15,042	3.0%	67,025	3.8%
Days traveled to work per week	148	6,486	2.3%	19,685	2.5%
Employment	204	13,352	1.5%	24,929	1.7%
Student Status	208	16,101	1.3%	32,864	1.7%

2.6. GPS Subsample

The objective of the GPS component of the HTS was to complete GPS and travel day trip reporting with a subsample of 700 households in order to estimate levels of trip underreporting in the log only household sample. Trip rate correction factors computed from data from this 10 percent GPS subsample may be used to adjust trip rates in the non-GPS sample.

Households agreeing to participate in the GPS subsample were asked to use the data loggers for three days, and also required to complete a travel log and report their travel for one day (i.e., their assigned travel date). In addition to reporting travel day trip details, these households were sent data loggers for all household members between the ages of 16 and 75 (inclusive). These GPS data loggers were to be worn for three consecutive days beginning on the assigned travel date. A $25 incentive per instrumented person was offered to all recruited GPS households. In order to be eligible for the incentive each household member had to report travel data for the assigned travel date, each instrumented household member had to use the GPS devices provided, and all devices had to be returned to Westat. The following sections detail the GPS data collection and processing methods used in the HTS.

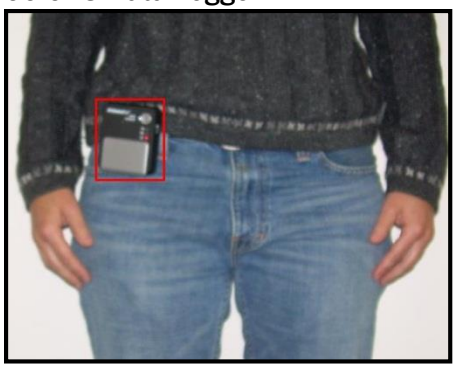
2.6.1. Deployment: Equipment, Procedures, and Results

This section of the report describes the GPS equipment used, the methods employed to distribute and collect the GPS devices, and presents the results of the deployment effort.

2.6.1.1. Wearable GPS Equipment

To collect GPS data for the HTS, Westat used the GlobalSat GPS Data Logger (Figure 7). Westat has used this device in multiple household travel and physical activity studies since 2007. The GPS data stream collected the following elements: date, time, latitude, longitude, and speed. These elements were stored in the logger in standard National Marine Electronics Association (NMEA) units and were converted into .csv files upon download. For the HTS, the logging frequency was 3-second intervals with the speed screen activated so that no data was stored when the device recognized a point speed of zero.

Figure 7. GlobalSat DG-100 GPS Data Logger



2.6.1.2. Deployment Materials and Procedures

Households were recruited into the study at least 10 days prior to their assigned travel date to allow sufficient time to prepare the personalized GPS instructions, travel logs, equipment, and to schedule the arrival of the package prior to the assigned travel date.

Clear instructions were shipped with the devices and included an assignment sheet with each household member assigned a specific logger. To further assist in the data collection effort, a sticker was affixed to each GPS device with the first name of the household member printed on the sticker. A toll-free telephone number was also provided in the instructions if further assistance with device use was needed. The instructions emphasized that even though the household was included in the technology component of the study, they also needed to use the travel logs to record all the places they went on the assigned travel date.

An equipment usage sheet was also provided in the GPS package. The participants were asked to complete and return this form with the devices. The form asked household members to record if they used their data logger, and if not, to list the reason(s) why. Examples of the GPS device

instructions and equipment usage sheets are provided in appendices. GPS packages were shipped via FedEx and included the following materials:

- A letter for the household introducing the GPS materials and devices;
- Personalized travel logs for each person age 5 and older (with labels identifying each person);
- Instructions for charging and using wearable GPS devices (including device assignments);
- Wearable GPS devices and a power cable for charging each GPS device; and,
- FedEx return packaging, including a prepaid label and instructions for returning the devices, the power cables, and the equipment usage sheet.

The equipment was shipped to arrive two business days prior to the assigned travel day (the first day of the three day equipment deployment period). Participants were asked to return all of the equipment and the completed equipment usage sheet immediately after the assigned GPS data collection period, but asked to hold onto their logs to use when reporting their travel online or over the phone. Both outbound and return equipment packages were tracked using the FedEx Application Programming Interface (API).

The deployment team tracked the household deployment status for each household using an internal website. The default deployment status was "Recruited." The status of each household in the system was updated daily to reflect the households' current state in the deployment process. Below is a list of all household deployment status codes: the first four statuses reflect the ideal progression of a successful deployment from recruited to equipment used and returned (i.e., GPS complete). The final four statuses were assigned to GPS-recruited households that did not result in the collection of any, or any useful, GPS data.

- Recruited
- Shipped
- Deployed
- Returned Deployed (used and returned equipment)
- Invalid Address
- Returned Refused (elected not to participate)
- Return-Delivery Exception (package unable to be delivered by FedEx)
- Not Returned/Lost

After receiving the returned equipment, the deployment staff downloaded the GPS data from each data logger and cleared the device memory for redeployment. The downloaded GPS files were then imported into the project database where the data processing was conducted.

2.6.1.3. Results of Deployment: Participation Rates

Based on Westat's experience conducting household travel surveys with a GPS component, we estimated that 67 percent of all household recruited into the GPS subsample would complete all required steps in the survey process. A target of 1,167 recruited GPS households was established to achieve 700 completes. Westat recruited 100 percent of the goal, or 1,171 households, into the GPS component of the study. The completion rate of 73 percent exceeded our assumptions and resulted in 857 GPS complete households. Table 8 summarizes the recruitment and completion results of the GPS subsample effort.

Table 8. GPS Recruitment and Completion Results

Stage	Actual	Target	% Complete
Recruitment	1,171	1,167	100.3%
GPS/Log Retrieval	857	700	122.4%

2.6.2. GPS Data Collection and Processing

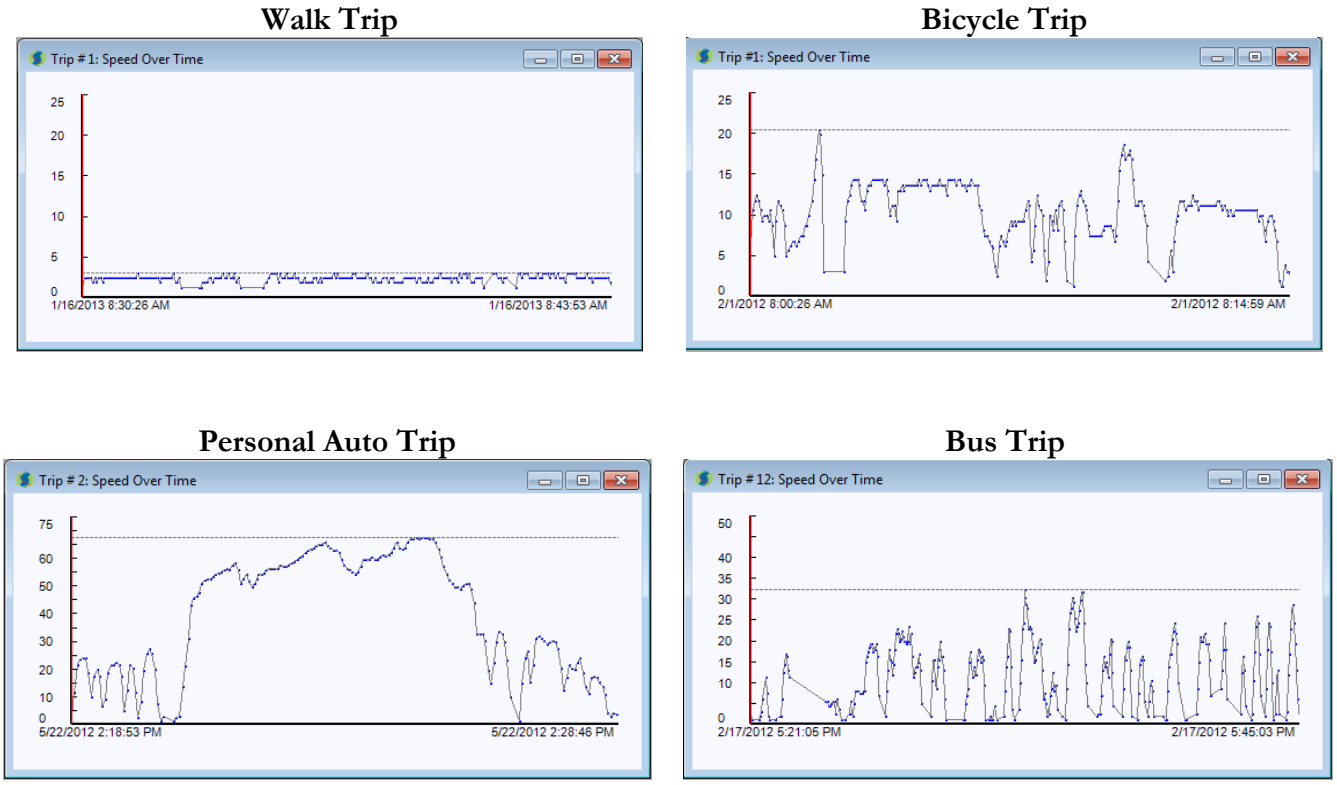
2.6.2.1. GPS and Log Processing Methods

As the GPS data were imported into the project database, the Universal Time Coordinate (UTC) date and time stamps in the GPS point data were translated to local (Las Vegas) date and time. Next, the GPS trace data for each participant were processed using Westat's Trip Identification and Analysis System (TIAS) software to identify potential trip ends based on time intervals between consecutively logged points. For this study, all initial dwell times of 120 seconds or more were flagged as potential trip stops. The GPS trip data were then visually reviewed by analysts to screen out traffic delays and other falsely identified potential trips with dwell times of 120 seconds or more, as well as to add stops that had dwell times of less than 120 seconds but had clear "stop" characteristics. Examples of typical stops that would not be automatically detected by the 120 second dwell time are short drop-off/pick-ups (e.g., school or work).

When geocoded addresses were available from the survey data, the analyst used these locations to assist in the trip end identification and/or confirmation process. Once this step was completed, the updated GPS-based trips collected were compared and matched with the trips reported for each

person's assigned travel day. Figure shows an example[1] of speed profiles for walk, bicycle, and personal auto and bus trips as viewed through TIAS.

Figure 8. Speed Profiles –Various Travel Modes



Once all GPS trip ends were identified the next step was to import the unique trips reported in the survey (log) by GPS households into TIAS for the trip comparison process. Westat's GPS/log trip matching interface was designed to compare GPS trips with survey reported trips using time and location as the significant variables for automated matching. Trips were considered matched if the trip end times fell within 12.5 minutes of each other or trip end locations were within 100 meters of each other.

Data quality control guidelines were established that allowed the TIAS analysts to make adjustments to the automated matches as appropriate. These exceptions included matching beyond the programmed thresholds if information in the data supported an adjustment.

[1] This example is not data from the Las Vegas HTS.

2.6.2.2. GPS Dataset

Only data from the 807 completed households were included in the missed trip analysis.

Table 9 highlights key summary statistics from the GPS dataset. It includes households that met all the requirements to be considered a complete, as well as those households that only partially complied with the study requirements. There were 24,992 GPS trips collected over the course of three days by 2,293 instrumented persons living within the 1,168 households that were deployed with GPS devices.

Table 9. GPS Processing Summary

	Households	Persons	GPS Trips
Deployed Households	1,168	2,293	-
Returned Households	994	1,932	24,992
Completed Households	857	1,615	21,932
Missed Trip Analysis Households	807	1,440	7,974[2] (20,675[3])

The GPS dataset uses the same household ID as the survey sample database for linking the two datasets. As part of the final data deliverable, Westat provided an Access database with the following tables:

- GPS households;
- GPS trips;
- GPS points;
- GPS and reported trip matches and misses; and
- GPS and reported missed trip analysis.

[2] Trips on Day 1 only

[3] Trips recorded on all days

3. Survey Processing, Data Cleaning, and Data Quality Checks

3.1. Overview of Survey Processing and Data Cleaning

Data processing and data cleaning were conducted on an ongoing basis throughout the study. Updates were made to variables that impacted data collection during the administration of survey (e.g., the addition of a car that was not originally reported) and at the conclusion of data collection for data that did not impact the flow of the survey (e.g., recoding race based on "Other, specify" responses).

A series of automated edits, range checks, and consistency checks were performed within the survey instrument, and data preparation staff performed frequency reviews and problem resolution to monitor, correct, and update the data. Automated checks were run to evaluate the validity of reported trip data. The following sections provide more details for each of the data quality checks used.

3.1.1. Logic Checks

Logic checks were programmed into the recruit and retrieval instruments to ensure that questions were answered as accurately as possible. These included requiring that certain questions be answered, even if the answer was "don't know" or "prefer not to answer," and forcing the data type (e.g., requiring a number for the question AGE). Data range checks were also employed to ensure that the data fell within the expected range for a given question (e.g., 0-112 for AGE). Consistency checks were conducted to ensure that when a variable is present in more than one data file, each data file contained the same value for the variable (e.g., household size or participant age).

3.1.2. Real-Time Geocoding

Westat's TBW survey software was used to conduct of the retrieval portion of the household travel survey. All trip ends were geocoded during the completion of the trip reporting, in real-time using a Google interface. Respondents could enter the address of the trip location or were able to use the Google search engine to locate a specific place (e.g., the CVS drugstore at a specific intersection) when they did not know the address of the location. TBW captured full address information and the matching X/Y coordinate of the location.

3.1.3. Frequency Reviews

Frequency reviews were conducted at the beginning, in the middle and at the end of data collection to ensure that all data were being properly captured in the survey database. A report displaying a frequency table for each survey variable was generated and included branching logic, question text and responses. Through the review of these frequency reports, analysts would identify and correct issues with the data as appropriate.

3.1.4. Edit Checks

A series of edit check queries were run on the data to identify potential reporting inconsistencies. If an edit check failed, the data from the household was manually reviewed by an analyst. Edit checks were completed on trip data and non-trip data; each are discussed below. Non-trip edit checks were executed as part of the frequency reviews described above and included checks of each survey variable at each survey stage (recruit and retrieval).

Trip data was processed through Westat's trip processing system (TPS). TPS includes a series of consistency checks on reported trip data. Table 10 provides a list of the TPS checks performed on these data. When a TPS edit failed, an analyst reviewed the data to determine whether adjustments to the data could be made based on information provided by another household member or if the household needed to be re-contacted to resolve the inconsistency in the data. Whether the data was updated by an analyst or an interviewer as a result of a re-contact with the household, the entire household record was reprocessed through the TPS checks. Each case was subjected to this process until it cleared TPS without any failures. Only households successfully passing these edits were included in the final dataset.

Table 10. Trip Data Checks

Number	Check Description
1	Location is missing X,Y coordinates
2	Location is missing full address
3	Location name text contains "Home" but is not location type 1 (Home location).
4	Location type 1 (Home location) text is not "HOME"
5	Location name text contains "Work" but is not location type 2 (Work location).
6	Location name text contains "School" but is not location type 3 (School location).
7	Consecutive locations have identical X,Y coordinates
8	Consecutive locations have identical location name
9	Household locations with same coordinate do not have matching addresses
10	Every person in retrieved household reports at least one place
11	Travel does not begin at home or does not end at home on assigned travel day
12	Travel does not begin and end at same location on assigned travel day
13	0 trip person missing response to "NOGOWHY" variable
14	Trip companion(s) expected but missing
15	Place's arrival time is earlier than previous place's departure time
16	Place's departure time is earlier than its arrival time
17	Person did not leave vehicle at place where activity duration greater than 30 minutes
18	Place travel speed too fast for travel mode
19	Place travel speed too slow for travel mode
20	Place has a person number that does not exist
21	Place where household members disagree on number of companions
22	Persons report travelling together but companion count does not match
23	Persons report travelling together but more than one driver reported
24	Persons report travelling together but times do not match
25	Persons report travelling together but mode does not match
26	Persons report travelling together but locations do not match
27	Travel mode of "passenger" but members on trip < 2
28	Trip has no "driver" travel mode assigned to any member on trip
29	Transit travel mode assigned to a place that is not of transit type
30	Transit trip has duration < 5 minutes
31	Transit place does not precede or follow another transit place

3.1.5. Upcoding and Cleaning

At the conclusion of data collection period open-ended and "other, specify" responses were reviewed and upcoded or aggregated as a new response category as appropriate. The upcoding of responses is the activity of recoding an open-ended response into a categorical response option (e.g., recoding Caucasian to white). The process includes removing the "other, specify" (open-ended) text response.

In addition to coding open-end text into categorical responses, Westat also combined or collapsed other responses that were similar to each other. These responses appear in the original dataset as independent, unique responses because of misspelling of the response, different letter spacing in the response or capitalization issues causing each to be identified as a single response. Correcting and combining these text responses provides for more efficient analysis.

3.1.6. Derived Variables

Several of the variables in the data deliverable were derived using counts from participant responses. In survey research, some data elements are captured in more than one question or format causing discrepancies in the data. For example, asking how many people live in a household, followed by a roster of household members (i.e., asking for information about each person in the household) and later deriving household size based on the roster can cause discrepancies between the two. Also, limiting the number of people that may be rostered based on the response to another question may affect the accuracy of the reported data in the more specific roster format. In this example, the derived variable is more accurate than the single question format.

Derived variables provides the sum of an attribute across a household. For example, the derived number of household students (HHSTUD) is the count of all household members that answered "Yes - full-time" or "Yes - part-time" to the question "Are you/he/she currently enrolled in any type of school, including daycare, technical school, or a university?" (STUDE variable with Yes, full-time; Yes, part-time; No; refused; or don't know). The result is an actual count of the number of students in a household, full-time or part-time. STUDE is also available in the data deliverable, so analysis can be conducted at the person level using the reported, rather than the derived household level data.

Another type of derived variable provided in this dataset converts the data collected in multiple units (e.g., hours and minutes) into a single unit of analysis (e.g., minutes). Calculations can also be used to

determine quantitative values such as number of non-household members on a trip. This number was derived by subtracting the number of household members (HHPARTY) reported on a trip from the total number (PARTY) reported on the trip. A list of all of the derived variables included in the data deliverable can be found in Appendix 6.4.

4. Weighting and Expansion Methodology

4.1. Household Base Weights

The household base weight reflects the probability of selection for a sampled household and is calculated simply as the reciprocal of its probability of selection.

4.1.1. Adjustment for Non-Response at the Household Level

After the assignment of the household level base weight, an adjustment for non-response was made to reflect those for which a retrieval interview was not obtained. The adjustments for household non-response were made within adjustment cells defined by the jurisdiction, sampling stratum (high density of key sample characteristics[4]/remaining households), and whether telephone number was available for the household. A non-response adjustment factor was calculated for each cell as the ratio of the sum of household weights for all eligible households to the sum of the household weights for all recruited households. The non-response adjustment factor was applied to the household base weight of each responding household. In this way, the weights of the responding households were "weighted up" to represent the full set of responding and non-responding households in the adjustment cell.

4.1.2. Raking at the Household Level

Raking adjustment procedures are used to improve the reliability of survey estimates and, to some extent, correct for the bias due to under-coverage and/or non-response. Raking is a post-stratification adjustment procedure where survey weights are iteratively adjusted to independent control totals for various demographic categories. The process has the effect of differentially adjusting the weights of the sampled households within groups of demographically similar households, so that the total sum of weights for the sampled households equals the corresponding independent control totals for all households.

The raking process used with the Las Vegas data had four "dimensions." The weights were adjusted to equal the totals within the cells for each dimension in an iterative process, until the process

[4] Within each area, the first stratum consisted of addresses in Census tracts with a high density of hard-to-reach households which are defined as low income households, large households (4 or more persons), and linguistically isolated Spanish households (households where no one speaks English very well).

converged, and every dimension's cell totals equaled the independent control totals. The dimensions at the household weighting level included the following:

- Household size by number of workers per household
- Household size by number of vehicles per household
- Household income
- Households by jurisdiction

All the control total data came from the 2009–2013 5-year American Community Survey (ACS). In Table 11 through Table 24, the weighted and unweighted frequencies for several key household-level demographic variables (e.g., household size, number of workers, etc.) are presented for each jurisdiction. Of these key demographic variables, only household income (Table 19 through Table 22) was subject to relatively significant item non-response from the original file. A total of 834 households in the original file did not provide a valid income range. Parsons provided an updated file with all the income values imputed. Thus, there is no missing value for household income in the final data deliverable. It should also be noted that the weighted results reflect the imputed income provided by Parsons.

Table 11. Household Size by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Household Size	Frequency	Percentage	Frequency	Percentage
Boulder City				
1	83	30%	2,017	32%
2	136	49%	2,249	35%
3	26	9%	736	12%
4+	31	11%	1,347	21%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
1	295	25%	23,910	24%
2	536	45%	35,076	36%
3	177	15%	16,585	17%
4+	173	15%	22,649	23%
Jurisdiction Total	1,181	17%	98,220	14%

Table 12. Household Size by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Size	Frequency	Percentage	Frequency	Percentage
City of Las Vegas				
1	697	32%	61,918	29%
2	857	39%	65,803	31%
3	296	13%	32,005	15%
4+	357	16%	53,601	25%
Jurisdiction Total	2,207	31%	213,327	31%
City of North Las Vegas				
1	126	20%	11,768	17%
2	234	38%	19,234	28%
3	99	16%	11,373	17%
4+	165	26%	25,225	37%
Jurisdiction Total	624	9%	67,600	10%
Clark County Paradise				
1	281	39%	26,485	36%
2	279	39%	25,710	35%
3	89	12%	10,682	14%
4+	66	9%	10,867	15%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
1	365	29%	37,483	27%
2	511	41%	46,114	33%
3	176	14%	20,854	15%
4+	205	16%	33,328	24%
Jurisdiction Total	1,257	18%	137,779	20%
Clark County Unincorporated				
1	44	21%	4,959	21%
2	86	42%	7,476	32%
3	29	14%	3,228	14%
4+	46	22%	7,617	33%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
1	184	30%	18,537	26%
2	225	37%	20,813	30%
3	95	16%	12,094	17%
4+	103	17%	18,627	27%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

Table 13. Household Number of Vehicles by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Household Vehicles	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	16	6%	325	5%
1	81	29%	1,918	30%
2	89	32%	2,360	37%
3	50	18%	1,104	17%
4+	40	14%	643	10%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
0	58	5%	3,337	3%
1	414	35%	34,432	35%
2	495	42%	42,918	44%
3	160	14%	13,215	13%
4+	54	5%	4,317	4%
Jurisdiction Total	1,181	17%	98,220	14%
City of Las Vegas				
0	281	13%	19,607	9%
1	838	38%	81,605	38%
2	790	36%	81,218	38%
3	212	10%	21,977	10%
4+	86	4%	8,921	4%
Jurisdiction Total	2,207	31%	213,327	31%
City of North Las Vegas				
0	60	10%	4,120	6%
1	214	34%	23,067	34%
2	243	39%	27,651	41%
3	75	12%	8,990	13%
4+	32	5%	3,772	6%
Jurisdiction Total	624	9%	67,600	10%
Clark County Paradise				
0	180	25%	12,944	18%
1	270	38%	30,662	42%
2	191	27%	22,272	30%
3	53	7%	5,683	8%
4+	21	3%	2,183	3%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
0	71	6%	4,955	4%
1	495	39%	53,877	39%
2	504	40%	58,469	42%
3	142	11%	15,283	11%
4+	45	4%	5,195	4%
Jurisdiction Total	1,257	18%	137,779	20%

Table 14. Household Number of Vehicles by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Vehicles	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
0	5	2%	311	1%
1	82	40%	8,852	38%
2	80	39%	9,789	42%
3	26	13%	3,207	14%
4+	12	6%	1,122	5%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
0	133	22%	11,822	17%
1	260	43%	32,265	46%
2	144	24%	17,084	24%
3	53	9%	6,540	9%
4+	17	3%	2,360	3%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

Table 15. Number of Household Workers by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Household Workers	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	124	45%	2,115	33%
1	90	33%	2,439	38%
2	52	19%	1,413	22%
3	8	3%	294	5%
4+	2	1%	90	1%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
0	345	29%	21,743	22%
1	472	40%	43,594	44%
2	322	27%	27,581	28%
3	31	3%	3,390	3%
4+	11	1%	1,913	2%
Jurisdiction Total	1,181	17%	98,220	14%
City of Las Vegas				
0	776	35%	56,569	27%
1	830	38%	88,745	42%
2	509	23%	55,260	26%
3	73	3%	9,374	4%
4+	19	1%	3,379	2%
Jurisdiction Total	2,207	31%	213,327	31%
City of North Las Vegas				
0	176	28%	13,073	19%
1	256	41%	31,339	46%
2	167	27%	18,880	28%
3	22	4%	3,855	6%
4+	3	0%	453	1%
Jurisdiction Total	624	9%	67,600	10%
Clark County Paradise				
0	270	38%	21,873	30%
1	266	37%	31,143	42%
2	154	22%	17,237	23%
3	22	3%	3,154	4%
4+	3	0%	337	0%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
0	302	24%	23,821	17%
1	493	39%	58,689	43%
2	390	31%	43,868	32%
3	60	5%	8,994	7%
4+	12	1%	2,407	2%
Jurisdiction Total	1,257	18%	137,779	20%

Table 16. Number of Household Workers by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Workers	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
0	58	28%	5,201	22%
1	75	37%	9,098	39%
2	64	31%	7,908	34%
3	6	3%	625	3%
4+	2	1%	450	2%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
0	241	40%	22,936	33%
1	222	37%	27,767	40%
2	112	18%	14,671	21%
3	28	5%	3,876	6%
4+	4	1%	822	1%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

Table 17. Household Number of Students by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Household Students	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	232	84%	4,714	74%
1	20	7%	583	9%
2	16	6%	714	11%
3	5	2%	200	3%
4+	3	1%	138	2%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
0	829	70%	61,143	62%
1	205	17%	19,652	20%
2	95	8%	11,332	12%
3	31	3%	3,694	4%
4+	21	2%	2,399	2%
Jurisdiction Total	1,181	17%	98,220	14%
City of Las Vegas				
0	1,621	73%	140,504	66%
1	308	14%	34,506	16%
2	196	9%	26,810	13%
3	49	2%	6,541	3%
4+	33	1%	4,966	2%
Jurisdiction Total	2,207	31%	213,327	31%

Table 18. Household Number of Students by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Students	Frequency	Percentage	Frequency	Percentage
City of North Las Vegas				
0	382	61%	34,594	51%
1	120	19%	15,211	23%
2	73	12%	10,872	16%
3	35	6%	5,158	8%
4+	14	2%	1,765	3%
Jurisdiction Total	624	9%	67,600	10%
Clark County Paradise				
0	553	77%	53,373	72%
1	115	16%	13,954	19%
2	33	5%	4,399	6%
3	10	1%	1,540	2%
4+	4	1%	478	1%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
0	900	72%	90,235	65%
1	209	17%	25,178	18%
2	103	8%	15,138	11%
3	31	2%	4,775	3%
4+	14	1%	2,453	2%
Jurisdiction Total	1,257	18%	137,779	20%
Clark County Unincorporated				
0	146	71%	15,021	65%
1	33	16%	4,222	18%
2	15	7%	2,189	9%
3	7	3%	1,156	5%
4+	4	2%	693	3%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
0	430	71%	44,569	64%
1	102	17%	13,310	19%
2	48	8%	7,326	10%
3	18	3%	3,419	5%
4+	9	1%	1,447	2%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

Table 19. Household Income by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Household Income	Frequency	Percentage	Frequency	Percentage
Boulder City				
Less than $10,000	11	4%	265	4%
$10,000 to $19,999	23	8%	540	9%
$20,000 to $29,999	20	7%	414	7%
$30,000 to $39,999	20	7%	376	6%
$40,000 to $49,999	32	12%	691	11%
$50,000 to $59,999	9	3%	188	3%
$60,000 to $74,999	19	7%	523	8%
$75,000 to $99,999	36	13%	836	13%
$100,000 to $124,999	28	10%	627	10%
$125,000 to $149,999	10	4%	275	4%
$150,000 to $199,999	15	5%	519	8%
$200,000 or more	5	2%	152	2%
Don't Know	8	3%	182	3%
Refused	40	14%	760	12%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
Less than $10,000	37	3%	3,285	3%
$10,000 to $19,999	51	4%	3,811	4%
$20,000 to $29,999	76	6%	5,292	5%
$30,000 to $39,999	98	8%	6,903	7%
$40,000 to $49,999	89	8%	6,860	7%
$50,000 to $59,999	79	7%	6,322	6%
$60,000 to $74,999	146	12%	11,680	12%
$75,000 to $99,999	178	15%	15,452	16%
$100,000 to $124,999	114	10%	9,075	9%
$125,000 to $149,999	58	5%	5,327	5%
$150,000 to $199,999	50	4%	6,326	6%
$200,000 or more	39	3%	5,749	6%
Don't Know	15	1%	1,266	1%
Refused	151	13%	10,871	11%
Jurisdiction Total	1,181	17%	98,220	14%

Table 20. Household Income by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Income	Frequency	Percentage	Frequency	Percentage
City of Las Vegas				
Less than $10,000	152	7%	12,936	6%
$10,000 to $19,999	222	10%	18,468	9%
$20,000 to $29,999	207	9%	19,759	9%
$30,000 to $39,999	221	10%	20,116	9%
$40,000 to $49,999	195	9%	18,900	9%
$50,000 to $59,999	177	8%	17,330	8%
$60,000 to $74,999	224	10%	20,508	10%
$75,000 to $99,999	231	10%	24,267	11%
$100,000 to $124,999	138	6%	12,949	6%
$125,000 to $149,999	68	3%	8,080	4%
$150,000 to $199,999	59	3%	7,830	4%
$200,000 or more	37	2%	6,711	3%
Don't Know	32	1%	3,263	2%
Refused	244	11%	22,210	10%
Jurisdiction Total	2,207	31%	213,327	31%
City of North Las Vegas				
Less than $10,000	39	6%	3,771	6%
$10,000 to $19,999	45	7%	3,400	5%
$20,000 to $29,999	61	10%	6,592	10%
$30,000 to $39,999	53	8%	5,055	7%
$40,000 to $49,999	64	10%	7,051	10%
$50,000 to $59,999	72	12%	8,495	13%
$60,000 to $74,999	85	14%	9,261	14%
$75,000 to $99,999	70	11%	8,086	12%
$100,000 to $124,999	45	7%	5,091	8%
$125,000 to $149,999	20	3%	2,833	4%
$150,000 to $199,999	7	1%	1,342	2%
$200,000 or more	4	1%	813	1%
Don't Know	14	2%	1,617	2%
Refused	45	7%	4,194	6%
Jurisdiction Total	624	9%	67,600	10%

Table 21. Household Income by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Income	Frequency	Percentage	Frequency	Percentage
Clark County Paradise				
Less than $10,000	85	12%	7,156	10%
$10,000 to $19,999	108	15%	9,831	13%
$20,000 to $29,999	96	13%	10,774	15%
$30,000 to $39,999	75	10%	7,299	10%
$40,000 to $49,999	54	8%	6,025	8%
$50,000 to $59,999	32	4%	3,812	5%
$60,000 to $74,999	55	8%	5,108	7%
$75,000 to $99,999	57	8%	6,477	9%
$100,000 to $124,999	29	4%	2,978	4%
$125,000 to $149,999	17	2%	1,951	3%
$150,000 to $199,999	19	3%	2,949	4%
$200,000 or more	13	2%	2,303	3%
Don't Know	15	2%	1,775	2%
Refused	60	8%	5,307	7%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
Less than $10,000	34	3%	3,318	2%
$10,000 to $19,999	72	6%	6,065	4%
$20,000 to $29,999	94	7%	9,809	7%
$30,000 to $39,999	127	10%	13,057	9%
$40,000 to $49,999	127	10%	14,211	10%
$50,000 to $59,999	122	10%	14,041	10%
$60,000 to $74,999	164	13%	16,690	12%
$75,000 to $99,999	150	12%	17,453	13%
$100,000 to $124,999	109	9%	11,346	8%
$125,000 to $149,999	63	5%	7,942	6%
$150,000 to $199,999	38	3%	5,681	4%
$200,000 or more	23	2%	4,719	3%
Don't Know	20	2%	2,183	2%
Refused	114	9%	11,263	8%
Jurisdiction Total	1,257	18%	137,779	20%

Table 22. Household Income by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Income	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
Less than $10,000	9	4%	728	3%
$10,000 to $19,999	14	7%	1,479	6%
$20,000 to $29,999	19	9%	2,237	10%
$30,000 to $39,999	22	11%	1,978	8%
$40,000 to $49,999	19	9%	2,167	9%
$50,000 to $59,999	14	7%	1,503	6%
$60,000 to $74,999	16	8%	1,322	6%
$75,000 to $99,999	21	10%	2,830	12%
$100,000 to $124,999	14	7%	1,530	7%
$125,000 to $149,999	11	5%	1,688	7%
$150,000 to $199,999	9	4%	1,324	6%
$200,000 or more	5	2%	1,056	5%
Don't Know	4	2%	390	2%
Refused	28	14%	3,049	13%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
Less than $10,000	86	14%	9,408	13%
$10,000 to $19,999	119	20%	12,987	19%
$20,000 to $29,999	101	17%	12,256	17%
$30,000 to $39,999	78	13%	8,702	12%
$40,000 to $49,999	50	8%	5,998	9%
$50,000 to $59,999	35	6%	4,189	6%
$60,000 to $74,999	36	6%	4,046	6%
$75,000 to $99,999	32	5%	4,136	6%
$100,000 to $124,999	14	2%	1,620	2%
$125,000 to $149,999	6	1%	726	1%
$150,000 to $199,999	4	1%	684	1%
$200,000 or more	2	0%	368	1%
Don't Know	12	2%	1,510	2%
Refused	32	5%	3,440	5%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

Table 23. Number of Licensed Drivers in Household by Jurisdiction (Unweighted and Weighted)

Household Drivers	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	10	4%	229	4%
1	88	32%	2,163	34%
2	159	58%	3,314	52%
3	14	5%	392	6%
4+	5	2%	252	4%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
0	36	3%	2,146	2%
1	379	32%	31,370	32%
2	666	56%	53,659	55%
3	80	7%	8,162	8%
4+	20	2%	2,882	3%
Jurisdiction Total	1,181	17%	98,220	14%
City of Las Vegas				
0	140	6%	10,456	5%
1	838	38%	77,936	37%
2	1,052	48%	101,013	47%
3	133	6%	16,686	8%
4+	44	2%	7,236	3%
Jurisdiction Total	2,207	31%	213,327	31%
City of North Las Vegas				
0	36	6%	2,712	4%
1	188	30%	18,877	28%
2	340	54%	36,632	54%
3	46	7%	6,867	10%
4+	14	2%	2,512	4%
Jurisdiction Total	624	9%	67,600	10%
Clark County Paradise				
0	104	15%	7,552	10%
1	299	42%	30,824	42%
2	269	38%	29,368	40%
3	32	4%	4,050	5%
4+	11	2%	1,951	3%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
0	48	4%	3,777	3%
1	435	35%	46,141	33%
2	656	52%	70,715	51%
3	97	8%	12,762	9%
4+	21	2%	4,385	3%
Jurisdiction Total	1,257	18%	137,779	20%

Table 24. Number of Licensed Drivers in Household by Jurisdiction (Unweighted and Weighted) Continued

Household Drivers	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
0	1	0%	96	0%
1	67	33%	6,933	30%
2	116	57%	13,281	57%
3	15	7%	1,846	8%
4+	6	3%	1,126	5%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
0	85	14%	8,095	12%
1	274	45%	31,546	45%
2	202	33%	23,372	33%
3	42	7%	6,194	9%
4+	4	1%	865	1%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

4.2. Person-Level Weights

4.2.1. Adjustment of Initial Person-Level Weights

The final household weight was assigned to each person in responding household in the sample. This weight represents the initial person-level weight.

4.2.2. Raking at the Person Level

For the same reasons raking was used at the household level (improved reliability, reduction of potential bias, and to achieve consistency with known population counts), a simple raking/post-stratification procedure was also used at the person level. Survey weights of responding persons were adjusted so that the sum of the weights of the responding persons equaled the corresponding independent control total for the study area population. The dimensions at the person-weighting level included the following:

- Sex by age
- Race/Ethnicity
- Population by jurisdiction

The independent control totals came from 2009 – 2013 5-Year ACS data. Table 25 through Table 41 present the weighted and unweighted frequencies for a number of person-level variables (e.g.,

gender, race, etc.). The majority of respondents identified as white (57.5 percent). The largest percentage of participants (36.6 percent) had a bachelor's degree or higher, while another 27.8 percent had at least some college. 7.9 percent reported having more than one job.

Table 25. Participant Sex by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Sex	Frequency	Percentage	Frequency	Percentage
Boulder City				
Male	278	49%	7,473	49%
Female	292	51%	7,599	50%
Refused	3	1%	44	0%
Jurisdiction Total	573	4%	15,116	1%
City of Henderson				
Male	1,292	48%	127,137	50%
Female	1,379	51%	124,367	49%
Don't Know	1	0%	123	0%
Refused	23	1%	2,090	1%
Jurisdiction Total	2,695	17%	253,717	13%
City of Las Vegas				
Male	2,355	48%	292,112	49%
Female	2,562	52%	296,800	50%
Don't Know	3	0%	781	0%
Refused	34	1%	4,906	1%
Jurisdiction Total	4,954	31%	594,598	31%
City of North Las Vegas				
Male	767	46%	108,568	49%
Female	892	53%	112,250	50%
Refused	17	1%	2,490	1%
Jurisdiction Total	1,676	10%	223,309	12%
Clark County Paradise				
Male	702	50%	94,892	52%
Female	694	49%	84,609	47%
Refused	12	1%	1,626	1%
Jurisdiction Total	1,408	9%	181,127	9%
Clark County SW				
Male	1,377	48%	182,377	49%
Female	1,475	51%	185,424	50%
Don't Know	1	0%	369	0%
Refused	14	0%	1,723	0%
Jurisdiction Total	2,867	18%	369,893	19%

Table 26. Participant Sex by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Sex	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
Male	261	49%	37,539	53%
Female	259	49%	31,840	45%
Refused	13	2%	1,329	2%
Jurisdiction Total	533	3%	70,708	4%
E Las Vegas				
Male	651	47%	104,709	50%
Female	738	53%	104,276	50%
Don't Know	1	0%	115	0%
Refused	5	0%	1,491	1%
Jurisdiction Total	1,395	9%	210,591	11%
Total	16,101	100%	1,919,059	100%

Table 27. Participant Age Distribution by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Age	Frequency	Percentage	Frequency	Percentage
Boulder City				
0 – 4	24	4%	800	5%
5 – 17	54	9%	2,561	17%
18 – 24	19	3%	739	5%
25 – 29	14	2%	450	3%
30 – 34	24	4%	712	5%
35 – 39	29	5%	1,018	7%
40 – 44	20	3%	686	5%
45 – 49	30	5%	865	6%
50 – 54	59	10%	1,718	11%
55 – 59	54	9%	1,155	8%
60 – 64	50	9%	888	6%
65 – 69	60	10%	872	6%
70 – 74	50	9%	773	5%
75+	68	12%	1,417	9%
Don't know	1	0%	19	0%
Refused	17	3%	444	3%
Jurisdiction Total	573	4%	15,116	1%
City of Henderson				
0 – 4	146	5%	15,357	6%
5 – 17	314	12%	37,855	15%
18 – 24	132	5%	17,344	7%
25 – 29	152	6%	16,852	7%
30 – 34	175	6%	16,784	7%
35 – 39	168	6%	19,349	8%
40 – 44	169	6%	17,712	7%
45 – 49	169	6%	18,473	7%
50 – 54	190	7%	16,801	7%
55 – 59	209	8%	15,624	6%
60 – 64	208	8%	15,047	6%
65 – 69	219	8%	13,720	5%
70 – 74	143	5%	7,996	3%
75+	157	6%	12,256	5%
Don't know	1	0%	171	0%
Refused	143	5%	12,377	5%
Jurisdiction Total	2,695	17%	253,717	13%

Table 28. Participant Age Distribution by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Age	Frequency	Percentage	Frequency	Percentage
City of Las Vegas				
0 – 4	270	5%	36,891	6%
5 – 17	628	13%	104,433	18%
18 – 24	317	6%	53,453	9%
25 – 29	251	5%	35,933	6%
30 – 34	337	7%	39,638	7%
35 – 39	284	6%	36,521	6%
40 – 44	328	7%	43,389	7%
45 – 49	337	7%	43,336	7%
50 – 54	337	7%	36,075	6%
55 – 59	358	7%	33,548	6%
60 – 64	372	8%	28,887	5%
65 – 69	316	6%	22,349	4%
70 – 74	250	5%	17,705	3%
75+	338	7%	32,041	5%
Don't know	26	1%	4,376	1%
Refused	205	4%	26,025	4%
Jurisdiction Total	4,954	31%	594,598	31%
City of North Las Vegas				
0 – 4	111	7%	14,702	7%
5 – 17	305	18%	50,353	23%
18 – 24	102	6%	21,964	10%
25 – 29	105	6%	17,081	8%
30 – 34	128	8%	13,870	6%
35 – 39	109	7%	16,710	7%
40 – 44	127	8%	17,261	8%
45 – 49	100	6%	14,799	7%
50 – 54	115	7%	13,136	6%
55 – 59	81	5%	9,204	4%
60 – 64	106	6%	9,006	4%
65 – 69	96	6%	6,333	3%
70 – 74	59	4%	4,064	2%
75+	66	4%	6,258	3%
Don't know	12	1%	1,409	1%
Refused	54	3%	7,158	3%
Jurisdiction Total	1,676	10%	223,309	12%

Table 29. Participant Age Distribution by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Age	Frequency	Percentage	Frequency	Percentage
Clark County Paradise				
0 – 4	65	5%	8,856	5%
5 – 17	109	8%	19,255	11%
18 – 24	87	6%	15,792	9%
25 – 29	85	6%	13,208	7%
30 – 34	98	7%	13,116	7%
35 – 39	84	6%	12,767	7%
40 – 44	78	6%	11,476	6%
45 – 49	104	7%	14,496	8%
50 – 54	125	9%	15,694	9%
55 – 59	121	9%	11,642	6%
60 – 64	114	8%	11,066	6%
65 – 69	110	8%	9,386	5%
70 – 74	76	5%	6,854	4%
75+	95	7%	10,007	6%
Don't know	7	0%	799	0%
Refused	50	4%	6,714	4%
Jurisdiction Total	1,408	9%	181,127	9%
Clark County SW				
0 – 4	198	7%	29,060	8%
5 – 17	330	12%	57,702	16%
18 – 24	152	5%	29,204	8%
25 – 29	231	8%	30,863	8%
30 – 34	293	10%	33,186	9%
35 – 39	197	7%	30,483	8%
40 – 44	196	7%	26,956	7%
45 – 49	176	6%	23,016	6%
50 – 54	181	6%	21,745	6%
55 – 59	190	7%	20,694	6%
60 – 64	198	7%	17,478	5%
65 – 69	173	6%	14,421	4%
70 – 74	111	4%	9,681	3%
75+	121	4%	11,082	3%
Don't know	12	0%	1,323	0%
Refused	108	4%	12,998	4%
Jurisdiction Total	2,867	18%	369,893	19%

Table 30. Participant Age Distribution by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Age	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
0 – 4	31	6%	4,015	6%
5 – 17	64	12%	13,290	19%
18 – 24	32	6%	5,680	8%
25 – 29	39	7%	5,029	7%
30 – 34	46	9%	4,216	6%
35 – 39	37	7%	4,911	7%
40 – 44	28	5%	4,203	6%
45 – 49	27	5%	4,096	6%
50 – 54	36	7%	3,527	5%
55 – 59	36	7%	4,194	6%
60 – 64	47	9%	5,206	7%
65 – 69	40	8%	4,186	6%
70 – 74	24	5%	2,605	4%
75+	18	3%	2,362	3%
Don't know	2	0%	242	0%
Refused	26	5%	2,947	4%
Jurisdiction Total	533	3%	70,708	4%
E Las Vegas				
0 – 4	87	6%	17,231	8%
5 – 17	191	14%	39,724	19%
18 – 24	116	8%	24,120	11%
25 – 29	97	7%	19,561	9%
30 – 34	102	7%	14,213	7%
35 – 39	81	6%	13,065	6%
40 – 44	81	6%	12,555	6%
45 – 49	71	5%	10,681	5%
50 – 54	102	7%	11,997	6%
55 – 59	124	9%	13,204	6%
60 – 64	99	7%	9,545	5%
65 – 69	81	6%	6,083	3%
70 – 74	47	3%	4,326	2%
75+	64	5%	7,195	3%
Don't know	6	0%	722	0%
Refused	46	3%	6,369	3%
Jurisdiction Total	1,395	9%	210,591	11%
Total	16,101	100%	1,919,059	100%

When participants were unable or unwilling to provide ages for the household members, they were asked to provide an age range. Those responses are provided in Table 31.

Table 31. Participant Age Range by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Age	Frequency	Percentage	Frequency	Percentage
Boulder City				
16 – 17	1	6%	102	22%
18 – 64	9	50%	230	50%
65 -74	5	28%	66	14%
75 +	3	17%	64	14%
Boulder City Total	18	2%	463	1%
City of Henderson				
0 – 4	12	8%	1,535	12%
5 – 15	23	16%	2,674	21%
16 – 17	5	3%	466	4%
18 – 64	63	44%	5,142	41%
65 -74	17	12%	803	6%
75 +	7	5%	511	4%
Don't know	1	1%	123	1%
Refused	16	11%	1,291	10%
City of Henderson Total	144	20%	12,547	15%
City of Las Vegas				
0 – 4	8	3%	1,296	4%
5 – 15	28	12%	5,142	17%
16 – 17	3	1%	961	3%
18 – 64	120	51%	15,922	52%
65 -74	30	13%	2,197	7%
75 +	15	6%	1,267	4%
Refused	31	13%	3,918	13%
City of Las Vegas Total	235	33%	30,703	36%
City of North Las Vegas				
0 – 4	3	5%	723	8%
5 – 15	6	9%	1,227	14%
18 – 64	25	38%	3,192	37%
65 -74	12	18%	912	11%
75 +	4	6%	578	7%
Refused	16	24%	1,935	23%
City of North Las Vegas Total	66	9%	8,567	10%

Table 32. Participant Age Range by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Age	Frequency	Percentage	Frequency	Percentage
Clark County Paradise				
5 – 15	7	12%	2,601	35%
16 – 17	1	2%	95	1%
18 – 64	32	56%	3,646	49%
65 -74	11	19%	773	10%
Refused	6	11%	398	5%
Clark County Paradise Total	57	8%	7,513	9%
Clark County SW				
0 – 4	6	5%	1,154	8%
5 – 15	9	7%	1,283	9%
16 – 17	1	1%	451	3%
18 – 64	66	55%	7,962	55%
65 -74	16	13%	1,221	9%
75 +	5	4%	430	3%
Don't know	2	2%	342	2%
Refused	16	13%	1,523	11%
Clark County SW Total	121	17%	14,368	17%
Clark County Unincorporated				
0 – 4	2	7%	363	11%
5 – 15	7	25%	1,028	32%
16 – 17	1	4%	66	2%
18 – 64	10	36%	942	30%
65 -74	2	7%	341	11%
Refused	6	21%	449	14%
Clark County Unincorporated Total	28	4%	3,190	4%
E Las Vegas				
0 – 4	2	4%	762	11%
5 – 15	8	15%	1,075	15%
18 – 64	27	51%	3,852	54%
65 -74	9	17%	655	9%
75 +	1	2%	154	2%
Don't know	2	4%	128	2%
Refused	4	8%	505	7%
E Las Vegas Total	53	7%	7,132	8%
Total	722	100%	84,481	100%

Table 33. Participant Race by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Race	Frequency	Percentage	Frequency	Percentage
Boulder City				
White	529	92%	13,875	92%
African American, Black	6	1%	187	1%
Asian	9	2%	280	2%
American Indian, Alaskan Native	2	0%	53	0%
Native Hawaiian or Pacific Islander	2	0%	42	0%
Multiracial	14	2%	467	3%
Some other race?	2	0%	63	0%
Don't Know	2	0%	47	0%
Refused	7	1%	102	1%
Jurisdiction Total	573	4%	15,116	1%
City of Henderson				
White	2,087	77%	179,628	71%
African American, Black	116	4%	12,511	5%
Asian	146	5%	20,547	8%
American Indian, Alaskan Native	16	1%	2,669	1%
Native Hawaiian or Pacific Islander	37	1%	2,004	1%
Multiracial	178	7%	23,120	9%
Some other race?	39	1%	6,583	3%
Don't Know	18	1%	2,711	1%
Refused	58	2%	3,944	2%
Jurisdiction Total	2,695	17%	253,717	13%
City of Las Vegas				
White	3,359	68%	357,186	60%
African American, Black	527	11%	65,603	11%
Asian	264	5%	40,131	7%
American Indian, Alaskan Native	33	1%	3,823	1%
Native Hawaiian or Pacific Islander	70	1%	6,324	1%
Multiracial	294	6%	43,343	7%
Some other race?	132	3%	28,049	5%
Don't Know	74	1%	18,857	3%
Refused	201	4%	31,283	5%
Jurisdiction Total	4,954	31%	594,598	31%
City of North Las Vegas				
White	904	54%	103,496	46%
African American, Black	279	17%	38,076	17%
Asian	95	6%	16,567	7%
American Indian, Alaskan Native	13	1%	4,019	2%
Native Hawaiian or Pacific Islander	19	1%	1,100	0%
Multiracial	206	12%	29,568	13%
Some other race?	48	3%	10,947	5%
Don't Know	36	2%	7,931	4%
Refused	76	5%	11,605	5%
Jurisdiction Total	1,676	10%	223,309	12%

Table 34. Participant Race by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Race	Frequency	Percentage	Frequency	Percentage
Clark County Paradise				
White	917	65%	101,138	56%
African American, Black	121	9%	15,682	9%
Asian	121	9%	20,346	11%
American Indian, Alaskan Native	20	1%	2,402	1%
Native Hawaiian or Pacific Islander	19	1%	1,586	1%
Multiracial	102	7%	18,160	10%
Some other race?	40	3%	9,284	5%
Don't Know	21	1%	5,258	3%
Refused	47	3%	7,271	4%
Jurisdiction Total	1,408	9%	181,127	9%
Clark County SW				
White	1,847	64%	205,146	55%
African American, Black	191	7%	26,446	7%
Asian	316	11%	56,244	15%
American Indian, Alaskan Native	15	1%	1,983	1%
Native Hawaiian or Pacific Islander	61	2%	4,714	1%
Multiracial	263	9%	46,161	12%
Some other race?	56	2%	12,981	4%
Don't Know	16	1%	2,232	1%
Refused	102	4%	13,987	4%
Jurisdiction Total	2,867	18%	369,893	19%
Clark County Unincorporated				
White	372	70%	45,011	64%
African American, Black	37	7%	4,949	7%
Asian	47	9%	8,737	12%
American Indian, Alaskan Native	5	1%	809	1%
Native Hawaiian or Pacific Islander	1	0%	136	0%
Multiracial	38	7%	6,883	10%
Some other race?	7	1%	1,071	2%
Don't Know	3	1%	229	0%
Refused	23	4%	2,882	4%
Jurisdiction Total	533	3%	70,708	4%
E Las Vegas				
White	776	56%	97,648	46%
African American, Black	242	17%	40,707	19%
Asian	49	4%	8,892	4%
American Indian, Alaskan Native	6	0%	636	0%
Native Hawaiian or Pacific Islander	18	1%	1,020	0%
Multiracial	123	9%	19,541	9%
Some other race?	76	5%	18,306	9%
Don't Know	38	3%	9,751	5%
Refused	67	5%	14,090	7%
Jurisdiction Total	1,395	9%	210,591	11%
Total	16,101	100%	1,919,059	100%

Table 35. Participant Hispanic Ethnicity by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Hispanic	Frequency	Percentage	Frequency	Percentage
Boulder City				
Yes	23	4%	1,293	9%
No	545	95%	13,710	91%
Don't know	1	0%	28	0%
Refused	4	1%	85	1%
Jurisdiction Total	573	4%	15,116	1%
City of Henderson				
Yes	269	10%	55,566	22%
No	2,377	88%	194,500	77%
Don't know	11	0%	1,135	0%
Refused	38	1%	2,515	1%
Jurisdiction Total	2,695	17%	253,717	13%
City of Las Vegas				
Yes	745	15%	174,777	29%
No	4,107	83%	406,157	68%
Don't know	8	0%	1,396	0%
Refused	94	2%	12,268	2%
Jurisdiction Total	4,954	31%	594,598	31%
City of North Las Vegas				
Yes	319	19%	77,530	35%
No	1,301	78%	137,974	62%
Don't know	11	1%	876	0%
Refused	45	3%	6,930	3%
Jurisdiction Total	1,676	10%	223,309	12%
Clark County Paradise				
Yes	195	14%	48,232	27%
No	1,186	84%	128,616	71%
Don't know	2	0%	385	0%
Refused	25	2%	3,894	2%
Jurisdiction Total	1,408	9%	181,127	9%
Clark County SW				
Yes	372	13%	95,572	26%
No	2,432	85%	266,710	72%
Don't know	9	0%	1,314	0%
Refused	54	2%	6,298	2%
Jurisdiction Total	2,867	18%	369,893	19%

Table 36. Participant Hispanic Ethnicity by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Hispanic	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
Yes	70	13%	18,068	26%
No	448	84%	50,643	72%
Don't know	2	0%	132	0%
Refused	13	2%	1,866	3%
Jurisdiction Total	533	3%	70,708	4%
E Las Vegas				
Yes	318	23%	87,061	41%
No	1,048	75%	118,847	56%
Don't know	2	0%	352	0%
Refused	27	2%	4,332	2%
Jurisdiction Total	1,395	9%	210,591	11%
Total	16,101	100%	1,919,059	100%

Table 37. Participant Number of Jobs by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Jobs	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	3	1%	67	1%
1	196	85%	5,654	85%
2	23	10%	799	12%
3	1	0%	17	0%
Don't know	1	0%	15	0%
Refused	6	3%	138	2%
Jurisdiction Total	230	3%	6,690	1%
City of Henderson				
0	12	1%	808	1%
1	1,123	87%	109,487	88%
2	82	6%	7,807	6%
3	12	1%	1,391	1%
4+	3	0%	127	0%
Don't know	6	0%	337	0%
Refused	48	4%	5,085	4%
Jurisdiction Total	1,286	17%	125,043	14%
City of Las Vegas				
0	21	1%	2,239	1%
1	1,909	86%	236,944	86%
2	150	7%	16,924	6%
3	12	1%	1,466	1%
4+	7	0%	619	0%
Don't know	27	1%	3,930	1%
Refused	85	4%	12,423	5%
Jurisdiction Total	2,211	30%	274,545	30%
City of North Las Vegas				
0	10	1%	1,771	2%
1	594	86%	79,190	85%
2	50	7%	7,295	8%
3	5	1%	335	0%
4+	1	0%	198	0%
Don't know	7	1%	979	1%
Refused	20	3%	2,887	3%
Jurisdiction Total	687	9%	92,655	10%
Clark County Paradise				
0	10	1%	919	1%
1	572	84%	76,603	84%
2	58	9%	8,505	9%
3	5	1%	640	1%
4+	1	0%	62	0%
Don't know	8	1%	1,228	1%
Refused	27	4%	3,209	4%
Jurisdiction Total	681	9%	91,166	10%

Table 38. Participant Number of Jobs by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Jobs	Frequency	Percentage	Frequency	Percentage
Clark County SW				
0	14	1%	1,751	1%
1	1,292	84%	169,521	85%
2	125	8%	15,571	8%
3	10	1%	996	0%
4+	4	0%	269	0%
Don't know	24	2%	3,098	2%
Refused	61	4%	8,098	4%
Jurisdiction Total	1,530	21%	199,304	22%
Clark County Unincorporated				
0	7	3%	1,033	3%
1	206	86%	26,857	86%
2	14	6%	1,789	6%
3	1	0%	56	0%
Don't know	4	2%	455	1%
Refused	8	3%	907	3%
Jurisdiction Total	240	3%	31,096	3%
E Las Vegas				
0	6	1%	717	1%
1	476	84%	73,276	82%
2	34	6%	5,863	7%
3	6	1%	691	1%
4+	1	0%	111	0%
Don't know	14	2%	3,457	4%
Refused	29	5%	5,683	6%
Jurisdiction Total	566	8%	89,798	10%
Total	7,431	100%	910,296	100%

Table 39. Participant Work Locations by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Work Location	Frequency	Percentage	Frequency	Percentage
Boulder City				
Same location every day	147	67%	4,376	68%
Home	19	9%	522	8%
Varies	53	24%	1,546	24%
Refused	1	0%	25	0%
Jurisdiction Total	220	3%	6,469	1%
City of Henderson				
Same location every day	864	71%	83,156	70%
Home	91	7%	8,076	7%
Varies	260	21%	27,296	23%
Don't know	3	0%	184	0%
Refused	2	0%	100	0%
Jurisdiction Total	1,220	17%	118,813	14%
City of Las Vegas				
Same location every day	1,494	72%	186,136	73%
Home	134	6%	14,912	6%
Varies	427	21%	51,937	20%
Don't know	7	0%	923	0%
Refused	16	1%	2,046	1%
Jurisdiction Total	2,078	30%	255,953	30%
City of North Las Vegas				
Same location every day	466	72%	62,460	72%
Home	40	6%	4,340	5%
Varies	137	21%	18,435	21%
Don't know	3	0%	1,043	1%
Refused	4	1%	739	1%
Jurisdiction Total	650	9%	87,017	10%
Clark County Paradise				
Same location every day	454	71%	60,488	70%
Home	40	6%	5,039	6%
Varies	134	21%	18,881	22%
Don't know	3	0%	373	0%
Refused	5	1%	1,028	1%
Jurisdiction Total	636	9%	85,810	10%
Clark County SW				
Same location every day	1,039	73%	134,025	72%
Home	113	8%	16,329	9%
Varies	267	19%	33,825	18%
Don't know	3	0%	415	0%
Refused	9	1%	1,763	1%
Jurisdiction Total	1,431	21%	186,357	22%

Table 40. Participant Work Locations by Jurisdiction (Unweighted and Weighted)

Person Work Location	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
Same location every day	166	75%	21,025	73%
Home	16	7%	1,597	6%
Varies	35	16%	5,726	20%
Don't know	2	1%	212	1%
Refused	2	1%	143	0%
Jurisdiction Total	221	3%	28,702	3%
E Las Vegas				
Same location every day	397	77%	60,927	76%
Home	34	7%	4,149	5%
Varies	77	15%	13,452	17%
Don't know	4	1%	611	1%
Refused	5	1%	803	1%
Jurisdiction Total	517	7%	79,941	9%
Total	6,973	100%	849,062	100%

Table 41. Educational Attainment by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Educational Attainment	Frequency	Percentage	Frequency	Percentage
Boulder City				
Not a high school graduate, grade 12 or less	64	12%	2,861	20%
High School Graduate	93	17%	2,189	15%
Some College Credit but no Degree	112	20%	2,468	17%
Associate or Technical School Degree	49	9%	1,133	8%
Bachelor's or Undergraduate Degree	127	23%	3,231	23%
Graduate Degree	96	17%	2,223	16%
Don't know	2	0%	66	0%
Refused	6	1%	145	1%
Jurisdiction Total	549	4%	14,316	1%
City of Henderson				
Not a high school graduate, grade 12 or less	380	15%	45,934	20%
High School Graduate	335	13%	29,407	12%
Some College Credit but no Degree	510	20%	43,288	18%
Associate or Technical School Degree	252	10%	21,434	9%
Bachelor's or Undergraduate Degree	590	23%	54,620	23%
Graduate Degree	399	16%	35,744	15%
Don't know	19	1%	2,401	1%
Refused	35	1%	2,582	1%
Jurisdiction Total	2,520	17%	235,411	13%
City of Las Vegas				
Not a high school graduate, grade 12 or less	787	17%	130,069	24%
High School Graduate	846	18%	101,956	18%
Some College Credit but no Degree	934	20%	98,950	18%
Associate or Technical School Degree	523	11%	56,957	10%
Bachelor's or Undergraduate Degree	889	19%	89,587	16%
Graduate Degree	521	11%	54,181	10%
Don't know	65	1%	10,062	2%
Refused	84	2%	11,031	2%
Jurisdiction Total	4,649	31%	552,795	31%
City of North Las Vegas				
Not a high school graduate, grade 12 or less	391	25%	65,131	32%
High School Graduate	292	19%	37,801	18%
Some College Credit but no Degree	305	20%	36,411	18%
Associate or Technical School Degree	160	10%	19,706	10%
Bachelor's or Undergraduate Degree	237	15%	27,606	13%
Graduate Degree	126	8%	13,438	7%
Don't know	21	1%	2,969	1%
Refused	14	1%	2,887	1%
Jurisdiction Total	1,546	10%	205,949	12%

Table 42. Educational Attainment by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Educational Attainment	Frequency	Percentage	Frequency	Percentage
Clark County Paradise				
Not a high school graduate, grade 12 or less	165	12%	26,923	16%
High School Graduate	300	22%	38,694	23%
Some College Credit but no Degree	267	20%	30,206	18%
Associate or Technical School Degree	148	11%	17,210	10%
Bachelor's or Undergraduate Degree	251	19%	31,420	18%
Graduate Degree	149	11%	17,123	10%
Don't know	25	2%	3,669	2%
Refused	32	2%	6,629	4%
Jurisdiction Total	1,337	9%	171,873	10%
Clark County SW				
Not a high school graduate, grade 12 or less	380	14%	64,908	19%
High School Graduate	445	17%	57,165	17%
Some College Credit but no Degree	563	21%	66,008	20%
Associate or Technical School Degree	277	10%	32,755	10%
Bachelor's or Undergraduate Degree	582	22%	69,189	20%
Graduate Degree	325	12%	37,802	11%
Don't know	27	1%	4,108	1%
Refused	47	2%	5,924	2%
Jurisdiction Total	2,646	18%	337,860	19%
Clark County Unincorporated				
Not a high school graduate, grade 12 or less	84	17%	16,611	25%
High School Graduate	110	22%	13,747	21%
Some College Credit but no Degree	66	13%	7,781	12%
Associate or Technical School Degree	52	11%	5,734	9%
Bachelor's or Undergraduate Degree	109	22%	12,892	20%
Graduate Degree	48	10%	5,559	8%
Don't know	17	3%	2,877	4%
Refused	8	2%	681	1%
Jurisdiction Total	494	3%	65,882	4%
E Las Vegas				
Not a high school graduate, grade 12 or less	273	21%	54,617	28%
High School Graduate	351	27%	50,545	26%
Some College Credit but no Degree	290	22%	35,328	18%
Associate or Technical School Degree	137	11%	18,600	10%
Bachelor's or Undergraduate Degree	132	10%	15,865	8%
Graduate Degree	66	5%	7,353	4%
Don't know	24	2%	4,061	2%
Refused	28	2%	5,637	3%
Jurisdiction Total	1,301	9%	192,006	11%
Total	15,042	100%	1,776,093	100%

4.2.3. Trip Weights and Rates

Trip weights were generated by simply multiplying the final person weight by 260 to represent the number of trips on any given weekday within a year. These weights should be used to expand the data to the population.

Trip rates in Table 43 through Table 52 were calculated by dividing the sum of trips by the sum of households or persons in the survey. Consistent with findings from other household travel surveys, the MRTS data show that larger households made more trips per household than smaller households (Table 45). Households with more workers also made more trips than those with fewer workers (Table 50).

Table 43. Household Trip Rates by Jurisdiction (Unweighted and Weighted)

Jurisdiction	Unweighted	Weighted
Boulder City	8.55	9.89
City of Henderson	8.38	9.03
City of Las Vegas	8.07	8.8
City of North Las Vegas	9.22	10.48
Clark County Paradise	7.36	7.91
Clark County SW	7.76	8.19
Clark County Unincorporated	8.85	9.6
E Las Vegas	8	8.57
Total	**8.13**	**8.79**

Table 44. Person Trip Rates by Jurisdiction (Unweighted and Weighted)

Jurisdiction	Unweighted	Weighted
Boulder City	4.3	4.51
City of Henderson	3.9	3.8
City of Las Vegas	3.81	3.66
City of North Las Vegas	3.68	3.62
Clark County Paradise	3.92	3.86
Clark County SW	3.66	3.5
Clark County Unincorporated	3.63	3.48
E Las Vegas	3.72	3.51
Total	**3.8**	**3.65**

Table 45. Trip Rates by Household Size by Jurisdiction (Unweighted and Weighted)

Household Size	Unweighted	Weighted
Boulder City		
1	4.39	4.47
2	7.85	7.66
3	12.58	13.1
4+	19.42	20
City of Henderson		
1	4.56	4.62
2	7.59	7.59
3	10.17	10.22
4+	15.52	15.04
City of Las Vegas		
1	4.56	4.63
2	7.66	7.69
3	10.28	10.21
4+	14.05	14.13
City of North Las Vegas		
1	4.32	4.66
2	6.99	7.05
3	9.8	10.36
4+	15.78	15.85
Clark County Paradise		
1	4.24	4.23
2	7.63	7.69
3	10.29	10
4+	15.47	15.33
Clark County SW		
1	4.32	4.26
2	7.33	7.17
3	9.18	9.26
4+	13.72	13.34
Clark County Unincorporated		
1	4.61	4.71
2	7.38	7.26
3	11.21	11.17
4+	14.17	14.41
E Las Vegas		
1	4.38	4.47
2	7.54	7.34
3	9.28	9.24
4+	14.29	13.58

Table 46. Trip Rates by Age by Jurisdiction (Unweighted and Weighted)

Person Age	Unweighted	Weighted
Boulder City		
5 – 17	4.54	4.56
18 – 24	3.11	2.98
25 – 29	4.21	4.42
30 – 34	3.25	3.53
35 – 39	5.66	6.33
40 – 44	4.7	5.17
45 – 49	5.87	6.3
50 – 54	4.75	5.22
55 – 59	3.98	3.97
60 – 64	4.34	4.25
65 – 69	4.43	4.35
70 – 74	4.48	4.46
75+	3.51	3.52
Don't know	0	0
Refused	2.65	3.09
City of Henderson		
5 – 17	3.21	3.24
18 – 24	3.43	3.04
25 – 29	3.74	3.68
30 – 34	4.14	3.81
35 – 39	4.44	4.24
40 – 44	4.61	4.52
45 – 49	4.39	4.59
50 – 54	4.09	4.12
55 – 59	3.86	4
60 – 64	3.88	3.85
65 – 69	4.5	4.6
70 – 74	3.85	3.76
75+	3.33	2.75
Don't know	0	0
Refused	3.3	3.27

Table 47. Trip Rates by Age by Jurisdiction (Unweighted and Weighted) Continued

Person Age	Unweighted	Weighted
City of Las Vegas		
0 – 4	2.75	2.33
5 – 17	2.92	2.85
18 – 24	3.19	3.09
25 – 29	3.43	3.29
30 – 34	4	3.97
35 – 39	4.56	4.6
40 – 44	4.48	4.41
45 – 49	4.36	4.34
50 – 54	4.04	3.92
55 – 59	3.95	3.8
60 – 64	4.26	4.44
65 – 69	4.18	4.2
70 – 74	3.96	3.81
75+	3.12	3
Don't know	2.35	2.39
Refused	3.68	3.54
City of North Las Vegas		
5 – 17	3.47	3.37
18 – 24	2.8	2.77
25 – 29	3.28	3.05
30 – 34	4.14	4.28
35 – 39	4.78	4.8
40 – 44	4.56	4.73
45 – 49	3.95	4.13
50 – 54	3.73	3.71
55 – 59	4.16	4.08
60 – 64	3.76	3.82
65 – 69	3.42	3.19
70 – 74	3.49	3.62
75+	2.68	2.26
Don't know	1.5	1.17
Refused	2.86	2.54

Table 48. Trip Rates by Age by Jurisdiction (Unweighted and Weighted) Continued

Person Age	Unweighted	Weighted
Clark County Paradise		
5 – 17	3.15	3.09
18 – 24	3.8	3.63
25 – 29	4.2	4.62
30 – 34	4.6	4.46
35 – 39	4.08	4.1
40 – 44	4.37	4.22
45 – 49	4.27	4.23
50 – 54	4.18	4.28
55 – 59	4.18	4.07
60 – 64	4.42	4.35
65 – 69	4.23	4.22
70 – 74	3.46	3.35
75+	2.4	2.09
Don't know	2.14	2.45
Refused	2.92	2.73
Clark County SW		
5 – 17	3.25	3.2
18 – 24	2.72	2.54
25 – 29	3.65	3.74
30 – 34	3.89	3.64
35 – 39	3.76	3.58
40 – 44	4.23	4.2
45 – 49	4.07	3.85
50 – 54	3.99	4.01
55 – 59	3.85	3.6
60 – 64	4.03	3.93
65 – 69	3.71	3.37
70 – 74	3.83	3.64
75+	2.93	2.76
Don't know	1.5	1.77
Refused	2.97	2.85

Table 49. Trip Rates by Age by Jurisdiction (Unweighted and Weighted) Continued

Person Age	Unweighted	Weighted
Clark County Unincorporated		
5 – 17	3.09	2.96
18 – 24	2.91	2.9
25 – 29	3.67	3.77
30 – 34	3.63	3.87
35 – 39	4.27	4.23
40 – 44	4.54	4.7
45 – 49	4.52	4.41
50 – 54	3.64	3.6
55 – 59	3.81	3.8
60 – 64	3.45	3.52
65 – 69	3.8	2.84
70 – 74	4.58	3.98
75+	2.83	1.75
Don't know	1.5	1.34
Refused	2.54	2.35
E Las Vegas		
0 – 4	4	4
5 – 17	3.13	3.1
18 – 24	3.13	2.84
25 – 29	3.87	3.58
30 – 34	3.98	3.82
35 – 39	3.95	4.04
40 – 44	3.53	3.62
45 – 49	4.61	3.86
50 – 54	4.36	4.49
55 – 59	3.97	3.82
60 – 64	3.76	3.9
65 – 69	3.93	3.91
70 – 74	3.64	3.62
75+	2.83	2.53
Don't know	2.83	1.69
Refused	4.14	3.68

Table 50. Trip Rates by Number of Household Workers by Jurisdiction (Unweighted and Weighted)

Household Workers	Unweighted	Weighted
Boulder City		
0	6.54	6.22
1	8.38	9.37
2	13.1	15.48
3	11.25	13.09
4+	12.5	12.38
City of Henderson		
0	6.95	7.28
1	7.89	8.19
2	10.06	11.06
3	12.58	12.53
4+	13.27	12.67
City of Las Vegas		
0	6.15	6.51
1	8.18	8.46
2	9.92	10.71
3	13.03	13.24
4+	12.79	12.49
City of North Las Vegas		
0	5.98	6.62
1	9.59	10.45
2	11.22	11.94
3	12.95	14.7
4+	29	26.37
Clark County Paradise		
0	5.65	5.82
1	7.05	7.44
2	9.69	10
3	13.59	13.9
4+	23	23.19
Clark County SW		
0	6.48	6.67
1	6.82	7
2	8.76	9.16
3	13.85	13.44
4+	15.58	14.83

Table 51. Trip Rates by Number of Household Workers by Jurisdiction (Unweighted and Weighted) Continued

Household Workers	Unweighted	Weighted
Clark County Unincorporated		
0	7	7.18
1	8.88	9.31
2	10.81	12.16
3	7.67	7.45
4+	2.5	1.25
E Las Vegas		
0	6.55	6.92
1	8.05	8.26
2	9.95	10.77
3	11.36	11.1
4+	14.5	13.67

Table 52. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted)

Household Income	Unweighted	Weighted
Boulder City		
Less than $10,000	4.36	4.61
$10,000 to $19,999	6.61	6.41
$20,000 to $29,999	5.2	5.16
$30,000 to $39,999	10.8	12.84
$40,000 to $49,999	7.59	9.14
$50,000 to $59,999	8.56	9.82
$60,000 to $74,999	10.95	11.14
$75,000 to $99,999	8.28	8.8
$100,000 to $124,999	11.46	14.8
$125,000 to $149,999	13.8	19.71
$150,000 to $199,999	11	12.56
$200,000 or more	5.8	5.86
Don't know	10	12.16
Refused	7.05	7.22
City of Henderson		
Less than $10,000	6.68	8.1
$10,000 to $19,999	5.63	6.16
$20,000 to $29,999	6.99	7.27
$30,000 to $39,999	7.59	7.92
$40,000 to $49,999	7.08	6.99
$50,000 to $59,999	8.85	9.46
$60,000 to $74,999	9.03	9.68
$75,000 to $99,999	9.33	9.45
$100,000 to $124,999	9.11	10.23
$125,000 to $149,999	8.5	8.86
$150,000 to $199,999	11	11.66
$200,000 or more	10.15	10.37
Don't know	7.13	8.15
Refused	7.93	8.58

Table 53. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted) Continued

Household Income	Unweighted	Weighted
City of Las Vegas		
Less than $10,000	7.03	8.64
$10,000 to $19,999	6.52	6.99
$20,000 to $29,999	7.57	8.28
$30,000 to $39,999	7.62	7.94
$40,000 to $49,999	7.83	8.34
$50,000 to $59,999	7.56	8.02
$60,000 to $74,999	8.94	9.53
$75,000 to $99,999	9.26	9.53
$100,000 to $124,999	9.04	9.39
$125,000 to $149,999	10.75	11.92
$150,000 to $199,999	9.9	10.3
$200,000 or more	12.19	13.23
Don't know	7.56	8.52
Refused	7.3	7.85
City of North Las Vegas		
Less than $10,000	6.49	7.3
$10,000 to $19,999	7.42	9.12
$20,000 to $29,999	9.3	10.4
$30,000 to $39,999	8.98	9.38
$40,000 to $49,999	8.02	8.92
$50,000 to $59,999	10.71	10.89
$60,000 to $74,999	9.32	10.17
$75,000 to $99,999	8.86	10.04
$100,000 to $124,999	13.2	15.56
$125,000 to $149,999	11.65	12.86
$150,000 to $199,999	14	14.09
$200,000 or more	13	21.42
Don't know	7.07	11.13
Refused	7.78	7.9

Table 54. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted) Continued

Household Income	Unweighted	Weighted
Clark County Paradise		
Less than $10,000	5.75	6
$10,000 to $19,999	6.27	6.73
$20,000 to $29,999	6.8	7.45
$30,000 to $39,999	7.59	7.83
$40,000 to $49,999	6.85	7.14
$50,000 to $59,999	7.81	8.36
$60,000 to $74,999	8.65	9.17
$75,000 to $99,999	8.05	8.03
$100,000 to $124,999	9.86	11.31
$125,000 to $149,999	8.12	8.19
$150,000 to $199,999	11.32	12.47
$200,000 or more	9.92	9.17
Don't know	7.73	9.51
Refused	7.2	7.25
Clark County SW		
Less than $10,000	6.24	5.9
$10,000 to $19,999	6	7.19
$20,000 to $29,999	6.28	6.51
$30,000 to $39,999	7.8	8.1
$40,000 to $49,999	7.32	7.84
$50,000 to $59,999	7.67	7.71
$60,000 to $74,999	7.77	8.02
$75,000 to $99,999	8.32	8.56
$100,000 to $124,999	9.58	10.15
$125,000 to $149,999	9.14	8.87
$150,000 to $199,999	9.24	9.82
$200,000 or more	9.91	10.27
Don't know	7.05	7.02
Refused	6.99	7.74

Table 55. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted) Continued

Household Income	Unweighted	Weighted
Clark County Unincorporated		
Less than $10,000	10.11	11.04
$10,000 to $19,999	8.43	7.58
$20,000 to $29,999	8.79	10.34
$30,000 to $39,999	7.95	8.59
$40,000 to $49,999	8.05	8.23
$50,000 to $59,999	9.57	9.73
$60,000 to $74,999	11.44	12.63
$75,000 to $99,999	9.19	9.9
$100,000 to $124,999	6.93	9.83
$125,000 to $149,999	9.27	9.45
$150,000 to $199,999	7.11	6.75
$200,000 or more	12.8	15.01
Don't know	9.75	10.74
Refused	8.39	8.84
E Las Vegas		
Less than $10,000	7.8	8.17
$10,000 to $19,999	7.55	8.62
$20,000 to $29,999	7.55	8.33
$30,000 to $39,999	7.65	8.09
$40,000 to $49,999	8.94	9.25
$50,000 to $59,999	9.46	9.76
$60,000 to $74,999	8.61	8.62
$75,000 to $99,999	8.53	9.02
$100,000 to $124,999	9.43	9.77
$125,000 to $149,999	9.5	10.73
$150,000 to $199,999	9.5	10.15
$200,000 or more	7	7
Don't know	8.17	6.93
Refused	7.06	7.83

In Table 56 through Table 59, weighted frequencies for trip purpose and mode are shown. The most prevalent trip purposes were related to home, work, and retail shopping, as illustrated in Table 56. It is important to recognize that the travel day for most participants in the study began at home. This contributed to the high percentage of home-based trip purposes reported.

Table 56. Primary Trip Purpose by Jurisdiction (Weighted)

Primary Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas
Working At Home	1.6%	1.3%	1.2%	1.0%	1.2%	1.4%	1.3%	0.6%
Any Other Activities At Home	28.7%	29.9%	29.5%	30.3%	28.8%	30.2%	30.2%	29.6%
Work/Doing My Job	8.9%	11.5%	10.4%	10.1%	11.0%	12.6%	9.1%	8.9%
Work/Doing My Job (At Other Location)	1.6%	1.5%	1.4%	1.6%	1.7%	1.8%	0.9%	1.1%
Work Related (Off-Site)	1.3%	1.5%	0.8%	0.9%	1.0%	0.9%	0.9%	0.6%
Change Travel Mode/Transfer	2.1%	3.2%	7.7%	5.0%	11.2%	3.5%	5.5%	11.4%
Pick-Up/Drop-Off Passenger(s)	11.6%	8.6%	8.1%	10.1%	6.5%	8.1%	12.7%	7.1%
Accompany Another Person	1.6%	1.3%	2.0%	2.2%	1.3%	1.8%	2.0%	2.0%
Attend Child Care	0.1%	0.5%	0.2%	0.4%	0.2%	0.1%	0.2%	0.2%
Attend School (K-12)	4.2%	3.9%	4.8%	6.7%	3.0%	4.0%	5.7%	5.1%
School-Related Activity Away From School	0.4%	0.2%	0.3%	0.3%	0.2%	0.2%	0.3%	0.1%
Attend College/University	0.4%	1.1%	0.7%	0.7%	0.9%	1.0%	0.4%	0.9%
Indoor Recreation	1.7%	2.1%	1.7%	1.8%	2.1%	2.1%	1.2%	1.1%
Outdoor Recreation	2.1%	1.8%	1.3%	1.2%	1.0%	1.7%	1.4%	0.9%
Visit With Friends/Relatives	3.0%	3.1%	3.0%	2.5%	3.1%	2.9%	3.1%	2.7%
Gaming	0.9%	1.2%	1.3%	1.0%	1.4%	1.1%	1.8%	1.2%
Other Non-Gaming Entertainment	1.1%	0.9%	0.9%	1.0%	0.8%	0.9%	1.0%	0.5%
Shopping (Retail)	12.0%	10.7%	10.5%	9.3%	11.0%	11.2%	8.1%	10.3%
Household Errands	4.4%	4.0%	3.5%	3.5%	4.0%	4.2%	4.1%	4.0%
Personal Business	1.8%	1.3%	1.4%	1.0%	1.5%	1.1%	1.0%	1.5%
Attend Health Care Appointment	2.2%	1.9%	1.8%	1.0%	1.7%	1.1%	1.8%	1.6%
Eat Out	5.8%	6.0%	5.3%	5.8%	4.6%	5.8%	5.6%	4.4%
Civic Or Religious Activities	1.2%	0.6%	0.8%	0.8%	0.4%	0.8%	0.8%	0.9%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.3%	0.7%	0.5%	0.2%	0.3%	0.5%	0.4%	1.2%
Refused	0.9%	1.0%	1.0%	1.6%	1.2%	1.0%	0.4%	2.2%
NOT ASCERTAINED	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All Trips	64,660	899,754	2,039,204	752,272	665,038	1,187,090	229,273	676,752

Data presented in Table 57 and Table 58 shows that private auto travel (as the driver or a passenger) was the largest mode choice for all trips and for the mode to work trips. Table 59 shows that the mode choice for auto travel decreases for school-related trips with walk and school bus modes increasing for these types of trips.

Table 57. All Trip Modes by Jurisdiction (Weighted)

Mode	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Walk	8.1%	8.0%	12.2%	9.5%	18.2%	7.5%	9.8%	16.0%	11.3%
Bike	0.8%	0.6%	0.8%	0.8%	0.8%	0.6%	0.7%	1.7%	0.8%
Auto/Van/Truck (As Driver)	64.1%	66.4%	58.5%	55.4%	55.0%	66.0%	59.5%	48.8%	59.3%
Auto/Van/Truck (Passenger)	24.7%	21.3%	21.2%	27.9%	16.4%	21.6%	23.9%	21.0%	21.7%
RTC Bus	0.6%	1.8%	4.8%	3.8%	7.5%	1.9%	3.1%	8.4%	4.3%
Taxi/Limo	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
School Bus	1.1%	1.1%	1.8%	1.7%	0.9%	1.8%	2.6%	2.2%	1.7%
Hotel Shuttle	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Something Else	0.5%	0.7%	0.6%	0.7%	0.9%	0.6%	0.4%	1.7%	0.8%
All Trips:	64,660	899,754	2,039,281	752,272	665,038	1,187,090	229,273	676,752	6,514,120

Table 58. Mode to School by Jurisdiction (Weighted)

Mode to School	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Walk	16.2%	12.5%	15.8%	17.2%	25.4%	11.7%	6.6%	20.9%	15.8%
Bike	1.0%	1.4%	2.5%	1.1%	1.8%	2.6%	0.0%	4.5%	2.2%
Auto/Van/Truck (As The Driver)	12.4%	19.0%	12.5%	7.7%	9.5%	18.0%	6.7%	12.7%	13.1%
Auto/Van/Truck (As A Passenger)	64.6%	56.0%	51.0%	62.7%	50.7%	47.1%	69.1%	35.8%	52.0%
RTC Bus	0.0%	0.5%	2.3%	0.0%	2.2%	1.7%	0.0%	4.7%	1.8%
School Bus	5.8%	10.7%	15.5%	11.3%	10.4%	18.5%	16.7%	21.5%	15.0%
Something Else	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%	0.9%	0.0%	0.2%
School Trips:	2,247	35,755	86,224	43,324	19,893	46,870	11,059	30,559	275,932

Table 59. Mode to Work by Jurisdiction (Weighted)

Mode to Work	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Walk	9.4%	2.9%	5.1%	3.7%	10.9%	3.3%	3.9%	4.9%	4.8%
Bike	3.8%	1.1%	0.4%	0.6%	1.2%	0.5%	0.0%	0.7%	0.7%
Auto/Van/Truck (As The Driver)	80.5%	88.5%	84.5%	82.2%	77.4%	87.5%	80.7%	81.0%	84.4%
Auto/Van/Truck (As A Passenger)	5.2%	5.7%	7.1%	10.1%	5.4%	6.8%	14.0%	7.0%	7.1%
RTC Bus	0.7%	1.1%	2.0%	2.6%	3.9%	0.9%	1.0%	4.3%	2.0%
Taxi/Limo	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
School Bus	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
Hotel Shuttle	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Something Else	0.4%	0.7%	0.8%	0.8%	0.7%	0.8%	0.5%	2.2%	0.9%
All Work Trips:	4,953	90,345	181,359	64,076	60,040	132,813	17,331	49,365	600,282

Table 60 presents the frequency of trips by day of week. The results show travel across the region is well balanced by day of week with slight to moderate variations within each jurisdiction.

Table 60. Number of Trips by Day of Week by Jurisdiction (Weighted)

Day	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Mon.	14.3%	17.4%	19.5%	15.5%	19.7%	19.6%	12.1%	21.9%	18.7%
Tue.	20.2%	22.9%	23.5%	25.5%	23.7%	18.4%	26.2%	21.5%	22.6%
Wed.	15.0%	20.6%	19.3%	21.8%	20.0%	19.0%	21.1%	22.8%	20.2%
Thu.	29.0%	17.8%	17.8%	18.4%	13.8%	21.4%	18.4%	18.2%	18.3%
Fri.	21.5%	21.3%	19.9%	18.8%	22.8%	21.6%	22.2%	15.6%	20.2%
All Trips:	64,660	899,754	2,039,281	752,272	665,038	1,187,090	229,273	676,752	6,514,120

4.3. Replicate Weights

In addition to the survey weight, a set of 100 replicate weights was calculated for each analytic sample unit (household, person, vehicle and trip). The paired jackknife repeated replication method was used to calculate the sampling variance of estimates obtained from the data. The method of deriving these weights was aimed at reflecting the features of the sample design appropriately for each sample, so that when the jackknife variance estimation procedure was implemented, approximate unbiased estimates of sampling variance were obtained. In addition, the various weighting procedures were repeated on each set of replicate weights to appropriately reflect the impact of the weighting adjustments on the sampling variance of a survey estimate.

Many software packages for personal computers exist for replication variance estimation methods. For example, WesVar, later versions of SAS, and STATA all have the capability of producing replication estimates. These software packages produce both the appropriate estimates and corresponding variance estimates for the estimates. WesVar, developed and distributed by Westat, is available for free.

5. Survey Results

5.1. Travel Characteristics and Demographic Results

Eight geographic jurisdictions were established for the purposes of sample monitoring. These were developed by RTC. The following section includes observations about travel characteristics across the jurisdictions as well as across selected demographic characteristics like race, gender, and income. Table 61 through Table 65 shows results of average travel time, distance and speed for each of these categories. Table 66 through Table 69 shows mode share by household size for each region.
The following summary statistics have been observed.

Table 61 shows that households with incomes below $20,000 have commutes higher than the regional average at 25.7 minutes for those making $10,000 to $19,999 and 28.5 minutes for those making less than $10,000. Households with combined incomes of $75,000 or more per year have slightly shorter commutes than average, with the exception of those who earn $200,000 or more.

A review of Table 62 shows work commute times by race with white residents experiencing an average commute time of 21.9 minutes; this is the only group that experiences a commute lower than the regional average (22.7). All other residents have commutes longer than the regional average, though only residents identifying as Native Hawaiian or Pacific Islander are significantly longer at 30.8 minutes. Looking at average distance, persons identifying as either "African American or Black" and "American Indian, Alaskan Native" travel 7.7 and 7.6 miles which is lower than the 8.7 mile average for the region. However, this is offset by the fact that their average length of commute exceeds the regional average.

Looking at Jurisdiction in Table 63, we see that Clark County Unincorporated workers have the shortest average commute time (4.9 minutes) and distance (1.8 miles). Boulder City residents spend an average of 19.4 minutes to travel 9.3 miles. The longest commutes are experienced by residents in the City of North Las Vegas and East Las Vegas at 25 and 24.2 minutes respectively

Both genders have work commutes equivalent to the regional average. This is also true for school trips and other, discretionary trips like shopping and running errands. Only Boulder City has a notably shorter average for school commute trip times at 10.2 minutes (versus the regional average of 16.4 minutes). East Las Vegas has the longest average time for school commutes at 18.8 minutes.

Travel time and distance by age bins are generally close to the regional overall average as seen in Table 65.

The remainder of the discussion references tables from either earlier in this report, or from the appendices. Table 11 and 12 show that Boulder City has a higher representation of 1- and 2-person households than the region as a whole; conversely, the City of North Las Vegas has fewer 1- and 2-person households than the region average. East Las Vegas and Clark County - Unincorporated have the highest proportions of larger households (those with 4 or more people).

Reviewing results in Table 19 through Table 22 shows Boulder City and the City of Henderson have the highest share of households with incomes above $75,000 per year at 37.8% and 42.5%, respectively. In contrast, the region as a whole averages 29.1% of such households with East Las Vegas and Clark County Paradise having the fewest at 10.7% and 22.3%, respectively.

Table 15 and Table 16 show Boulder City, Clark County – Paradise, and East Las Vegas have a notably higher proportion of households with no workers than the region average of 24.2% at 33.4%, 29.6% and 32.7%, respectively.

Table 81 shows that, regarding households with one or more children, the regional average of 32% was exceeded by City of North Las Vegas (45.2%) and East Las Vegas (35.1%). Table 13 and Table 14 show Clark County – Paradise and East Las Vegas have a greater share of households with no personal vehicles than the regional average of 8.3% at 17.5% and 16.8%, respectively, whereas Clark County Unincorporated (1.3%), Clark County – Southwest (3.6%), and the City of Henderson (3.4%) have a significantly lower share of such households.

Regarding households with no licensed drivers, the regional average is 5.1%. This is exceeded by East Las Vegas (11.6%) and Clark County – Paradise (10.2%). The share of transit trips for households in these jurisdictions also outpaces the regional average of 4% at 8% and 7%, respectively. Similarly, the share of non-motorized trips in East Las Vegas (18%) and Clark County – Paradise (19%) outpace the regional share of 12%.

Table 61. Time and Distance to Work, School, and "Other" by Income

Income	Less than $10,000	$10,000 to $19,999	$20,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $59,999	$60,000 to $74,999	$75,000 to $99,999	$100,000 to $124,999	$125,000 to $149,999	$150,000 to $199,999	$200,000 or more	All
Average Time to Work (Minutes)	28.5	25.7	22.2	22.8	23.0	22.2	24.6	20.9	21.0	20.6	21.5	23.8	22.7
Average Distance to Work (Miles)	4.5	8.1	6.4	6.9	8.6	8.4	10.0	8.8	8.9	9.7	9.9	10.7	8.7
Average Speed to Work (mph)	9.5	18.9	17.3	18.0	22.5	22.8	24.4	25.4	25.4	28.3	27.6	27.0	23.1
Average Time to School (Minutes)	18.0	18.1	17.9	17.8	13.1	17.3	15.0	16.5	14.4	16.0	16.3	17.4	16.4
Average Distance to School (Miles)	2.6	3.2	3.5	3.3	3.2	3.7	3.5	4.4	5.1	4.8	5.8	6.5	4.1
Average Speed to School (mph)	8.8	10.6	11.8	11.1	14.6	12.9	14.1	16.1	21.2	18.2	21.5	22.4	15.0
Average Time to Other (Minutes)	18.4	18.2	16.8	19.3	18.1	18.0	18.4	17.6	16.2	17.6	19.2	18.3	18.1
Average Distance to Other (Miles)	3.6	5.2	4.4	5.3	4.7	6.0	7.2	7.5	6.0	10.6	12.0	8.2	6.5
Average Speed to Other (mph)	11.8	17.2	15.9	16.3	15.6	20.0	23.4	25.6	22.1	35.9	37.6	26.8	21.5

Table 62. Time and Distance to Work, School, and "Other" by Race

Race	White	African American, Black	Asian	American Indian, Alaskan Native	Native Hawaiian or Pacific Islander	Multiracial	All
Average Time to Work (Minutes)	21.9	24.2	23.3	24.6	30.8	23.2	22.7
Average Distance to Work (Miles)	9.1	7.7	8.4	7.6	18.1	8.4	8.7
Average Speed to Work (mph)	24.8	19.1	21.6	18.6	35.1	21.7	23.1
Average Time to School (Minutes)	15.6	17.9	17.4	11.3	14.2	17.3	16.4
Average Distance to School (Miles)	4.2	3.4	5.1	1.4	3.8	3.9	4.1
Average Speed to School (mph)	16.3	11.3	17.6	7.7	15.8	13.3	15.0
Average Time to Other (Minutes)	17.3	19.2	18.8	15.7	20.4	21.0	18.1
Average Distance to Other (Miles)	6.6	4.0	8.5	3.4	7.6	7.6	6.5
Average Speed to Other (mph)	23.0	12.4	27.0	12.8	22.4	21.7	21.5

Table 63. Time and Distance to Work, School, and "Other" by Jurisdiction

	Boulder City	Clark County Paradise	Clark County SW	City of Henderson	City of Las Vegas	City of N Las Vegas	E Las Vegas	Clark County Unincorp	All
Average Time to Work (Minutes)	19.4	22.7	22.0	21.1	23.0	25.0	24.2	4.9	22.7
Average Distance to Work (Miles)	9.3	7.2	9.1	8.9	9.0	9.0	8.2	1.8	8.7
Average Speed to Work (mph)	28.8	19.1	24.8	25.5	23.4	21.6	20.4	21.8	23.1
Average Time to School (Minutes)	10.2	15.2	16.6	16.3	16.6	15.2	18.8	16.8	16.4
Average Distance to School (Miles)	4.9	3.7	4.5	4.6	4.0	3.6	3.5	5.7	4.1
Average Speed to School (mph)	29.1	14.5	16.1	16.9	14.3	14.0	11.2	20.6	15.0
Average Time to Other (Minutes)	17.4	17.5	18.4	18.2	18.3	18.3	17.8	17.1	18.1
Average Distance to Other (Miles)	12.7	4.8	7.7	7.6	7.0	6.3	3.7	4.8	6.5
Average Speed to Other (mph)	43.9	16.6	25.1	24.9	22.9	20.5	12.5	16.7	21.5

Table 64. Time and Distance to Work, School, and "Other" by Gender

	Male	Female	Don't know	Refused	All
Average Time to Work (Minutes)	22.8	22.7	15.0	21.2	22.7
Average Distance to Work (Miles)	8.9	8.6	2.6	9.2	8.7
Average Speed to Work (mph)	23.4	22.7	10.5	26.1	23.1
Average Time to School (Minutes)	17.0	15.9	23.5	14.0	16.4
Average Distance to School (Miles)	4.2	4.0	11.9	4.1	4.1
Average Speed to School (mph)	14.7	15.2	30.5	17.4	15.0
Average Time to Other (Minutes)	18.5	17.7	19.3	19.3	18.1
Average Distance to Other (Miles)	7.0	6.0	3.5	7.0	6.5
Average Speed to Other (mph)	22.7	20.4	11.0	21.8	21.5

Table 65. Time and Distance to Work, School, and "Other" by Age

	0 to 4	5 to 15	16 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 64	65 to 70	71 to 80	81 to 90	Over 90	DK/RF	All
Average Time to Work (Minutes)	0.0	25.5	23.7	23.1	20.8	22.9	23.3	25.7	22.7	23.9	17.5	0.0	24.8	22.7
Average Distance to Work (Miles)	0.0	9.4	6.5	8.1	8.5	9.4	9.0	10.9	8.1	8.3	5.8	0.0	8.8	8.7
Average Speed to Work (mph)	0.0	22.0	16.4	21.0	24.5	24.6	23.3	25.6	21.5	20.9	19.9	0.0	21.3	23.1
Average Time to School (Minutes)	11.7	15.4	23.9	20.3	12.8	15.8	16.2	13.1	17.7	12.6	15.0	0.0	14.9	16.4
Average Distance to School (Miles)	2.9	3.2	5.6	6.2	3.5	4.8	4.7	5.1	3.6	5.0	8.1	0.0	3.5	4.1
Average Speed to School (mph)	14.7	12.4	14.0	18.4	16.5	18.3	17.4	23.4	12.1	23.7	32.4	0.0	14.0	15.0
Average Time to Other (Minutes)	17.2	19.8	20.2	18.8	17.7	17.7	18.0	17.2	17.1	16.6	16.1	12.5	20.0	18.1
Average Distance to Other (Miles)	2.5	6.5	5.9	5.9	7.4	6.4	7.7	5.7	5.7	5.7	4.0	3.4	6.3	6.5
Average Speed to Other (mph)	8.7	19.7	17.5	18.9	25.3	21.8	25.5	20.0	20.0	20.5	15.0	16.4	18.8	21.5

Table 66. Mode by Household Size by Jurisdiction, Part 1

	1 Person		2 People		3 People		4+ People		All Households	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Boulder City	**2,341,205**	**1.1%**	**4,433,685**	**1.0%**	**2,688,097**	**0.9%**	**7,321,288**	**1.0%**	**16,784,274**	**1.0%**
Auto/Van/Truck (as a passenger)	54,845	2.3%	829,565	18.7%	499,497	18.6%	2,732,342	37.3%	4,116,250	24.5%
Auto/Van/Truck (as the driver)	1,909,161	81.5%	3,055,774	68.9%	1,825,936	67.9%	3,982,141	54.4%	10,773,012	64.2%
Bike	32,410	1.4%	75,394	1.7%	11,319	0.4%	13,515	0.2%	132,637	0.8%
Hotel Shuttle	0	0.0%	0	0.0%	17,266	0.6%	0	0.0%	17,266	0.1%
RTC Bus	41,240	1.8%	37,821	0.9%	26,524	1.0%	0	0.0%	105,585	0.6%
School Bus	0	0.0%	24,335	0.5%	0	0.0%	163,900	2.2%	188,234	1.1%
Something else	19,617	0.8%	58,512	1.3%	9,136	0.3%	0	0.0%	87,264	0.5%
Walk	283,932	12.1%	352,284	7.9%	298,419	11.1%	429,390	5.9%	1,364,025	8.1%
East Las Vegas	**21,907,624**	**10.1%**	**40,309,091**	**9.4%**	**32,350,912**	**10.7%**	**81,362,192**	**10.9%**	**175,929,819**	**10.4%**
Auto/Van/Truck (as a passenger)	1,121,148	5.1%	7,077,921	17.6%	7,853,775	24.3%	20,900,565	25.7%	36,953,408	21.0%
Auto/Van/Truck (as the driver)	11,667,650	53.3%	21,801,880	54.1%	15,907,295	49.2%	36,555,045	44.9%	85,931,870	48.8%
Bike	632,260	2.9%	466,810	1.2%	231,552	0.7%	1,636,896	2.0%	2,967,518	1.7%
Monorail	72,445	0.3%	0	0.0%	0	0.0%	0	0.0%	72,445	0.0%
RTC Bus	2,846,440	13.0%	4,213,700	10.5%	2,656,997	8.2%	5,000,516	6.1%	14,717,653	8.4%
School Bus	0	0.0%	180,827	0.4%	377,013	1.2%	3,351,416	4.1%	3,909,255	2.2%
Something else	1,552,216	7.1%	175,085	0.4%	1,075,982	3.3%	250,470	0.3%	3,053,753	1.7%
Taxi/Limo	66,104	0.3%	0	0.0%	0	0.0%	0	0.0%	66,104	0.0%
Walk	3,949,361	18.0%	6,392,869	15.9%	4,248,298	13.1%	13,667,285	16.8%	28,257,813	16.1%
Clark County Unincorporated	**6,095,292**	**2.8%**	**13,047,626**	**3.0%**	**8,754,913**	**2.9%**	**32,061,086**	**4.3%**	**59,958,916**	**3.5%**
Auto/Van/Truck (as a passenger)	51,888	0.9%	2,157,386	16.5%	1,836,987	21.0%	10,320,645	32.2%	14,366,906	24.0%
Auto/Van/Truck (as the driver)	5,214,465	85.5%	10,180,486	78.0%	5,704,192	65.2%	14,685,572	45.8%	35,784,716	59.7%
Bike	0	0.0%	126,730	1.0%	29,889	0.3%	255,479	0.8%	412,098	0.7%
RTC Bus	158,067	2.6%	84,612	0.6%	268,239	3.1%	1,309,782	4.1%	1,820,701	3.0%
School Bus	0	0.0%	28,483	0.2%	176,387	2.0%	1,324,119	4.1%	1,528,990	2.6%
Something else	0	0.0%	78,284	0.6%	0	0.0%	146,987	0.5%	225,270	0.4%
Walk	670,871	11.0%	391,645	3.0%	739,218	8.4%	4,018,501	12.5%	5,820,235	9.7%

Table 67. Mode by Household Size by Jurisdiction, Part 2

	1 Person		2 People		3 People		4+ People		All Households	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Clark County Paradise	**30,955,612**	**14.2%**	**56,718,464**	**13.2%**	**34,322,819**	**11.3%**	**50,970,399**	**6.9%**	**172,967,294**	**10.2%**
Auto/Van/Truck (as a passenger)	878,930	2.8%	7,298,337	12.9%	6,750,966	19.7%	13,660,117	26.8%	28,588,349	16.5%
Auto/Van/Truck (as the driver)	18,138,078	58.6%	32,051,966	56.5%	20,653,261	60.2%	24,112,157	47.3%	94,955,461	54.9%
Bike	409,625	1.3%	532,305	0.9%	65,168	0.2%	420,946	0.8%	1,428,044	0.8%
Hotel Shuttle	0	0.0%	0	0.0%	143,930	0.4%	0	0.0%	143,930	0.1%
Monorail	48,891	0.2%	11,404	0.0%	0	0.0%	0	0.0%	60,295	0.0%
RTC Bus	3,604,454	11.6%	5,867,788	10.3%	1,696,443	4.9%	1,716,678	3.4%	12,885,362	7.4%
School Bus	104,607	0.3%	245,978	0.4%	232,892	0.7%	1,015,814	2.0%	1,599,290	0.9%
Something else	607,541	2.0%	645,723	1.1%	184,435	0.5%	119,203	0.2%	1,556,902	0.9%
Taxi/Limo	63,857	0.2%	90,830	0.2%	0	0.0%	0	0.0%	154,687	0.1%
Walk	7,099,629	22.9%	9,974,133	17.6%	4,595,725	13.4%	9,925,485	19.5%	31,594,973	18.3%
Clark County SW	**39,708,417**	**18.3%**	**82,723,211**	**19.2%**	**54,243,321**	**17.9%**	**132,653,530**	**17.8%**	**309,328,479**	**18.2%**
Auto/Van/Truck (as a passenger)	1,201,131	3.0%	14,926,633	18.0%	11,008,707	20.3%	39,731,406	30.0%	66,867,877	21.6%
Auto/Van/Truck (as the driver)	32,753,480	82.5%	60,632,337	73.3%	35,732,214	65.9%	75,046,782	56.6%	204,164,813	66.0%
Bike	157,748	0.4%	283,582	0.3%	276,552	0.5%	1,200,173	0.9%	1,918,054	0.6%
Hotel Shuttle	81,302	0.2%	28,021	0.0%	0	0.0%	0	0.0%	109,323	0.0%
Monorail	0	0.0%	26,631	0.0%	0	0.0%	0	0.0%	26,631	0.0%
RTC Bus	1,510,689	3.8%	1,500,759	1.8%	1,501,177	2.8%	1,235,834	0.9%	5,748,458	1.9%
School Bus	0	0.0%	196,472	0.2%	785,329	1.4%	4,696,836	3.5%	5,678,637	1.8%
Something else	433,442	1.1%	398,166	0.5%	696,047	1.3%	268,036	0.2%	1,795,692	0.6%
Taxi/Limo	0	0.0%	0	0.0%	18,577	0.0%	0	0.0%	18,577	0.0%
Walk	3,570,626	9.0%	4,730,611	5.7%	4,224,717	7.8%	10,474,464	7.9%	23,000,418	7.4%

Table 68. Mode by Household Size by Jurisdiction, Part 3

	1 Person		2 People		3 People		4+ People		All Households	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
City of Henderson	**27,689,267**	**12.7%**	**67,981,657**	**15.8%**	**45,018,057**	**14.8%**	**93,240,621**	**12.5%**	**233,929,602**	**13.8%**
Auto/Van/Truck (as a passenger)	920,402	3.3%	12,876,593	18.9%	7,884,280	17.5%	28,004,990	30.0%	49,686,265	21.2%
Auto/Van/Truck (as the driver)	22,113,430	79.9%	49,404,018	72.7%	30,790,679	68.4%	53,269,044	57.1%	155,577,172	66.5%
Bike	273,162	1.0%	252,133	0.4%	414,709	0.9%	515,627	0.6%	1,455,632	0.6%
RTC Bus	1,233,603	4.5%	1,248,956	1.8%	610,289	1.4%	1,001,770	1.1%	4,094,619	1.8%
School Bus	0	0.0%	124,784	0.2%	645,912	1.4%	1,858,824	2.0%	2,629,520	1.1%
Something else	653,908	2.4%	242,545	0.4%	257,736	0.6%	549,580	0.6%	1,703,769	0.7%
Taxi/Limo	57,859	0.2%	33,287	0.0%	0	0.0%	30,598	0.0%	121,744	0.1%
Walk	2,436,902	8.8%	3,799,340	5.6%	4,414,451	9.8%	8,010,189	8.6%	18,660,883	8.0%
City of Las Vegas	**75,385,351**	**34.6%**	**131,231,373**	**30.5%**	**93,247,566**	**30.7%**	**230,428,674**	**31.0%**	**530,292,964**	**31.3%**
Auto/Van/Truck (as a passenger)	3,871,849	5.1%	22,250,094	17.0%	20,701,688	22.2%	65,450,386	28.4%	112,274,017	21.2%
Auto/Van/Truck (as the driver)	50,928,890	67.6%	87,300,165	66.5%	57,840,795	62.0%	114,441,942	49.7%	310,511,792	58.6%
Bike	666,839	0.9%	465,651	0.4%	821,487	0.9%	2,438,283	1.1%	4,392,260	0.8%
Hotel Shuttle	0	0.0%	0	0.0%	16,911	0.0%	0	0.0%	16,911	0.0%
Monorail	107,802	0.1%	0	0.0%	0	0.0%	0	0.0%	107,802	0.0%
RTC Bus	6,697,926	8.9%	6,471,016	4.9%	4,086,559	4.4%	8,175,365	3.5%	25,430,865	4.8%
School Bus	43,809	0.1%	574,503	0.4%	1,439,545	1.5%	7,440,542	3.2%	9,498,399	1.8%
Something else	762,595	1.0%	853,256	0.7%	454,703	0.5%	1,091,381	0.5%	3,161,935	0.6%
Taxi/Limo	356,215	0.5%	97,623	0.1%	44,218	0.0%	0	0.0%	498,056	0.1%
Walk	11,949,426	15.9%	13,219,065	10.1%	7,841,660	8.4%	31,390,775	13.6%	64,400,925	12.1%

Table 69. Mode by Household Size by Jurisdiction, Part 4

	1 Person		2 People		3 People		4+ People		All Households	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
City of North Las Vegas	**13,495,937**	**6.2%**	**34,041,880**	**7.9%**	**32,624,030**	**10.8%**	**115,716,862**	**15.6%**	**195,878,710**	**11.6%**
Auto/Van/Truck (as a passenger)	614,091	4.6%	6,928,367	20.4%	7,944,007	24.4%	39,250,610	33.9%	54,737,075	27.9%
Auto/Van/Truck (as the driver)	10,385,427	77.0%	21,287,201	62.5%	19,813,605	60.7%	57,096,012	49.3%	108,582,245	55.4%
Bike	54,921	0.4%	262,117	0.8%	55,717	0.2%	1,184,312	1.0%	1,557,066	0.8%
Hotel Shuttle	0	0.0%	23,382	0.1%	0	0.0%	0	0.0%	23,382	0.0%
RTC Bus	716,127	5.3%	1,469,236	4.3%	1,533,311	4.7%	3,609,415	3.1%	7,328,089	3.7%
School Bus	0	0.0%	254,753	0.7%	314,313	1.0%	2,869,858	2.5%	3,438,924	1.8%
Something else	995,785	7.4%	230,634	0.7%	16,225	0.0%	190,356	0.2%	1,433,000	0.7%
Taxi/Limo	24,058	0.2%	0	0.0%	0	0.0%	147,958	0.1%	172,016	0.1%
Walk	705,528	5.2%	3,586,189	10.5%	2,946,852	9.0%	11,368,342	9.8%	18,606,911	9.5%
Grand Total	**217,578,704**	**100.0%**	**430,486,985**	**100.0%**	**303,249,715**	**100.0%**	**743,754,653**	**100.0%**	**1,695,070,058**	**100.0%**

5.2. GPS Subsample Measures

5.2.1. GPS and Log Comparison Results: Missed Trip Analysis

The GPS data deliverable that accompanies the travel survey data deliverable includes GPS data collected from all households that returned devices with data regardless of the household completion status. However, for the purpose of GPS to travel log trip comparisons, only the 857 households that were determined to be "GPS/Log complete" were evaluated.

In the missed trip analysis process the GPS captured and survey (log) reported trips are compared. Of the 857 GPS/Log complete households, 50 were dropped from the missed trip analysis process because they did not meet the requirements for inclusion in the analysis. These requirements were:

1. The household must be complete per previously stated completion rules (see Data Collection Section).
2. The household must have conformed to one of three possible scenarios regarding trips recorded by GPS and log:
    a. Both records must have contained only a single trip
    b. Both records must have contained more than one trip
    c. Both records must have contained zero trips
3. The household data had to pass an analyst review and be flagged as "Matched" to be considered complete. Rules used to determine this status were:
    a. When reported log trips and collected GPS trips matched perfectly, the file was coded as "Matched."
    b. When reported log trips and collected GPS trips did not match the other set perfectly, but at least some portion of the travel matched, the file was coded as "Matched."
    c. When an analyst manually exhausted potential for reconciling discrepancies between the log trips and collected GPS trips and was unable to identify any matches in the data, the file was coded as "Not a match" and the file was removed from Missed Trip Analysis.

Once the final subset of households to be used for analysis was determined, 807 of the 857 households were used in the missed trip analysis conducted with the HTS data. The data in this analysis included 1,440 GPS-instrumented persons. GPS devices used by these persons captured 7,974 trips on the assigned travel day, while self-report data resulted in 6,769 trips.

5.2.1.1. Reporting Exceptions

In some household travel surveys, work-related trips (e.g., commercial use of personal auto) and trips that have origins and destinations outside of the planning regions, are specifically not reported in the travel log or collected during the retrieval survey. In this study, there were no instructions to exclude these types of trips during reporting. Missed trip analysis must also consider the impact of other typically unreported trips like loop trips (i.e., those that start and end at the same location) and on-site travel (e.g., trips that are conducted on the premises of one property, like a hospital or apartment complex). These types of trips are more commonly captured in wearable GPS studies.

Participants in this study were instructed not to report loop trips, but were not given any instructions regarding on-site trip reporting. The following discussion will present results that include both raw and adjusted frequencies. The adjusted frequencies remove any GPS-detected loop, on-site, work-related, and external trips for cases that did not have matching reported trips in the travel log data; regardless of the reporting instructions provided.

5.2.1.2. Matching Results

The following sections describe the three different types of matches observed in the HTS data; 100 percent matched trips, trips that were reported in the survey, but not observed in the GPS data and trips observed in the GPS data, but not reported in the survey.

100 Percent Matched Trips. A perfect match is when all trips reported by the participant in the survey instrument matched the trips captured by their GPS data logger. This includes persons who reported no trips and had no GPS data on the assigned travel date. Of the 1,440 persons instrumented with GPS devices, 192 had no GPS data and no travel day trips reported in the survey data. This represents 13.3 percent of all instrumented GPS persons. In total, 642, or 44.6 percent, of the 1,440 persons in the GPS subsample were 100 percent matched, including the 192 persons who did not travel at all on the travel day.

In terms of trips, this dataset resulted in a 100 percent match rate for 1,993 (25.0 percent) reported and collected trips in the GPS subsample. Conversely, 75.0 percent of the trips identified in the GPS subsample were either missing one or more trips in the survey data or had one or more additional trips captured by the GPS device. These discrepancies are discussed below.

Trips reported in survey data, but not captured by GPS. The second comparison identifies trips reported by participants in the survey for which there was no corresponding GPS trip captured. During the matching process, 345 persons reported a total of 711 trips in the survey that had no corresponding GPS trips identified. This typically happens when participants place the GPS device where it cannot receive satellite signals (e.g., in a purse or backpack) or forget to confirm that it is powered on. Table 70 presents the frequency of persons missing GPS data by the number of missing trips.

Trips captured by GPS but not reported in survey data. The last category in the matching process examines those cases where trips were identified in the GPS data, but not reported in the survey data. Of the 1,440 persons, in the GPS subsample, 628 failed to report a total of 1,900 trips that were captured by the GPS device.

Table 70 also shows the frequency of persons missing survey reported trips with the corresponding of missing trips. The column "Adjusted Frequency of Persons Missing Reported Trips" is the count of missing trips after GPS-detected loop, on-site, work-related, and external trips were excluded.

Table 70. Person Frequencies for Missing Trips

Number of Missing Trips	Frequency of Persons Missing GPS Captured Trips	Frequency of Persons Missing Survey Reported Trips	Adjusted Frequency of Persons Missing Survey Reported Trips
0	1095	812	909
1	181	253	227
2	80	131	117
3	35	90	70
4	19	43	38
5	14	26	23
6	9	22	11
7	2	16	14
8	1	12	8
9	2	11	7
10	0	5	5
11	1	3	1
12	0	1	2
13	0	2	1
14	1	0	0
15	0	3	2
16	0	2	1
17	0	3	0
20	0	1	0
22	0	0	1
23	0	1	0
24	0	1	1
26	0	0	1
27	0	1	0
31	1	1	1
Totals	**1440**	**1440**	**1440**

5.2.1.3. Survey Data Comparison Summary

Overall, the missed trip analysis revealed that 21.9 percent of trips made by the GPS-instrumented persons were not reported in the survey data (1,900 missed log trips / (6,769 log reported trips + 1,900 missed log trips)). This percentage decreases to approximately 18 percent when typical reporting exceptions identified in the GPS data are removed (There were 589 such exceptions; [(1,900 missed log trips – 589 exceptions) / (6,769 log reported trips + (1,900 missed log trips – 589 exceptions))]. This missed trip rate is consistent with findings from previous GPS-enhanced travel surveys.

It is important to note that additional analyses are needed to generate targeted trip rate correction factors in the next section; the overall missed trip rate should not be used as a correction factor for the entire sample but rather the application of individual trip factors to each trip weight.

5.3. Trip Rate Correction Factors

It is well established that a constant trip rate correction factor applied to all log-based reported trips is not prudent since different types of households elicit different travel behavior and therefore requires a more robust statistical approach in the correction factor estimation and application. There is substantial variation in under-reporting that occurs within a household travel survey; for example, some households may not require any correction factors whereas others will require a fairly large weight (see Zmud & Wolf, 2003). The present analysis attempts to identify the factors that significantly impact trip under-reporting so that the resulting information can be used to derive a set of weights (i.e., correction factors) for more accurate adjustment of household trip rates for the Southern Nevada Household Travel Survey dataset.

There are several factors that could potentially contribute to trip under-reporting. For example, one variable that has been shown to be a correlate for underreporting is trip length. Trips of short duration are often missing from respondent logs more frequently than trips of long durations (Zmud & Wolf, 2003). In this study, 55.5% of trips that were less than 7 minutes in duration were underreported. On the other hand, just 17.1% of trips longer than 14 minutes were under-reported (see Table 71).

Table 71. Trip Frequencies for GPS Trips and Missing Log Trips by Trip Duration

Trip duration	Total trips	Total missing trips	% Missing trips
0-6 minutes	2,068	560	55.5%
7-14 minutes	2,196	277	27.4%
>14 minutes	1,794	173	17.1%
Total	6,058	1,010	100.0%

For this analysis of the correlates of underreporting, numerous socio-demographic variables available in the GPS and Log Trip Matching database and the larger HTS survey database were selected based upon prior studies of a similar nature (see Zmud & Wolf, 2003). Eight variables were analyzed for their contribution to underreporting: trip duration; household size; reported vehicle ownership; household income; respondent age; employment status; student status; and presence of children under 18. Note that trip duration is a trip characteristic rather than a socio-demographic

variable, and was included in this analysis due to its prior proven relationship to underreporting. Data from respondents who answered "Don't know" or who refused to answer the socio-demographic variables were not included in this analysis. This gives a reduced total of 5,569 total GPS-based trips across 658 households to be used as the basis for analysis. Table 72 gives a breakdown of the analysis sample based on the selected household characteristics, while Table 73 summarizes the percent of underreported trips for each of these socio-demographic variables.

Table 72. Households by Household Size, Number of Vehicles, Household Income, Employment Status, Student Status, and Presence of Children Under 18

Household type	Number of Households	Percentage of Households
Overall	658	100.0%
Household size		
1 person	168	25.5%
2 people	252	38.3%
3 or more people	238	36.2%
Number of vehicles		
0-1 vehicles	307	46.7%
2 or more vehicles	351	53.3%
Household Income		
Less than $40,000	243	36.9%
$40,000 to $74,999	229	34.8%
$75,000 or more	186	28.3%
Employment Status		
Employed	402	61.1%
Not employed	256	38.9%
Student Status		
Full Time student	21	3.2%
Part Time students	26	4.0%
Not a student	611	92.9%
Presence of Children Under 18		
No children present	470	71.4%
Children present	188	28.6%

Table 73. Missed Log Trips by Household Size, Number of Vehicles, Respondent Age, Household Income, Employment Status, Student Status, and Presence of Children Under 18

Socio-demographic Variable	Number of Trips	Total Missed Trips	% of Missed Trips
Overall	5,569	916	16.4%
Household size			
1 person	960	158	16.5%
2 person	2,128	318	14.9%
3+ person	2,481	440	17.7%
Number of vehicles			
0-1 vehicles	2,322	434	18.7%
2 or more vehicles	3,247	482	14.8%
Respondent Age			
0-39	1,950	358	18.4%
40-49	1,173	200	17.1%
>49	2,446	358	14.6%
Household Income			
Less than $40,000	1,978	369	18.7%
$40,000 to $74,999	1,838	302	16.4%
$75,000 or more	1,753	245	14.0%
Employment Status			
Not employed	2,193	332	15.1%
Part-time or Full-time employed	3,376	584	17.3%
Student Status			
Not a student	5,082	825	16.2%
Part-time or Full-time student	487	91	18.7%
Presence of Children Under 18			
No children present	3,731	604	16.2%
Children present	1,838	312	17.0%

Two-person households, those with 2 or more vehicles, and high-income households appear to be more accurate reporters. In general, subgroups in the sample that represent likely misreporters are low income households, households with 0-1 vehicles, and households with one or more students.

Re-Estimating Trip Rates Accounting for Misreporting. The main goal of this portion of the study was to quantify the amount of under-reporting that occurs in a household travel survey by using GPS data as validation information, by identifying the conditions under which misreporting will be a problem, and by applying the validation study results to improve trip rate estimates for the MRTS dataset. This section details how the estimated set of adjustment weights (i.e., correction factors) were determined for household trip rates, and how these weights can be applied to adjust trip rate estimates for the HTS dataset.

The database of GPS trip records was used to test a model of trip misreporting. In this model, y_i is an indicator (dummy) variable that is 0 if a trip record was "missing" when compared to the GPS data and 1 if a trip record matched the GPS data, and x_i is a vector of associated characteristics that will influence whether a trip was reported or not. The goal of this analysis was to estimate the conditional distribution of y_i given x_i, $\Pr(y_i | x_i)$. A logistic regression model was used to determine which of our variables (household size, household income, employment status, etc.) had a significant impact on trip underreporting. Below is a listing of the coding of the trip and socio-demographic variables used in the regression analysis. It should be noted that "0 vehicles" was not appropriate as a separate category under Vehicle Ownership, given that only 135 trips out of 3,547 trips fell into this category.

Trip duration (minutes)

1	0-6
2	7-14
3	>14

Presence of Children under 18

0	No children present
1	1+ children present

Vehicle Ownership

0	0-1 vehicles
1	2+ vehicles

Household Size

1	1 person household
2	2 person household
3	3+ person household

Age

1	39 years and younger
2	40-49 years
3	49+ years

Household Income

1	<$40,000
2	$40,000-$74,999
3	$75,000+

Employment Status

0	Not employed
1	Employed

Student Status

0	Not a student
1	Part- or full-time student

Table 74. Results of Logistic Regression

Variable	Coefficient	Std. Err.	Significance
Trip Duration (p<.0001)			
2	0.893	0.086	<.0001
3	1.245	0.100	<.0001
Household Vehicles (p=.001)	0.308	0.096	0.001
Household Income (p=.190)			
2	0.034	0.098	0.728
3	0.180	0.107	0.093
Age (p=.145)			
2	0.042	0.102	0.681
3	0.188	0.098	0.055
Household Size (p=.002)			
2	-0.115	0.116	0.320
3	-0.454	0.140	0.001
Student Status (p=.894)	-0.017	0.131	0.894
Presence of Children (p=.027)	0.247	0.111	0.027
Employment Status (p=.001)	-0.285	0.085	0.001

As shown above in Table 74, the logistic regression analysis identified fours variables as being significantly associated with trip under-reporting at the <.01 level of significance. These variables were trip duration, number of household vehicles, household size, and employment status. The remaining variables were found to be insignificant at the >.01 level of significance.

Based on the logistic regression analysis, Westat created a 36-cell matrix representing the 4-way cross tab of the 4 significant variables. Westat used this matrix to derive the adjustment weight for specific household types. Within each of the final 36 cells, the total sample count (Total GPS Trips) was divided by the total number of reported trips (Total Log Trips) to give an adjustment factor (Weight).

Table 75. Adjustment Weights Based on Model of Misreporting

Duration	Vehicle	Household Size	Employment Status	GPS Trips	Total Trips	Weight
1	0	1	0	105	135	1.29
1	0	1	1	126	182	1.44
1	0	2	0	148	206	1.39
1	0	2	1	91	125	1.37
1	0	3	0	122	156	1.28
1	0	3	1	56	98	1.75
1	1	1	0	14	18	1.29
1	1	1	1	9	14	1.56
1	1	2	0	119	140	1.18
1	1	2	1	187	246	1.32
1	1	3	0	122	169	1.39
1	1	3	1	308	425	1.38
2	0	1	0	107	122	1.14
2	0	1	1	148	171	1.16
2	0	2	0	174	194	1.11
2	0	2	1	106	135	1.27
2	0	3	0	76	91	1.20
2	0	3	1	64	82	1.28
2	1	1	0	23	25	1.09
2	1	1	1	26	29	1.12
2	1	2	0	162	173	1.07
2	1	2	1	249	277	1.11
2	1	3	0	190	210	1.11
2	1	3	1	430	500	1.16

Table 76. Adjustment Weights Based on Model of Misreporting Continued

Duration	Vehicle	Household Size	Employment Status	GPS Trips	Total Trips	Weight
3	0	1	0	68	72	1.06
3	0	1	1	158	170	1.08
3	0	2	0	106	115	1.08
3	0	2	1	97	107	1.10
3	0	3	0	73	84	1.15
3	0	3	1	63	77	1.22
3	1	1	0	5	7	1.40
3	1	1	1	13	15	1.15
3	1	2	0	121	135	1.12
3	1	2	1	250	275	1.10
3	1	3	0	126	141	1.12
3	1	3	1	411	448	1.09

The adjustment factors for the 36 cells range from a minimum of 1.07 to a maximum of 1.75. The cell with the lowest weight consists of households or trips with the following characteristics:

- Household vehicle: 2+ vehicles
- Household size: 2 people
- Employment status: Not employed
- Trip duration: 7-14 minutes

The cell with the highest weight consists of households or trips with the following characteristics:

- Household vehicle: 0-1 vehicles
- Household size: 3+ people
- Employment status: Employed
- Trip duration: 0-6 minutes

After calculating the weights derived from the GPS and Log Trip Matching database, these weights were applied to all households in the HTS database according to reported vehicle ownership, household size, employment status, and trip duration. Each trip record was matched with a cell in the 36-cell matrix and the weight was applied.

Since the GPS subsample was not representative of the overall sample, the distribution across the 36 cells in the GPS sub-sample does not perfectly correspond to the distribution across all households

in the full dataset due to missing value in categories. In other words, once the weight was applied to the HTS dataset, the overall correction factor differed from the original level of 1.20 instead calculating to 1.17.

Overall, among the total 57,499 reported trips (excluding those with PLACENO=1, which represents the starting point for the first trip), 46,622 trips have sufficient household information to derive the adjustment weight. Adjusted counts have been derived by applying these weights. The adjusted counts are located in the supplemental access data table "Adjusted Trip Weights." For example, Table 77 shows the adjusted average trip counts for each county as compared to the unweighted and weighted trip rates.

Table 77. Mean Weighted Trips by Jurisdiction

Jurisdiction	Total Households	Unweighted Trip Rates	Weighted Trip Rates	Weighted and TCF Adjusted
Boulder City	223	8.55	9.89	10.2
East Las Vegas	510	8.38	9.03	9.1
CC Unincorporated	172	8.07	8.8	9.9
CC Paradise	587	9.22	10.48	9.0
CC Southwest	1078	7.36	7.91	8.6
Henderson	997	7.76	8.19	9.3
Las Vegas	1842	8.85	9.6	9.2
North Las Vegas	535	8	8.57	9.7
Total	**5,944**	**8.13**	**8.79**	**9.2**

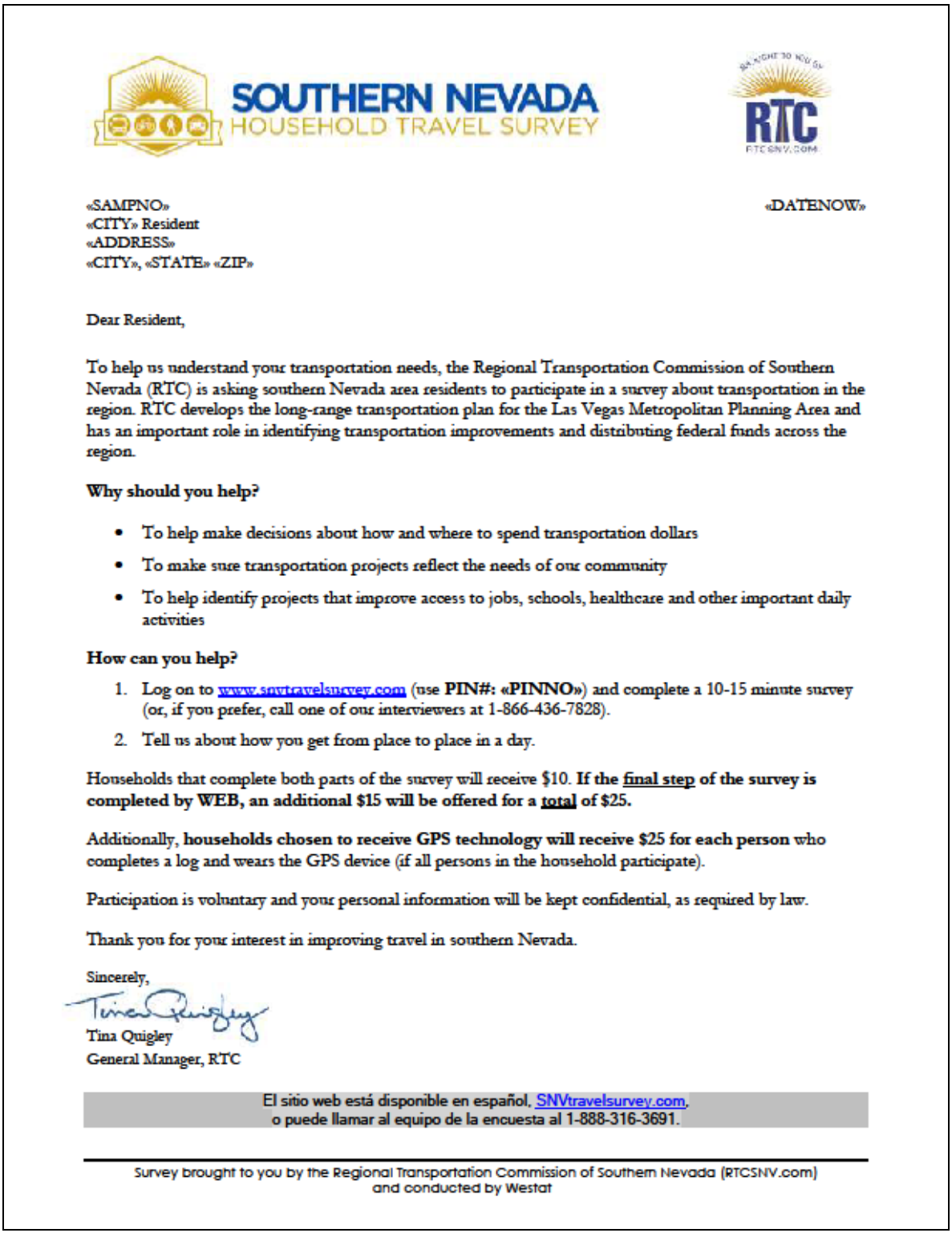
6. Appendices

The following section contains appendices with examples of survey materials used during the project. Appendix 6.1.1 through 6.1.3 are examples of the invitation letter and two reminder postcards that were mailed to all selected samples. Appendix 6.1.4 through 6.1.6 contain the survey packet cover letters, travel log and example log. Appendix 6.1.7 through 6.1.10 contain the GPS packet cover letter, device use and return instructions, and tracking sheet. Appendix 6.2 and 6.3 are the final CATI scripts covering the recruitment, reminder, and retrieval stages.

Appendix 6.4 lists variables that were derived from survey responses (e.g., the household size based on the count of reported household members rather than the reported size). Appendix 6.5 through 6.7 (including tables 78 through 133) provide frequencies for a selection of demographic results for household, person, and trip level characteristics.

6.1. Participation Documents

6.1.1. Invitation Letter



SOUTHERN NEVADA
HOUSEHOLD TRAVEL SURVEY

RTC
RTCSNV.COM

«SAMPNO»
«CITY» Resident
«ADDRESS»
«CITY», «STATE» «ZIP»

«DATENOW»

Dear Resident,

To help us understand your transportation needs, the Regional Transportation Commission of Southern Nevada (RTC) is asking southern Nevada area residents to participate in a survey about transportation in the region. RTC develops the long-range transportation plan for the Las Vegas Metropolitan Planning Area and has an important role in identifying transportation improvements and distributing federal funds across the region.

Why should you help?

- To help make decisions about how and where to spend transportation dollars
- To make sure transportation projects reflect the needs of our community
- To help identify projects that improve access to jobs, schools, healthcare and other important daily activities

How can you help?

1. Log on to www.snvtravelsurvey.com (use **PIN#: «PINNO»**) and complete a 10-15 minute survey (or, if you prefer, call one of our interviewers at 1-866-436-7828).
2. Tell us about how you get from place to place in a day.

Households that complete both parts of the survey will receive $10. **If the final step of the survey is completed by WEB, an additional $15 will be offered for a total of $25.**

Additionally, **households chosen to receive GPS technology will receive $25 for each person** who completes a log and wears the GPS device (if all persons in the household participate).

Participation is voluntary and your personal information will be kept confidential, as required by law.

Thank you for your interest in improving travel in southern Nevada.

Sincerely,

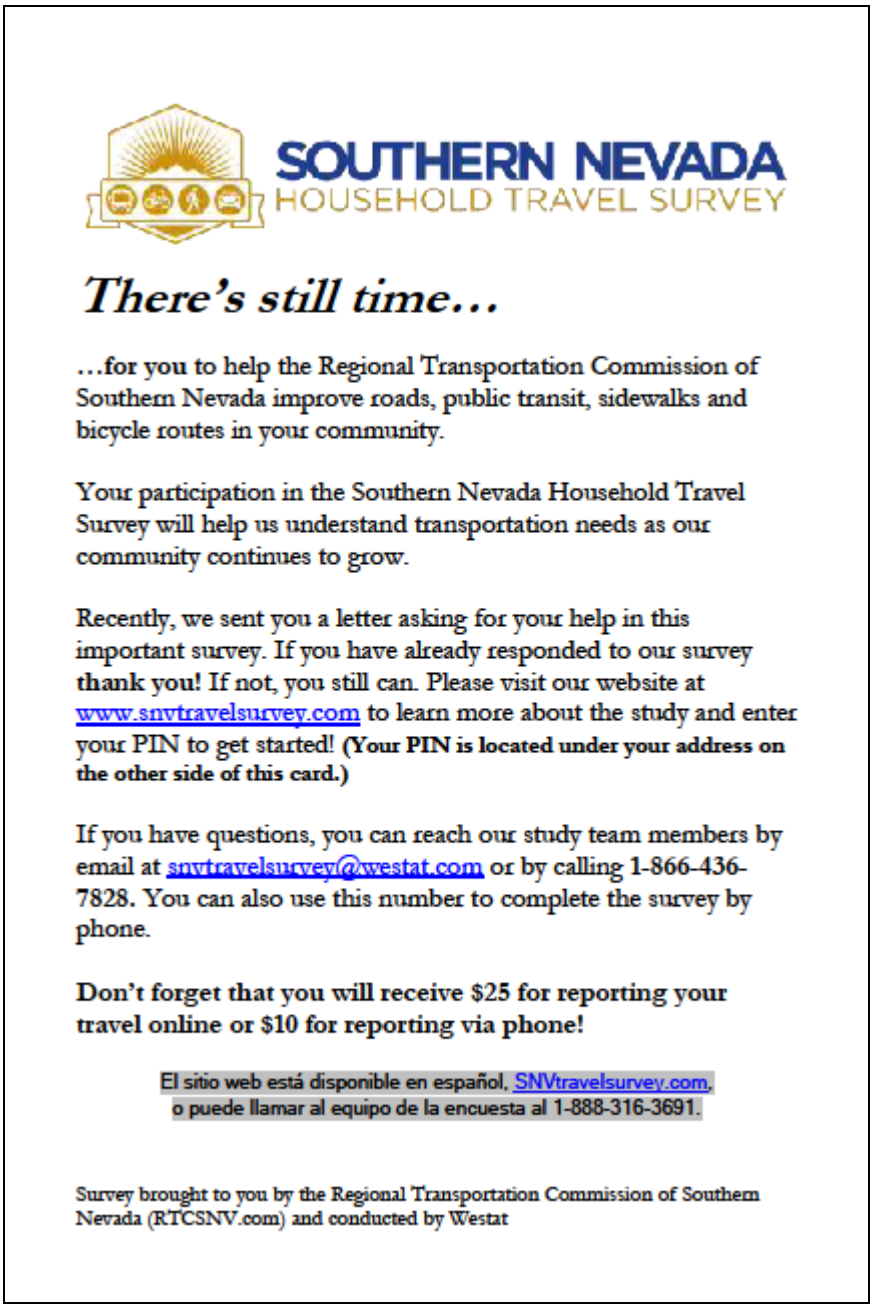
Tina Quigley
General Manager, RTC

El sitio web está disponible en español, SNVtravelsurvey.com,
o puede llamar al equipo de la encuesta al 1-888-316-3691.

Survey brought to you by the Regional Transportation Commission of Southern Nevada (RTCSNV.com)
and conducted by Westat

6.1.2. Reminder Postcard 1

6.1.3. Reminder Postcard 2



SOUTHERN NEVADA
HOUSEHOLD TRAVEL SURVEY

There's still time…

…for you to help the Regional Transportation Commission of Southern Nevada improve roads, public transit, sidewalks and bicycle routes in your community.

Your participation in the Southern Nevada Household Travel Survey will help us understand transportation needs as our community continues to grow.

Recently, we sent you a letter asking for your help in this important survey. If you have already responded to our survey **thank you!** If not, you still can. Please visit our website at www.snvtravelsurvey.com to learn more about the study and enter your PIN to get started! **(Your PIN is located under your address on the other side of this card.)**

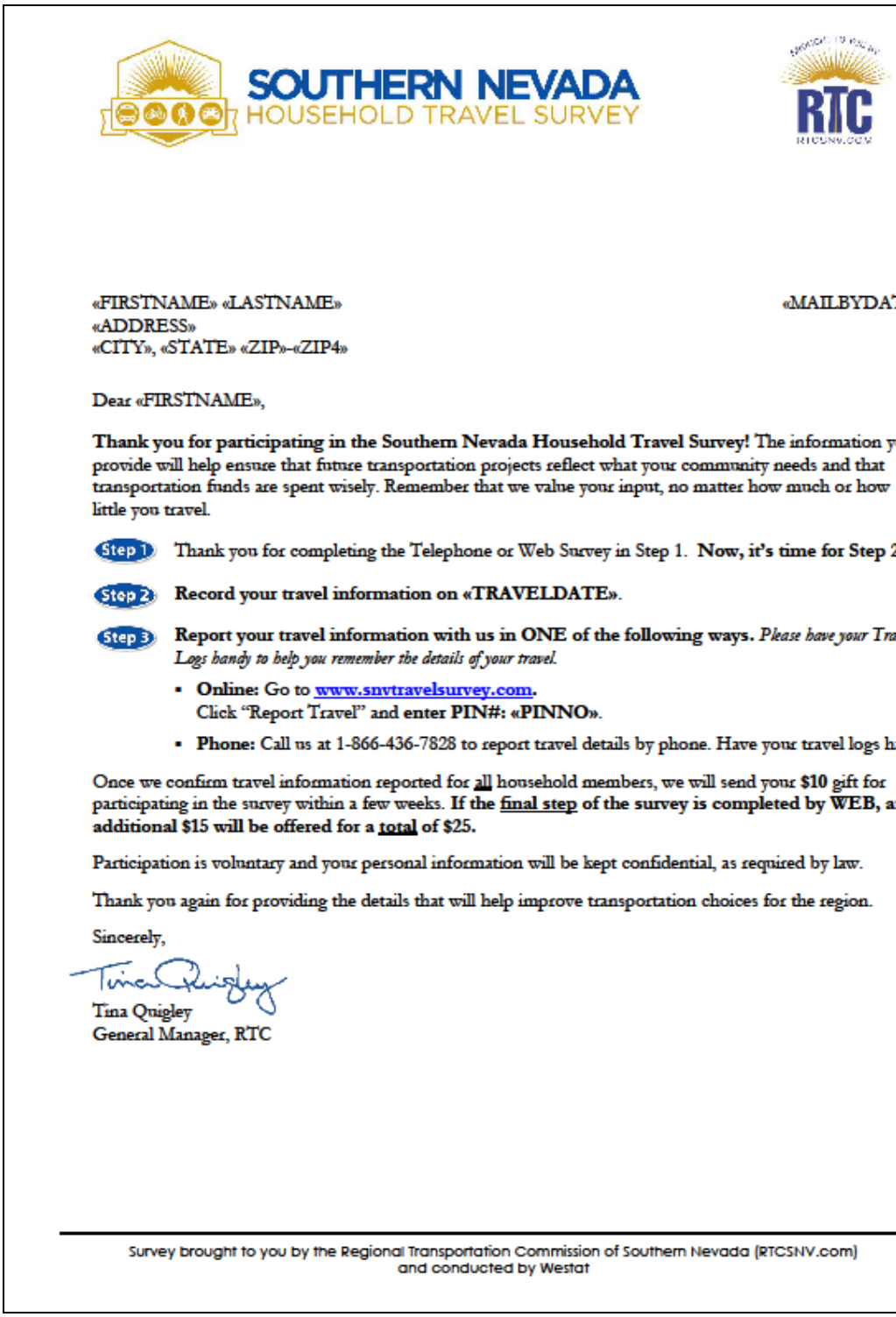
If you have questions, you can reach our study team members by email at snvtravelsurvey@westat.com or by calling 1-866-436-7828. You can also use this number to complete the survey by phone.

Don't forget that you will receive $25 for reporting your travel online or $10 for reporting via phone!

El sitio web está disponible en español, SNVtravelsurvey.com,
o puede llamar al equipo de la encuesta al 1-888-316-3691.

Survey brought to you by the Regional Transportation Commission of Southern Nevada (RTCSNV.com) and conducted by Westat

6.1.4. Survey Packet Cover Letter



SOUTHERN NEVADA HOUSEHOLD TRAVEL SURVEY

RTC RTCSNV.COM

«FIRSTNAME» «LASTNAME» «MAILBYDATE»
«ADDRESS»
«CITY», «STATE» «ZIP»-«ZIP4»

Dear «FIRSTNAME»,

Thank you for participating in the Southern Nevada Household Travel Survey! The information you provide will help ensure that future transportation projects reflect what your community needs and that transportation funds are spent wisely. Remember that we value your input, no matter how much or how little you travel.

Step 1 Thank you for completing the Telephone or Web Survey in Step 1. **Now, it's time for Step 2.**

Step 2 **Record your travel information on «TRAVELDATE».**

Step 3 **Report your travel information with us in ONE of the following ways.** *Please have your Travel Logs handy to help you remember the details of your travel.*

- **Online:** Go to www.snvtravelsurvey.com.
  Click "Report Travel" and **enter PIN#: «PINNO».**
- **Phone:** Call us at 1-866-436-7828 to report travel details by phone. Have your travel logs handy.

Once we confirm travel information reported for **all** household members, we will send your **$10** gift for participating in the survey within a few weeks. **If the final step of the survey is completed by WEB, an additional $15 will be offered for a total of $25.**

Participation is voluntary and your personal information will be kept confidential, as required by law.

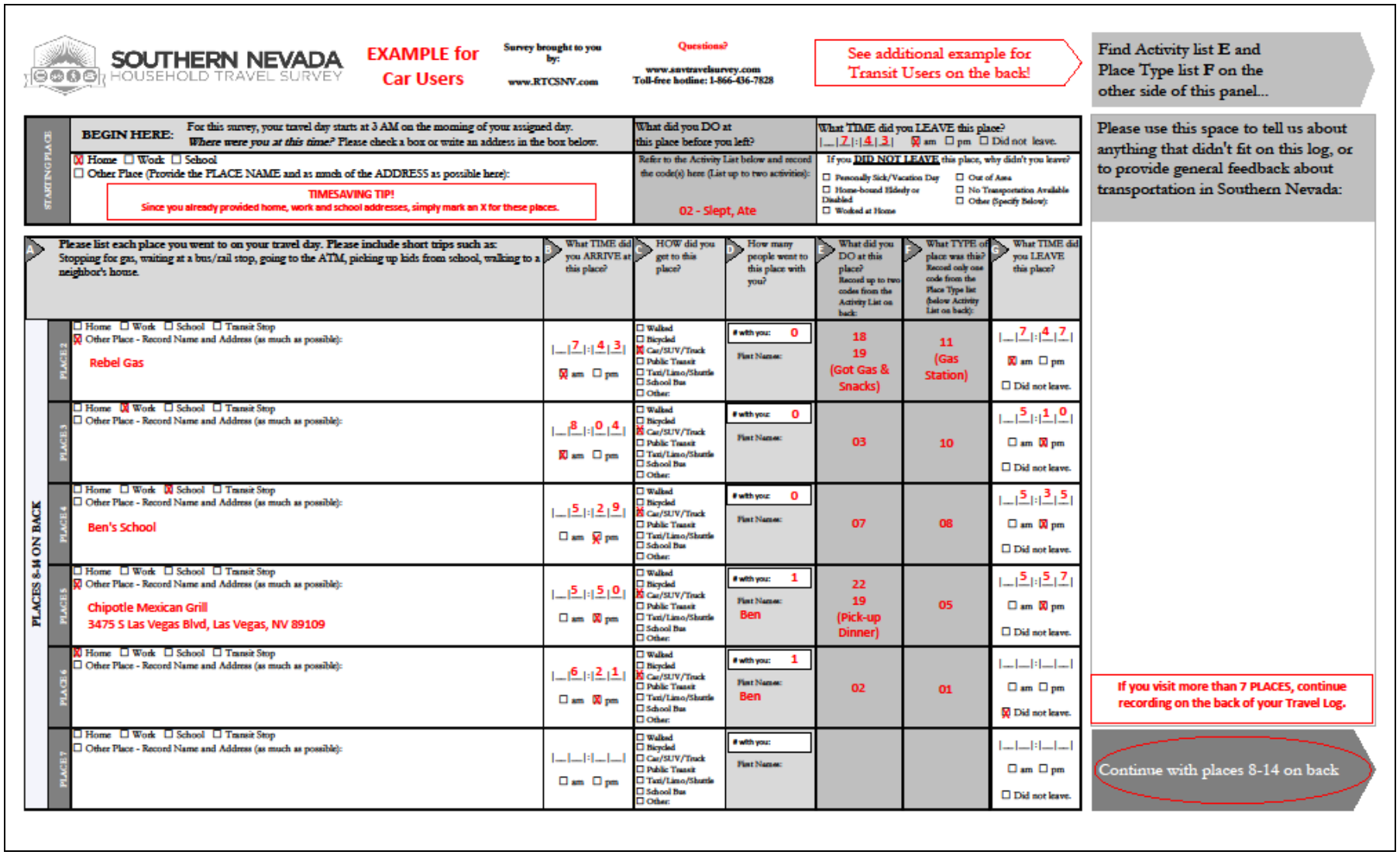
Thank you again for providing the details that will help improve transportation choices for the region.

Sincerely,

Tina Quigley
General Manager, RTC

Survey brought to you by the Regional Transportation Commission of Southern Nevada (RTCSNV.com) and conducted by Westat

6.1.5. Example Travel Log



SOUTHERN NEVADA HOUSEHOLD TRAVEL SURVEY

EXAMPLE for Car Users

Survey brought to you by: www.RTCSNV.com

Questions? www.savtravelsurvey.com Toll-free hotline: 1-866-436-7828

See additional example for Transit Users on the back!

Find Activity list E and Place Type list F on the other side of this panel...

STARTING PLACE

BEGIN HERE: For this survey, your travel day starts at 3 AM on the morning of your assigned day. *Where were you at this time?* Please check a box or write an address in the box below.

☒ Home ☐ Work ☐ School
☐ Other Place (Provide the PLACE NAME and as much of the ADDRESS as possible here):

TIMESAVING TIP! Since you already provided home, work and school addresses, simply mark an X for these places.

What did you DO at this place before you left? Refer to the Activity List below and record the code(s) here (List up to two activities): 02 - Slept, Ate

What TIME did you LEAVE this place? |__|7|:|4|3| ☒ am ☐ pm ☐ Did not leave.

If you DID NOT LEAVE this place, why didn't you leave?
☐ Personally Sick/Vacation Day ☐ Out of Area ☐ Home-bound Elderly or Disabled ☐ No Transportation Available ☐ Other (Specify Below): ☐ Worked at Home

PLACES 8-14 ON BACK

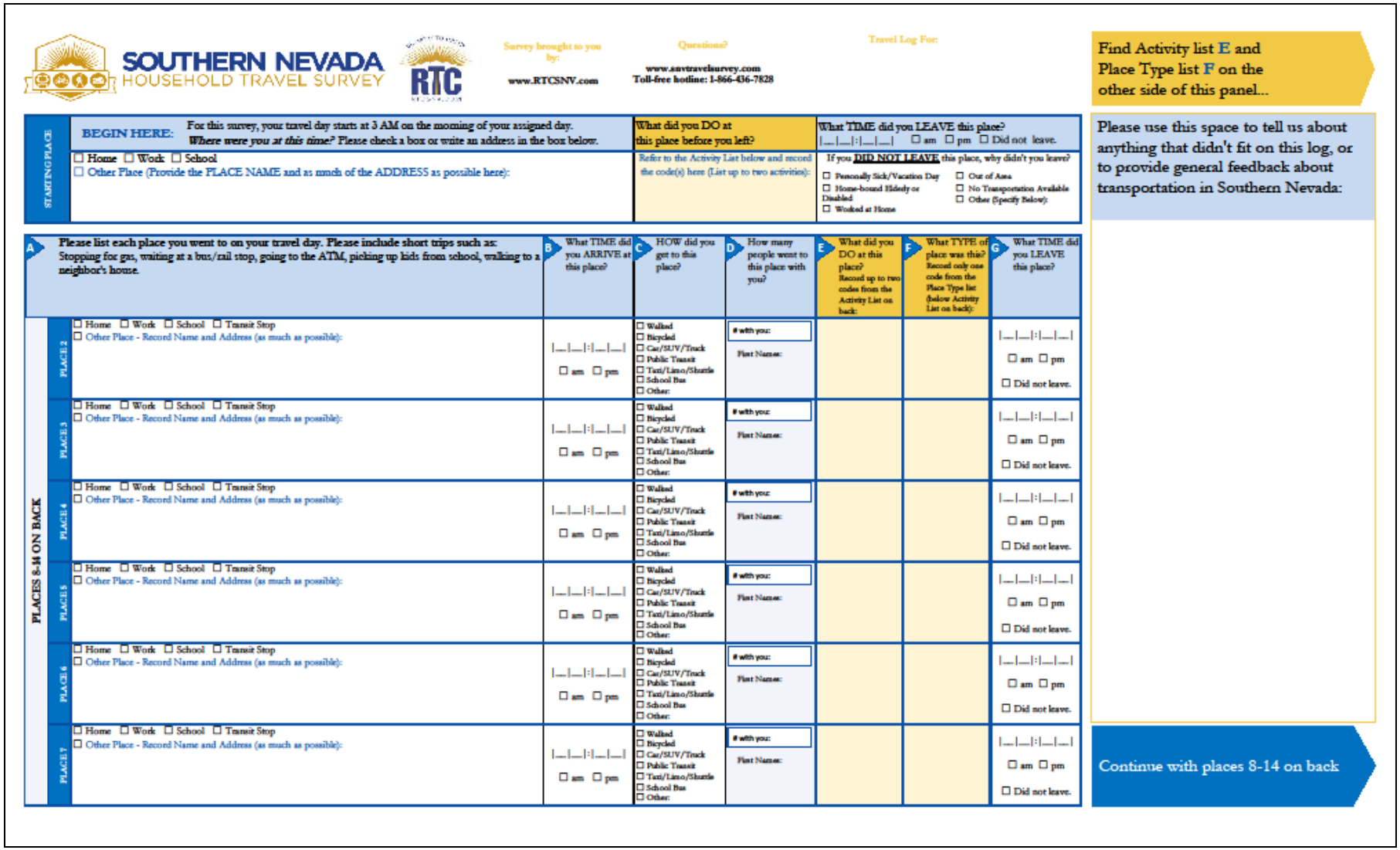
	A. Please list each place you went to on your travel day. Please include short trips such as: Stopping for gas, waiting at a bus/rail stop, going to the ATM, picking up kids from school, walking to a neighbor's house.	B. What TIME did you ARRIVE at this place?	C. HOW did you get to this place?	D. How many people went to this place with you?	E. What did you DO at this place? Record up to two codes from the Activity List on back:	F. What TYPE of place was this? Record only one code from the Place Type list (below Activity List on back):	G. What TIME did you LEAVE this place?
PLACE 2	☐ Home ☐ Work ☐ School ☐ Transit Stop ☒ Other Place - Record Name and Address (as much as possible): Rebel Gas	|__|7|:|4|3| ☒ am ☐ pm	☐ Walked ☐ Bicycled ☒ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: 0 First Names:	18 19 (Got Gas & Snacks)	11 (Gas Station)	|__|7|:|4|7| ☒ am ☐ pm ☐ Did not leave.
PLACE 3	☐ Home ☒ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|8|:|0|4| ☒ am ☐ pm	☐ Walked ☐ Bicycled ☒ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: 0 First Names:	03	10	|__|5|:|1|0| ☐ am ☒ pm ☐ Did not leave.
PLACE 4	☐ Home ☐ Work ☒ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible): Ben's School	|__|5|:|2|9| ☐ am ☒ pm	☐ Walked ☐ Bicycled ☒ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: 0 First Names:	07	08	|__|5|:|3|5| ☐ am ☒ pm ☐ Did not leave.
PLACE 5	☐ Home ☐ Work ☐ School ☐ Transit Stop ☒ Other Place - Record Name and Address (as much as possible): Chipotle Mexican Grill 3475 S Las Vegas Blvd, Las Vegas, NV 89109	|__|5|:|5|0| ☐ am ☒ pm	☐ Walked ☐ Bicycled ☒ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: 1 First Names: Ben	22 19 (Pick-up Dinner)	05	|__|5|:|5|7| ☐ am ☒ pm ☐ Did not leave.
PLACE 6	☒ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|6|:|2|1| ☐ am ☒ pm	☐ Walked ☐ Bicycled ☒ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: 1 First Names: Ben	02	01	|__|__|:|__|__| ☐ am ☐ pm ☒ Did not leave.
PLACE 7	☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.

Please use this space to tell us about anything that didn't fit on this log, or to provide general feedback about transportation in Southern Nevada:

If you visit more than 7 PLACES, continue recording on the back of your Travel Log.

Continue with places 8-14 on back

6.1.6. Travel Log



SOUTHERN NEVADA HOUSEHOLD TRAVEL SURVEY

RTC

Survey brought to you by: www.RTCSNV.com

Questions? www.snvtravelsurvey.com Toll-free hotline: 1-866-436-7828

Travel Log For:

Find Activity list E and Place Type list F on the other side of this panel...

STARTING PLACE

BEGIN HERE: For this survey, your travel day starts at 3 AM on the morning of your assigned day. *Where were you at this time?* Please check a box or write an address in the box below.

☐ Home ☐ Work ☐ School
☐ Other Place (Provide the PLACE NAME and as much of the ADDRESS as possible here):

What did you DO at this place before you left?
Refer to the Activity List below and record the code(s) here (List up to two activities):

What TIME did you LEAVE this place?
|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.

If you DID NOT LEAVE this place, why didn't you leave?
☐ Personally Sick/Vacation Day ☐ Out of Area
☐ Home-bound Elderly or Disabled ☐ No Transportation Available
☐ Other (Specify Below):
☐ Worked at Home

PLACES 8-14 ON BACK

A: Please list each place you went to on your travel day. Please include short trips such as: Stopping for gas, waiting at a bus/rail stop, going to the ATM, picking up kids from school, walking to a neighbor's house.	B: What TIME did you ARRIVE at this place?	C: HOW did you get to this place?	D: How many people went to this place with you?	E: What did you DO at this place? Record up to two codes from the Activity List on back:	F: What TYPE of place was this? Record only one code from the Place Type list (below Activity List on back):	G: What TIME did you LEAVE this place?
PLACE 2: ☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.
PLACE 3: ☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.
PLACE 4: ☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.
PLACE 5: ☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.
PLACE 6: ☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.
PLACE 7: ☐ Home ☐ Work ☐ School ☐ Transit Stop ☐ Other Place - Record Name and Address (as much as possible):	|__|__|:|__|__| ☐ am ☐ pm	☐ Walked ☐ Bicycled ☐ Car/SUV/Truck ☐ Public Transit ☐ Taxi/Limo/Shuttle ☐ School Bus ☐ Other:	# with you: First Names:			|__|__|:|__|__| ☐ am ☐ pm ☐ Did not leave.

Please use this space to tell us about anything that didn't fit on this log, or to provide general feedback about transportation in Southern Nevada:

Continue with places 8-14 on back

6.1.7. GPS Package Cover Letter

SOUTHERN NEVADA
HOUSEHOLD TRAVEL SURVEY

RTC
RTCSNV.COM

«FIRSTNAME» «LASTNAME» «DATENOW»
«ADDRESS»
«CITY», «STATE» «ZIP»-«ZIP4»

Dear «FIRSTNAME»,

Thank you for participating in the Southern Nevada Household Travel Survey! The information you provide will help ensure that future transportation projects reflect what your community needs and that transportation funds are spent wisely. Remember that we value your input, no matter how much or how little you travel.

Step 1 Thank you for completing the Telephone or Web Survey in Step 1. **Now, it's time for Step 2.**

Step 2 **Record your travel information using the Travel Logs and GPS devices.**

- Use the Travel Logs to record all places visited by your household on «FIRSTTRAVELDAY».
- Use your **GPS devices** from **«FIRSTTRAVELDAY»** to **«LASTTRAVELDAY»**. GPS equipment is being provided for each household member between the ages of 16 and 75; see assignments in the table below. Instructions are provided in the package.

Person	Name	Age	GPS Unit ID
«PERSON1»	«NAME1»	«AGE1»	«GPSUNITID1»
«PERSON2»	«NAME2»	«AGE2»	«GPSUNITID2»
«PERSON3»	«NAME3»	«AGE3»	«GPSUNITID3»
«PERSON4»	«NAME4»	«AGE4»	«GPSUNITID4»
«PERSON5»	«NAME5»	«AGE5»	«GPSUNITID5»
«PERSON6»	«NAME6»	«AGE6»	«GPSUNITID6»

- Please return the GPS equipment and the completed Participation Record (in the pre-paid FedEx package) immediately after your travel period. Return instructions have been provided.
  Be sure to keep the Travel Logs for Step 3.

Step 3 **Report your travel information in ONE of the following ways.** *Please have your Travel Logs handy to help you remember the details of your travel.*

- **Online:** Go to www.snvtravelsurvey.com. Click "Report Travel" and **enter PIN#: «PINNO».**
- **Phone:** Call us at 1-866-436-7828 to report travel details by phone; have your travel logs handy.

Once we confirm travel information for all household members, we will send your **$«INCENTIVE»** gift for participating in the GPS survey within a few weeks. **If the final step of the survey is completed by WEB, an additional $15 will be offered for a total of $«INCENTIVE_PLUS_15».**

Participation is voluntary and your personal information will be kept confidential, as required by law.

Thank you again for providing the details that will help improve transportation choices for the region.

Sincerely,

Tina Quigley
General Manager, RTC

Survey brought to you by the Regional Transportation Commission of Southern Nevada (RTCSNV.com)
and conducted by Westat

6.1.8. GPS Participation Record

Participation Record

Device and Log Use: Please fill in the appropriate columns (with a Yes or No) at the end of each travel day.

		Day 1 «DOW» «FIRSTTRAVELDAY»			Day 2 «DOW+1» «FIRSTTRAVELDAY+1»		Day 3 «DOW+2» «LASTTRAVELDAY»	
	PERSON:	Traveled?	Use GPS?	Filled in Travel Log?	Traveled?	Use GPS?	Traveled?	Use GPS?
1	«PERSON1»			<LOG>				
2	«PERSON2»			<LOG>				
3	«PERSON3»			<LOG>				
4	«PERSON4»			<LOG>				
5	«PERSON5»			<LOG>				
6	«PERSON6»			<LOG>				
7	«PERSON7»			<LOG>				
8	«PERSON8»			<LOG>				

Please Complete this Sheet and Return with GPS Equipment [HHID]-[GFLAG]

6.1.9. GPS Device Use Instructions

GPS Device Use Instructions

This package contains one GPS logging device for each person in your household between the ages of 16 and 75. Travel logs have also been provided for all household members.

TURNING ON GPS DEVICE

- Turn the GPS device on by pressing and holding the silver power button in the upper right-hand corner for approximately 5 seconds. All 3 lights will flash (green, blue and red) when the device turns on, and the green and red light should remain illuminated.
- Please make sure the device is turned on every morning, and whenever you are outdoors. The red light should be on, and the green light should be on (solid or flashing). If these lights are not on, press and hold the silver power button to turn the device off, and then to turn it on again.

WHEN AND HOW TO WEAR GPS DEVICE

- You should wear the GPS device whenever you travel outside of your home starting on your assigned travel date and continuing through all days of your GPS study period (as listed on your household letter).
- When walking, biking or riding public transportation, you should wear the GPS device on your waist or clipped to your bag or purse. If you are riding inside a vehicle such as a car or truck, you can continue to wear the GPS device on your waist or place your bag or purse on the seat.
- The green light will flash when data are being collected.

CHARGING THE GPS DEVICE

- Plug one end of the enclosed cable (the end with the larger connector) into the cable on the side of the GPS device. Connect the opposite end of the cable into the wall plug adaptor and plug the adapter into the wall. If the connection is right, the bottom light on the GPS device will light up in amber/red indicating that it is charging. The amber/red light may go off once the device is fully charged.

Please recharge the GPS device every night.

Have Questions?

Call 1-866-436-7828

between 9 am - 7 pm

Monday - Friday

Equipment Return Instructions
(See Other Side)

Survey brought to you by the Regional Transportation Commission of Southern Nevada (RTCSNV.com) and conducted by Westat

6.1.10. GPS Equipment Return Instructions

GPS Equipment Return Instructions

As soon as possible after our data collection period, collect all GPS devices, cables, and AC adapters provided for your household, place them in the packaging material and box in which they arrived, and place the box inside the pre-paid FedEx Pak (and seal the Pak). Please return the **Participation Record & Travel Logs** with the GPS devices and equipment.

PACKAGING THE DEVICE FOR RETURN

Step 1 – Repackage The GPS Devices

Step 2 – Place GPS Devices Into Box

Step 3 – Place Participation Record In Box

Step 4 – Place Box Into FedEx Pak

FEDEX RETURN OPTIONS

1. Take the Package to a FedEx Drop Box or to FedEx Office Location
   - To locate by internet: www.fedex.com
   - To locate by phone: 1-800-GO-FEDEX (1-800-463-3339)
2. Call 1-800-GO-FEDEX for a pickup at your home or office
   - Tell the FedEx representative you have a prepaid return envelope
3. Call 1-866-436-7828 between 9 am and 7 pm Mon-Fri and we will schedule a FedEx pickup for you.

REMEMBER, IN ORDER TO RECEIVE YOUR PARTICIPATION GIFT, YOU MUST:

- Use the enclosed GPS devices (and travel logs)
- Report your travel as recorded on the Travel Logs by web (extra $15 per household) or phone
- Fill out your Participation Record
- Return GPS devices, along with completed Participation Record and Travel Logs (if not already reported via phone or web) via FedEx return package.

Equipment Use Instructions
(See Other Side)

Survey brought to you by the Regional Transportation Commission of Southern Nevada (RTCSNV.com) and conducted by Westat

6.2. Final Recruitment Script

Introduction

LANG

LANGUAGE

TYPE: SelectSingle
QASKEDIF: INITIATIONMODE=CATI

What language are you most comfortable with?

ATEXT	AVALUE
ENGLISH	1
SPANISH	2

SINTRO1

SINTRO1

TYPE: SelectSingle
QASKEDIF: INITIATIONMODE=CATI

ONLY READ FOR OUTBOUND CALLS:Hello, my name is <INTERVIEWER_NAME>. I am calling on behalf of the Regional Transportation Commission of Southern Nevada.

The reason I'm calling is that your household has been selected to be part of an important survey about transportation in Southern Nevada.
READ FOR ALL CALLS:Are you a member of this household and at least 18 years old?

ATEXT	AVALUE
YES	1
NO	2
ANSWERING MACHINE	101
NONWORKING, DISCONNECTED, CHANGED	102
GO TO RESULT	103

BRANCH:

CONDITION (using SINTRO1)	NEXT PAGE
1	INTRO1
2	A2
101	READMSG
102, 103	INT_RESULT

A2

A2

TYPE: SelectSingle
Qaskedif: SINTRO1=2

<P>May I please speak with a household member who is at least 18 years old?
<B>HOUSEHOLD (HH) MEMBERS INCLUDE PEOPLE WHO THINK OF THIS HH AS THEIR PRIMARY PLACE OF RESIDENCE. IT INCLUDES PERSONS WHO USUALLY STAY IN THE HH BUT ARE TEMPORARILY AWAY ON BUSINESS, VACATION, OR IN A HOSPITAL. IT DOES NOT INCLUDE SOMEONE JUST VISITING, SUCH AS A COLLEGE STUDENT WHO NORMALLY HAS BEEN LIVING AWAY AT SCHOOL.</B></P>

ATEXT	AVALUE
AVAILABLE	1
NOT AVAILABLE AT THIS TIME	2
THERE ARE NONE	3
GO TO RESULT	4

BRANCH:

CONDITION (using A2)	NEXT PAGE
1	A4_SET
2	INT_RESULT
3	A3_SET
4	INT_RESULT

A3_SET

INT_A3_SET

TYPE: Computed
Qaskedif: A2=3

=501

A3

INT_A3

TYPE: SelectSingle
Qaskedif: A2=3

Is there at least one person over 18 living at this address?
IF RESPONDENT IS A CHILD, ASK FOR AN OLDER HOUSEHOLD MEMBER.

ATEXT	AVALUE
NO ONE LIVING IN HH IS 18 OR OLDER	501
THERE ARE HH MEMBERS 18 OR OLDER BUT NOT AVAILABLE NOW	302

BRANCH:

CONDITION (using A3)	NEXT PAGE
501	INT_RESULT
302	INT_ADULT

A4_SET

INT_A4_SET

TYPE: Computed
Qaskedif: A2=1

=500

A4

INT_A4

TYPE: SelectSingle
Qaskedif: A2=1

Hello, my name is <INTERVIEWER_NAME>. I am calling on behalf of the Regional Transportation Commission of Southern Nevada.

 The reason I'm calling is that your household has been selected to be part of an important survey about transportation in Southern Nevada.

ATEXT	AVALUE
CONTINUE	101
REFUSED	500

BRANCH:

CONDITION (using A4)	NEXT PAGE
101	
500	INT_RESULT

INTRO1

INTRO1

TYPE: Select Single

ONLY READ FOR INBOUND CALLS

Before I begin the survey, there are some things I need to tell you.

READ FOR ALL CALLS:

We're asking the people in your household to keep track of all the places they go for one day. After that one day, we will ask you to tell us about all the places you and the other members of your household went on that day. As a thank you, we will send your household a $10 gift when you successfully complete the survey. Those who report their travel online will receive an additional $15 incentive.

Some households have also been selected to take part in a special technology-based survey. If you have been selected for this, we will tell you more details after we collect some information about your household.

Your participation is voluntary, and your answers will be confidential according to the law.

[IF NEEDED: Good transportation facilities and services are essential for access to jobs, schools, health care, and other important daily activities. To keep our area moving, we need data on how, when, where, and why people travel. This information helps leadership make important decisions about how and where to invest your federal and state gas taxes. Your participation will help us better plan for future transportation needs in your community and Southern Nevada as a whole.]

ATEXT	AVALUE
Continue with survey	100

ADULT

INT_ADULT

TYPE:
QASKEDIF: INITIATIONMODE=CATI AND INT_A3=302

We're sorry but this survey must be completed by an adult... please ask an adult in your household to come back and complete the survey.

ATEXT	AVALUE
Come back later when an adult is available	302

HHSIZP

HHSIZ

TYPE: NumberEntry (1-20)

To help us understand the things that impact your travel choices, we have a few questions about your household.

Including yourself, how many people live in your home?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

BRANCH:

CONDITION (using HHSIZ)	NEXT PAGE
>0	HHCONV2
ELSE	HHCONV_SET

HHCONV_SET

INT_HHCONV_SET

TYPE: Interrupt

=500

HHCONV

INT_HHCONV

TYPE: Interrupt

The reason we ask about the number of people living in your household is because this information is directly related to the types and number of trips that households make and helps us understand the travel patterns and needs of the community. Without a response, we cannot continue the survey.

Will you please tell us, how many people, including yourself, live in your home?

TEXT	CODE
AGREE TO PROVIDE THE NUMBER OF HOUSEHOLD MEMBERS	101
QUIT THE SURVEY	500

BRANCH:

CONDITION (INT_HHCONV)	NEXT PAGE
101	HHSIZP
500	INT_RESULT

HHCONV2

[YOUR_TRAVEL]

TYPE: Calculated

CASE WHEN HHSIZ=1 THEN 1 ELSE 2 END

TEXT	CODE
your travel	1
travel by you and each member of your household	2

[YOU2]

TYPE: Calculated

CASE WHEN HHSIZ=1 THEN 1 ELSE 2 END

TEXT	CODE
you	1
each of you	2

[YOU3]

TYPE: Calculated

CASE WHEN HHSIZ=1 THEN 1 ELSE 2 END

TEXT	CODE
you	1
you and the other members of your household	2

[LOG]

TYPE: Calculated

CASE WHEN HHSIZ=1 THEN 1 ELSE 2 END

TEXT	CODE
log	1
logs	2

[YOUR_LOG]

TYPE: Calculated

CASE WHEN [$HHSIZ]=1 THEN 1 ELSE 2 END (3 and 4 are not used)

TEXT	CODE
your log	1
the logs	2
the package	3
the materials	4

INTROP

HHAGE1

Type: NumberEntry
QASKEDIF: 1=0

How many people in your household are under 18 years of age?

HHAGE2

Type: NumberEntry
QASKEDIF: 1=0

And how many are between 18 and 35?

HHAGE3

Type: NumberEntry
QASKEDIF: 1=0

…and between 36 and 55?

HHAGE4

Type: NumberEntry
QASKEDIF: 1=0

…and between 56 and 65?

HHAGE5

Type: NumberEntry
QASKEDIF: 1=0

…and how many 66 or older?

INTROP4

HHSIZDQ1

TYPE: Computed

CASE WHEN [HHSIZ]<=-999 THEN 1 WHEN (HHAGE1=0 AND HHAGE2=0 AND HHAGE3=0) THEN 1 ELSE 0

HHSIZDQ2_SET

INT_HHSIZDQ2

TYPE: Computed
Qaskedif: HHSIZDQ1=1

=605

HHCONV3

HHSIZDQ2

TYPE: labelonly
QASKEDIF: HHSIZDQ1=1

Thank you for your interest in this survey. It appears that we have enough households like yours in the survey at this time. Please consider providing your opinions on transportation in Southern Nevada by going to:

https://www.snvtravelsurvey.com/ContactUs.aspx

BRANCH:

CONDITION	NEXT PAGE
ELSE	END

Household Data Module

ADD_CHECK

CHGADD

TYPE: SelectSingle

Please confirm your address. Do you live at…

[BASESTRT][BASEAPT]

[BASECITY], [BASESTAT] [BASEZIP]

ATEXT	AVALUE
YES	1
NO, THE APARTMENT NUMBER IS INCORRECT	2
NO, THE ZIP CODE IS INCORRECT	3
NO, BOTH THE APARTMENT NUMBER AND ZIP CODE ARE INCORRECT	4
NO, THIS IS NOT MY ADDRESS	5

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

BRANCH:

CONDITION (CHADD)	NEXT PAGE:
1	HHDATA1
2	ADD_CHECK2
3	ADD_CHECK2
4	ADD_CHECK2
5	INT_THANK03
-7	INT_THANK02
-8	INT_THANK03

ADD_CHECK2

CHGADD1

TYPE: TextEntry (10 characters)
Qaskedif: CHGADD in (2,4)

What is your correct apartment number?

CHGADD2

Type: TextEntry (5 characters)
Qaskedif: CHGADD in (3,4)

What is your correct zip code?

ADD_CHECK3

HGEOCODE

TYPE: GeoCodeAddress
Qaskedif: BASEMATCH<>1

SEARCH FOR AND CONFIRM THE LOCATION ON THE MAP ON THE RIGHT

Because this is a survey about where and how people travel, we need to record the physical address of your home.

[ENTER ADDRESS]

[IF NEEDED: I am now using a google mapping tool to map your address – the tool places your address on the map near: (DESCRIBE PLACEMENT)

Does that sound like the correct location?]

HHDATA1

FULLADDRESS

Type: Computed

CASE WHEN [$MATCHSTATUS] =unmatched THEN '[$HGEOCODE.HGEOCODE_ADDR:Q]' || ', ' || '[$HGEOCODE.HGEOCODE_CITY]' || ', ' || '[$HGEOCODE.HGEOCODE_STATE]' || ', ' || '[$HGEOCODE.HGEOCODE_ZIP]' ELSE '[$NEWBASESTREET:Q]' || ', ' || '[$BASECITY:Q]' || ', ' || '[$BASESTATE:Q]' || ', ' || '[$NEWBASEZIP:C]' END

Household Vehicle/Transportation Options

HHVEH

HHVEH

TYPE: NumberEntry Range 0-12

How many vehicles does your household own or lease? Please be sure to count all vehicles for street use including motorcycles, mopeds, and RVs.

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

BRANCH:

CONDITION (HHVEH)	NEXT PAGE:
(-7.-8)	INT_HHCONV_SET
ELSE	BIKES

INT_VEHCONV_SET

INT_HHCONV_SET

TYPE: Interrupt

=607

VEHCONV

Type:SelectSingle

We understand your hesitation to answer the previous question. However, it is important for transportation planners to know the number of vehicles available to each household in the study because this information is directly related to the types of trips that people make and helps us understand the travel patterns and needs of the community. Without a valid response, we cannot continue the survey. Will you please tell us, how many motor vehicles are owned, leased, or available for regular use by the people who currently live in your household? Please be sure to include motorcycles, mopeds and RVs.

ATEXT	AVALUE
Agree to provide the number of vehicles	1
Quit the survey	2

BRANCH:

CONDITION (HHVEH)	NEXT PAGE:
1	HHVEH
2	END

BIKES

BIKES

TYPE: NumberEntry Range 0-12

How many bicycles are available for regular use by the people in your household?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

Person Data Module

Begin Person Roster

PERSONSTART

[STARTING]

TYPE: computed

CASE WHEN [$R]=1 THEN 1 ELSE 2 END

TEXT	CODE
Now, we're going to ask some details about each person living in your household, starting with you...	1
	2

[YOUR_NEXT]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
your	1
the next person's	2

PERSON1

FNAME

TYPE: computed

[STARTING]What is [YOUR_NEXT] first name?

Note: We only ask for names so we can make sure we ask the right questions of everyone. Initials, abbreviations, or nicknames are fine to provide in place of the full name. Just make sure they are unique. We need some type of identifier for you to be able to continue with the survey.

PERSON2

[ARE_YOU]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
are you	1
is [FNAME]	2

[ARE_YOU_CAP]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
Are you	1
Is [FNAME]	2

[DO_YOU_CAP]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
Do you	1
Does [FNAME]	2

[DO_YOU]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
do you	1
does [FNAME]	2

[IS_YOUR]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
Is your	1
Is [FNAME]'s	2

[YOU_TELECOMMUTE]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
you telecommute	1
[FNAME] telecommutes	2

[YOUR2]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
your	1
[FNAME]'s	2

[YOU]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
you	1
they	2

[YOU_HAVE]

TYPE: computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

TEXT	CODE
you have	1
[FNAME] has	2

PERSONAGE

AGE

TYPE: NumberEntry
Range: 0-110

How old [$ARE_YOU]?

[TYPE '0' IF CHILD IS UNDER ONE YEAR OLD]

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

PERSONAGECHECK

AGECHECK

TYPE: SelectSingle
QASKEDIF: [$AGE]=0

You just reported that [$FNAME] is 0 years old. Please confirm that this person is an infant.

ATEXT	AVALUE
YES, this person is an infant	1
NO, this person is NOT an infant	2

PERSON3

AAGE

TYPE: Select Single
QASKEDIF: [$AGE] IN (-7,-8) OR ([$AGE]=0 AND [$AGECHECK:C]=2)

Which age range [$DO_YOU] fall within?

ATEXT	AVALUE
0-4 years old or	1
5-15 years old	2
16-17 years old	3
18-64 years old	4
65-75 years old	5
76 years old or older	6
REFUSED	-7
DON'T KNOW	-8

DAYCARE

TYPE: computed

CASE WHEN ([AGE]<5 AND [AGE] >0) OR ([AGE] <=0 AND [AAGE:C] IN (1, 2)) THEN 1 ELSE 2 END

TEXT	CODE
daycare,	1
	2

SEX

TYPE: SelectSingle

[$ARE_YOU] male or female?

ATEXT	AVALUE
MALE	1
FEMALE	2
REFUSED	-7

DON'T KNOW	-8

RELATE

TYPE: SelectSingle
Default Value: $R=1->1

What is [$FNAME]'s relationship to you?

Relationships include biological, adopted and step.

ATEXT	AVALUE
SELF	1
Spouse	2
Unmarried Partner	3
Son/Daughter	4
Father/Mother/In Law	5
Brother/Sister	6
Grandparent	7
Grandchild	8
Live-in Help	9
Roommate/Other Non-related (Caregiver or Housekeeper)	10
Other Relative	11
REFUSED	-7
DON'T KNOW	-8

[RELATECHECKQTEXT]

TYPE: Computed

CASE WHEN RELATE=4 AND AGE:R1-AGE<12 THEN 1 WHEN RELATE=5 AND AGE-AGE:R1<12 THEN 2 ELSE 3 END

TEXT	CODE
You reported that this person is your Son/Daughter but their age indicates that they may not be. Can you confirm their age is correct?	1
You reported that this person is your Father/Mother/In Law but your age difference indicates that they may not be. Can you confirm their age is correct?	2
Please check the age of the person you are currently reporting.	3

PERSONRELATECHECK

[YOUR]

TYPE: computed

CASE WHEN $R=1 THEN 1 WHEN $R>1 AND SEX=1 THEN 2 WHEN $R>1 and SEX=2 THEN 3 ELSE 4 END

TEXT	CODE
your	1
his	2
her	3
their	4

RELATECHECK

TYPE: SelectSingle
QASKEDIF: [$R] > 1 AND [$AGE] NOT IN (-7,-8) AND [RELATECHECKQTEXT:C] IN (1,2)

[$RELATECHECKQTEXT]

ATEXT	AVALUE
Age of [$FNAME] is correct	1
Age of [$FNAME] is incorrect	2

BRANCH:

CONDITION (RELATECHECK)	NEXT PAGE:
1	PERSON4
2	PERSONAGE

PERSON4

LIC

TYPE:
QASKEDIF: [$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] NOT IN (1, 2))

[$DO_YOU_CAP] have a valid driver's license?

ATEXT	AVALUE
YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

PERSON5

EMPLY

TYPE: SelectSingle
QASKEDIF: [$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] NOT IN (1, 2))

[$ARE_YOU] employed?

BEING EMPLOYED INCLUDES DOING ANY WORK FOR PAY.

ATEXT	AVALUE
YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

HISP

TYPE: Select Single

[ARE_YOU_CAP] of Hispanic, Latino or Spanish origin?

TEXT	CODE
YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

RACE

TYPE: SingleResponse

Which of the following describes [$YOUR] race? [$ARE_YOU_CAP]…

ATEXT	AVALUE
White	1
African American, Black	2
Asian	3
American Indian, Alaskan Native	4
Native Hawaiian or Pacific Islander	5

ATEXT	AVALUE
Multiracial	6
Some other race	97
REFUSED	-7
DON'T KNOW	-8

RACE_O

TYPE: TextEntry
QASKEDIF: RACE=97

Please provide [$YOUR] race.

PERSONGPSELIGIBLE

Type: Computed

CASE WHEN (AGE BETWEEN 16 AND 75) OR (AGE <= 0 AND AAGE BETWEEN 3 AND 5) THEN 1 ELSE 0 END

Codebook	AVALUE
GPS Eligible	1
Not GPS Eligible	0

PMORE

PMORE

TYPE: Computed

CASE WHEN $R<HHSIZ THEN 1 ELSE 2

Codebook	AVALUE
More to report	1
Done reporting persons	2

BRANCH:

ATEXT	NEXT PAGE
1	PERSONSTART+
2	PMORE2

PMORE2

PMORE2

TYPE: SelectSingle

You have reported [$PERNO] of [$HHSIZ] persons. Is there anyone we have missed or overlooked?

Codebook	AVALUE
More to report	1
Done reporting persons	2

BRANCH:

ATEXT (PMORE2)	NEXT PAGE
1	PERSONSTART+
2	HHINC

PERSON7

MAXPERNO

TYPE: Computed

=MAX(ROSTERROWPATH) WHERE qvar = 'PERWRITEOUT'

End Person Roster

PERSON7

GPSELIGIBLE

TYPE: Computed

First check to confirm that available travel dates for this HH based on the get travel date function are <=21 days from the current date. If not, set to 4. Then evaluate the following:

CASE WHEN GFLAG=1 THEN (SELECT max(avalue) FROM wgs_surveydata WHERE sampno = '[$SAMPLE]' AND instrumentid=101 AND qvar = 'PERSONGPSELIGIBLE') ELSE 0 END"

NEWGFLAG

TYPE: Computed

CASE WHEN [$GFLAG] = 1 AND [$GPSELIGIBLE:C] >= 1 THEN 1 ELSE 2 END

ATEXT	AVALUE
GPS Household	1
Ineligible	2
Eligible But Not Selected	4

Household Level Person Data Module

HHINC

HHINC

TYPE: SelectSingle
ATEXT should be in two columns

Please identify which category represents your total household income for last year.

Knowing household income allows us to make sure that we are including all types of households in the study. Because income is related to how, when and why people go from place to place, having this information will help your transportation planners better understand the needs of southern Nevada residents.

ATEXT	AVALUE
Less than $10,000	1
$10,000 to $19,999	2
$20,000 to $29,999	3
$30,000 to $39,999	4
$40,000 to $49,999	5
$50,000 to $59,999	6
$60,000 to $74,999	7

ATEXT	AVALUE
$75,000 to $99,999	8
$100,000 to $124,999	9
$125,000 to $149,999	10
$150,000 to $199,999	11
$200,000 or more	12
REFUSED	-7
DON'T KNOW	-8

Work and School Module

Begin Person Work Roster

WORKINTRO

[JOBTEXT]

TYPE: Computed

CASE WHEN [$R]=1 THEN 1 ELSE 2 END

ATEXT	AVALUE
Now we have some questions about work activities. Work-related trips account for a large part of travel in Southern Nevada. Understanding more about where, when, and how people get to work is important to transportation planners. 	1
	2

[YOU_SPEND]

TYPE: computed

CASE WHEN $R=1 THEN 1 WHEN $R>1 AND SEX=1 THEN 2 WHEN $R>1 and SEX=2 THEN 3 ELSE 4 END

ATEXT	AVALUE
you spend	1
he spends	2
she spends	3
they spend	4

WORK1

JOBS

TYPE: NumberEntry
QASKEDIF: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] NOT IN (1,2))) AND [$EMPLY:C]<>2
Range: 0-9

[$JOBTEXT]

How many jobs [$DO_YOU] currently work?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

[YOU_TELECOMMUTE]

TYPE: Computed

CASE WHEN [$R]>1 THEN 1 ELSE 2 END

ATEXT	AVALUE
you telecommute	1
[FNAME] telecommutes	2

[PRIMARY]

TYPE: Computed

CASE WHEN [JOBS]>1 THEN 1 ELSE 2 END

ATEXT	AVALUE
primary	1
	2

WORK2

WKSTAT

TYPE: SelectSingle
QASKEDIF: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] NOT IN(1,2)) AND ([$JOBS]<=0 OR '[$JOBS]'='' OR '[$JOBS]'='null' OR '[$JOBS]'=' ')
Default Value: JOBS>=1->0

Which of the following best describes [$YOUR] working status?

ATEXT	AVALUE
PAID Full-time Worker	1
PAID Part-time Worker	2
UNPAID Worker or Volunteer	3
Homemaker	4
Retired	5
Unemployed but looking for work	6
Unemployed, not seeking employment	7
Disabled non-worker	8
Student (Part- time or Full-time)	9
Something else	97
REFUSED	-7
DON'TKNOW	-8

WKSTAT_O

TYPE:
QASKEDIF: [$WKSTAT]=97

If you said something else, please describe.

WORK3

WPLACE

TYPE:
QASKEDIF: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] > 2)) AND [$JOBS]>=1
[$DO_YOU_CAP] go to the same work location every day, [$DO_YOU] work out of your house, or does [$YOUR] work location change from day to day or week to week?

ATEXT	AVALUE
SAME LOCATION EVERY DAY	1
HOME	2
VARIES	3
REFUSED	-7
DON'T KNOW	-8

[YOUR_EMPLOYER]

TYPE: Computed
CASE WHEN [WPLACE] IN (1,-7,-8) THEN 1 WHEN WPLACE=2 THEN 2 WHEN WPLACE=3 THEN 3 END

ATEXT	AVALUE
[$YOUR2] primary workplace?	1
	2
[$YOUR2] employer?	3

WORKGEOCODE

WADDR

TYPE: GeoCodeAddress
QASKEDIF: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] > 2)) AND [$JOBS]>=1 AND [$WPLACE:C] <> 2
What is the name and address of [$YOUR_EMPLOYER]?

WORK4

WMODE

TYPE: SelectSingle
QASKEDIF: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] > 2)) AND [$JOBS]>=1 AND [$WPLACE:C] <> 2
How [$DO_YOU] usually travel to work?

ATEXT	AVALUE
WALK	1
BIKE	2
AUTO/VAN/TRUCK/MOTORCYCLE (AS THE DRIVER)	3
AUTO/VAN/TRUCK/MOTORCYCLE (AS A PASSENGER)	4
SCHOOL BUS	5
RTC BUS	6
MONORAIL	7
TAXI/LIMO	8

ATEXT	AVALUE
HOTEL SHUTTLE	9
SOMETHING ELSE	97
PREFER NOT TO ANSWER	-7
I DON'T KNOW	-8

WMODE_O

TYPE: SelectSingle
QASKEDIF: [$WMODE:C]=97

If you said something else, please provide details.

[HAVE_YOU_CAP]

TYPE: computed

CASE WHEN [$R]=1 THEN 1 ELSE 2 END

ATEXT	AVALUE
Have you	1
Has [FNAME]	2

[HAVE_YOU]

TYPE: computed

CASE WHEN [$R]=1 THEN 1 ELSE 2 END

ATEXT	AVALUE
have you	1
has [FNAME]	2

WHRS1

WHRS1

TYPE: NumberEntry
QASKEDIF: JOBS>=1
Range: 1-99

How many hours [$DO_YOU] work per week at the job where [$YOU_SPEND] the most time?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

WHRS2

TYPE: NumberEntry
QASKEDIF: JOBS>=2
Range: 1-99

How many hours [$DO_YOU] work per week at [$YOUR] secondary job?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

WHRS3

TYPE: NumberEntry
QASKEDIF: JOBS>=3
Range: 1-99

How many hours [$DO_YOU] work per week at [$YOUR] third job?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

WORK7

SCHED

TYPE: SelectSingle
Qaskedif: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] NOT IN (1, 2))) AND [$JOBS]>=1

Do [$YOUR2] start or end times at this job vary by more than 15 minutes from day to day or week to week?

ATEXT	AVALUE
YES – BY MORE THAN 15	1
NO – NOT BY MORE THAN 15	2
REFUSED	-7
DON'T KNOW	-8

WORK8

WSTRT

TYPE: text entry-time format H:MM AMPM
Qaskedif: SCHED=2

What time [$DO_YOU] typically start work at [$YOUR] primary job?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

WEND

TYPE: text entry-time format H:MM AMPM
Qaskedif: SCHED=2

What time [$DO_YOU] typically end work at [$YOUR] primary job?

ATEXT	AVALUE
REFUSED	-7
DON'T KNOW	-8

WTRAV

TYPE: SelectSingle
Qaskedif: ([$AGE]>=16 OR ([$AGE] <= 0 AND [$AAGE:C] NOT IN (1, 2))) AND [$JOBS]>=1 AND [$WPLACE:C] <>2

On average, how many days per week [$DO_YOU] travel to [$YOUR] work location?

ATEXT	AVALUE
1 DAY PER WEEK	1
2 DAYS PER WEEK	2
3 DAYS PER WEEK	3
4 DAYS PER WEEK	4
5 DAYS PER WEEK	5

ATEXT	AVALUE
6 DAYS PER WEEK	6
7 DAYS PER WEEK	7
NEVER TRAVELS TO WORK	8
REFUSED	-7
DON'T KNOW	-8

WORK9

COMPR

TYPE: SelectSingle

[$DO_YOU_CAP] work a compressed work week, such as 40 hours in 4 days or 80 hours in 9 days?

ATEXT	AVALUE
YES	1
NO	2
Some other schedule	97
REFUSED	-7
DON'T KNOW	-8

COMPR_O

TYPE: TextEntry
QASKEDIF: [$COMPR:C]=97

Please describe.

WORK12

INDUS

TYPE: SelectSingle
QASKEDIF: [JOBS]>=1
Note: Place choices in two columns

What activity best describes [$YOUR][$PRIMARY] job?

ATEXT	AVALUE
AGRICULTURE, FORESTRY, FISHING AND HUNTING	11
MINING, QUARRYING, AND OIL AND GAS EXTRACTION	21
UTILITIES	22
CONSTRUCTION	23
MANUFACTURING	31
WHOLESALE TRADE	42
RETAIL TRADE	44
TRANSPORTATION AND WAREHOUSING	48
INFORMATION	51
FINANCE AND INSURANCE	52
REAL ESTATE, RENTAL AND LEASING	53
PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES	54
MANAGEMENT OF COMPANIES AND ENTERPRISES	55
ADMINISTRATION AND SUPPORT OF WASTE MANAGEMENT AND REMEDIATION SERVICES	56
EDUCATIONAL SERVICES	61

ATEXT	AVALUE
HEALTHCARE AND SOCIAL ASSISTANCE	62
ARTS, ENTERTAINMENT, AND RECREATION	71
CASINO, HOTEL, FOOD SERVICES AND OTHER ACCOMMODATION	72
OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)	81
PUBLIC ADMINISTRATION	92
SOMETHING ELSE	97
REFUSED	-7
DON'T KNOW	-8

INDUS_O

TYPE: TextEntry
QASKEDIF: [$INDUS:C]=97

Please describe.

SCHOOL1

STUDE

TYPE: SelectSingle

[$ARE_YOU] currently enrolled in any type of school, including [$DAYCARE,]technical school, or university?

ATEXT	AVALUE
YES - FULL TIME	1
YES - PART TIME	2
NO	3
REFUSED	-7
DON'T KNOW	-8

BRANCH:

CONDITION (STUDE)	NEXT PAGE:
3	SCHOOL6
ELSE	SCHOOL2

SCHOOL2

SCHOL

TYPE: SelectSingle
QASKEDIF: STUDE NOT IN (3,-7,-8)

What school grade or level [$DO_YOU] attend?

ATEXT	AVALUE
Nursery/Pre-School	1
K – 8th Grade	2
9th – 12th Grade	3
Vocational/Technical School	4
College or University	5
Something Else	97

ATEXT	AVALUE
I prefer not to answer	-7
I don’t know	-8

SCHOL_O

TYPE:
QASKEDIF: [$SCHOL:C]=97

Please provide details.

[YOUR_SCH]

TYPE: Computed

CASE WHEN $R=1 THEN 1 ELSE 2 END

ATEXT	AVALUE
your school	1
[FNAME]’s school	2

SCHOOL3

SLOC

TYPE: SelectSingle
QASKEDIF: [$STUDE:C] NOT IN (3,-7,-8) AND [$SCHOL:C] IN (1,2,3, 97, -7, -8)

[$ARE_YOU] home schooled?

ATEXT	AVALUE
YES	1
NO	2
REFUSED	-7
DON’T KNOW	-8

SWEB

TYPE:
TYPE: SelectSingle
QASKEDIF: STUDE in (1,2,-7,-8) AND (SCHOL>2 OR SCHOL <1)

Is [$YOUR] school an online-only curriculum?

ATEXT	AVALUE
Yes	1
No	2
I prefer not to answer	-7
I don’t know	-8

BRANCH:

CONDITION (SWEB)	NEXT PAGE:
1	EDUC
ELSE	SCHOOL4

SGEOCODE

SADDR

TYPE: GeoCodeAddress
QASKEDIF: (STUDE IN (1,2) AND SWEB<>1) OR SLOC=2

What is the name and address of [$YOUR_SCH]?

[IF YOU GO TO SCHOOL FROM YOUR HOME PLEASE TYPE THE WORD HOME IN THE ADDRESS LINE, IF YOU HAVE NO FIXED SCHOOL LOCATION TYPE THE WORDS NO FIXED IN THE ADDRESS LINE, AND IF YOU DON'T KNOW THE ADDRESS OF THE PLACE YOU GO TO SCHOOL TYPE DK.]

SCHOOL4

SMODE

TYPE: SelectSingle
QASKEDIF: ([$STUDE:C] NOT IN (3,-7,-8) AND [$SWEB:C] <> 1) OR ([$SLOC:C]=2 AND [$STUDE:C] NOT IN (3,-7,-8) AND [$SCHOL:C] IN (1,2,3, 97, -7, -8))

How [$DO_YOU] normally get to school?

ATEXT	AVALUE
WALK	1
BIKE	2
AUTO/VAN/TRUCK/MOTORCYCLE (AS THE DRIVER)	3
AUTO/VAN/TRUCK/MOTORCYCLE (AS A PASSENGER)	4
SCHOOL BUS	5
RTC BUS	6
MONORAIL	7
TAXI/LIMO	8
HOTEL SHUTTLE	9
DOESN'T TRAVEL TO SCHOOL	10
SOMETHING ELSE	97
PREFER NOT TO ANSWER	-7
I DON'T KNOW	-8

SMODE_O

TYPE: TextEntry
QASKEDIF: [$SMODE:C]=97

If you said something else, please provide details.

SCHOOL6

EDUC

TYPE: SelectSingle
QASKEDIF: [AGE]>=5 OR [AAGE:C]>1)

What is the highest grade or degree that [$YOU_HAVE] earned?

ATEXT	AVALUE
Not a high school graduate, grade 12 or less (this includes very young children)	1
High School Graduate (High School Diploma or GED)	2
Some College Credit but no Degree	3
Associate or Technical School Degree	4
Bachelor's or Undergraduate Degree	5
Graduate Degree (Includes Professional Degree like PHD, MD, DD, JD)	6
Some other degree	97
REFUSED	-7
DON'T KNOW	-8

EDUC_O

TYPE: SelectSingle
QASKEDIF: [$EDUC:C]=97

Please provide the degree.

PWMORE

PWMORE

TYPE: Computed

CASE WHEN $R<HHSIZX THEN 1 ELSE 2

ATEXT	AVALUE
More to report	1
Done reporting persons	2

BRANCH:

ATEXT (PWMORE)	NEXT PAGE
1	WORKINTRO+
2	GPSINTRO

End Person Work Roster

Sample Scheduling Module

GPSTRAVDATE

[GPSTRAVDATE]

TYPE: Computed

Gets the next travel date for the given day of week, taking whether the household is GPS into consideration (for mailing time reasons)

=get_travel_day([$DOW:C], 2, [$NEWGFLAG:C])

[GPSDAYSINFUTURE]

TYPE: Computed

Number of days in the future (from now) that GPSTRAVDATE is.

='[$GPSTRAVDATE]'::date-now()::date

[GPSTRAVDATETOOFAR]

TYPE: Computed

1 when GPS household and GPSTRAVDATE is too far in the future (over 3 weeks), 2 otherwise

=CASE WHEN [$NEWGFLAG:C]=1 AND [$GPSDAYSINFUTURE:C]>21 THEN 1 ELSE 2 END

GPSINTRO

GPS_INTRO

TYPE: Select Single
QASKEDIF: NEWGFLAG=1

Your household has been randomly selected to participate in a special part of this survey where you can earn an extra $25 per eligible person.

ATEXT	AVALUE
CONTINUE TO LEARN MORE	1
NOT INTERESTED, CONTINUE WITH JUST THE BASIC SURVEY	2

BRANCH:

CONDITION (GPS_INTRO)	NEXT PAGE:
1	GPS_EXPLN
2	COMPUTEFINALGFLAG

GPSEXPLN

GPS_EXPLN

TYPE: Select Single
QASKEDIF: GPS_INTRO=1

For this special technology-based portion of the survey, we will ask **all members of your household between the ages of 16 and 75** to carry a GPS device for three days in addition to reporting their travel on the first day. (The GPS devices will be used to collect additional details about your travel, such as routes taken.)

Your household will qualify for a $25 gift per GPS device provided (in addition to the incentives previously mentioned) **after everyone completes all steps** of the survey.

Would you like to take part in this part of the survey?

ATEXT	AVALUE
YES	1
NO	2

BRANCH:

CONDITION (GPS_EXPLN)	NEXT PAGE:
2	COMPUTEFINALGFLAG
ELSE	ALTADD

ALTADD

MAILFNAMGPS

TYPE: TextEntry
QASKEDIF: GPS_EXPLN=1

In order to participate in this part of the survey, we need to make sure that we have a name and address that we can use to FedEx you the equipment. To whom should we address the package?

FIRST NAME:

MAILLNAMGPS

TYPE: TextEntry
QASKEDIF: GPS_EXPLN=1

LAST NAME:

ALTADD

TYPE: SelectSingle
QASKEDIF: GPS_EXPLN=1

We will be sending your devices using FedEx which means we have to have a physical address to use. Is [FULLADDRESS] the best address to use to send you packages?

ATEXT	AVALUE
YES, I CAN RECEIVE FEDEX PACKAGES AT THE ADDRESS PROVIDED.	1
NO, I WOULD LIKE TO PROVIDE A DIFFERENT PHYSICAL MAILING ADDRESS (SUCH AS WORK LOCATION) WHERE THE PACKAGE SHOULD BE SENT.	2
I CAN ONLY RECEIVE MAIL THROUGH MY PO BOX AND THERE IS NO OTHER RELIABLE ADDRESS AT WHICH I CAN RECEIVE PACKAGED MAIL.	3

BRANCH:

CONDITION (ALTADD)	NEXT PAGE:
1	COMPUTEFINALGFLAG
2	ALTADDGEO
3	ALTADD_DQ

ALTADDGEO

ALTADD_STREET

TYPE: TextEntry
QASKEDIF: ALTADD=2

**What is that preferred address?

 STREET NUMBER AND NAME:ALTADD_CITY**

TYPE: TextEntry
QASKEDIF: ALTADD=2

City:

ALTADD_STATE

TYPE: TextEntry
QASKEDIF: ALTADD=2

State:

ALTADD_ZIP

TYPE: TextEntry
QASKEDIF: ALTADD=2

ZIP:

ALTADD_DQ

INT_ALTADD_SET

TYPE: Computed
QASKEDIF: ALTADD=3

=604

INT_ALTADD_DQ

TYPE: Select Single
QASKEDIF: ALTADD=3

We're sorry, but we will be unable to deliver the devices to you for use in this study. You can still be part of the travel survey and qualify to receive $10 for completing the main survey over the phone or $25 for completing online.

ATEXT	AVALUE
PARTICIPANT AGREES TO DO SURVEY	101
PARTICIPANT OPTS OUT	604

BRANCH:

CONDITION (INT_ALTADD_DQ)	NEXT PAGE:
ALTADD!=3	COMPUTEFINALGFLAG
101	COMPUTEFINALGFLAG
604	END

COMPUTEFINALGFLAG

FINALGFLAG

TYPE: Computed

CASE

WHEN [$GPSTRAVDATETOOFAR:C] = 1 THEN 4

WHEN [$GFLAG]=0 THEN 0

WHEN [$NEWGFLAG:C]=1 AND [$GPS_INTRO:C]=1 AND [$GPS_EXPLN:C]=1 AND [$ALTADD:C] <> 3 THEN 1

WHEN [$GFLAG]=1 AND [$NEWGFLAG:C]=2 THEN 2

WHEN [$NEWGFLAG:C]=1 AND ([$GPS_INTRO:C]<>1 OR [$GPS_EXPLN:C]<>1 OR [$ALTADD:C]=3) THEN 3

ELSE 9

END

ATEXT	AVALUE
Non-GPS Household	0
GPS Household	1
Ineligible due to age	2
Refused GPS	3
Travel date too far	4
Unexpected GPS Ineligible	9

DOWNLOAD

DOWNLOAD

TYPE: SelectSingle
QASKEDIF: FINALGFLAG!=1

In a moment, we will assign a day for you to record your travel. We have developed a travel log to help you keep track of all of the places you go on that day. Would you prefer to print copies of these from our website, or would you rather we mail them to you?

ATEXT	AVALUE
PRINT	1
RECEIVE IN MAIL	2

TRIPDATE

[LINK]

TYPE: Calculated

CASE WHEN [$DOWNLOAD]=1 THEN 1 ELSE 2 END

ATEXT	AVALUE
Please go to https://www.snvtravelsurvey.com/Files/Travel_Log_en.pdf and print a copy for each member of your household.	1
	2

[DOWNLOADMSG]

TYPE: SelectSingle
QASKEDIF: FINALGFLAG=0

CASE WHEN [$DOWNLOAD]=1 THEN 1 ELSE END

ATEXT	AVALUE
Okay, we will provide a link for downloading your travel logs after just a few more questions... 	1
Okay, we will mail your travel logs to you in time to arrive before you are scheduled to travel. 	2

TRIPDATE

TYPE:computed
NOTE: Travel dates should be assigned 10 days or more in the future (based on DOW (DAYFLAG) preflagged in sample file). GFLAG 1 households should be assigned to the next day available (on DAYFLAG) where the daily limit of GPS households has not been met (this includes dates beyond the official final travel date.
DAILY GPS RECRUIT LIMIT: 6 (specified in sms_config.constants table) (based on 114 travel dates, 400 retrieval completes, and a 60% retrieval rate). This is a soft limit and does not need to be taken into account for NEWTRIPDATE, retrieval travel date changes, etc.TRIPDATE calculation also uses the tables sms_config.first_travel_date and sms_config.holidays. The first_travel_date table holds the first travel date, no Tripdate will be before the value specified there. The holidays table contains the blackout dates, no TRIPDATES will be assigned to the dates listed in that table.
wgs.get_travel_day([DAYFLAG], [DOWNLOAD])

TRIPDATEFORMAT

TYPE: Computed
Convert to user-friendly date format (m/d/yyyy)

TDASSIGN

TDASSIGN

TYPE: SelectSingle
[$DOWNLOADMSG]The travel date that has been selected for your household is [$TRIPDATEFORMAT]. Is this a good date?

ATEXT	AVALUE
YES	1
NO	2

BRANCH:

CONDITION (TDASSIGN)	NEXT PAGE:
2	NEWTRIPDATE
ELSE	MAILNAME

NEWTRIPDATE

NEWTRIPDATE

TYPE: Calendar Dropdown
QASKEDIF: TDASSIGN=2
Okay, we can offer you an alternative travel date; however, we have to maintain the same day of the week. Which of the following dates would you prefer?

[READ OFF ONLY THE DATES THAT ARE HIGHLIGHTED BELOW]

NOGOODTRIPDATE

NOGOODTRIPDATE

TYPE: TextEntry – Phone Number
QASKEDIF: NEWTRIPDATE=3
AREQUIREDIF: NOGOODTRIPDATEEMAIL is null
FORMAT: ###-###-####

We will have a supervisor from the survey contact you – what is the best way to reach you (please provide either an email or phone number) - Phone Number:

NOGOODTRIPDATEEMAIL

TYPE: TextEntry - email
QASKEDIF: NEWTRIPDATE=3
AREQUIREDIF: NOGOODTRIPDATE is null
FORMAT: NN@NN

Email Address:

BRANCH:

CONDITION	NEXT PAGE:
ELSE	NOGOODDATE2

INT_NOGOODEXIT_SET

TYPE: Computed
QASKEDIF: NEWTRIPDATE=3

=901

MAILNAME

[LINK]

TYPE: Computed

WHEN DOWNLOAD=1 and INITIATIONMODE=CATI THEN 1 ELSE 2END

ATEXT	AVALUE
In order to download your logs, please go to https://www.snvtravelsurvey.com/Files/Travel_Log_en.pdf and print a copy for each member of your household.	1
	2

MAILFNAM

TYPE: TextEntry
QASKEDIF: FINALGFLAG <> 1 AND DOWNLOAD=2

We will mail [$YOUR_LOG] to arrive prior to your scheduled travel date. To whom should we address the envelope?

FIRST NAME:

MAILLNAM

TYPE: TextEntry
QASKEDIF: FINALGFLAG <> 1 AND DOWNLOAD=2

LAST NAME:

MAILING_ADDRESS

TYPE: TextEntry
QASKEDIF: DOWNLOAD=2 AND FINALGFLAG <> 1

What address should we use to mail the travel logs to you?

ATEXT	AVALUE	ONLY SHOW IF:
[$FULLADDRESS]	1	
A different address…	2	

[RETPREFVAR]

TYPE: computed

After your travel day we will contact you again to have you report the information [$YOU] record in your [$YOUR_LOG]. You have a choice to complete this survey online if you prefer. Otherwise, we will call you. How would you prefer to report your travel information?

ATEXT	AVALUE
ONLINE	1
OVER THE PHONE	2

MADDRESS_GEO

MADDRESS_STREET

TYPE: TextEntry
QASKEDIF: MAILING_ADDRESS=2

What is that preferred address?

 STREET NUMBER AND NAME:

MADDRESS_CITY

TYPE: TextEntry
QASKEDIF: MAILING_ADDRESS=2

City:

MADDRESS_STATE

TYPE: TextEntry
QASKEDIF: MAILING_ADDRESS=2

State:

MADDRESS_ZIP

TYPE: TextEntry
QASKEDIF: MAILING_ADDRESS=2

ZIP:

PHONE1

PHONE1

TYPE: SelectSingle
QASKEDIF: PHONE IS NOT NULL

The number we have in our system for you is [$MAINPHONE]. Is that the best number to use?

ATEXT	AVALUE
YES	1
NO	2
REFUSED	-7

PHONE2

[BPHONE1VAR]

TYPE: computed

CASE WHEN '[$PHONE]' <> 'null' AND '[$PHONE]' <> '' AND '[$PHONE]' <> ' ' AND [$PHONE1:C] <> 2 THEN 1 ELSE 2 END

ATEXT	AVALUE
What number should we use instead?	1
What is the best number for us to use to reach you by phone?	2

PHONE3

BPHONE1

TYPE: open
QASKEDIF: '[$PHONE]' = 'null' OR '[$PHONE]' = '' OR '[$PHONE]' = ' ' OR [$PHONE1:C]=2
FORMAT: ###-###-####

[$BPHONE1VAR]

PHTYPE

TYPE: open
QASKEDIF: PHONE1=2

This number is a…

ATEXT	AVALUE
Work	1
Home	2
Cell	3
REFUSED	-7
DON'T KNOW	-8

REMINDERSINFO

REMCONT

TYPE: multiple

We will contact you on [$DATEBEFORETRAVELFORMAT] to remind you about your travel day and to see if you have any questions. We may also provide you with other reminders after your travel day. Would you prefer to receive your reminders by…

ATEXT	AVALUE
Text message	1
Email	2
Phone call	3

[RMPHONEVAR]

TYPE: computed

CASE WHEN BPHONE1 IS NULL THEN [$PHONE1] ELSE [$BPHONE1] END

ATEXT	AVALUE
[$PHONE1]	1
[$BPHONE1]	2

REMINDERS2

RMTXTNUM

TYPE: open
QASKEDIF: '[$REMCONT.REMCONT1]' <> 'null'
FORMAT: ###-###-####

What number should we use to send your text reminders?

RMEMAIL

TYPE: open
QASKEDIF: '[$REMCONT.REMCONT2]' <> 'null'
FORMAT: NN@NN

What email should we use for sending your email reminders?

RMPHONE

TYPE: open
QASKEDIF: '[$REMCONT.REMCONT3]' <> 'null'
FORMAT: ###-###-####

If [$RMPHONEVAR] is not the best number to use for calling you with reminders, please provide an alternate number now:

REMINDERS

RETPREF

TYPE: single

[$RETPREFVAR]

ATEXT	AVALUE
Online	1
Phone	2
No preference	3

BEST_TIME_RANGE

[BEGCDATE]

TYPE: computed

'[$TRIPDATE]'::date + interval '1 day'

[ENDCDATE]

TYPE: computed

ENDCDATE=TRIPDATE+7

BEST_TIME

HHCALLTIME

TYPE: DateTime
QASKEDIF: '[$INITIATIONMODE]'='CATI' AND [$RETPREF:C]<>1

We will call you back after your travel date to collect your travel details. What would be the best date and time to call you back?
NOTE: SEE DATE RANGE ABOVE

THANK1

THANK1

TYPE: label

Thank you for agreeing to take part in this important travel survey sponsored by the Regional Transportation Commission of Southern Nevada. We look forward to talking with you again.

[$LINK]

BRANCH:

CONDITION (THANK1)	NEXT PAGE:
1=1	END

THANK02

INT_THANK02

Type: SelectSingle

Qaskedif: CHGADD=-7

Invitations to participate in the survey are based on addresses. Before continuing the survey, we need to confirm that your address is…

[BASESTRT][BASEAPT]

[BASECITY], [BASESTAT] [BASEZIP]

ATEXT	AVALUE
LIVES AT THIS ADDRESS	1
DOES NOT LIVE AT THIS ADDRESS	2

BRANCH:

CONDITION (CHADD)	NEXT PAGE:
1	HHDATA1
2	INT_THANK03

THANK03

INT_THANK03

Type:

Qaskedif: (CHGADD=5 or -8) or INT_THANK02=2

Invitations to participate in the survey are based on addresses. Because you do not live at the address we just asked about, you are not eligible to take part in the survey. Thank you for visiting our website.

READMSG

READMSG

TYPE: label

**(PLEASE READ THE FOLLOWING MESSAGE INTO THE ANSWERING MACHINE.)

**

This is [$INTERVIEWER_NAME] calling on behalf of the Regional Transportation Commission of Southern Nevada about a regional household travel survey being conducted in your area. We will try to reach you again in the next few days or you may reach our study team at 1-866-436-7828.

BRANCH:

CONDITION (READMSG)	NEXT PAGE:
ELSE	RESULT

RESULT

INT_RESULT

TYPE: SelectSingle
QASKEDIF: '[$INITIATIONMODE]'='CATI'

ATEXT	AVALUE
Default	100
Partial	101
Will Continue Online	200
Mailed Travel Logs Back	201
Logs Received	202
Call-back General	300
Call-back Specific	301
Call-back to Reach Adult	302
Ring no Answer	400
Voicemail	401
Busy Signal	402
Voicemail Message Left	403
Initial Refusal	500
Final Refusal	501
Non-Working Number	600
Non-Residential	602
Invalid Address	603
Invalid GPS Address	604
HH Size DQ	605
HH Age DQ	606
Language Barrier	700
Complete	800
PROBLEM	900
New Travel Date Needed	901

RECCALLBACK

TYPE: DatePicker
QASKEDIF: '[$INITIATIONMODE]'='CATI'

Call back on:

RESULT_O

TYPE: TextEntry
QASKEDIF: '[$INITIATIONMODE]'='CATI'

RESULT_PHONE

TYPE: open
QASKEDIF: '[$INITIATIONMODE]'='CATI'
FORMAT: ###-###-####

The numbers we have on file for you are: [$PHONE1], [$RMPHONE], [$BPHONE1]. Is that correct?

BRANCH:

CONDITION (RESULT_PHONE)	NEXT PAGE:
ELSE	END

NOGOODDATE2

INT_NOGOODEXIT

TYPE: TextEntry
QASKEDIF: NEWTRIPDATE=3

Thank you – we will have someone contact you soon to try and arrange for a travel date that works for you.

ATEXT	AVALUE
CONTINUE	901

BRANCH:

CONDITION (INT_NOGOODEXIT)	NEXT PAGE:
901	END

END

[END]

TYPE: LabelOnly
QASKEDIF:0
NOTE: Branch to SMS if CATI, Public Site if WEB

6.3. Final Telephone Reminder and Retrieval Script

INTRO2

RMINTRO2

TYPE: SelectSingle
QASKEDIF: TODAY<=TRIPDATE

Hello this is [INTERVIEWER NAME] calling on behalf of the Southern Nevada Household Travel Survey to remind you that your scheduled travel day is [$TRIPDATELONGFORMAT]. Do you have any questions about the materials we sent you?

ATEXT	AVALUE
NO QUESTIONS	1
TRAVEL DATE IS BAD FOR RESPONDENT	2
NO ANSWER	3

BRANCH:

CONDITION (using RMINTRO2)	NEXT PAGE
1	RETPREF
2	NEW_TD
3	READMSG

NEW_TD

NEW_TD

TYPE: Calendar Dropdown Menu

Okay, we can offer you an alternative travel date; however, we have to maintain the same day of the week. Which of the following dates would you prefer?

[READ OFF ONLY THE DATES THAT ARE HIGHLIGHTED]

TDTEXT

REREMIN

TYPE: SelectSingle
QASKEDIF: TODAY<=TRIPDATE

CASE WHEN [NEW+TD:C]=1 THEN 'We'll call you back on [$DAYBEFORENEWTRIPDATE] to remind you of your new travel date.' We'll call you back on [$HHCALLTIMEFORMAT] to collect your travel information. NULL

RETPREF

TYPE: SelectSingle
QASKEDIF: TODAY<=TRIPDATE

You previously reported that your preference to complete the travel reporting step was by "[$PREVRETPREF]"? Is that still your preference?

ATEXT	AVALUE
ONLINE	1
PHONE	2
NO PREFERENCE	3

BEST_TIME

HHCALLTIME

TYPE: SelectSingle
QASKEDIF: TODAY<=TRIPDATE AND RETPREF IN(2,3)

We will call you back after your travel date to collect your travel details. What would be the best date and time to call you back?
NOTE: [READ OFF ONLY THE DATES THAT ARE HIGHLIGHTED]

ENDREMIN

ENDREMIN

TYPE: SelectSingle
QASKEDIF: TODAY<=TRIPDATE

Great! [$REREMIN] Remember we will send your household a $10 gift for completing the survey. Those who report online will receive an additional $15 incentive.

ATEXT	AVALUE	SKIP TO:
END REMINDER	1	EXIT

Retrieval Script

INOUT

TBBUTVAR

```
CASE  WHEN initiationmode='CATI' AND in_out =1  THEN 1
WHEN initiationmode='CATI' AND in_out=2  THEN 2
WHEN initiationmode='WEB' THEN 3
ELSE 4
END
```

ATEXT	AVALUE
Okay, I now have the survey up… Next, I will	1
Hello, this is [INTERVIEWER] calling on behalf of the Southern Nevada Household Travel Survey. I'm calling to collect the details of your travel… PAUSE TO ALLOW RESPONSE (END CALL AND SCHEDULE A SPECIFIC CALLBACK APPOINTMENT IF THIS IS NOT A GOOD TIME).<b> Next, I will '	2
Welcome back to the travel survey. Next, we will	3
	4

TBBUTVAR2

```
CASE
WHEN initiationmode='WEB'
THEN 1 ELSE 2
END
```

ATEXT	AVALUE
' Some tips for reporting your trips: • If you took transit, be sure to record each part of your trip as a distinct place. For Example, record the stop where you caught the bus/monorail as one place and the stop where you got off the bus/monorail as another place. In the next step, you'll mark each place you visited on a map. The system uses Google Maps and you'll search for each place by name or address. If you have trouble finding the exact address, click "Show Search Tips" for help. '	1
	2

TBBUT

TBBUT

TYPE: SelectSingle

[$TBBUTVAR]ask you to provide details about trips and activities recorded on your first travel day ([$NTRIPDATE]) for each person in your household. Be sure to refer to each person's paper Travel Log.[$TBBUTVAR2]

ATEXT	AVALUE
Click NEXT to Continue	100
REACHED ANSWERING MACHINE	403

BRANCH

CONDITION (using TBBUT)	NEXT_PAGE
100	SELECTPERSON
403	READMSG2_SET

SelectPerson

SELECTPERSON1

TYPE: DropDown
NOTE: Allow all adults (18 or older) to report for anyone in the household

May I please have your name?

SELECT NAME FROM THE LIST BELOW.

ATEXT	AVALUE
List adults over 18	

SELECTPERSON2

TYPE: DropDown

ALWAYS ASK TO SPEAK WITH AN ADULT WHO HAS NOT REPORTED THEIR TRAVEL. IF NOT AVAILABLE CONTINUE WITH THE PERSON ON THE PHONE. SELECT THE NAME OF THE PERSON YOU ARE SPEAKING WITH FROM THE LIST BELOW.

ATEXT	AVALUE
List all persons over 5	

TBW

LOCNAME

TYPE: SelectSingle

FOR PLACE 1: At 3:00 AM [WERE_YOU] at HOME or someplace else?

FOR PLACE>1: Where did you go next?

PTYPE

TYPE: SelectSingle
QTEXT:
What type of place was this?

ATEXT	AVALUE
HOME	1
WORK	2
SCHOOL	3
TRANSIT STOP	5
OTHER	7

ARRTIME

TYPE: TextEntry time format H:MM AMPM
QASKEDIF: PLACENO>1

What time did you arrive at this place?

ATEXT	AVALUE
ENTER TIME	HH:MM

MODE

TYPE:
QASKEDIF: PLACENO>1

How did you get to this place?

ATEXT	AVALUE
WALK	1

BIKE	2
AUTO/VAN/TRUCK/MOTORCYCLE (AS THE DRIVER)	3
AUTO/VAN/TRUCK/MOTORCYCLE (AS A PASSENGER)	4
SCHOOL BUS	5
RTC BUS	6
MONORAIL	7
TAXI/LIMO	8
HOTEL SHUTTLE	9
SOMETHING ELSE	97

MODE_O

TYPE: TextEntry
QASKEDIF: MODE=97

Please describe:

TOTTR

TYPE: TextEntry
RANGE: 0-12

How many people went to this place with [YOU]?

HHMEM

TYPE: select multiple

Check household members who traveled with you:

DEPTIME

TYPE: TextEntry time format H:MM AMPM

What TIME did you LEAVE this place?

LANDUSE

LANDUSE_SKIP

TYPE: Computed Variable
QASKEDIF: PTYPE<>5

Is there a land use category that is already associated with this place's location from another place's (including from other household members') response?

ATEXT	AVALUE
Yes	01
No	02

LANDUSE

TYPE: SelectSingle
QASKEDIF: LANDUSE_SKIP=02 AND PTYPE<>5

Which of the following best describes the area where this place is?

ATEXT	AVALUE
Residential	01
Industrial	02
Casino Hotel	03
Hotel (No Casino)	04
Eating/Drinking Establishment	05
Warehouse	06
Medical/Health Services	07
Education/School	08
Government Office Services	09
Commercial/Business/Office Services	10
Retail	11
Open Space (park, etc.)	12
Other, Specify (including Civic/Religious, Military, etc.)	97
REFUSED	-7
DON'T KNOW	-8

LANDUSE_O

TYPE:
QASKEDIF: PTYPE<>5

If you said some other type of location, please describe.

TPURP

TPURP

TYPE: SelectSingle

What did [$YOU] do at this place?

ATEXT	AVALUE	HOME ASHOWNIF: PTYPE=1	WORK ASHOWNIF: PTYPE=2	SCHOOL ASHOWNIF: PTYPE=3	TRANSIT STOP ASHOWNIF: PTYPE=5	OTHER ASHOWNIF: PTYPE=7
HOME ACTIVITIES						
01. WORKING AT HOME (FOR PAY OR VOLUNTEER)	1	1	0	0	0	0
02. ANY OTHER ACTIVITIES AT HOME	2	1	0	0	0	0
WORK ACTIVITIES						

ATEXT	AVALUE	HOME ASHOWNIF: PTYPE=1	WORK ASHOWNIF: PTYPE=2	SCHOOL ASHOWNIF: PTYPE=3	TRANSIT STOP ASHOWNIF: PTYPE=5	OTHER ASHOWNIF: PTYPE=7
03. WORK/DOING MY JOB (AT REGULAR PLACE OF EMPLOYMENT/VOLUNTEER LOCATION)	3	0	1	0	0	1
04. WORK/DOING MY JOB (AT OTHER LOCATION)	4	0	1	0	0	1
05. WORK RELATED (OFF-SITE MEETING, DELIVERY)	5	0	1	0	0	1
TRAVEL-RELATED or PASSENGER ACTIVITIES						
06. CHANGE TRAVEL MODE/TRANSFER (FROM CAR TO BUS, WALK TO BUS, ETC)	6	1	1	1	1	1
07. PICK-UP/DROP-OFF PASSENGER(S)	7	1	1	1	1	1
08. ACCOMPANY ANOTHER PERSON	8	1	1	1	1	1
EDUCATION/CHILDCARE ACTIVITIES						
09. ATTEND CHILD CARE (DAY CARE, PRE-SCHOOL, AFTER SCHOOL CARE)	9	0	0	1	0	1
10. ATTEND SCHOOL (K-12)	10	1	0	1	0	1
11. ATTEND SCHOOL-RELATED ACTIVITY OCCURRING AWAY FROM SCHOOL	11	1	0	1	0	1
12. ATTEND COLLEGE/UNIVERSITY	12	1	0	1	0	1
SOCIAL/RECREATIONAL ACTIVITIES						
13. INDOOR RECREATION - PARTICIPATE (YOGA, GYM, ETC)	13	1	1	1	0	1
14. OUTDOOR RECREATION - PARTICIPATE (JOGGING, BIKING, WALKING, ETC)	14	1	1	1	0	1

ATEXT	AVALUE	HOME ASHOWNIF: PTYPE=1	WORK ASHOWNIF: PTYPE=2	SCHOOL ASHOWNIF: PTYPE=3	TRANSIT STOP ASHOWNIF: PTYPE=5	OTHER ASHOWNIF: PTYPE=7
15. VISIT WITH FRIENDS/RELATIVES	15	1	0	1	0	1
16. GAMING	16	0	0	0	0	1
17. OTHER NON-GAMING ENTERTAINMENT OR RECREATION	17	1	0	1	0	1
OTHER DAILY ACTIVITIES						
18. SHOPPING (RETAIL)	18	0	0	0	0	1
19. HOUSEHOLD ERRANDS (BANK, DRY CLEANING, ETC.)	19	0	0	0	0	1
20. PERSONAL BUSINESS (VISIT GOVERNMENT OFFICE, ATTORNEY, ACCOUNTANT, ETC)	20	0	0	0	0	1
21. ATTEND HEALTH CARE APPOINTMENT (DOCTOR, DENTIST, ETC)	21	0	0	0	0	1
22. EAT OUT	22	0	0	0	0	1
23. CIVIC OR RELIGIOUS ACTIVITIES	23	1	0	1	0	1
97. OTHER, SPECIFY	97	1	1	1	1	1
-7. REFUSED	-7	1	1	1	1	1
-8. DON'T KNOW	-8	1	1	1	1	1

TPURP_O

TYPE:
QASKEDIF: TPURP=97

Please describe.

TPURP2

TPURP2

TYPE: SelectSingle

And what else did [$YOU] do at this place?

ATEXT	AVALUE	HOME ASHOWNIF: PTYPE=1	WORK ASHOWNIF: PTYPE=2	SCHOOL ASHOWNIF: PTYPE=3	TRANSIT STOP ASHOWNIF: PTYPE=5	OTHER ASHOWNIF: PTYPE=7
00. NOTHING ELSE	0	1	1	1	1	1

ATEXT	AVALUE	HOME ASHOWNIF : PTYPE=1	WORK ASHOWNIF : PTYPE=2	SCHOOL ASHOWNIF : PTYPE=3	TRANSIT STOP ASHOWNIF : PTYPE=5	OTHER ASHOWNIF : PTYPE=7
HOME ACTIVITIES						
01. WORKING AT HOME (FOR PAY OR VOLUNTEER)	1	1	0	0	0	0
02. ANY OTHER ACTIVITIES AT HOME	2	1	0	0	0	0
WORK ACTIVITIES						
03. WORK/DOING MY JOB (AT REGULAR PLACE OF EMPLOYMENT/VOLUNTEER LOCATION)	3	0	1	0	0	1
04. WORK/DOING MY JOB (AT OTHER LOCATION)	4	0	1	0	0	1
05. WORK RELATED (OFF-SITE MEETING, DELIVERY)	5	0	1	0	0	1
TRAVEL-RELATED or PASSENGER ACTIVITIES						
06. CHANGE TRAVEL MODE/TRANSFER (FROM CAR TO BUS, WALK TO BUS, ETC)	6	1	1	1	1	1
07. PICK-UP/DROP-OFF PASSENGER(S)	7	1	1	1	1	1
08. ACCOMPANY ANOTHER PERSON	8	1	1	1	1	1
EDUCATION/CHILDCARE ACTIVITIES						
09. ATTEND CHILD CARE (DAY CARE, PRE-SCHOOL, AFTER SCHOOL CARE)	9	0	0	1	0	1
10. ATTEND SCHOOL (K-12)	10	1	0	1	0	1
11. ATTEND SCHOOL-RELATED ACTIVITY OCCURRING AWAY FROM SCHOOL	11	1	0	1	0	1
12. ATTEND COLLEGE/UNIVERSITY	12	1	0	1	0	1

ATEXT	AVALUE	HOME ASHOWNIF : PTYPE=1	WORK ASHOWNIF : PTYPE=2	SCHOOL ASHOWNIF : PTYPE=3	TRANSIT STOP ASHOWNIF : PTYPE=5	OTHER ASHOWNIF : PTYPE=7
SOCIAL/RECREATIONAL ACTIVITIES						
13. INDOOR RECREATION - PARTICIPATE (YOGA, GYM, ETC)	13	1	1	1	0	1
14. OUTDOOR RECREATION - PARTICIPATE (JOGGING, BIKING, WALKING, ETC)	14	1	1	1	0	1
15. VISIT WITH FRIENDS/RELATIVES	15	1	0	1	0	1
16. GAMING	16	0	0	0	0	1
17. OTHER NON-GAMING ENTERTAINMENT OR RECREATION	17	1	0	1	0	1
OTHER DAILY ACTIVITIES						
18. SHOPPING (RETAIL)	18	0	0	0	0	1
19. HOUSEHOLD ERRANDS (BANK, DRY CLEANING, ETC.)	19	0	0	0	0	1
20. PERSONAL BUSINESS (VISIT GOVERNMENT OFFICE, ATTORNEY, ACCOUNTANT, ETC)	20	0	0	0	0	1
21. ATTEND HEALTH CARE APPOINTMENT (DOCTOR, DENTIST, ETC)	21	0	0	0	0	1
22. EAT OUT	22	0	0	0	0	1
23. CIVIC OR RELIGIOUS ACTIVITIES	23	1	0	1	0	1
97. OTHER, SPECIFY	97	1	1	1	1	1
-7. REFUSED	-7	1	1	1	1	1
-8. DON'T KNOW	-8	1	1	1	1	1

TPURP2_O

TYPE:
QASKEDIF: TPURP2=97

Please describe.

NOGO

NOGOWHY

TYPE:

What was the reason that you stayed home all day on your travel day?

ATEXT	AVALUE
Personally Sick	1
Vacation or Personal Day	2
Caretaking	3
Home-bound Elderly or Disabled	4
Worked at Home (For Pay)	5
Not Scheduled to Work	6
Worked Around Home (Not for Pay)	7
Out of Area	8
No Transportation Available	9
Other (Specify)	97
REFUSED	-7
DON'T KNOW	-8

NOGOWHY_O

TYPE: QASKEDIF: NOGOWHY=97

If you said some other reason, please explain…

FUTURESURVEYS

INCENMAILFNAM

TYPE: TextEntry
Note: Populate with MAILFNAM or MAILFNAMGPS if possible

We're very close to finished now. Please just confirm a name for us to use on the incentive check.

First Name:

INCENMAILLNAM

Type: TextEntry
Note: Populate with MAILLNAM or MAILLNAMGPS if possible

Last Name:

FUTURESURVEYS

TYPE: SelectSingle

Would you be willing to take another survey from us in the future?

ATEXT	AVALUE
YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8
NOT ASCERTAINED	-9

INCOME2

INCOME2

TYPE: SelectSingle
QASKEDIF: HHINC IN (-7,-8)

Because income is related to how, when and why people go from place to place, and we want to be sure to include all types of households in our survey, please identify which category represents your total household income for last year.

ATEXT	AVALUE
LESS THAN $40,000	1
$40,000 TO $74,999	2
$75,000 OR MORE	3
REFUSED	-7
DON'T KNOW	-8

READMSG

READMSG

TYPE: SelectSingle
QASKEDIF: RM_INTRO2=3

Hello, this is [NAME] calling to remind you about your travel date for tomorrow, [$TRIPDATELONGFORMAT]. Please remember to give a log to each person in your household and to record your travel details. You may then report your details starting on [$DAYAFTERNEWTRIPDATE] by either going online to www.snvtravelsurvey.com and using your PIN: [$PIN] or by calling us at 1-866-436-7828. As a thank you, we will send your household a $10 gift when you successfully complete the survey. Those who report their travel online will receive an additional $15 incentive.

Thank you for participating in this important survey and have a good day.

READMSG2_SET

INT_READMSG2_SET

TYPE: Computed

=403

READMSG2

INT_READMSG2

TYPE: SelectSingle
QASKEDIF: TBBUT=403

Hi, this is $NAME calling on behalf of the Southern Nevada Household Travel Survey. I was calling to collect the details of your travel from [$NTRIPDATE]. I'm sorry I missed you, but if you give us a call back at 1-866-436-7828, we can record your travel over the phone. Or, you can go to www.snvtravelsurvey.com with your PIN [$PIN] and record your travel online. As a thank you, we will send your household a $10 gift when you successfully complete the survey. Those who report their travel online will receive an additional $15 incentive. Thank you, and have a good day.

ATEXT	AVALUE
EXIT SURVEY	403

BRANCH:

CONDITION (using INT_READMSG)	NEXT PAGE
403	END

END

THANK

TYPE: SelectSingle
QASKEDIF: HHVEH>0

Thank you for your time and effort in helping to improve transportation in your region.

If you have any questions about the survey or your participation, please call 1-866-436-7828.

INT_RESULT

INT_RESULT

TYPE: SelectSingle
QASKEDIF: '[$INITIATIONMODE]'='CATI'

ATEXT	AVALUE
Default	100
Partial	101
Will Continue Online	200
Mailed Travel Logs Back	201
Logs Received	202
Logs Received – Follow-up Needed	203
Call-back General	300
Call-back Specific	301
Call-back to Reach Adult	302

ATEXT	AVALUE
Ring no Answer	400
Voicemail	401
Busy Signal	402
Voicemail Message Left	403
Initial Refusal	500
Final Refusal	501
Non-Working Number	600
Non-Residential	602
Invalid Address	603
Invalid GPS Address	604
HH Size DQ	605
HH Age DQ	606
HHVEH REFUSAL	607
Language Barrier	700
Complete	800
PROBLEM	900
New Travel Date Needed	901

RECCALLBACK

TYPE: DatePicker
QASKEDIF: '[$INITIATIONMODE]'='CATI'

Call back on:

RESULT_O

TYPE: TextEntry
QASKEDIF: '[$INITIATIONMODE]'='CATI'

RESULT_PHONE

TYPE: open
QASKEDIF: '[$INITIATIONMODE]'='CATI'
FORMAT: ###-###-####

The numbers we have on file for you are: [$PHONE1], [$RMPHONE], [$BPHONE1]. Is that correct?

BRANCH:

CONDITION (RESULT_PHONE)	NEXT PAGE:
ELSE	END

END

[END]

TYPE: LabelOnly
QASKEDIF:0
NOTE: Branch to SMS if CATI, Public Site if WEB

6.4. List of Derived Variables

Table 78. List of Derived Variables

Variable Name	Description
Household	
FINALGFLAG	GPS survey option eligibility
HHCHILD	Count of the number of children in each household (AGE = 1 or AAGE = 2).
HHINC_IMPUTED	Income imputed by Parsons
HHINC2_IMPUTED	Income imputed by Parsons and aggregated to quartiles
HHLICDRV	Count of the license holders in each household (LIC = 1).
HHRKWT0	Household weight
HHSIZX	Actual count of number of household members.
HHSTUD	Count of the number of students in each household (STUDE = 1 or 2).
HHTRIPS	Count of total number of trips taken by household on travel day.
HHWORKER	Count of the number of workers in each household (EMPLY = 1).
Person	
PERTRIPS	Person trips
PFNLWT0	Person Weight
PROXYPERNO	Person number of person reporting
Place	
ACTDUR	Calculated duration of activity (ARRTIME-DEPTIME)
ADJTRPWT	Adjusted Trip Weight
DISTANCE	Travel distance (uses route information from Google Maps)
LOCTYPE	Location type
NONHHMTP	Count of non-household members on trip.
PARTY	Number of persons on trip not including respondent
PERTP	Concatenation of two digit person numbers on trip (not including respondent)
PTYPE	Place type
TCF	Trip Rate Correction Factor
TOTTR	Number of people on trip (not including respondent)
TRAVTIME	Trip duration
TRPWT0	Trip weight
Replicate household weights	
HHRKWT1-100	Intermediate household weights
Replicate person weights	
PFNLWT1-100	Intermediate person weights
Replicate trip weights	
TRPWT1-100	Intermediate trip weight

6.5. Household-level Frequency Tables

Table 79. Trip Rates by Household Size by Jurisdiction (Unweighted and Weighted)

Household Size	Unweighted	Weighted
Boulder City		
1	4.39	4.47
2	7.85	7.66
3	12.58	13.1
4+	19.42	20
City of Henderson		
1	4.56	4.62
2	7.59	7.59
3	10.17	10.22
4+	15.52	15.04
City of Las Vegas		
1	4.56	4.63
2	7.66	7.69
3	10.28	10.21
4+	14.05	14.13
City of North Las Vegas		
1	4.32	4.66
2	6.99	7.05
3	9.8	10.36
4+	15.78	15.85
Clark County Paradise		
1	4.24	4.23
2	7.63	7.69
3	10.29	10
4+	15.47	15.33
Clark County SW		
1	4.32	4.26
2	7.33	7.17
3	9.18	9.26
4+	13.72	13.34
Clark County Unincorporated		
1	4.61	4.71
2	7.38	7.26
3	11.21	11.17
4+	14.17	14.41
E Las Vegas		
1	4.38	4.47
2	7.54	7.34
3	9.28	9.24
4+	14.29	13.58

Table 80. Household Size by Jurisdiction (Weighted)

Household Size	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
1	31.8%	24.4%	29.1%	17.4%	35.7%	27.2%	21.3%	26.6%	27.1%
2	35.5%	35.8%	30.7%	28.4%	35.3%	33.5%	31.9%	29.6%	32.2%
3	11.5%	16.8%	15.1%	16.8%	14.5%	15.2%	14.0%	17.1%	15.6%
4+	21.2%	23.0%	25.1%	37.4%	14.6%	24.2%	32.7%	26.7%	25.1%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 81. Number of Children in Household by Jurisdiction (Weighted)

HH Children	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
0	73.2%	67.0%	68.8%	54.8%	79.5%	68.8%	70.8%	64.9%	68.0%
1	10.9%	14.9%	12.5%	17.7%	10.8%	12.2%	8.6%	14.6%	13.2%
2	12.2%	13.1%	12.2%	17.3%	5.7%	13.0%	8.0%	10.8%	12.0%
3	2.1%	2.9%	4.3%	6.5%	2.9%	4.3%	7.8%	7.3%	4.6%
4+	1.6%	2.0%	2.2%	3.7%	1.2%	1.8%	4.7%	2.3%	2.2%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 82. Number of Household Vehicles by Jurisdiction (Weighted)

HH Vehicles	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
0	5.1%	3.4%	9.2%	6.1%	17.5%	3.6%	1.3%	16.8%	8.3%
1	30.2%	35.1%	38.3%	34.1%	41.5%	39.0%	38.4%	46.0%	38.6%
2	37.3%	43.7%	38.0%	40.9%	30.4%	42.4%	41.7%	24.4%	37.9%
3	17.3%	13.4%	10.3%	13.3%	7.7%	11.1%	13.7%	9.4%	11.0%
4+	10.1%	4.4%	4.1%	5.6%	2.9%	3.9%	4.8%	3.4%	4.1%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 83. Number of Household Workers by Jurisdiction (Weighted)

HH Workers	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
0	33.4%	22.4%	26.5%	19.3%	29.6%	17.2%	22.3%	32.7%	24.2%
1	38.4%	44.3%	41.6%	46.2%	42.3%	42.6%	39.4%	39.6%	42.4%
2	22.2%	27.9%	25.9%	28.1%	23.4%	31.9%	33.8%	21.0%	27.1%
3	4.5%	3.4%	4.4%	5.7%	4.3%	6.6%	2.7%	5.6%	4.9%
4+	1.4%	1.9%	1.6%	0.7%	0.5%	1.7%	1.9%	1.1%	1.4%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 84. Household Number of Students by Jurisdiction (Weighted)

HH Students	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
0	74.3%	62.4%	65.9%	51.1%	72.5%	65.5%	64.5%	63.5%	64.4%
1	9.2%	19.8%	16.1%	22.6%	18.9%	18.2%	18.1%	19.1%	18.3%
2	11.1%	11.5%	12.6%	16.1%	5.9%	11.1%	9.4%	10.4%	11.4%
3	3.2%	3.8%	3.0%	7.6%	2.1%	3.5%	5.0%	4.9%	3.8%
4+	2.2%	2.4%	2.4%	2.6%	0.6%	1.7%	3.0%	2.1%	2.1%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 85. Household Income by Jurisdiction (Weighted)

Income	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
Less than $10,000	4.3%	3.4%	6.2%	5.7%	9.9%	2.5%	3.2%	13.7%	6.0%
$10,000 to $19,999	8.6%	3.9%	8.7%	5.1%	13.4%	4.5%	6.4%	18.7%	8.3%
$20,000 to $29,999	6.3%	5.2%	9.0%	9.5%	14.1%	6.9%	9.3%	16.9%	9.4%
$30,000 to $39,999	6.2%	7.3%	9.8%	7.8%	10.2%	9.9%	8.8%	12.9%	9.5%
$40,000 to $49,999	10.9%	7.0%	8.9%	10.4%	8.1%	10.3%	9.3%	8.5%	9.0%
$50,000 to $59,999	2.9%	6.3%	8.0%	12.3%	5.0%	10.0%	6.3%	5.8%	7.9%
$60,000 to $74,999	8.2%	11.8%	9.5%	13.6%	6.8%	12.0%	5.6%	5.7%	9.9%
$75,000 to $99,999	13.1%	15.7%	11.3%	11.9%	8.7%	12.6%	12.1%	5.9%	11.5%
$100,000 to $124,999	10.3%	9.6%	6.3%	7.8%	4.2%	8.6%	6.8%	2.4%	6.8%
$125,000 to $149,999	4.3%	5.4%	3.7%	4.1%	2.6%	5.7%	7.2%	1.0%	4.1%
$150,000 to $199,999	7.8%	6.2%	3.5%	1.9%	3.8%	3.9%	5.4%	0.9%	3.7%
$200,000 or more	2.3%	5.7%	3.1%	1.2%	3.0%	3.3%	4.4%	0.5%	3.1%
I don't know	2.9%	1.3%	1.5%	2.4%	2.4%	1.6%	1.9%	2.1%	1.8%
I prefer not to answer	12.0%	11.2%	10.5%	6.3%	7.7%	8.3%	13.2%	5.0%	9.0%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 86. Number of Licensed Drivers in Household by Jurisdiction (Weighted)

HH Drivers	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	All Households
0	3.6%	2.2%	4.9%	4.0%	10.2%	2.7%	0.4%	11.6%	5.1%
1	34.1%	31.9%	36.5%	27.9%	41.8%	33.5%	29.8%	45.0%	35.6%
2	52.2%	54.6%	47.4%	54.2%	39.8%	51.3%	57.0%	33.4%	48.0%
3	6.2%	8.3%	7.8%	10.2%	5.5%	9.3%	7.9%	8.8%	8.3%
4+	4.0%	2.9%	3.4%	3.7%	2.6%	3.2%	4.8%	1.2%	3.1%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 87. Workers by Household Size by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Household Workers/Size	Frequency	Percentage	Frequency	Percentage
Boulder City				
1				
0	48	58%	1,042	52%
1	35	42%	975	48%
2				
0	74	54%	1,004	45%
1	36	26%	744	33%
2	26	19%	501	22%
3				
0	2	8%	69	9%
1	9	35%	267	36%
2	10	38%	273	37%
3	5	19%	128	17%
4+				
1	10	32%	453	34%
2	16	52%	639	47%
3	3	10%	165	12%
4+	2	6%	90	7%
Jurisdiction Total	276	4%	6,350	1%
City of Henderson				
1				
0	128	43%	8,276	35%
1	167	57%	15,634	65%
2				
0	188	35%	10,036	29%
1	161	30%	12,179	35%
2	187	35%	12,861	37%
3				
0	18	10%	1,674	10%
1	71	40%	7,059	43%
2	71	40%	6,561	40%
3	17	10%	1,290	8%
4+				
0	11	6%	1,757	8%
1	73	42%	8,721	39%
2	64	37%	8,159	36%
3	14	8%	2,100	9%
4+	11	6%	1,913	8%
Jurisdiction Total	1,181	17%	98,220	14%

Table 88. Workers by Household Size by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Workers/Size	Frequency	Percentage	Frequency	Percentage
City of Las Vegas				
1				
0	397	57%	29,446	48%
1	300	43%	32,472	52%
2				
0	319	37%	18,733	28%
1	281	33%	25,256	38%
2	257	30%	21,813	33%
3				
0	34	11%	3,756	12%
1	111	38%	12,459	39%
2	115	39%	12,176	38%
3	36	12%	3,613	11%
4+				
0	26	7%	4,634	9%
1	138	39%	18,557	35%
2	137	38%	21,270	40%
3	37	10%	5,761	11%
4+	19	5%	3,379	6%
Jurisdiction Total	2,207	31%	213,327	31%
City of North Las Vegas				
1				
0	64	51%	4,951	42%
1	62	49%	6,817	58%
2				
0	92	39%	5,660	29%
1	77	33%	7,909	41%
2	65	28%	5,665	29%
3				
0	11	11%	1,078	9%
1	45	45%	5,788	51%
2	39	39%	4,151	36%
3	4	4%	357	3%
4+				
0	9	5%	1,384	5%
1	72	44%	10,825	43%
2	63	38%	9,065	36%
3	18	11%	3,498	14%
4+	3	2%	453	2%
Jurisdiction Total	624	9%	67,600	10%

Table 89. Workers by Household Size by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Workers/Size	Frequency	Percentage	Frequency	Percentage
Clark County Paradise				
1				
0	162	58%	12,624	48%
1	119	42%	13,861	52%
2				
0	89	32%	6,641	26%
1	97	35%	10,166	40%
2	93	33%	8,902	35%
3				
0	11	12%	1,190	11%
1	29	33%	3,735	35%
2	37	42%	4,309	40%
3	12	13%	1,448	14%
4+				
0	8	12%	1,418	13%
1	21	32%	3,381	31%
2	24	36%	4,025	37%
3	10	15%	1,706	16%
4+	3	5%	337	3%
Jurisdiction Total	715	10%	73,744	11%
Clark County SW				
1				
0	140	38%	11,240	30%
1	225	62%	26,243	70%
2				
0	142	28%	10,101	22%
1	145	28%	15,387	33%
2	224	44%	20,626	45%
3				
0	18	10%	2,206	11%
1	45	26%	5,378	26%
2	88	50%	10,533	51%
3	25	14%	2,737	13%
4+				
0	2	1%	274	1%
1	78	38%	11,680	35%
2	78	38%	12,710	38%
3	35	17%	6,257	19%
4+	12	6%	2,407	7%
Jurisdiction Total	1,257	18%	137,779	20%

Table 90. Workers by Household Size by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Household Workers/Size	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
1				
0	24	55%	2,633	53%
1	20	45%	2,326	47%
2				
0	32	37%	2,231	30%
1	27	31%	2,981	40%
2	27	31%	2,265	30%
3				
0	1	3%	167	5%
1	11	38%	1,297	40%
2	14	48%	1,475	46%
3	3	10%	290	9%
4+				
0	1	2%	170	2%
1	17	37%	2,494	33%
2	23	50%	4,169	55%
3	3	7%	335	4%
4+	2	4%	450	6%
Jurisdiction Total	205	3%	23,281	3%
E Las Vegas				
1				
0	116	63%	10,463	56%
1	68	37%	8,074	44%
2				
0	89	40%	6,865	33%
1	82	36%	8,898	43%
2	54	24%	5,050	24%
3				
0	23	24%	2,921	24%
1	36	38%	4,736	39%
2	23	24%	3,171	26%
3	13	14%	1,266	10%
4+				
0	13	13%	2,686	14%
1	36	35%	6,060	33%
2	35	34%	6,449	35%
3	15	15%	2,610	14%
4+	4	4%	822	4%
Jurisdiction Total	607	9%	70,071	10%
Total	7,072	100%	690,372	100%

Table 91. Vehicles by Household Size by Jurisdiction (Weighted)

HH Size x Number of Vehicles	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
1 Person	2,019	23,946	61,974	11,764	26,308	37,492	4,960	18,614	187,078
0 Vehicles	9.6%	9.1%	19.0%	13.5%	28.6%	8.6%	0.0%	26.7%	16.8%
1 Vehicle	68.2%	73.4%	69.2%	70.8%	62.7%	81.1%	89.5%	60.9%	71.0%
2 Vehicles	16.6%	15.2%	9.9%	12.6%	7.0%	8.7%	10.5%	9.9%	10.2%
3 Vehicles	4.4%	1.9%	1.2%	1.9%	1.5%	1.1%	0.0%	2.0%	1.4%
4 Vehicles	1.2%	0.4%	0.4%	0.0%	0.2%	0.2%	0.0%	0.5%	0.3%
5 or more	0.0%	0.0%	0.2%	1.2%	0.0%	0.1%	0.0%	0.0%	0.2%
2 People	2,255	35,162	65,558	19,194	26,021	46,095	7,435	20,755	222,475
0 Vehicles	3.4%	1.8%	6.4%	5.4%	12.4%	2.6%	1.2%	16.4%	6.2%
1 Vehicle	16.4%	29.3%	30.4%	39.4%	34.6%	28.2%	33.9%	42.9%	32.2%
2 Vehicles	51.5%	58.6%	54.4%	45.2%	45.8%	60.4%	54.5%	34.2%	52.6%
3 Vehicles	19.0%	8.6%	7.4%	7.9%	6.3%	7.2%	8.3%	5.9%	7.5%
4 Vehicles	5.3%	1.1%	1.1%	1.4%	0.6%	1.3%	1.8%	0.4%	1.1%
5 or more	4.4%	0.5%	0.4%	0.8%	0.3%	0.3%	0.4%	0.3%	0.4%
3 People	728	16,473	32,156	11,364	10,682	20,887	3,264	12,002	107,557
0 Vehicles	3.5%	1.4%	4.8%	5.7%	9.0%	2.1%	2.0%	11.3%	4.9%
1 Vehicle	18.7%	20.2%	26.8%	25.4%	25.1%	23.1%	17.1%	44.1%	26.3%
2 Vehicles	33.1%	47.8%	44.8%	50.9%	40.2%	46.9%	59.8%	29.9%	44.6%
3 Vehicles	26.7%	24.3%	19.3%	16.6%	21.9%	23.1%	18.9%	10.7%	19.8%
4 Vehicles	8.5%	4.0%	3.3%	1.5%	3.8%	3.8%	0.0%	3.6%	3.3%
5 or more	9.5%	2.3%	1.1%	0.0%	0.0%	0.9%	2.2%	0.5%	1.0%
4 or More People	1,348	22,639	53,638	25,279	10,732	33,304	7,622	18,699	173,262
0 Vehicles	2.2%	1.3%	4.0%	3.4%	11.2%	0.2%	2.1%	11.1%	3.9%
1 Vehicle	2.5%	14.6%	19.1%	16.9%	22.6%	16.6%	18.8%	35.9%	19.6%
2 Vehicles	46.6%	47.8%	46.5%	46.3%	40.6%	52.6%	41.8%	24.3%	44.8%
3 Vehicles	28.8%	25.0%	19.1%	21.3%	12.2%	20.2%	25.6%	19.8%	20.4%
4 Vehicles	3.4%	6.9%	8.2%	8.7%	11.2%	10.4%	10.0%	4.5%	8.3%
5 or more	16.6%	4.5%	3.2%	3.3%	2.2%	0.0%	1.8%	4.4%	2.9%
Households	6,350	98,220	213,327	67,600	73,744	137,779	23,281	70,071	690,372

Table 92. Workers by Vehicles by Jurisdiction (Weighted)

HH Vehicles x HH Workers	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
0 Vehicles	326	3,348	19,666	4,131	12,907	4,933	312	11,798	57,422
0 Workers	32.2%	67.8%	59.2%	49.1%	59.2%	51.7%	12.3%	58.7%	57.8%
1 Worker	53.3%	30.4%	34.3%	38.6%	31.0%	43.6%	58.4%	32.3%	34.3%
2 Workers	14.5%	1.7%	5.7%	12.3%	9.3%	4.7%	0.0%	8.2%	7.2%
3 Workers	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	29.3%	0.8%	0.6%
4 or More	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%
1 Vehicle	1,916	34,512	81,657	23,029	30,613	53,779	8,947	32,225	266,678
0 Workers	56.7%	31.5%	35.7%	30.3%	32.7%	26.1%	35.3%	35.1%	32.5%
1 Worker	38.4%	57.0%	52.9%	57.1%	53.2%	59.3%	54.7%	50.5%	54.8%
2 Workers	4.9%	9.7%	9.6%	12.2%	12.4%	13.2%	8.5%	12.2%	11.1%
3 Workers	0.0%	0.5%	1.5%	0.0%	1.7%	1.4%	1.5%	2.2%	1.3%
4 or More	0.0%	1.3%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.3%
2 Vehicles	2,365	42,930	81,145	27,667	22,418	58,449	9,709	17,078	261,761
0 Workers	28.6%	16.9%	17.3%	12.4%	16.9%	10.0%	16.7%	23.3%	15.5%
1 Worker	45.9%	41.0%	38.3%	44.4%	39.8%	34.1%	33.2%	35.6%	38.3%
2 Workers	24.4%	40.5%	41.8%	38.7%	41.2%	49.7%	47.2%	35.5%	42.6%
3 Workers	1.1%	0.8%	2.2%	3.7%	2.1%	4.6%	1.8%	5.6%	2.9%
4 or More	0.0%	0.8%	0.5%	0.8%	0.0%	1.7%	1.1%	0.0%	0.8%
3 Vehicles	1,100	13,132	22,030	8,999	5,677	15,293	3,185	6,576	75,990
0 Workers	14.5%	11.1%	5.5%	6.2%	6.6%	6.3%	8.5%	7.9%	7.2%
1 Worker	31.3%	30.5%	29.0%	25.7%	27.7%	24.8%	18.4%	20.7%	26.8%
2 Workers	47.4%	39.8%	40.2%	45.4%	39.3%	39.2%	68.6%	44.1%	42.1%
3 Workers	2.6%	17.4%	20.4%	22.6%	26.5%	27.7%	4.6%	21.3%	21.2%
4 or More	4.1%	1.2%	4.8%	0.0%	0.0%	2.1%	0.0%	6.0%	2.6%
4 Vehicles	251	2,719	6,389	2,639	1,807	4,951	889	1,450	21,094
0 Workers	21.3%	5.1%	4.5%	1.1%	2.8%	3.4%	8.7%	10.8%	4.6%
1 Worker	30.6%	26.0%	19.7%	55.0%	15.1%	14.7%	16.4%	14.5%	23.0%
2 Workers	15.3%	29.6%	36.9%	29.4%	40.1%	31.4%	37.8%	58.0%	35.2%
3 Workers	14.8%	17.3%	24.4%	9.9%	34.5%	29.2%	0.0%	16.7%	22.0%
4 or More	18.1%	22.1%	14.4%	4.5%	7.6%	21.3%	37.2%	0.0%	15.2%
5 or More Vehicles	391	1,578	2,440	1,135	323	374	240	945	7,427
0 Workers	10.7%	2.3%	5.7%	2.7%	0.0%	25.7%	12.0%	0.0%	5.0%
1 Worker	5.0%	33.3%	8.6%	41.7%	44.4%	43.9%	57.5%	5.9%	23.3%
2 Workers	34.0%	37.5%	47.1%	10.5%	15.8%	30.4%	0.0%	0.0%	29.1%
3 Workers	50.4%	5.3%	7.6%	45.1%	0.0%	0.0%	30.6%	50.5%	20.6%
4 or More	0.0%	21.7%	30.9%	0.0%	39.8%	0.0%	0.0%	43.6%	22.1%
Households	**6,350**	**98,220**	**213,327**	**67,600**	**73,744**	**137,779**	**23,281**	**70,071**	**690,372**

6.6. Person-level Frequency Tables

Table 93. Participant Sex by Jurisdiction (Weighted)

Sex	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Male	49.5%	50.2%	49.1%	48.5%	52.3%	49.3%	53.0%	49.8%	49.8%
Female	50.3%	49.0%	49.9%	50.4%	46.8%	50.1%	45.1%	49.4%	49.4%
Don't know	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%
Refused	0.2%	0.8%	0.8%	1.1%	0.9%	0.5%	1.9%	0.7%	0.8%
Persons	**15,116**	**253,717**	**594,598**	**223,309**	**181,127**	**369,893**	**70,708**	**210,591**	**1,919,059**

Table 94. Participant Age Distribution by Jurisdiction (Weighted)

Person Age	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
0 – 4	5.3%	6.1%	6.2%	6.6%	4.9%	7.9%	5.7%	8.2%	6.6%
5 – 17	17.0%	14.9%	17.6%	22.5%	10.6%	15.6%	18.8%	18.9%	16.9%
18 – 24	4.9%	6.8%	9.0%	9.8%	8.7%	8.0%	8.1%	11.5%	8.8%
25 – 29	3.0%	6.6%	6.1%	7.7%	7.3%	8.3%	7.1%	9.3%	7.2%
30 – 34	4.7%	6.6%	6.7%	6.2%	7.2%	9.0%	6.0%	6.8%	7.1%
35 – 39	6.7%	7.6%	6.2%	7.4%	7.0%	8.2%	7.0%	6.2%	7.0%
40 – 44	4.5%	7.0%	7.3%	7.8%	6.3%	7.2%	5.9%	6.0%	7.0%
45 – 49	5.6%	7.3%	7.3%	6.6%	8.1%	6.2%	5.8%	5.1%	6.8%
50 – 54	11.3%	6.6%	6.0%	5.9%	8.7%	5.9%	5.0%	5.7%	6.3%
55 – 59	7.7%	6.1%	5.6%	4.1%	6.5%	5.6%	5.8%	6.3%	5.7%
60 – 64	5.8%	5.9%	4.9%	4.0%	6.1%	4.7%	7.3%	4.5%	5.1%
65 – 69	5.8%	5.5%	3.7%	2.8%	5.2%	3.9%	6.1%	2.9%	4.0%
70 – 74	5.3%	3.2%	2.9%	1.8%	3.8%	2.6%	3.6%	2.0%	2.8%
75+	9.4%	4.9%	5.3%	2.8%	5.6%	3.0%	3.3%	3.4%	4.3%
Don't know	0.1%	0.1%	0.8%	0.6%	0.4%	0.4%	0.3%	0.3%	0.5%
Refused	2.9%	4.9%	4.4%	3.2%	3.7%	3.5%	4.2%	3.0%	3.9%
Persons	**15,116**	**253,717**	**594,598**	**223,309**	**181,127**	**369,893**	**70,708**	**210,591**	**1,919,059**

Table 95. Participant Age Range by Jurisdiction (Weighted)

Age Range	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
0 – 4	0.0%	12.5%	3.9%	8.2%	0.0%	8.2%	11.2%	10.6%	6.8%
5 – 15	0.0%	21.5%	16.7%	14.0%	34.6%	8.9%	32.8%	14.7%	17.7%
16 – 17	21.3%	3.7%	3.1%	0.0%	1.2%	3.2%	2.1%	0.0%	2.5%
18 – 64	49.3%	40.6%	52.6%	38.1%	48.5%	55.9%	29.1%	54.5%	48.8%
65 -74	14.5%	6.2%	7.0%	9.9%	10.3%	8.5%	10.7%	9.1%	8.1%
75 +	14.9%	4.2%	4.4%	6.8%	0.0%	2.9%	0.0%	2.2%	3.7%
Don't know	0.0%	1.0%	0.0%	0.0%	0.0%	2.3%	0.0%	1.8%	0.7%
Refused	0.0%	10.3%	12.4%	22.9%	5.5%	10.0%	14.1%	7.1%	11.7%
Persons[5]	**454**	**12,549**	**30,937**	**8,698**	**7,464**	**14,354**	**3,207**	**6,993**	**84,657**

Table 96. Participant Race by Jurisdiction (Weighted)

Race	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
White	91.8%	70.9%	60.2%	46.4%	55.9%	55.6%	63.7%	46.3%	57.5%
African American, Black	1.2%	4.9%	11.0%	16.9%	8.6%	7.2%	7.0%	19.4%	10.6%
Asian	1.9%	8.0%	6.7%	7.6%	11.3%	15.1%	12.5%	4.2%	9.0%
Native Hawaiian or Pacific Islander	0.3%	0.8%	1.1%	0.5%	0.9%	1.3%	0.2%	0.5%	0.9%
American Indian, Alaskan Native	0.3%	1.1%	0.6%	1.8%	1.3%	0.5%	1.2%	0.3%	0.9%
Multiracial	3.1%	9.1%	7.3%	13.3%	10.0%	12.4%	9.6%	9.3%	9.7%
Some other race?	0.4%	2.6%	4.7%	4.9%	5.1%	3.5%	1.6%	8.6%	4.5%
Don't know	0.3%	1.1%	3.2%	3.5%	2.9%	0.6%	0.3%	4.6%	2.5%
Refused	0.6%	1.5%	5.2%	5.2%	3.9%	3.8%	4.0%	6.8%	4.4%
Persons	15,116	253,717	594,598	223,309	181,127	369,893	70,708	210,591	1,919,059

[5] Totals and figures are for only persons who refused to provide an exact age.

Table 97. Participant Hispanic by Jurisdiction (Weighted)

Hispanic	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Yes	8.6%	21.8%	29.5%	34.7%	26.6%	25.8%	25.6%	41.3%	29.1%
No	90.7%	76.8%	68.2%	61.9%	71.0%	72.2%	71.7%	56.4%	68.6%
Don't know	0.2%	0.4%	0.2%	0.4%	0.2%	0.4%	0.2%	0.2%	0.3%
Refused	0.5%	1.0%	2.0%	3.1%	2.2%	1.7%	2.5%	2.1%	2.0%
Persons	**15,116**	**253,717**	**594,598**	**223,309**	**181,127**	**369,893**	**70,708**	**210,591**	**1,919,059**

Table 98. Participant Number of Jobs by Jurisdiction (Weighted)

Jobs	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
0	1.0%	0.7%	0.8%	2.0%	1.0%	0.9%	3.3%	0.8%	1.0%
1	84.5%	87.5%	86.3%	85.3%	84.1%	84.9%	86.1%	81.7%	85.4%
2	11.9%	6.2%	6.2%	7.9%	9.3%	7.8%	5.8%	6.5%	7.1%
3	0.2%	1.1%	0.5%	0.3%	0.7%	0.5%	0.2%	0.8%	0.6%
4+	0.0%	0.1%	0.2%	0.2%	0.1%	0.1%	0.0%	0.1%	0.2%
Don't know	2.1%	4.1%	4.5%	3.2%	3.5%	4.1%	3.0%	6.3%	4.3%
Refused	0.2%	0.3%	1.4%	1.0%	1.3%	1.6%	1.6%	3.8%	1.5%
Persons[6]	**6,672**	**124,488**	**274,405**	**92,808**	**91,249**	**199,476**	**31,062**	**89,755**	**909,913**

Table 99. Participant Work Locations by Jurisdiction (Weighted)

Work Location	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Same location every day	67.7%	70.1%	72.6%	71.8%	70.6%	72.0%	73.5%	76.3%	72.2%
Home	8.0%	6.8%	5.9%	5.0%	5.9%	8.8%	5.6%	5.2%	6.5%
Varies	23.9%	22.9%	20.3%	21.2%	21.9%	18.1%	19.7%	16.8%	20.1%
Don't know	0.0%	0.2%	0.4%	1.2%	0.4%	0.2%	0.7%	0.8%	0.4%
Refused	0.4%	0.1%	0.8%	0.9%	1.2%	0.9%	0.5%	1.0%	0.8%
Workers	**6,449**	**118,230**	**255,844**	**87,044**	**85,892**	**186,255**	**28,614**	**79,935**	**848,262**

[6] Total includes working aged adults only

Table 100. Educational Attainment by Jurisdiction (Weighted)

Educational Attainment	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Not a high school graduate	20.1%	19.6%	23.5%	31.5%	15.7%	19.2%	25.2%	28.5%	22.9%
High School Graduate	15.4%	12.5%	18.5%	18.3%	22.6%	16.9%	20.8%	26.3%	18.7%
Some College Credit but no Degree	17.2%	18.4%	17.9%	17.7%	17.6%	19.6%	11.8%	18.4%	18.1%
Associate or Technical School Degree	8.0%	9.1%	10.3%	9.5%	10.0%	9.7%	8.6%	9.7%	9.8%
Bachelor's or Undergraduate Degree	22.3%	23.1%	16.2%	13.5%	18.2%	20.4%	19.6%	8.2%	17.1%
Graduate Degree	15.6%	15.2%	9.7%	6.5%	10.0%	11.1%	8.4%	3.8%	9.7%
Don't know	0.5%	1.0%	1.8%	1.5%	2.2%	1.2%	4.5%	2.1%	1.7%
Refused	1.0%	1.1%	2.1%	1.4%	3.8%	1.9%	1.1%	3.0%	2.0%
Persons[7]	**14,313**	**235,359**	**552,970**	**205,853**	**171,855**	**337,918**	**65,863**	**192,037**	**1,776,167**

[7]Based on responses from all household members 6 years old or older.

Table 101. Participant Employment Status by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Person Employment Status	Frequency	Percentage	Frequency	Percentage
Boulder City				
Worker (including self-employed)	220	44%	6,469	54%
PAID Full-time worker	1	0%	49	0%
UNPAID Worker or Volunteer	1	0%	15	0%
Retired	195	39%	3,154	26%
Homemaker	28	6%	790	7%
Unemployed but looking for work	17	3%	451	4%
Unemployed, not seeking employment	2	0%	56	0%
Student (Part- time or Full-time)	15	3%	582	5%
Disabled non-worker	19	4%	445	4%
Jurisdiction Total	498	4%	12,010	1%
City of Henderson				
Worker (including self-employed)	1,221	56%	118,909	60%
PAID Full-time worker	10	0%	2,170	1%
PAID Part-time Worker	5	0%	373	0%
UNPAID Worker or Volunteer	10	0%	740	0%
Retired	533	24%	33,219	17%
Homemaker	133	6%	12,977	7%
Unemployed but looking for work	97	4%	10,218	5%
Unemployed, not seeking employment	20	1%	1,848	1%
Student (Part- time or Full-time)	98	4%	11,495	6%
Disabled non-worker	63	3%	4,577	2%
Don't know	1	0%	55	0%
Refused	7	0%	436	0%
Jurisdiction Total	2,198	17%	197,017	14%
City of Las Vegas				
Worker (including self-employed)	2,083	52%	256,597	57%
PAID Full-time worker	13	0%	2,409	1%
PAID Part-time Worker	8	0%	1,036	0%
UNPAID Worker or Volunteer	17	0%	1,569	0%
Retired	951	24%	72,485	16%
Homemaker	201	5%	25,112	6%
Unemployed but looking for work	254	6%	30,836	7%
Unemployed, not seeking employment	44	1%	7,077	2%
Student (Part- time or Full-time)	168	4%	25,517	6%
Disabled non-worker	232	6%	20,124	5%
Don't know	5	0%	722	0%
Refused	30	1%	3,434	1%
Jurisdiction Total	4,006	31%	446,917	31%

Table 102. Participant Employment Status by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Employment Status	Frequency	Percentage	Frequency	Percentage
City of North Las Vegas				
Worker (including self-employed)	651	52%	87,285	55%
PAID Full-time worker	14	1%	2,119	1%
PAID Part-time Worker	2	0%	317	0%
UNPAID Worker or Volunteer	6	0%	953	1%
Retired	265	21%	20,746	13%
Homemaker	83	7%	11,545	7%
Unemployed but looking for work	82	6%	14,409	9%
Unemployed, not seeking employment	15	1%	1,812	1%
Student (Part- time or Full-time)	60	5%	11,523	7%
Disabled non-worker	74	6%	7,469	5%
Don't know	3	0%	560	0%
Refused	8	1%	1,168	1%
Jurisdiction Total	1,263	10%	159,904	11%
Clark County Paradise				
Worker (including self-employed)	639	53%	86,025	58%
PAID Full-time worker	3	0%	326	0%
PAID Part-time Worker	3	0%	379	0%
UNPAID Worker or Volunteer	9	1%	1,029	1%
Retired	256	21%	23,586	16%
Homemaker	52	4%	9,003	6%
Unemployed but looking for work	83	7%	10,057	7%
Unemployed, not seeking employment	14	1%	1,823	1%
Student (Part- time or Full-time)	36	3%	5,409	4%
Disabled non-worker	94	8%	8,795	6%
Don't know	2	0%	161	0%
Refused	10	1%	1,227	1%
Jurisdiction Total	1,201	9%	147,819	10%
Clark County SW				
Worker (including self-employed)	1,439	63%	186,961	67%
PAID Full-time worker	5	0%	709	0%
PAID Part-time Worker	8	0%	578	0%
UNPAID Worker or Volunteer	9	0%	1,227	0%
Retired	418	18%	34,422	12%
Homemaker	99	4%	13,594	5%
Unemployed but looking for work	101	4%	13,700	5%
Unemployed, not seeking employment	25	1%	3,575	1%
Student (Part- time or Full-time)	82	4%	13,567	5%
Disabled non-worker	81	4%	8,051	3%
Don't know	2	0%	208	0%
Refused	9	0%	928	0%
Jurisdiction Total	2,278	18%	277,518	19%

Table 103. Participant Employment Status by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Person Employment Status	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
Worker (including self-employed)	221	51%	28,702	54%
PAID Full-time worker	1	0%	232	0%
PAID Part-time Worker	1	0%	156	0%
UNPAID Worker or Volunteer	5	1%	514	1%
Retired	83	19%	8,331	16%
Homemaker	26	6%	3,866	7%
Unemployed but looking for work	27	6%	3,207	6%
Unemployed, not seeking employment	10	2%	1,120	2%
Student (Part- time or Full-time)	24	6%	4,027	8%
Disabled non-worker	27	6%	2,920	5%
Don't know	2	0%	242	0%
Refused	3	1%	234	0%
Jurisdiction Total	430	3%	53,550	4%
E Las Vegas				
Worker (including self-employed)	521	48%	80,240	54%
PAID Full-time worker	7	1%	1,171	1%
PAID Part-time Worker	2	0%	250	0%
UNPAID Worker or Volunteer	10	1%	1,039	1%
Retired	211	19%	19,112	13%
Homemaker	54	5%	7,773	5%
Unemployed but looking for work	103	9%	16,043	11%
Unemployed, not seeking employment	15	1%	1,779	1%
Student (Part- time or Full-time)	43	4%	7,614	5%
Disabled non-worker	120	11%	11,967	8%
Don't know	1	0%	113	0%
Refused	4	0%	601	0%
Jurisdiction Total	1,091	8%	147,702	10%
Total	**12,965**	**100%**	**1,442,438**	**100%**

6.7. Trip-level Frequency Tables

Table 104. Household Trip Rates by Jurisdiction (Unweighted and Weighted)

Jurisdiction	Unweighted	Weighted
Boulder City	8.55	9.89
City of Henderson	8.38	9.03
City of Las Vegas	8.07	8.8
City of North Las Vegas	9.22	10.48
Clark County Paradise	7.36	7.91
Clark County SW	7.76	8.19
Clark County Unincorporated	8.85	9.6
E Las Vegas	8	8.57

Table 105. Person Trip Rates by Jurisdiction (Unweighted and Weighted)

Jurisdiction	Unweighted	Weighted
Boulder City	4.3	4.51
City of Henderson	3.9	3.8
City of Las Vegas	3.81	3.66
City of North Las Vegas	3.68	3.62
Clark County Paradise	3.92	3.86
Clark County SW	3.66	3.5
Clark County Unincorporated	3.63	3.48
E Las Vegas	3.72	3.51

Table 106. Trip Rates by Household Size by Jurisdiction (Unweighted and Weighted)

Household Size	Unweighted	Weighted
Boulder City		
1	4.39	4.47
2	7.85	7.66
3	12.58	13.1
4+	19.42	20
City of Henderson		
1	4.56	4.62
2	7.59	7.59
3	10.17	10.22
4+	15.52	15.04
City of Las Vegas		
1	4.56	4.63
2	7.66	7.69
3	10.28	10.21
4+	14.05	14.13
City of North Las Vegas		
1	4.32	4.66
2	6.99	7.05
3	9.8	10.36
4+	15.78	15.85
Clark County Paradise		
1	4.24	4.23
2	7.63	7.69
3	10.29	10
4+	15.47	15.33
Clark County SW		
1	4.32	4.26
2	7.33	7.17
3	9.18	9.26
4+	13.72	13.34
Clark County Unincorporated		
1	4.61	4.71
2	7.38	7.26
3	11.21	11.17
4+	14.17	14.41
E Las Vegas		
1	4.38	4.47
2	7.54	7.34
3	9.28	9.24
4+	14.29	13.58

Table 107. Trip Rates by Number of Household Workers by Jurisdiction

Household Workers	Unweighted	Weighted
Boulder City		
0	6.54	6.22
1	8.38	9.37
2	13.1	15.48
3	11.25	13.09
4+	12.5	12.38
City of Henderson		
0	6.95	7.28
1	7.89	8.19
2	10.06	11.06
3	12.58	12.53
4+	13.27	12.67
City of Las Vegas		
0	6.15	6.51
1	8.18	8.46
2	9.92	10.71
3	13.03	13.24
4+	12.79	12.49
City of North Las Vegas		
0	5.98	6.62
1	9.59	10.45
2	11.22	11.94
3	12.95	14.7
4+	29	26.37
Clark County Paradise		
0	5.65	5.82
1	7.05	7.44
2	9.69	10
3	13.59	13.9
4+	23	23.19
Clark County SW		
0	6.48	6.67
1	6.82	7
2	8.76	9.16
3	13.85	13.44
4+	15.58	14.83
Clark County Unincorporated		
0	7	7.18
1	8.88	9.31
2	10.81	12.16
3	7.67	7.45
4+	2.5	1.25
E Las Vegas		
0	6.55	6.92
1	8.05	8.26
2	9.95	10.77
3	11.36	11.1
4+	14.5	13.67

Table 108. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted)

Household Income	Household Trip Rate	
	Unweighted	Weighted
Boulder City		
Less than $10,000	4.36	4.61
$10,000 to $19,999	6.61	6.41
$20,000 to $29,999	5.2	5.16
$30,000 to $39,999	10.8	12.84
$40,000 to $49,999	7.59	9.14
$50,000 to $59,999	8.56	9.82
$60,000 to $74,999	10.95	11.14
$75,000 to $99,999	8.28	8.8
$100,000 to $124,999	11.46	14.8
$125,000 to $149,999	13.8	19.71
$150,000 to $199,999	11	12.56
$200,000 or more	5.8	5.86
Don't know	10	12.16
Refused	7.05	7.22
City of Henderson		
Less than $10,000	6.68	8.1
$10,000 to $19,999	5.63	6.16
$20,000 to $29,999	6.99	7.27
$30,000 to $39,999	7.59	7.92
$40,000 to $49,999	7.08	6.99
$50,000 to $59,999	8.85	9.46
$60,000 to $74,999	9.03	9.68
$75,000 to $99,999	9.33	9.45
$100,000 to $124,999	9.11	10.23
$125,000 to $149,999	8.5	8.86
$150,000 to $199,999	11	11.66
$200,000 or more	10.15	10.37
Don't know	7.13	8.15
Refused	7.93	8.58
City of Las Vegas		
Less than $10,000	7.03	8.64
$10,000 to $19,999	6.52	6.99
$20,000 to $29,999	7.57	8.28
$30,000 to $39,999	7.62	7.94
$40,000 to $49,999	7.83	8.34
$50,000 to $59,999	7.56	8.02
$60,000 to $74,999	8.94	9.53
$75,000 to $99,999	9.26	9.53
$100,000 to $124,999	9.04	9.39
$125,000 to $149,999	10.75	11.92
$150,000 to $199,999	9.9	10.3
$200,000 or more	12.19	13.23
Don't know	7.56	8.52
Refused	7.3	7.85

Table 109. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted) Continued

Household Income	Household Trip Rate	
	Unweighted	Weighted
City of North Las Vegas		
Less than $10,000	6.49	7.3
$10,000 to $19,999	7.42	9.12
$20,000 to $29,999	9.3	10.4
$30,000 to $39,999	8.98	9.38
$40,000 to $49,999	8.02	8.92
$50,000 to $59,999	10.71	10.89
$60,000 to $74,999	9.32	10.17
$75,000 to $99,999	8.86	10.04
$100,000 to $124,999	13.2	15.56
$125,000 to $149,999	11.65	12.86
$150,000 to $199,999	14	14.09
$200,000 or more	13	21.42
Don't know	7.07	11.13
Refused	7.78	7.9
Clark County Paradise		
Less than $10,000	5.75	6
$10,000 to $19,999	6.27	6.73
$20,000 to $29,999	6.8	7.45
$30,000 to $39,999	7.59	7.83
$40,000 to $49,999	6.85	7.14
$50,000 to $59,999	7.81	8.36
$60,000 to $74,999	8.65	9.17
$75,000 to $99,999	8.05	8.03
$100,000 to $124,999	9.86	11.31
$125,000 to $149,999	8.12	8.19
$150,000 to $199,999	11.32	12.47
$200,000 or more	9.92	9.17
Don't know	7.73	9.51
Refused	7.2	7.25
Clark County SW		
Less than $10,000	6.24	5.9
$10,000 to $19,999	6	7.19
$20,000 to $29,999	6.28	6.51
$30,000 to $39,999	7.8	8.1
$40,000 to $49,999	7.32	7.84
$50,000 to $59,999	7.67	7.71
$60,000 to $74,999	7.77	8.02
$75,000 to $99,999	8.32	8.56
$100,000 to $124,999	9.58	10.15
$125,000 to $149,999	9.14	8.87
$150,000 to $199,999	9.24	9.82
$200,000 or more	9.91	10.27
Don't know	7.05	7.02
Refused	6.99	7.74

Table 110. Trip Rates by Household Income by Jurisdiction (Unweighted and Weighted) Continued

Household Income	Household Trip Rate	
	Unweighted	Weighted
Clark County Unincorporated		
Less than $10,000	10.11	11.04
$10,000 to $19,999	8.43	7.58
$20,000 to $29,999	8.79	10.34
$30,000 to $39,999	7.95	8.59
$40,000 to $49,999	8.05	8.23
$50,000 to $59,999	9.57	9.73
$60,000 to $74,999	11.44	12.63
$75,000 to $99,999	9.19	9.9
$100,000 to $124,999	6.93	9.83
$125,000 to $149,999	9.27	9.45
$150,000 to $199,999	7.11	6.75
$200,000 or more	12.8	15.01
Don't know	9.75	10.74
Refused	8.39	8.84
E Las Vegas		
Less than $10,000	7.8	8.17
$10,000 to $19,999	7.55	8.62
$20,000 to $29,999	7.55	8.33
$30,000 to $39,999	7.65	8.09
$40,000 to $49,999	8.94	9.25
$50,000 to $59,999	9.46	9.76
$60,000 to $74,999	8.61	8.62
$75,000 to $99,999	8.53	9.02
$100,000 to $124,999	9.43	9.77
$125,000 to $149,999	9.5	10.73
$150,000 to $199,999	9.5	10.15
$200,000 or more	7	7
Don't know	8.17	6.93
Refused	7.06	7.83

Table 111. Total Persons Traveling on Trip by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Trip Party Size	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	1,226	52%	31,584	49%
1	775	33%	19,535	30%
2	206	9%	7,043	11%
3	98	4%	3,881	6%
4+	56	2%	2,512	4%
Jurisdiction Total	2,361	4%	64,555	1%
City of Henderson				
0	5,243	53%	460,641	51%
1	3,193	32%	276,303	31%
2	877	9%	96,451	11%
3	358	4%	42,874	5%
4+	227	2%	23,461	3%
Jurisdiction Total	9,898	17%	899,729	14%
City of Las Vegas				
0	9,716	55%	1,051,474	52%
1	5,339	30%	582,674	29%
2	1,587	9%	218,696	11%
3	667	4%	97,162	5%
4+	499	3%	89,583	4%
Jurisdiction Total	17,808	31%	2,039,588	31%
City of North Las Vegas				
0	2,608	45%	330,097	44%
1	1,787	31%	213,734	28%
2	713	12%	113,253	15%
3	336	6%	50,645	7%
4+	308	5%	45,652	6%
Jurisdiction Total	5,752	10%	753,380	12%
Clark County Paradise				
0	3,282	62%	392,933	59%
1	1,396	27%	172,784	26%
2	368	7%	60,898	9%
3	136	3%	27,451	4%
4+	77	1%	11,191	2%
Jurisdiction Total	5,259	9%	665,259	10%
Clark County SW				
0	5,348	55%	621,778	52%
1	2,846	29%	329,213	28%
2	829	9%	117,177	10%
3	489	5%	84,298	7%
4+	238	2%	37,258	3%
Jurisdiction Total	9,750	17%	1,189,725	18%

Table 112. Total Persons Traveling on Trip by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Trip Party Size	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
0	932	51%	107,999	47%
1	539	30%	62,737	27%
2	131	7%	20,803	9%
3	98	5%	14,748	6%
4+	115	6%	24,325	11%
Jurisdiction Total	1,815	3%	230,611	4%
E Las Vegas				
0	2,510	52%	320,137	47%
1	1,569	32%	208,545	31%
2	373	8%	64,546	10%
3	241	5%	49,254	7%
4+	163	3%	34,171	5%
Jurisdiction Total	4,856	8%	676,653	10%
Total	57,499	100%	6,519,500	100%

Table 113. Household Members Traveling on Trip by Jurisdiction (Unweighted and Weighted)

	Unweighted		Weighted	
Trip Household Members	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	1,509	64%	39,256	61%
1	639	27%	15,529	24%
2	144	6%	5,613	9%
3	50	2%	2,759	4%
4+	19	1%	1,398	2%
Jurisdiction Total	2,361	4%	64,555	1%
City of Henderson				
0	6,222	63%	553,445	62%
1	2,685	27%	227,179	25%
2	631	6%	78,289	9%
3	233	2%	28,152	3%
4+	127	1%	12,663	1%
Jurisdiction Total	9,898	17%	899,729	14%
City of Las Vegas				
0	11,500	65%	1,243,629	61%
1	4,531	25%	501,753	25%
2	1,164	7%	182,651	9%
3	407	2%	74,792	4%
4+	206	1%	36,763	2%
Jurisdiction Total	17,808	31%	2,039,588	31%
City of North Las Vegas				
0	3,148	55%	397,273	53%
1	1,597	28%	195,349	26%
2	619	11%	96,079	13%
3	250	4%	42,997	6%
4+	138	2%	21,682	3%
Jurisdiction Total	5,752	10%	753,380	12%
Clark County Paradise				
0	3,776	72%	451,667	68%
1	1,078	20%	140,770	21%
2	295	6%	50,006	8%
3	87	2%	19,178	3%
4+	23	0%	3,638	1%
Jurisdiction Total	5,259	9%	665,259	10%
Clark County SW				
0	6,338	65%	733,058	62%
1	2,334	24%	273,684	23%
2	650	7%	103,097	9%
3	290	3%	56,651	5%
4+	138	1%	23,236	2%
Jurisdiction Total	9,750	17%	1,189,725	18%

Table 114. Household Members Traveling on Trip by Jurisdiction (Unweighted and Weighted) Continued

Trip Household Members	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
0	1,119	62%	133,008	58%
1	459	25%	55,048	24%
2	84	5%	14,539	6%
3	90	5%	16,942	7%
4+	63	3%	11,075	5%
Jurisdiction Total	1,815	3%	230,611	4%
E Las Vegas				
0	3,059	63%	399,953	59%
1	1,261	26%	163,584	24%
2	295	6%	58,646	9%
3	155	3%	36,986	5%
4+	86	2%	17,483	3%
Jurisdiction Total	4,856	8%	676,653	10%
Total	57,499	100%	6,519,500	100%

Table 115. Non-Household Members Traveling on Trip by Jurisdiction (Unweighted and Weighted)

Trip Non-household Members	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Boulder City				
0	1,940	82%	52,970	82%
1	330	14%	9,395	15%
2	55	2%	1,329	2%
3	29	1%	593	1%
4+	7	0%	267	0%
Jurisdiction Total	2,361	4%	64,555	1%
City of Henderson				
0	8,451	85%	762,253	85%
1	1,205	12%	112,953	13%
2	150	2%	14,330	2%
3	45	0%	4,683	1%
4+	47	0%	5,510	1%
Jurisdiction Total	9,898	17%	899,729	14%
City of Las Vegas				
0	14,987	84%	1,705,553	84%
1	2,259	13%	266,026	13%
2	343	2%	38,385	2%
3	108	1%	12,982	1%
4+	111	1%	16,641	1%
Jurisdiction Total	17,808	31%	2,039,588	31%

Table 116. Non-Household Members Traveling on Trip by Jurisdiction (Unweighted and Weighted) Continued

	Unweighted		Weighted	
Trip Non-household Members	Frequency	Percentage	Frequency	Percentage
City of North Las Vegas				
0	4,781	83%	624,817	83%
1	741	13%	94,047	12%
2	124	2%	21,587	3%
3	38	1%	5,181	1%
4+	68	1%	7,748	1%
Jurisdiction Total	5,752	10%	753,380	12%
Clark County Paradise				
0	4,577	87%	574,469	86%
1	574	11%	75,926	11%
2	67	1%	9,779	1%
3	11	0%	1,160	0%
4+	30	1%	3,924	1%
Jurisdiction Total	5,259	9%	665,259	10%
Clark County SW				
0	8,234	84%	1,005,929	85%
1	1,215	12%	148,031	12%
2	203	2%	24,971	2%
3	62	1%	5,997	1%
4+	36	0%	4,797	0%
Jurisdiction Total	9,750	17%	1,189,725	18%
Clark County Unincorporated				
0	1,485	82%	172,373	75%
1	263	14%	48,894	21%
2	29	2%	3,591	2%
3	17	1%	2,581	1%
4+	21	1%	3,174	1%
Jurisdiction Total	1,815	3%	230,611	4%
E Las Vegas				
0	4,065	84%	555,359	82%
1	650	13%	99,964	15%
2	70	1%	8,644	1%
3	25	1%	3,281	0%
4+	46	1%	9,405	1%
Jurisdiction Total	4,856	8%	676,653	10%
Total	57,499	100%	6,519,500	100%

Table 117. Reason for No Trips on Travel Day by Jurisdiction (Unweighted and Weighted)

Person No Travel Reason	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Boulder City				
Personally Sick	14	17%	369	20%
Vacation Or Personal Day	10	12%	181	10%
Caretaking	1	1%	18	1%
Home-Bound Elderly Or Disabled	11	13%	220	12%
Worked At Home (For Pay)	4	5%	113	6%
Not Schedule To Work	5	6%	168	9%
Worked Around Home (Not For Pay)	23	28%	420	23%
Out Of Area	4	5%	111	6%
No Transportation Available	1	1%	15	1%
Other (Specify)	8	10%	154	9%
Refused	1	1%	33	2%
Jurisdiction Total	82	4%	1,802	1%
City of Henderson				
Personally Sick	34	10%	3,825	12%
Vacation Or Personal Day	31	9%	2,539	8%
Caretaking	14	4%	1,418	5%
Home-Bound Elderly Or Disabled	40	12%	3,895	12%
Worked At Home (For Pay)	22	7%	2,331	7%
Not Schedule To Work	48	15%	4,188	13%
Worked Around Home (Not For Pay)	49	15%	3,930	13%
Out Of Area	27	8%	3,975	13%
No Transportation Available	4	1%	726	2%
Other (Specify)	35	11%	2,702	9%
Refused	8	2%	716	2%
Don't Know	15	5%	977	3%
Jurisdiction Total	327	14%	31,221	11%
City of Las Vegas				
Personally Sick	105	15%	13,635	16%
Vacation Or Personal Day	86	12%	9,650	11%
Caretaking	34	5%	5,430	6%
Home-Bound Elderly Or Disabled	98	14%	9,742	11%
Worked At Home (For Pay)	39	5%	5,101	6%
Not Schedule To Work	86	12%	9,769	11%
Worked Around Home (Not For Pay)	102	14%	10,296	12%
Out Of Area	37	5%	6,126	7%
No Transportation Available	26	4%	2,473	3%
Other (Specify)	58	8%	7,047	8%
Refused	16	2%	2,233	3%
Don't Know	29	4%	4,251	5%
Jurisdiction Total	716	31%	85,753	31%

Table 118. Reason for No Trips on Travel Day by Jurisdiction (Unweighted and Weighted) Continued

Person No Travel Reason	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
City of North Las Vegas				
Personally Sick	27	11%	3,376	11%
Vacation Or Personal Day	29	12%	3,398	11%
Caretaking	13	5%	2,174	7%
Home-Bound Elderly Or Disabled	31	13%	3,652	12%
Worked At Home (For Pay)	9	4%	831	3%
Not Schedule To Work	26	11%	3,932	13%
Worked Around Home (Not For Pay)	33	14%	4,228	14%
Out Of Area	19	8%	2,043	7%
No Transportation Available	8	3%	827	3%
Other (Specify)	20	8%	2,469	8%
Refused	18	7%	2,898	9%
Don't Know	11	5%	1,417	5%
Jurisdiction Total	244	10%	31,246	11%
Clark County Paradise				
Personally Sick	37	17%	3,908	15%
Vacation Or Personal Day	21	9%	2,643	10%
Caretaking	7	3%	1,203	5%
Home-Bound Elderly Or Disabled	44	20%	4,426	17%
Worked At Home (For Pay)	14	6%	2,213	8%
Not Schedule To Work	30	14%	3,921	15%
Worked Around Home (Not For Pay)	27	12%	3,404	13%
Out Of Area	16	7%	2,184	8%
No Transportation Available	2	1%	137	1%
Other (Specify)	11	5%	1,102	4%
Refused	3	1%	272	1%
Don't Know	10	5%	1,219	5%
Jurisdiction Total	222	10%	26,635	10%
Clark County SW				
Personally Sick	51	13%	5,750	11%
Vacation Or Personal Day	39	10%	4,526	9%
Caretaking	28	7%	4,529	9%
Home-Bound Elderly Or Disabled	43	11%	4,510	9%
Worked At Home (For Pay)	33	8%	4,541	9%
Not Schedule To Work	59	15%	8,597	17%
Worked Around Home (Not For Pay)	54	14%	6,658	13%
Out Of Area	20	5%	2,401	5%
No Transportation Available	10	3%	1,199	2%
Other (Specify)	27	7%	4,318	8%
Refused	8	2%	1,059	2%
Don't Know	23	6%	2,982	6%
Jurisdiction Total	395	17%	51,070	18%

Table 119. Reason for No Trips on Travel Day by Jurisdiction (Unweighted and Weighted) Continued

Person No Travel Reason	Unweighted		Weighted	
	Frequency	Percentage	Frequency	Percentage
Clark County Unincorporated				
Personally Sick	15	16%	3,283	24%
Vacation Or Personal Day	15	16%	2,287	17%
Caretaking	4	4%	391	3%
Home-Bound Elderly Or Disabled	12	13%	1,549	11%
Worked At Home (For Pay)	9	10%	1,118	8%
Not Schedule To Work	9	10%	655	5%
Worked Around Home (Not For Pay)	10	11%	1,058	8%
Out Of Area	7	8%	1,741	13%
Other (Specify)	2	2%	450	3%
Refused	6	6%	890	6%
Don't Know	4	4%	393	3%
Jurisdiction Total	93	4%	13,817	5%
E Las Vegas				
Personally Sick	36	14%	5,490	15%
Vacation Or Personal Day	31	12%	4,846	14%
Caretaking	9	4%	1,594	4%
Home-Bound Elderly Or Disabled	39	16%	3,982	11%
Worked At Home (For Pay)	14	6%	1,839	5%
Not Schedule To Work	40	16%	6,023	17%
Worked Around Home (Not For Pay)	27	11%	4,235	12%
Out Of Area	5	2%	1,203	3%
No Transportation Available	8	3%	803	2%
Other (Specify)	24	10%	3,486	10%
Refused	8	3%	1,180	3%
Don't Know	9	4%	1,142	3%
Jurisdiction Total	250	11%	35,825	13%
Total	2,329	100%	277,367	100%

Table 120. Trip Duration by Mode by Jurisdiction (Weighted)

Duration/Mode	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
0-5									
Walk	9.2%	8.1%	12.4%	8.9%	18.5%	7.7%	10.9%	15.7%	11.5%
Bike	0.6%	0.5%	0.8%	0.8%	0.7%	0.7%	0.7%	1.5%	0.8%
Auto/Van/Truck (As The Driver)	61.9%	66.3%	57.4%	55.0%	54.2%	65.3%	59.8%	47.2%	58.5%
Auto/Van/Truck (As A Passenger)	25.4%	20.9%	20.8%	27.8%	15.7%	21.3%	20.7%	21.0%	21.2%
School Bus	1.4%	1.2%	1.9%	2.0%	1.0%	2.0%	3.1%	2.4%	1.8%
RTC Bus	0.9%	2.2%	6.0%	4.6%	8.8%	2.4%	4.3%	10.5%	5.4%
Taxi/Limo	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
Hotel Shuttle	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%
Something Else	0.4%	0.7%	0.6%	0.9%	0.8%	0.6%	0.4%	1.6%	0.8%
0-5 Basis	44,750	602,275	1,361,693	498,500	455,897	765,946	157,109	459,741	4,345,912
6-10									
Walk	9.8%	9.6%	12.5%	7.3%	18.9%	7.7%	11.5%	23.3%	12.4%
Bike	0.0%	0.6%	0.6%	1.1%	0.5%	0.7%	0.0%	0.0%	0.6%
Auto/Van/Truck (As The Driver)	73.2%	68.8%	62.9%	61.4%	62.3%	68.6%	58.5%	50.4%	63.2%
Auto/Van/Truck (As A Passenger)	14.2%	18.6%	18.9%	26.0%	13.5%	19.4%	23.4%	18.7%	19.2%
School Bus	2.0%	0.9%	0.9%	1.3%	0.0%	1.3%	0.0%	2.0%	1.0%
RTC Bus	0.8%	0.5%	3.7%	2.1%	4.2%	1.9%	5.5%	4.4%	3.0%
Taxi/Limo	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Something Else	0.0%	1.0%	0.3%	0.8%	0.5%	0.3%	1.1%	1.2%	0.6%
6-10 Basis	2,450	34,025	86,192	26,196	26,811	48,128	9,341	27,184	260,328

Table 121. Trip Duration by Mode by Jurisdiction (Weighted) Continued

Duration/Mode	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
11-20									
Walk	9.8%	7.3%	13.6%	8.8%	20.6%	6.9%	13.8%	17.2%	12.1%
Bike	0.9%	0.6%	1.0%	0.7%	0.8%	0.7%	1.8%	1.8%	0.9%
Auto/Van/Truck (As The Driver)	63.1%	70.4%	61.2%	58.9%	57.3%	70.4%	66.0%	48.1%	62.3%
Auto/Van/Truck (As A Passenger)	24.4%	18.9%	19.6%	27.6%	14.6%	19.7%	15.0%	22.5%	20.0%
School Bus	0.7%	0.3%	0.5%	0.7%	0.2%	0.2%	0.7%	0.1%	0.4%
RTC Bus	0.3%	1.5%	3.3%	2.7%	5.0%	1.1%	2.6%	7.6%	3.2%
Taxi/Limo	0.0%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%	0.1%
Hotel Shuttle	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Something Else	0.5%	0.9%	0.7%	0.3%	1.5%	0.9%	0.2%	2.5%	1.0%
11-20 Total	12,616	175,068	359,904	131,140	131,697	205,296	43,113	125,535	1,184,368
21-30									
Walk	10.3%	7.3%	10.6%	8.3%	14.8%	5.8%	10.8%	11.9%	9.5%
Bike	0.8%	0.8%	0.9%	1.1%	1.0%	0.8%	1.3%	1.0%	0.9%
Auto/Van/Truck (As The Driver)	64.2%	69.9%	65.4%	60.2%	62.4%	71.7%	66.4%	55.3%	65.4%
Auto/Van/Truck (As A Passenger)	22.8%	19.8%	19.4%	25.3%	16.9%	19.4%	18.1%	24.4%	20.3%
School Bus	0.9%	0.4%	0.4%	0.4%	0.2%	0.3%	0.4%	0.0%	0.3%
RTC Bus	0.2%	1.1%	2.4%	4.1%	3.3%	0.9%	2.3%	5.3%	2.5%
Taxi/Limo	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%
Hotel Shuttle	0.2%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Something Else	0.5%	0.6%	0.7%	0.4%	1.2%	1.1%	0.7%	1.9%	0.9%
21-30 Total	14,325	210,188	425,174	152,090	143,566	243,000	48,486	131,890	1,368,719

Table 122. Trip Duration by Mode by Jurisdiction (Weighted) Continued

Duration/Mode	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
31-45									
Walk	10.4%	7.4%	11.0%	9.4%	14.6%	6.4%	9.8%	11.1%	9.8%
Bike	1.3%	0.8%	1.1%	1.1%	1.0%	0.7%	1.1%	1.9%	1.0%
Auto/Van/Truck (As The Driver)	58.7%	65.0%	58.1%	52.1%	59.7%	64.9%	61.0%	51.1%	59.2%
Auto/Van/Truck (As A Passenger)	26.9%	23.8%	24.7%	32.0%	19.6%	23.9%	22.9%	27.5%	25.0%
School Bus	1.5%	1.5%	2.4%	2.3%	1.4%	2.3%	3.5%	2.9%	2.2%
RTC Bus	0.4%	0.8%	1.9%	2.5%	2.5%	1.1%	1.3%	3.6%	1.8%
Taxi/Limo	0.0%	0.1%	0.1%	0.2%	0.1%	0.0%	0.0%	0.1%	0.1%
Hotel Shuttle	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Something Else	0.5%	0.6%	0.8%	0.3%	1.0%	0.6%	0.4%	1.8%	0.8%
31-45 Total	20,523	304,027	646,297	239,500	207,295	380,360	70,037	205,650	2,073,689
45-60									
Walk	9.9%	6.9%	10.2%	7.8%	14.0%	5.2%	8.2%	11.2%	8.9%
Bike	1.1%	0.9%	1.0%	1.1%	1.1%	0.7%	0.7%	1.4%	1.0%
Auto/Van/Truck (As The Driver)	60.4%	67.1%	60.5%	55.5%	59.5%	68.1%	59.9%	54.7%	61.6%
Auto/Van/Truck (As A Passenger)	26.0%	22.4%	23.8%	30.8%	19.7%	22.5%	26.9%	25.0%	24.0%
School Bus	1.2%	1.2%	2.0%	2.1%	1.0%	1.8%	2.7%	2.7%	1.8%
RTC Bus	0.5%	0.7%	1.8%	2.3%	3.4%	1.0%	1.3%	3.3%	1.8%
Taxi/Limo	0.0%	0.1%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%
Hotel Shuttle	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Something Else	0.7%	0.6%	0.7%	0.3%	0.9%	0.6%	0.4%	1.7%	0.7%
45-60 Total	26,295	421,032	912,201	339,512	288,716	558,266	100,567	296,487	2,943,076

Table 123. Trip Duration by Mode by Jurisdiction (Weighted) Continued

Duration/Mode	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
61-90									
Walk	8.9%	7.3%	10.8%	10.0%	16.2%	6.4%	8.6%	12.3%	10.0%
Bike	1.4%	0.9%	1.1%	1.0%	1.1%	0.7%	1.0%	2.2%	1.1%
Auto/Van/Truck (As The Driver)	61.4%	65.2%	59.1%	53.3%	57.0%	66.3%	57.0%	52.3%	59.7%
Auto/Van/Truck (As A Passenger)	26.0%	23.6%	24.1%	31.3%	20.2%	22.6%	28.9%	25.0%	24.5%
School Bus	1.3%	1.4%	2.5%	1.8%	1.2%	2.3%	3.0%	2.9%	2.2%
RTC Bus	0.2%	0.8%	1.7%	2.2%	3.0%	0.9%	1.1%	3.7%	1.8%
Taxi/Limo	0.0%	0.1%	0.1%	0.1%	0.2%	0.0%	0.0%	0.1%	0.1%
Hotel Shuttle	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Something Else	0.6%	0.7%	0.6%	0.3%	0.9%	0.7%	0.4%	1.5%	0.7%
61-90 Total	31,824	504,486	1,113,873	423,773	346,249	679,233	124,542	361,569	3,585,550
91-120									
Walk	14.2%	5.4%	11.6%	10.2%	13.7%	5.1%	9.7%	8.5%	9.2%
Bike	2.1%	0.3%	1.5%	0.8%	0.5%	0.4%	5.8%	1.1%	1.1%
Auto/Van/Truck (As The Driver)	63.9%	71.4%	64.7%	52.8%	61.8%	71.5%	61.6%	51.1%	63.7%
Auto/Van/Truck (As A Passenger)	15.2%	21.6%	19.2%	32.7%	18.1%	22.8%	18.4%	37.6%	23.4%
School Bus	1.9%	0.7%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.4%
RTC Bus	1.5%	0.2%	1.8%	2.1%	3.9%	0.0%	4.5%	0.8%	1.5%
Taxi/Limo	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Something Else	1.3%	0.4%	0.4%	0.7%	2.0%	0.0%	0.0%	0.6%	0.5%
91-120 Total	2,366	31,847	68,787	24,475	25,554	42,990	9,618	24,112	229,750

Table 124. Trip Duration by Mode by Jurisdiction (Weighted) Continued

Duration/Mode	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Greater than 120 minutes									
Walk	9.6%	7.7%	11.0%	9.7%	17.2%	6.6%	8.7%	13.2%	10.3%
Bike	1.3%	1.0%	1.1%	1.1%	1.4%	0.7%	0.6%	2.2%	1.1%
Auto/Van/Truck (As The Driver)	59.5%	63.9%	57.8%	53.0%	55.8%	66.4%	54.5%	51.7%	58.8%
Auto/Van/Truck (As A Passenger)	27.0%	24.0%	24.7%	31.2%	19.9%	21.8%	31.1%	24.1%	24.5%
School Bus	1.6%	1.6%	2.8%	2.2%	1.5%	2.7%	3.5%	3.3%	2.5%
RTC Bus	0.1%	0.9%	1.8%	2.4%	3.1%	1.1%	1.0%	3.8%	1.9%
Taxi/Limo	0.0%	0.1%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%
Hotel Shuttle	0.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
Monorail	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Something Else	0.6%	0.7%	0.7%	0.3%	0.8%	0.7%	0.5%	1.7%	0.7%
Greater than 120 minutes Total	25,849	424,662	948,722	360,949	287,310	575,091	105,572	314,512	3,042,666
Basis	**180,998**	**2,707,610**	**5,922,843**	**2,196,136**	**1,913,095**	**3,498,310**	**668,385**	**1,946,680**	**19,034,058**

Table 125. Trip Duration by Primary Trip Purpose by Jurisdiction (0-5 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
0-5	44,715	602,217	1,361,622	498,500	455,897	765,946	157,109	459,741	4,345,748
Working At Home	1.4%	0.9%	0.9%	0.8%	0.9%	1.2%	0.8%	0.5%	0.9%
Any Other Activities At Home	23.7%	22.9%	21.9%	22.5%	23.4%	23.4%	21.8%	22.1%	22.6%
Work/Doing My Job	7.7%	10.6%	8.6%	8.5%	9.5%	10.1%	7.2%	6.3%	8.9%
Work/Doing My Job (At Other Location)	1.5%	1.8%	1.3%	1.7%	1.8%	2.0%	0.9%	0.9%	1.5%
Work Related (Off-Site)	1.1%	1.5%	1.0%	1.0%	1.2%	1.0%	0.7%	0.7%	1.0%
Change Travel Mode/Transfer	2.9%	4.3%	9.9%	6.5%	14.5%	4.7%	7.4%	15.0%	8.7%
Pick-Up/Drop-Off Passenger(S)	14.7%	11.5%	11.1%	13.6%	8.5%	11.3%	17.9%	9.4%	11.3%
Accompany Another Person	1.9%	1.5%	2.2%	2.6%	1.5%	2.1%	2.7%	2.3%	2.1%
Attend Child Care	0.1%	0.6%	0.3%	0.5%	0.3%	0.2%	0.4%	0.3%	0.3%
Attend School (K-12)	5.9%	5.2%	6.4%	8.8%	3.9%	5.5%	6.7%	6.5%	6.1%
School-Related Activity Away From School	0.5%	0.2%	0.4%	0.4%	0.1%	0.2%	0.1%	0.1%	0.3%
Attend College/University	0.2%	1.2%	0.9%	0.8%	1.1%	1.2%	0.5%	1.1%	1.0%
Indoor Recreation	1.2%	1.5%	1.3%	1.8%	1.6%	1.7%	1.1%	1.0%	1.4%
Outdoor Recreation	1.8%	1.9%	1.2%	1.2%	0.8%	1.8%	1.4%	0.9%	1.4%
Visit With Friends/Relatives	3.6%	3.3%	3.0%	2.3%	3.0%	3.0%	3.0%	2.6%	2.9%
Gaming	1.0%	1.5%	1.6%	1.2%	1.6%	1.2%	2.3%	1.3%	1.4%
Other Non-Gaming Entertainment	1.1%	1.0%	1.0%	1.1%	0.8%	0.8%	1.0%	0.5%	0.9%
Shopping (Retail)	12.7%	12.1%	11.9%	10.1%	11.9%	13.3%	9.0%	11.5%	11.8%
Household Errands	4.9%	4.9%	4.3%	4.4%	4.7%	5.0%	4.8%	4.8%	4.7%
Personal Business	2.2%	1.4%	1.7%	1.2%	1.8%	1.4%	1.3%	1.7%	1.5%
Attend Health Care Appointment	1.7%	1.8%	1.5%	1.0%	1.6%	1.0%	2.0%	1.3%	1.4%
Eat Out	5.8%	6.4%	5.4%	6.0%	4.0%	6.1%	5.9%	4.7%	5.5%
Civic Or Religious Activities	1.5%	0.6%	0.9%	0.5%	0.5%	0.6%	0.8%	1.1%	0.7%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.4%	0.7%	0.5%	0.1%	0.3%	0.5%	0.2%	1.4%	0.5%
Refused	0.6%	0.8%	0.9%	1.4%	0.8%	0.9%	0.3%	2.0%	1.0%

Table 126. Trip Duration by Primary Trip Purpose by Jurisdiction (6-10 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
6-10	2,450	34,025	86,192	26,196	26,811	48,128	9,341	27,184	260,328
Working At Home	0.0%	0.0%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%
Any Other Activities At Home	11.1%	7.1%	6.1%	2.4%	5.6%	5.0%	5.1%	4.6%	5.5%
Work/Doing My Job	2.3%	0.7%	1.0%	1.4%	0.0%	1.1%	0.0%	0.6%	0.9%
Work/Doing My Job (At Other Location)	0.9%	2.3%	0.9%	0.2%	0.2%	0.7%	0.0%	0.4%	0.8%
Work Related (Off-Site)	1.4%	1.4%	2.0%	2.8%	2.9%	0.6%	2.9%	1.5%	1.8%
Change Travel Mode/Transfer	4.5%	5.9%	12.7%	9.4%	15.2%	4.5%	12.7%	18.3%	10.7%
Pick-Up/Drop-Off Passenger(S)	16.2%	23.7%	26.0%	27.5%	18.3%	23.9%	40.8%	19.0%	24.4%
Accompany Another Person	4.0%	0.7%	3.1%	5.5%	2.1%	6.4%	14.7%	3.9%	4.0%
Attend Child Care	0.0%	0.0%	0.4%	0.0%	1.3%	0.8%	0.0%	0.0%	0.4%
Attend School (K-12)	0.0%	0.7%	0.6%	1.3%	0.0%	1.3%	0.0%	0.5%	0.7%
School-Related Activity Away From School	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Indoor Recreation	0.0%	0.3%	0.0%	0.7%	0.8%	0.7%	0.0%	0.6%	0.4%
Outdoor Recreation	0.0%	2.4%	0.5%	0.0%	0.0%	0.7%	0.3%	0.4%	0.7%
Visit With Friends/Relatives	5.3%	1.4%	2.6%	0.3%	1.2%	2.3%	0.0%	2.1%	1.9%
Gaming	0.9%	0.6%	0.6%	0.9%	0.6%	0.7%	4.2%	2.2%	0.9%
Other Non-Gaming Entertainment	0.0%	0.2%	0.3%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%
Shopping (Retail)	20.1%	21.7%	16.6%	15.1%	25.2%	21.7%	4.2%	21.8%	19.1%
Household Errands	14.2%	12.2%	11.2%	12.8%	15.7%	11.7%	6.1%	11.2%	11.9%
Personal Business	8.5%	2.8%	2.6%	3.1%	2.8%	3.3%	1.0%	2.9%	2.9%
Attend Health Care Appointment	0.0%	0.2%	0.7%	0.9%	0.4%	0.9%	0.0%	0.4%	0.6%
Eat Out	8.9%	14.1%	10.5%	13.3%	6.8%	12.6%	7.9%	8.8%	11.0%
Civic Or Religious Activities	0.0%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.5%	0.3%
Don't Know	1.1%	0.6%	0.0%	0.0%	0.1%	0.5%	0.0%	0.0%	0.2%
Refused	0.5%	0.7%	0.6%	1.6%	0.3%	0.1%	0.0%	0.6%	0.6%

Table 127. Trip Duration by Primary Trip Purpose by Jurisdiction (11-20 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
11-20	12,616	175,068	359,832	131,140	131,697	205,296	43,113	125,535	1,184,297
Working At Home	3.2%	1.2%	1.3%	1.2%	1.2%	1.2%	1.0%	0.7%	1.2%
Any Other Activities At Home	25.1%	19.9%	22.2%	21.6%	21.8%	23.1%	23.9%	21.0%	21.9%
Work/Doing My Job	7.0%	9.0%	6.4%	6.4%	7.6%	6.3%	8.3%	3.9%	6.7%
Work/Doing My Job (At Other Location)	1.7%	2.1%	1.2%	1.3%	3.3%	3.3%	1.7%	1.1%	2.0%
Work Related (Off-Site)	1.6%	2.2%	1.3%	1.5%	1.0%	1.4%	0.9%	0.7%	1.4%
Change Travel Mode/Transfer	1.5%	2.8%	6.8%	4.5%	10.7%	3.1%	5.8%	10.9%	6.1%
Pick-Up/Drop-Off Passenger(S)	9.5%	8.9%	6.6%	10.3%	4.6%	7.2%	10.5%	5.9%	7.3%
Accompany Another Person	1.2%	2.0%	2.7%	3.2%	2.1%	2.0%	2.0%	2.4%	2.4%
Attend Child Care	0.2%	0.5%	0.5%	0.2%	0.4%	0.2%	1.2%	0.1%	0.4%
Attend School (K-12)	1.7%	0.9%	1.1%	1.8%	0.5%	0.6%	0.4%	1.0%	1.0%
School-Related Activity Away From School	1.0%	0.3%	0.5%	0.6%	0.3%	0.4%	0.0%	0.3%	0.4%
Attend College/University	0.6%	1.3%	1.3%	0.9%	1.0%	1.0%	0.7%	1.0%	1.1%
Indoor Recreation	2.4%	2.4%	3.1%	5.1%	3.4%	3.9%	1.6%	2.7%	3.3%
Outdoor Recreation	1.6%	2.3%	2.3%	2.9%	0.6%	1.5%	1.8%	2.1%	2.0%
Visit With Friends/Relatives	5.3%	5.2%	4.4%	3.8%	5.3%	5.4%	3.2%	3.7%	4.6%
Gaming	1.8%	2.6%	3.3%	2.2%	2.9%	2.4%	3.9%	2.1%	2.7%
Other Non-Gaming Entertainment	1.3%	2.1%	1.9%	2.5%	2.0%	1.6%	2.3%	1.3%	1.9%
Shopping (Retail)	13.7%	14.9%	13.5%	11.1%	15.7%	16.7%	10.4%	13.7%	14.1%
Household Errands	5.1%	4.8%	4.5%	5.1%	3.8%	4.5%	4.7%	5.1%	4.6%
Personal Business	2.1%	2.0%	1.9%	1.2%	1.9%	2.0%	0.5%	3.1%	2.0%
Attend Health Care Appointment	3.0%	2.2%	2.4%	1.7%	2.5%	2.0%	3.4%	2.6%	2.3%
Eat Out	6.6%	7.7%	7.0%	8.0%	5.5%	6.9%	9.2%	6.0%	7.0%
Civic Or Religious Activities	1.5%	1.1%	2.0%	1.1%	0.9%	1.6%	1.6%	3.1%	1.7%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.7%	0.8%	0.5%	0.0%	0.2%	0.4%	0.3%	3.7%	0.8%
Refused	0.7%	0.8%	1.3%	1.9%	0.9%	1.3%	0.7%	1.8%	1.3%

Table 128. Trip Duration by Primary Trip Purpose by Jurisdiction (21-30 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
21-30	14,325	210,188	425,102	152,090	143,566	243,000	48,486	131,890	1,368,647
Working At Home	2.3%	1.7%	1.7%	1.6%	1.3%	1.9%	1.0%	0.9%	1.6%
Any Other Activities At Home	30.1%	27.9%	31.1%	31.4%	33.6%	30.3%	28.4%	31.5%	30.7%
Work/Doing My Job	13.1%	16.7%	11.9%	13.8%	13.8%	14.4%	12.9%	9.2%	13.3%
Work/Doing My Job (At Other Location)	2.3%	2.7%	1.7%	2.0%	3.1%	3.0%	1.8%	1.2%	2.2%
Work Related (Off-Site)	1.2%	1.8%	1.1%	0.9%	0.9%	1.0%	1.0%	1.1%	1.1%
Change Travel Mode/Transfer	1.2%	1.2%	2.7%	1.9%	3.9%	1.1%	2.9%	2.9%	2.2%
Pick-Up/Drop-Off Passenger(S)	2.4%	2.7%	2.5%	2.9%	2.2%	1.5%	3.9%	2.8%	2.4%
Accompany Another Person	0.7%	1.5%	1.7%	1.2%	1.1%	1.5%	1.4%	1.9%	1.5%
Attend Child Care	0.4%	0.5%	0.3%	0.2%	0.1%	0.1%	1.2%	0.1%	0.3%
Attend School (K-12)	3.1%	1.0%	1.2%	2.1%	0.2%	0.7%	1.0%	1.0%	1.1%
School-Related Activity Away From School	1.4%	0.5%	0.7%	0.6%	0.4%	0.4%	0.4%	0.3%	0.5%
Attend College/University	0.6%	2.0%	1.7%	1.6%	2.3%	1.8%	1.1%	2.8%	1.9%
Indoor Recreation	3.0%	2.7%	3.1%	5.4%	3.7%	3.9%	2.7%	2.8%	3.5%
Outdoor Recreation	2.5%	2.9%	2.0%	2.2%	1.2%	2.6%	1.3%	2.5%	2.2%
Visit With Friends/Relatives	4.9%	4.4%	4.9%	4.5%	5.5%	5.8%	4.7%	4.9%	5.0%
Gaming	2.7%	2.6%	3.8%	2.8%	3.5%	2.4%	4.5%	2.7%	3.1%
Other Non-Gaming Entertainment	1.7%	2.2%	2.2%	2.3%	1.3%	1.7%	2.0%	1.4%	2.0%
Shopping (Retail)	10.0%	10.5%	10.3%	10.3%	9.2%	12.2%	10.1%	11.2%	10.6%
Household Errands	1.9%	1.8%	2.4%	1.7%	1.1%	1.5%	3.1%	2.6%	2.0%
Personal Business	1.5%	1.3%	1.8%	2.1%	2.3%	1.7%	1.5%	1.6%	1.7%
Attend Health Care Appointment	2.9%	2.7%	2.6%	1.3%	3.1%	2.0%	3.5%	3.1%	2.5%
Eat Out	6.7%	6.3%	4.8%	4.9%	3.9%	5.6%	6.8%	4.2%	5.1%
Civic Or Religious Activities	2.1%	0.9%	2.0%	1.4%	1.2%	1.3%	1.9%	3.2%	1.7%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.8%	0.6%	0.6%	0.1%	0.3%	0.7%	0.3%	0.8%	0.5%
Refused	0.5%	0.9%	1.2%	1.0%	0.9%	1.0%	0.6%	3.2%	1.2%

Table 129. Trip Duration by Primary Trip Purpose by Jurisdiction (31-45 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
31-45	20,523	303,969	646,225	239,500	207,295	380,360	70,037	205,650	2,073,560
Working At Home	2.0%	1.5%	1.6%	1.5%	1.1%	1.9%	1.0%	0.9%	1.5%
Any Other Activities At Home	34.9%	35.8%	35.4%	37.3%	38.0%	36.3%	35.1%	38.1%	36.4%
Work/Doing My Job	13.5%	16.6%	13.1%	12.8%	15.9%	14.6%	12.8%	9.2%	13.8%
Work/Doing My Job (At Other Location)	1.8%	1.9%	1.7%	1.7%	2.5%	2.5%	1.4%	1.2%	1.9%
Work Related (Off-Site)	0.5%	1.5%	0.7%	0.5%	1.1%	0.9%	0.5%	0.5%	0.9%
Change Travel Mode/Transfer	0.7%	0.7%	0.8%	0.6%	0.8%	0.4%	1.3%	0.9%	0.7%
Pick-Up/Drop-Off Passenger(S)	1.4%	1.2%	1.2%	1.4%	1.0%	1.0%	2.8%	1.9%	1.3%
Accompany Another Person	0.6%	1.5%	1.1%	1.1%	0.8%	1.0%	1.9%	1.6%	1.2%
Attend Child Care	0.1%	0.7%	0.3%	0.3%	0.1%	0.0%	0.8%	0.1%	0.3%
Attend School (K-12)	12.5%	7.9%	11.0%	15.3%	7.3%	9.4%	11.4%	11.6%	10.5%
School-Related Activity Away From School	0.9%	0.4%	0.6%	0.6%	0.3%	0.4%	0.0%	0.2%	0.4%
Attend College/University	0.5%	2.1%	1.7%	1.4%	2.4%	2.2%	0.8%	2.4%	1.9%
Indoor Recreation	2.2%	2.3%	2.3%	3.2%	3.2%	3.0%	2.3%	1.9%	2.6%
Outdoor Recreation	2.9%	2.2%	1.7%	1.8%	1.1%	1.5%	1.7%	1.7%	1.7%
Visit With Friends/Relatives	4.6%	4.3%	4.4%	3.4%	5.7%	4.5%	4.3%	3.7%	4.3%
Gaming	1.8%	2.1%	2.6%	2.0%	2.6%	1.8%	3.5%	2.1%	2.3%
Other Non-Gaming Entertainment	1.7%	1.5%	1.8%	1.9%	1.0%	1.3%	1.8%	1.0%	1.5%
Shopping (Retail)	6.4%	5.7%	6.4%	4.7%	5.2%	7.6%	5.6%	7.6%	6.3%
Household Errands	0.7%	0.7%	1.1%	0.9%	1.3%	1.1%	1.7%	1.4%	1.1%
Personal Business	0.8%	0.8%	1.2%	1.0%	1.2%	0.9%	0.5%	1.1%	1.0%
Attend Health Care Appointment	2.4%	2.1%	1.9%	1.4%	2.2%	1.3%	2.7%	2.4%	1.9%
Eat Out	4.2%	4.1%	4.1%	3.0%	3.2%	4.1%	4.2%	2.9%	3.8%
Civic Or Religious Activities	2.0%	0.9%	1.5%	0.9%	0.6%	0.9%	1.1%	2.2%	1.2%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.5%	0.6%	0.6%	0.1%	0.4%	0.6%	0.2%	0.7%	0.5%
Refused	0.6%	0.9%	1.3%	1.3%	1.0%	0.8%	0.8%	2.5%	1.2%

Table 130. Trip Duration by Primary Trip Purpose by Jurisdiction (45-60 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
45-60	26,295	420,974	911,993	339,512	288,716	558,266	100,567	296,487	2,942,809
Working At Home	2.5%	1.6%	1.6%	1.5%	1.6%	2.0%	1.8%	1.0%	1.6%
Any Other Activities At Home	38.8%	39.5%	39.0%	39.7%	42.0%	38.8%	40.9%	39.6%	39.5%
Work/Doing My Job	16.7%	20.8%	18.9%	18.2%	20.5%	22.0%	17.8%	17.1%	19.6%
Work/Doing My Job (At Other Location)	1.8%	1.7%	1.4%	1.6%	2.2%	2.1%	0.9%	1.9%	1.7%
Work Related (Off-Site)	0.4%	1.1%	0.6%	0.5%	0.5%	0.8%	0.6%	0.4%	0.7%
Change Travel Mode/Transfer	0.5%	0.4%	0.6%	0.3%	0.8%	0.2%	0.7%	0.3%	0.4%
Pick-Up/Drop-Off Passenger(S)	0.5%	1.1%	0.7%	0.7%	0.5%	0.8%	1.2%	1.1%	0.8%
Accompany Another Person	0.4%	0.9%	1.0%	1.1%	0.6%	0.9%	0.5%	1.2%	1.0%
Attend Child Care	0.1%	0.6%	0.3%	0.5%	0.1%	0.0%	0.6%	0.1%	0.3%
Attend School (K-12)	9.9%	7.5%	9.8%	13.3%	6.5%	7.5%	11.6%	10.6%	9.2%
School-Related Activity Away From School	0.9%	0.3%	0.5%	0.3%	0.2%	0.3%	0.0%	0.3%	0.3%
Attend College/University	0.4%	1.9%	1.4%	1.4%	1.9%	1.9%	0.8%	1.9%	1.6%
Indoor Recreation	1.9%	2.2%	2.1%	2.8%	2.9%	2.3%	1.8%	1.7%	2.3%
Outdoor Recreation	2.6%	1.8%	1.5%	1.3%	0.9%	1.4%	1.3%	1.5%	1.4%
Visit With Friends/Relatives	3.8%	3.3%	3.5%	3.0%	4.0%	3.9%	4.1%	3.4%	3.6%
Gaming	1.5%	1.4%	1.9%	1.4%	1.8%	1.4%	2.3%	1.5%	1.6%
Other Non-Gaming Entertainment	1.4%	1.2%	1.4%	1.5%	0.9%	1.1%	1.5%	0.8%	1.2%
Shopping (Retail)	5.4%	4.2%	4.3%	3.9%	3.8%	4.6%	3.6%	5.2%	4.3%
Household Errands	0.7%	0.6%	0.7%	0.5%	0.6%	0.8%	0.3%	1.0%	0.7%
Personal Business	0.6%	0.5%	0.8%	0.6%	0.8%	0.7%	0.2%	0.9%	0.7%
Attend Health Care Appointment	2.6%	1.5%	1.6%	0.9%	1.8%	1.1%	2.3%	2.0%	1.5%
Eat Out	3.4%	3.6%	3.7%	2.2%	2.7%	3.0%	3.2%	1.7%	3.1%
Civic Or Religious Activities	2.0%	0.7%	1.0%	1.0%	0.4%	0.9%	0.8%	1.5%	0.9%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.4%	0.6%	0.5%	0.2%	0.4%	0.6%	0.3%	0.5%	0.5%
Refused	0.6%	0.9%	1.2%	1.7%	1.4%	1.1%	0.7%	2.6%	1.3%

Table 131. Trip Duration by Primary Trip Purpose by Jurisdiction (61-90 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
61-90	31,824	504,428	1,113,509	423,773	346,249	679,233	124,542	361,569	3,585,127
Working At Home	2.7%	2.1%	1.8%	1.4%	2.0%	2.2%	1.8%	1.1%	1.8%
Any Other Activities At Home	45.0%	45.1%	46.9%	47.0%	45.7%	45.5%	49.6%	48.3%	46.5%
Work/Doing My Job	16.4%	19.2%	17.7%	16.9%	18.8%	21.0%	16.0%	15.8%	18.3%
Work/Doing My Job (At Other Location)	1.3%	1.4%	1.3%	1.2%	1.9%	1.6%	1.2%	1.6%	1.5%
Work Related (Off-Site)	0.8%	1.1%	0.6%	0.5%	0.5%	0.7%	0.5%	0.4%	0.6%
Change Travel Mode/Transfer	0.5%	0.3%	0.4%	0.4%	0.5%	0.2%	0.6%	0.2%	0.3%
Pick-Up/Drop-Off Passenger(S)	0.6%	1.0%	0.6%	0.8%	0.2%	0.6%	0.7%	0.7%	0.7%
Accompany Another Person	0.5%	0.7%	0.7%	0.7%	0.4%	0.7%	0.3%	0.9%	0.7%
Attend Child Care	0.1%	0.3%	0.2%	0.2%	0.1%	0.0%	0.5%	0.1%	0.2%
Attend School (K-12)	8.3%	6.5%	8.2%	10.9%	5.6%	6.5%	9.8%	8.9%	7.9%
School-Related Activity Away From School	0.6%	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Attend College/University	0.7%	1.8%	1.2%	1.2%	1.6%	1.7%	0.8%	1.6%	1.4%
Indoor Recreation	2.6%	2.4%	2.2%	2.5%	3.2%	2.7%	1.6%	1.6%	2.4%
Outdoor Recreation	1.5%	1.7%	1.3%	1.4%	1.2%	1.2%	1.1%	1.1%	1.3%
Visit With Friends/Relatives	3.7%	3.4%	3.6%	2.8%	4.5%	3.5%	3.2%	2.8%	3.4%
Gaming	1.5%	1.3%	1.5%	1.2%	1.7%	1.2%	2.0%	1.5%	1.4%
Other Non-Gaming Entertainment	1.2%	1.2%	1.4%	1.4%	1.2%	1.2%	1.5%	0.7%	1.2%
Shopping (Retail)	3.1%	2.6%	2.3%	2.1%	2.7%	2.5%	1.9%	3.1%	2.5%
Household Errands	0.5%	0.2%	0.5%	0.2%	0.3%	0.4%	0.7%	0.5%	0.4%
Personal Business	0.4%	0.8%	0.7%	0.7%	0.8%	0.5%	0.3%	0.9%	0.7%
Attend Health Care Appointment	2.3%	1.5%	1.5%	0.8%	1.8%	1.0%	1.2%	1.8%	1.4%
Eat Out	3.0%	2.5%	2.3%	2.4%	2.5%	2.4%	2.9%	1.6%	2.4%
Civic Or Religious Activities	1.2%	0.7%	1.0%	0.9%	0.5%	0.7%	0.7%	1.3%	0.9%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.4%	0.7%	0.5%	0.2%	0.4%	0.6%	0.5%	0.8%	0.5%
Refused	1.1%	1.2%	1.3%	1.8%	1.6%	1.1%	0.6%	2.5%	1.4%

Table 132. Trip Duration by Primary Trip Purpose by Jurisdiction (91-120 Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
91-120	2,366	31,847	68,787	24,475	25,554	42,990	9,618	24,112	229,750
Working At Home	3.1%	1.8%	2.5%	1.5%	0.8%	2.6%	0.5%	2.5%	2.0%
Any Other Activities At Home	34.5%	31.0%	34.4%	31.2%	44.1%	36.1%	33.8%	37.7%	35.3%
Work/Doing My Job	12.3%	7.2%	6.3%	6.9%	9.2%	7.1%	7.2%	2.1%	6.6%
Work/Doing My Job (At Other Location)	3.4%	2.5%	1.3%	0.7%	3.6%	3.8%	0.5%	2.2%	2.2%
Work Related (Off-Site)	1.7%	1.6%	2.2%	1.4%	0.4%	1.4%	0.0%	0.0%	1.3%
Change Travel Mode/Transfer	1.9%	1.6%	1.7%	0.0%	1.4%	0.5%	0.0%	0.0%	1.0%
Pick-Up/Drop-Off Passenger(S)	3.2%	1.3%	0.6%	1.0%	0.4%	0.3%	0.0%	0.3%	0.6%
Accompany Another Person	0.0%	2.5%	1.5%	2.4%	2.1%	2.6%	0.0%	2.2%	2.0%
Attend Child Care	0.0%	0.3%	0.0%	0.9%	0.0%	0.0%	5.3%	0.0%	0.4%
Attend School (K-12)	1.9%	0.5%	0.8%	1.4%	0.0%	0.3%	0.0%	0.0%	0.5%
School-Related Activity Away From School	0.0%	0.4%	0.7%	0.7%	0.0%	1.0%	0.0%	0.0%	0.5%
Attend College/University	3.2%	1.5%	1.7%	1.1%	0.8%	0.4%	2.1%	0.0%	1.1%
Indoor Recreation	3.1%	6.0%	6.3%	14.1%	8.0%	7.3%	1.8%	7.7%	7.4%
Outdoor Recreation	3.4%	4.3%	2.8%	2.1%	0.2%	2.7%	0.0%	8.0%	3.1%
Visit With Friends/Relatives	3.9%	4.9%	8.2%	6.3%	7.6%	6.0%	10.4%	2.8%	6.5%
Gaming	1.8%	3.9%	5.1%	1.5%	4.2%	3.2%	6.1%	2.4%	3.8%
Other Non-Gaming Entertainment	0.9%	2.3%	1.3%	7.9%	2.0%	1.3%	0.0%	1.8%	2.2%
Shopping (Retail)	2.0%	6.4%	3.4%	2.1%	3.7%	6.6%	4.4%	3.3%	4.3%
Household Errands	1.2%	1.0%	1.0%	0.6%	0.0%	0.9%	1.1%	1.4%	0.9%
Personal Business	0.0%	1.4%	1.5%	1.9%	0.0%	3.2%	1.4%	1.4%	1.7%
Attend Health Care Appointment	7.0%	4.2%	3.9%	4.6%	5.5%	3.1%	5.2%	8.5%	4.6%
Eat Out	5.9%	10.2%	5.8%	5.6%	4.7%	4.7%	15.9%	2.9%	6.2%
Civic Or Religious Activities	2.4%	0.9%	4.2%	3.5%	0.8%	3.5%	4.3%	7.1%	3.4%
Don't Know	0.8%	0.5%	0.9%	0.0%	0.2%	1.1%	0.0%	0.4%	0.6%
Refused	2.5%	1.7%	2.0%	0.8%	0.4%	0.4%	0.0%	5.4%	1.6%

Table 133. Trip Duration by Primary Trip Purpose by Jurisdiction (120 or More Minutes)

Duration x Trip Purpose	Boulder City	City of Henderson	City of Las Vegas	City of North Las Vegas	Clark County Paradise	Clark County SW	Clark County Unincorporated	E Las Vegas	Total
Greater than 120 minutes	25,849	424,604	948,429	360,949	287,310	575,091	105,572	314,512	3,042,314
Working At Home	2.9%	2.4%	2.1%	1.6%	2.3%	2.5%	2.1%	1.1%	2.1%
Any Other Activities At Home	51.1%	50.6%	51.3%	52.2%	51.3%	50.1%	55.1%	52.5%	51.4%
Work/Doing My Job	18.1%	21.8%	19.8%	19.0%	21.6%	23.7%	18.6%	18.0%	20.7%
Work/Doing My Job (At Other Location)	1.2%	1.2%	1.0%	1.1%	1.6%	1.3%	1.1%	1.4%	1.2%
Work Related (Off-Site)	0.3%	0.8%	0.4%	0.2%	0.3%	0.4%	0.2%	0.3%	0.4%
Change Travel Mode/Transfer	0.3%	0.3%	0.3%	0.4%	0.4%	0.1%	0.7%	0.2%	0.3%
Pick-Up/Drop-Off Passenger(S)	0.0%	0.7%	0.4%	0.5%	0.2%	0.5%	0.5%	0.6%	0.5%
Accompany Another Person	0.3%	0.6%	0.4%	0.3%	0.1%	0.3%	0.4%	0.6%	0.4%
Attend Child Care	0.1%	0.3%	0.3%	0.1%	0.1%	0.0%	0.1%	0.1%	0.2%
Attend School (K-12)	10.3%	7.7%	9.7%	12.5%	6.7%	7.5%	11.5%	10.3%	9.2%
School-Related Activity Away From School	0.7%	0.2%	0.3%	0.3%	0.3%	0.2%	0.0%	0.2%	0.3%
Attend College/University	0.3%	1.8%	1.2%	1.3%	1.7%	1.9%	0.7%	1.8%	1.5%
Indoor Recreation	1.6%	0.9%	1.1%	1.3%	1.8%	1.3%	1.1%	0.8%	1.2%
Outdoor Recreation	1.0%	1.2%	1.0%	0.9%	0.9%	0.7%	0.7%	0.5%	0.9%
Visit With Friends/Relatives	3.7%	2.9%	2.9%	2.1%	3.7%	3.3%	1.9%	2.6%	2.9%
Gaming	1.3%	0.9%	1.2%	1.1%	1.2%	0.8%	1.5%	1.1%	1.1%
Other Non-Gaming Entertainment	1.3%	1.0%	1.3%	1.0%	0.9%	1.2%	1.4%	0.6%	1.1%
Shopping (Retail)	0.7%	0.5%	0.4%	0.4%	0.2%	0.7%	0.1%	1.2%	0.5%
Household Errands	0.2%	0.1%	0.3%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%
Personal Business	0.2%	0.2%	0.4%	0.4%	0.5%	0.2%	0.0%	0.5%	0.4%
Attend Health Care Appointment	0.6%	0.5%	0.5%	0.2%	0.8%	0.4%	0.5%	0.6%	0.5%
Eat Out	1.4%	0.7%	1.0%	0.4%	0.7%	0.8%	0.2%	0.5%	0.7%
Civic Or Religious Activities	1.0%	0.4%	0.6%	0.4%	0.4%	0.3%	0.2%	0.7%	0.5%
Other, Specify	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0.4%	0.7%	0.5%	0.3%	0.4%	0.7%	0.6%	0.9%	0.6%
Refused	1.2%	1.3%	1.3%	2.0%	1.8%	1.1%	0.8%	2.6%	1.5%
Trips	**180,963**	**2,707,320**	**5,921,691**	**2,196,136**	**1,913,095**	**3,498,310**	**668,385**	**1,946,680**	**19,032,581**