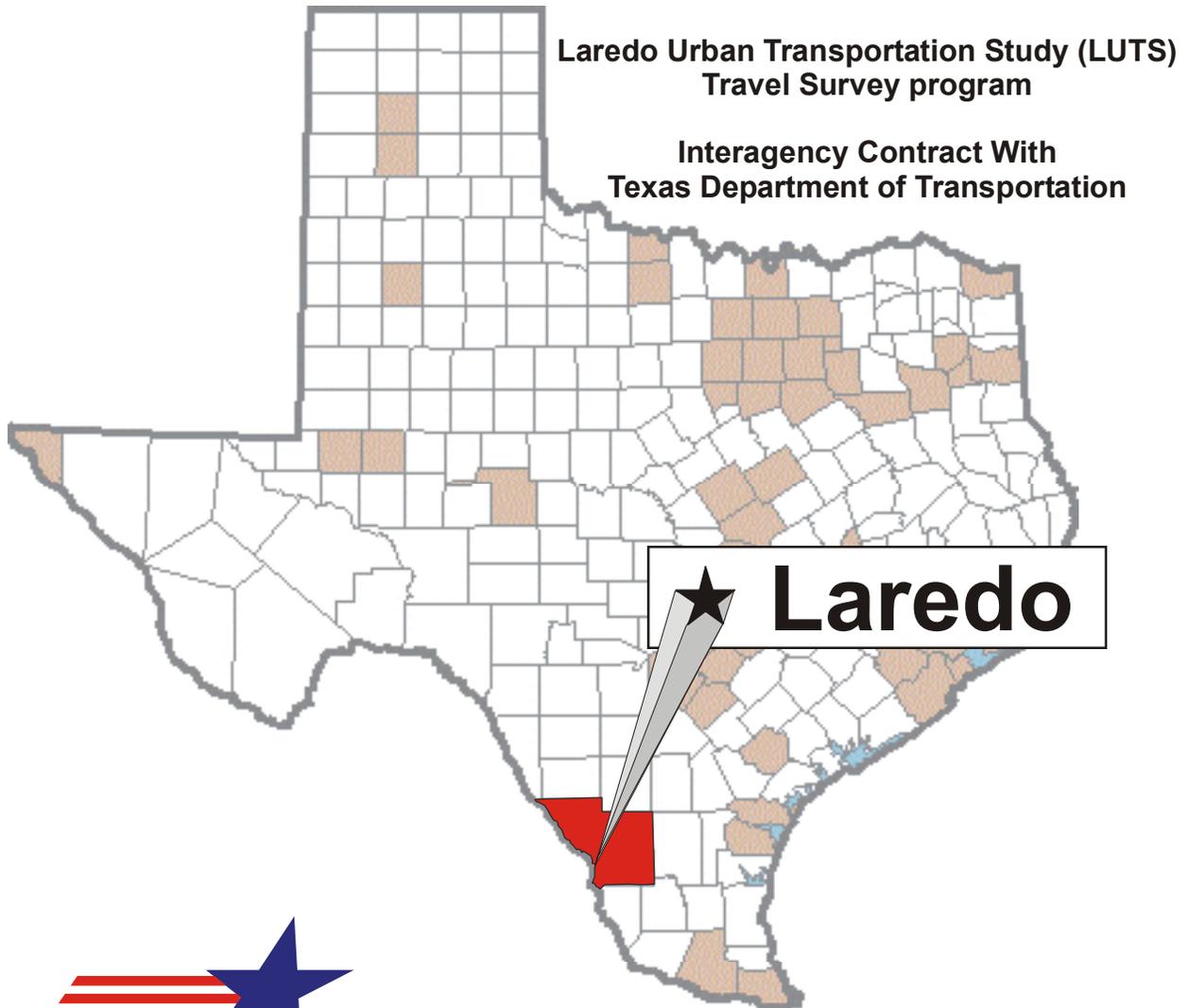


2002 Laredo / Webb County Household Travel Survey Technical Summary



Prepared by the
Texas Transportation Institute
December 2003

2002 Laredo / Webb County Household Travel Survey

Technical Summary

Prepared by

**David F. Pearson, Ph.D., P.E.
Research Engineer**

**of the
Texas Transportation Institute**

December 2003

INTRODUCTION

In 2002-2003, the Transportation Planning and Programming Division (TPP) of the Texas Department of Transportation (TxDOT) funded a comprehensive set of travel surveys in the Laredo / Webb County area. The purpose of these surveys was to provide information on the characteristics of travel into, out of, and within the Laredo / Webb County area. In essence, these surveys measure the amount and patterns of travel for a typical weekday during the school year.

To capture all the different elements of travel, the surveys done in the Laredo area include households (with a Global Positioning System [GPS] component), work places (including special generators), commercial vehicles, an external station survey, and the collection of travel time and delay on facilities within the region. This report presents a technical summary of the household travel survey.

While various statistics are presented within this report, these are subject to change and modification as the data is evaluated and analyzed within the context of all of the data collection efforts. The intent of this report is to document the survey and present the data that was collected – both raw and expanded results. This report does not include the data evaluation and analysis of the GPS component of the household survey. That data will be reported in a separate technical summary.

Terminology

Within the context of travel surveys, there are a number of terms that are used that may confuse or mislead the reader. To assist in understanding these terms, they are defined as follows:

Person Trip – A person trip is the movement of an individual from one location to another location. In the 2002 Laredo Household Survey, these trips were recorded for persons five years of age or older in a surveyed household.

Auto Driver Trip – An auto driver trip is the movement of a vehicle from one location to another location. These trips are recorded for the person driving the vehicle. These may also be referred to as “vehicle” trips.

Trip Purpose – This is the purpose of the trip being made by an individual. It is stated in terms of the purpose at the location the trip began and the purpose at the location the trip ended. For example, a trip that began at home and ended at work would be referred to as a home-based work (HBW) trip. There were 11 purposes identified and used in the Laredo Household Survey.

Trip Activity – This is the activity the individual did at the location the trip began and/or the location the trip ended. There were 20 activities used in the Laredo Household Survey. These activities were recorded in the survey and post processed to identify the purpose associated with the activity. Table 9 in this report presents the relationship between the activities and the purposes.

Vehicle Availability – This term refers to the vehicles available to members of a household for travel.

Vehicle Occupancy – The number of occupants in a vehicle during a vehicle trip. This value includes the driver of the vehicle.

Mode of Travel – This is the physical means used to make a trip. The modes recorded in the Laredo Household Survey included walk, vehicle driver, vehicle passenger, carpool driver, carpool passenger, vanpool driver, vanpool passenger, commercial vehicle driver, commercial vehicle passenger, public transportation, school bus, taxi/paid limo, bicycle, motorcycle/moped, and other.

Home-Based Work (HBW) Trip – A trip which has one end at home and the other at work. It is non-directional in terms of the activity/purpose, i.e., a trip from home to work or from work to home is still defined as a HBW trip.

Home-Based Non-Work (HBNW) Trip – A trip which has one end at home and the other at a location other than the work location. It is non-directional in terms of the activity/purpose.

Non-Home-Based (NHB) Trip – A trip which has neither end at home.

Productions – The number of trips that are produced by members of a household. These are computed by purpose and mode of travel. Production rates refer to the number of trip productions divided by the number of households.

Attractions – The number of trips that are attracted to a location. These are computed by purpose and mode of travel for different land use categories.

Linked Trips – Trips are linked (i.e., combined) into a single trip that reflects what is perceived to be the true purpose of the trip. Only trips that involve a serve passenger or change mode of travel between home and work (or vice-versa) are considered for linking. For example, a person driving a child to a day care center (or school) and then proceeding on to work would have made two unlinked trips, a HBW trip and a NHB trip. These two trips would be “linked” to create one trip, a HBW trip.

Travel surveys are not new. An origin and destination (OD) survey was conducted in Laredo in 1954 by the Texas Highway Department in cooperation with the U.S. Department of Commerce, Bureau of Public Roads. That survey was primarily a vehicle intercept survey conducted at the external stations and selected locations inside the City of Laredo. Another major OD travel survey was conducted in 1964. This survey involved interviewing persons within the home to collect data on their travel for a 24-hour period. Until this survey in 2002, no comprehensive effort had been made to collect data on travel patterns in the Laredo area since 1964.

Travel surveys provide an important source of information for transportation planning in an urban area. These data are the primary information for developing travel demand models used for forecasting travel demand and the analysis of transportation systems. The household survey in particular serves as the basis for estimating internal travel (i.e., travel which begins and ends in the study area) and developing essential travel demand models. It also serves as a snapshot of household, person, and vehicle characteristics within the Laredo and Webb County area.

STUDY AREA

The area included in the 2002 household travel survey was Webb County. The areas surveyed in 1954 and 1964 were essentially the City of Laredo. Figure 1 shows the location of Webb County in the State of Texas. Laredo is the county seat and serves as one of the major ports of entry for individuals and freight moving between Mexico and the U.S. The population in Webb County based on the 2000 census was 193,117. This represents a growth in population of nearly 45 percent from the 1990 census. The number of households in Webb County grew from 34,510 in the 1990 census to 50,647 in 2000. Most of the population and households in Webb County are concentrated in the City of Laredo, which lies on the Rio Grande River that serves as the border between Mexico and Texas.

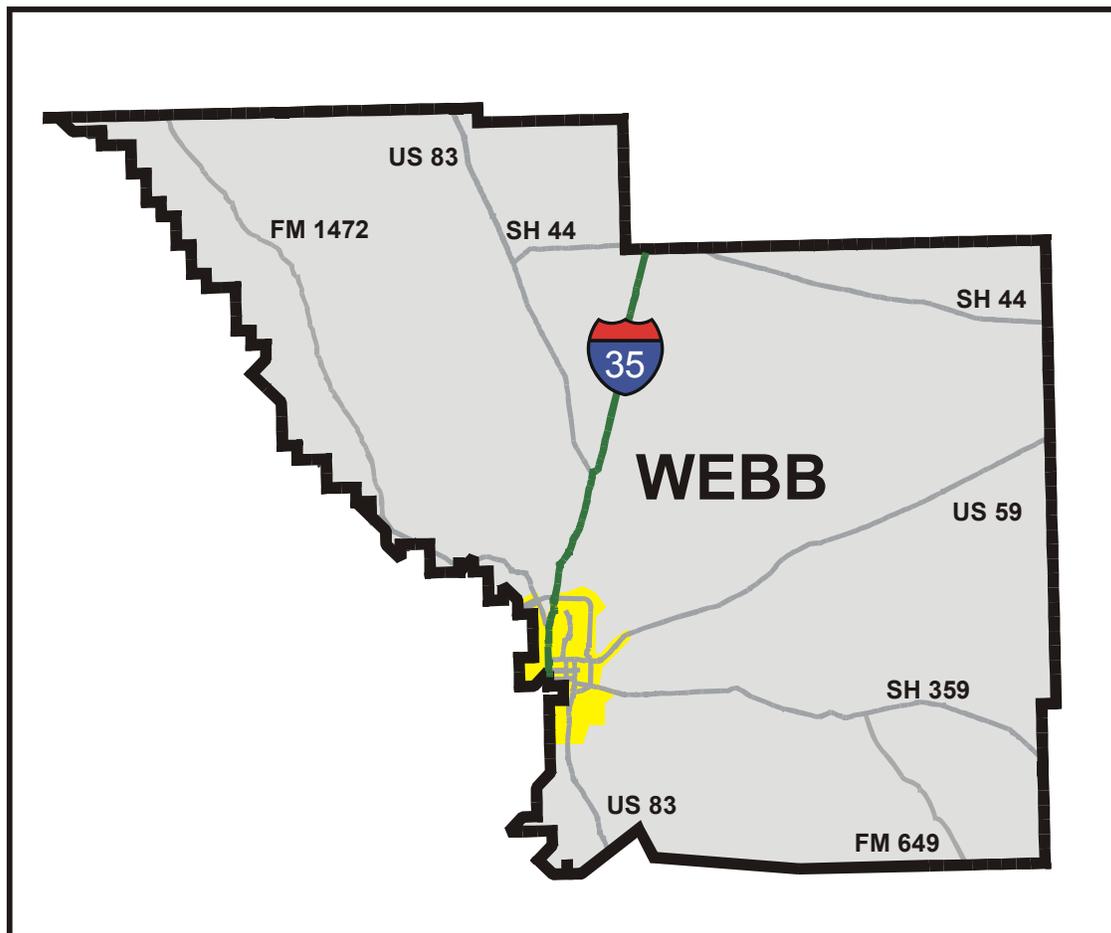


Figure 1. Laredo / Webb County Study Area.

SURVEY DESIGN AND METHODOLOGY

Travel surveys have changed in terms of design and methodology significantly since the OD surveys of the 1960s and early 1970s. Those surveys were massive data collection efforts that involved thousands of households. For example, in the 1964 OD survey, 12.5 percent of the dwelling units in the heavily populated areas were surveyed and up to 100 percent of the dwelling units were surveyed in the thinly populated fringe areas (Source: *Origin-Destination Survey, Laredo 1964 Urban Transportation Study, Volume 1*). The 1964 survey consisted of interviewing each member of a household in the home to collect data on the household and their travel over a 24-hour period. The use of the home interview technique with the large samples is not considered feasible today due to cost and safety considerations.

The most common household survey methodology in use across the nation today is the telephone-mail-telephone technique. This technique consists of randomly selecting households and contacting them by phone to solicit their participation in the survey. Households are given the option to not participate, so the survey is voluntary on the part of the households. Those that agree to participate are sent a travel diary for each person in the household over the age of five years. Each person is asked to record travel data on the origin, destination, activity, mode of travel, and time of arrival and departure over a designated 24-hour time period. Various data on the characteristics of the household and each person living in the household are also collected.

Following the household's travel day, the household is contacted by phone and a trained interviewer retrieves the data in the diaries. This methodology in combination with the stratification of households by selected household characteristics in the survey design allow the sample size for the survey to be held to a minimal number of households and still provide for a reasonable level of accuracy in the survey results.

The survey design for the Laredo / Webb County area specified a total sample of 2,000 households to be surveyed. The stratification of the surveyed households was based on household size and household income. Table 1 presents the stratification levels and the number of desired surveyed households established in the contract for the survey.

Table 1. Laredo / Webb County Household Survey Stratification and Quotas.

Household Income (2000 \$)	Household Size				Totals
	1	2	3	4 +	
0 to 9,999	50	84	113	160	407
10,000 to 19,999	50	79	58	216	403
20,000 to 34,999	50	68	62	250	430
35,000 to 49,999	50	58	50	173	331
50,000 or More	50	62	67	250	429
Totals	250	351	350	1,049	2,000

The survey quotas and stratification levels were developed using actual survey data from surveys conducted in other urban areas in Texas. The desired number of survey households in each cell is not proportionate to the estimated number of households in Webb County with those characteristics. The number of households to be surveyed in each cell is based on the total estimated number of households in Webb County and the expected number of trips those households will make in a typical day. The survey design is based on a desired level of accuracy of +/- 10 percent with a confidence level of 90 percent for the total person trips in Webb County.

Table 2 presents the estimated number of households in Webb County stratified in the same manner as Table 1. This table was estimated using data from the 2000 census. It was assumed that the characteristics of the population and households had not changed significantly in 2002 from the 2000 census. Comparing the sample quotas in Table 1 with the estimated households in Table 2 illustrates the fact that the percentage of households to be surveyed in each stratification cell varies. This variation recognizes that some households travel more than others and while the survey design must consider the population of households in each strata, the efficiency of the sample design is improved by also considering that some households travel more than others.

Table 2. Laredo / Webb County Estimated Household Distribution.

Household Income (2000 \$)	Household Size				Totals
	1	2	3	4 +	
0 to 9,999	2,188	1,403	1,175	3,287	8,053
10,000 to 19,999	1,844	2,188	2,066	4,234	10,332
20,000 to 34,999	1,023	2,122	2,031	6,523	11,699
35,000 to 49,999	476	1,221	1,631	4,168	7,496
50,000 or More	699	2,081	2,163	8,124	13,067
Totals	6,230	9,015	9,066	26,336	50,647

The trend in household surveys has been to collect more and more information on the characteristics of the household and its members as well as data on the trips and activities of each household member. The Laredo / Webb County household survey follows this trend as well. While much of the data is not used directly in the current travel demand models, the collection of the data provides a rich and varied base of information for both current and potential future travel demand models. The Appendix to this report contains a table which lists the data items collected in the Laredo Household Survey and a copy of the diary that was sent to each household (one was included for each household member) for use in recording their travel and activities on their travel day. The data collected included 36 items on the household's characteristics, 44 items on each person (over the age of five), 14 items on each vehicle available to members of the household, and 52 items on each trip/activity. The vendor selected to conduct the survey also reported the longitude, latitude, and transportation analysis zone (TAZ) for each location reported in the survey. Additional details on the survey design, methodology, response rates, etc. may be found in *Laredo Area Household Travel/Activity Survey, Final Report*, NuStats, February 2003.

DATA PROCESSING

One of the primary uses of data from a household survey is the development of trip rates for use in travel demand modeling. Since the household survey uses a relatively small sample of households to represent the population of households in the region, it is important that the data be as accurate as possible. Given the length and complexity of the survey in terms of the information being requested, the burden on members in households participating in the survey can be substantial. Considerable effort is made in processing the data to identify areas where bias may exist in the data that is reported.

Households that report no travel are reviewed to identify those that may be considered a late refusal. Given the burden imposed on households that participate in these surveys, it is recognized that some households may decide that the effort is not worth their time and as a means to extricate themselves from the process and dealing with an interviewer, they simply state they did not go anywhere. This is the reason they are asked for the reason they did not travel. Once the households that report no travel are identified, they are reviewed individually in terms of the household size, age of individuals, number of vehicles available, household income, employment status, and the reasons given for not traveling. This review is subjective and it is not possible to insure that the decision to leave or remove a household is or is not correct. This review resulted in the removal of 67 households from the data. These data are retained but not used in the subsequent processing and analysis.

The household survey data were processed in two steps. The first step inputs the data in raw form. Expansion factors are computed and added to the household and trip records and some stratified tabulations are output. A key step in the first processing is the linking of trips. Trips are linked to capture the true purpose of travel with respect to work trips.

For example, an individual may report they started at home, then traveled to a day care and dropped off a child and then proceeded to work. Without linking, this situation would be considered as two trips. One would be defined as a HBNW trip (i.e., the trip from home to the day care) and one would be defined as a NHB trip (i.e., the trip from the day care to work). Accepted practice is to link these two trips into a single trip which would be defined as a HBW trip. Generally, trips that involve a serve passenger or change mode of travel are linked if the serve passenger or change mode occurs between home and work or work and home. This “linking” of trips is accomplished as part of the first step. The major output of the first step is a

file, which combines all of the household, person, vehicle, and trip/activity information into a single file, which includes the expansion factors for each household.

The second step in processing the household survey data is performed using a separate program that inputs the file output from the first step. The program allows the user to select the variables to be used in stratifying the household data, compiles the trip/activity data and produces various outputs that examine at the trips per person by age cohort and gender, trip statistics by mode and purpose of travel/activity, total expanded trips, and trips per household stratified by the selected variables. These variables are typically household size and household income. These data are reviewed in detail to identify possible biases and compared with trip data from other urban areas and nationally to determine if they are reasonable and may be used in travel demand models for the region.

DATA EXPANSION

The expansion of data from a household survey generally follows the same methodology as used in the design of the survey. For example, the survey quotas in Table 1 are stratified by five categories of household income and four categories of household size. These strata represent the base level that is used for computing expansion factors. Evaluation of household survey data in other urban areas has resulted in a standard stratification for expanding and development of trip rates for travel demand models. This standard is very similar to that shown in Table 1 with the addition of one household size category – five or more persons. These are subject to change pending further analysis of the data. For purposes of this report, the data were analyzed and expanded using five categories of household size and five categories of household income.

Table 3 presents the number of households surveyed in the Laredo / Webb County area stratified by household size and income. The first item of interest is that the total number of households surveyed is less than the desired number (i.e., 1,841 versus 2,000). There were another 62 households that did not report household income and could not be included in Table 3. In addition, there were another 70 households that were not included in Table 3 because they were judged to be questionable. The total number of households the vendor, NuStats, collected data and submitted were 1,970. The vendor did a good job even though they were not able to meet the overall survey design goal of 2,000 households. Past experience in similar surveys in

other urban areas in Texas has shown that it is very difficult to meet the desired sample for each cell due to the limited number of households that exist in the population.

Table 3. Surveyed Households in Laredo / Webb County in 2002.

Household Income (2000 \$)	Household Size					Totals
	1	2	3	4	5 +	
0 - 9,999	45	92	62	33	37	269
10,000 – 19,999	58	99	88	104	89	438
20,000 – 34,999	60	102	85	83	82	412
35,000 – 49,999	61	87	77	69	32	326
50,000 or More	62	96	88	80	67	393
Totals	286	476	400	369	307	1,838

The sample data from the surveyed households in Table 3 are expanded based on the population of households that are estimated for the Laredo / Webb County area. Table 4 shows this estimated distribution. The data in Table 4 were developed using information from the 2000 census for Webb County. It is recognized that the survey was done in 2002 and it is possible the distribution for 2002 could be different from that in 2000. For purposes of this report, it is assumed that the estimated distribution of households in 2000 accurately reflects the distribution in 2002 for Laredo and Webb County. Expansion factors for surveyed households are computed by dividing the population of households in a cell by the number of surveyed households in the cell. For example, the expansion factor for a one-person household with an annual income between 0 and \$9,999 would be 2,188 divided by 45, i.e., 48.62. This implies that each surveyed household in that cell represents 48.62 households. Table 5 shows the resulting expansion factors for all of the cells.

Table 4. Estimated Distribution of Households in Laredo / Webb County in 2002.

Household Income (2000 \$)	Household Size					Totals
	1	2	3	4	5 +	
0 - 9,999	2,188	1,403	1,175	1,281	2,006	8,053
10,000 – 19,999	1,844	2,188	2,066	1,651	2,583	10,332
20,000 – 34,999	1,023	2,122	2,031	2,547	3,976	11,699
35,000 – 49,999	476	1,221	1,631	1,631	2,537	7,496
50,000 or More	699	2,081	2,163	3,171	4,953	13,067
Totals	6,230	9,015	9,066	10,281	16,055	50,647

Table 5. 2002 Household Survey Expansion Factors.

Household Income (2000 \$)	Household Size					Totals
	1	2	3	4	5 +	
0 - 9,999	48.62	15.25	18.95	38.83	54.21	NA
10,000 – 19,999	31.79	22.10	23.48	15.88	29.02	NA
20,000 – 34,999	17.05	20.80	23.89	30.69	48.49	NA
35,000 – 49,999	7.80	14.03	21.18	23.64	79.29	NA
50,000 or More	11.27	21.68	24.58	39.63	73.93	NA
Totals	NA	NA	NA	NA	NA	NA

The expansion factors shown in Table 5 provide a good indication of those stratification cells where the surveyed households represent significant portions of the population of households. The worst case for example is households of five or more people with an annual income of \$35,000 to \$49,999. In this cell, a total of 32 households were surveyed and the population of households was estimated to be 2,537. There is a higher probability that the estimates produced for households in this cell may under or over represent the true values for those households. Part of this is attributable to the survey design where quotas were set for households falling in the four plus category and the actual data were stratified for households in the four and five plus categories. This may be modified later depending on further analysis.

SURVEY RESULTS

In presenting the survey results, it should be understood that the data presented is in raw form with no adjustments being made to account for biases or under/over reporting in certain categories. The data as presented in this section is the survey results both in unexpanded and expanded form. Where possible, the expanded survey results are compared to data from the 2000 census to give an indication of how well the survey data may or may not represent the characteristics of the population.

Household Characteristics

A total of 1,970 households were surveyed. Of those households, 1,838 were analyzed. The 132 households not analyzed were removed because review of the data determined the information was questionable or the household did not provide key data elements that allowed the household data to be expanded (e.g., did not report income). Household characteristics include data on household size, income, vehicles available, persons employed, number of bicycles available, factors considered in choosing their residence location, type of residence and other items.

Figure 2 presents the distribution of households by household size. Since the data were stratified and expanded by household size (i.e., one of the variables), the expanded distribution matches the 2000 census distribution exactly. The average number of persons per household in the unexpanded survey sample was 3.14 and the expanded was 3.75. The implication is that the number of households in the survey under represented the larger household size group. This is illustrated by the difference between the percentage of surveyed and expanded households in Figure 2 for the five plus size category. Conversely, the sample over represented households in the size two group.

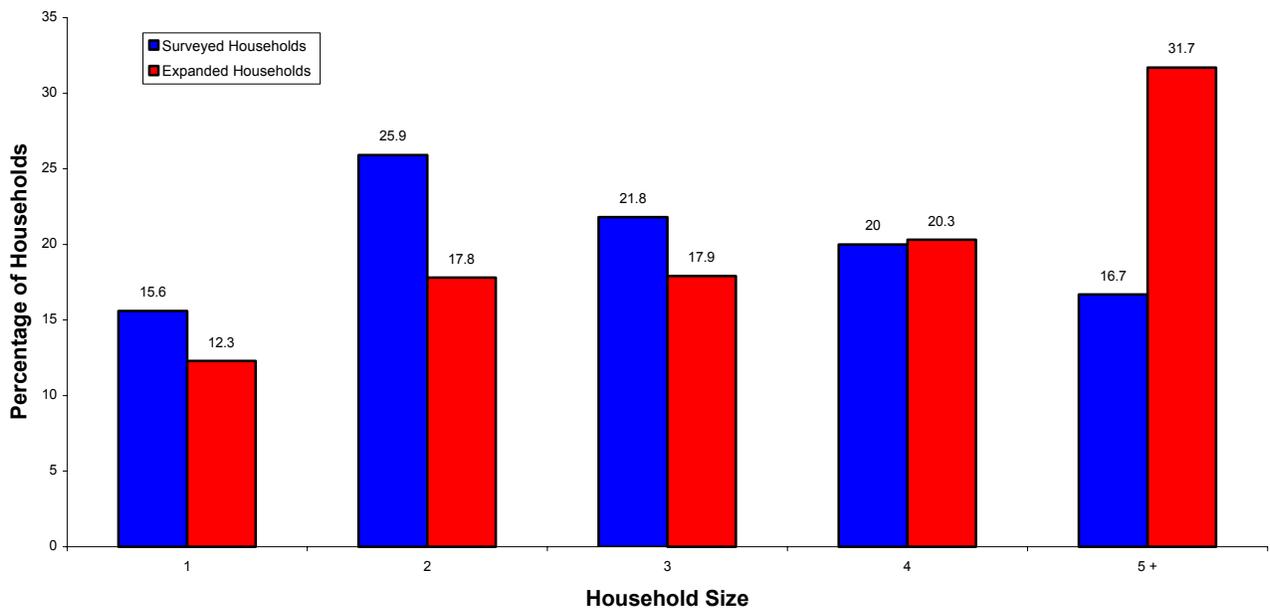


Figure 2. Distribution of Households by Household Size.

Figure 3 presents the distribution of households by income group. Since household income was one of the stratification variables, the expanded distribution matches that estimated from the 2000 census. The average household income in the sample households was \$33,619 while the average from the expanded survey was \$36,121. The average household income from the 2000 census was \$40,467. The sample households under represented the higher income households and over represented those in the \$10,000 to \$19,999 range.

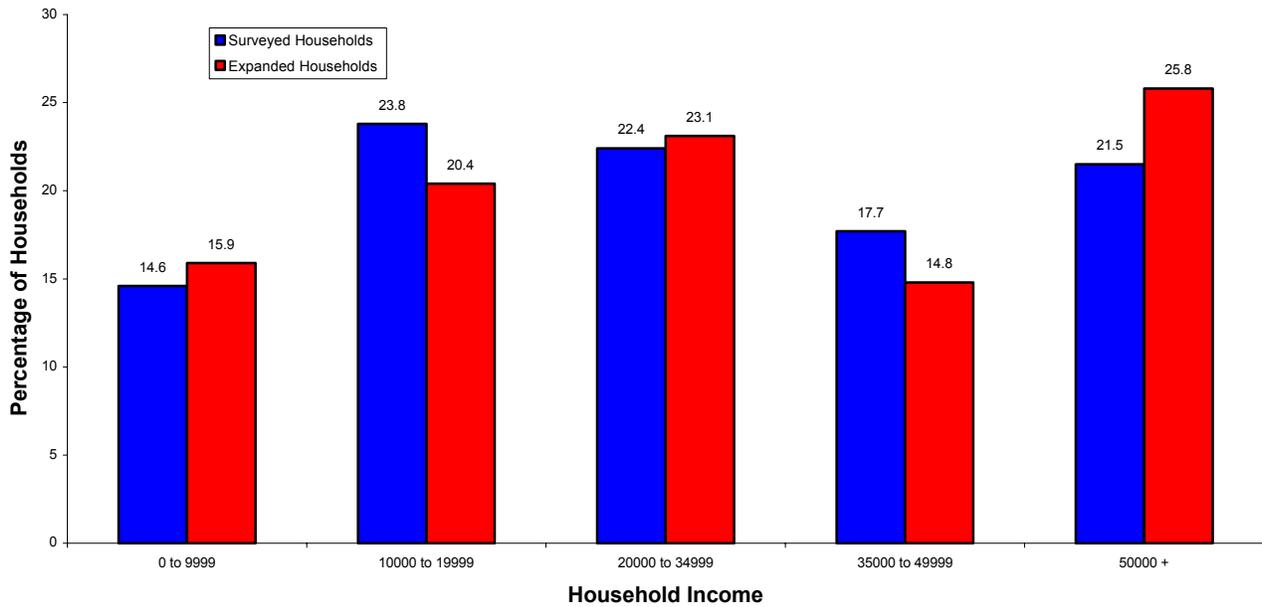


Figure 3. Distribution of Households by Household Income Range.

Figure 4 presents the sample, expanded, and 2000 census distribution of households by vehicles available. The expanded distribution of households by vehicles available under estimates the number of households with no vehicles and one vehicle available and over estimates the number of households with two and three or more vehicles available. The average number of vehicles available per household was respectively 1.67 in the sample data, 1.78 in the expanded data, and 1.62 in the 2000 census data. The estimated number of vehicles available to households for travel was 90,152.

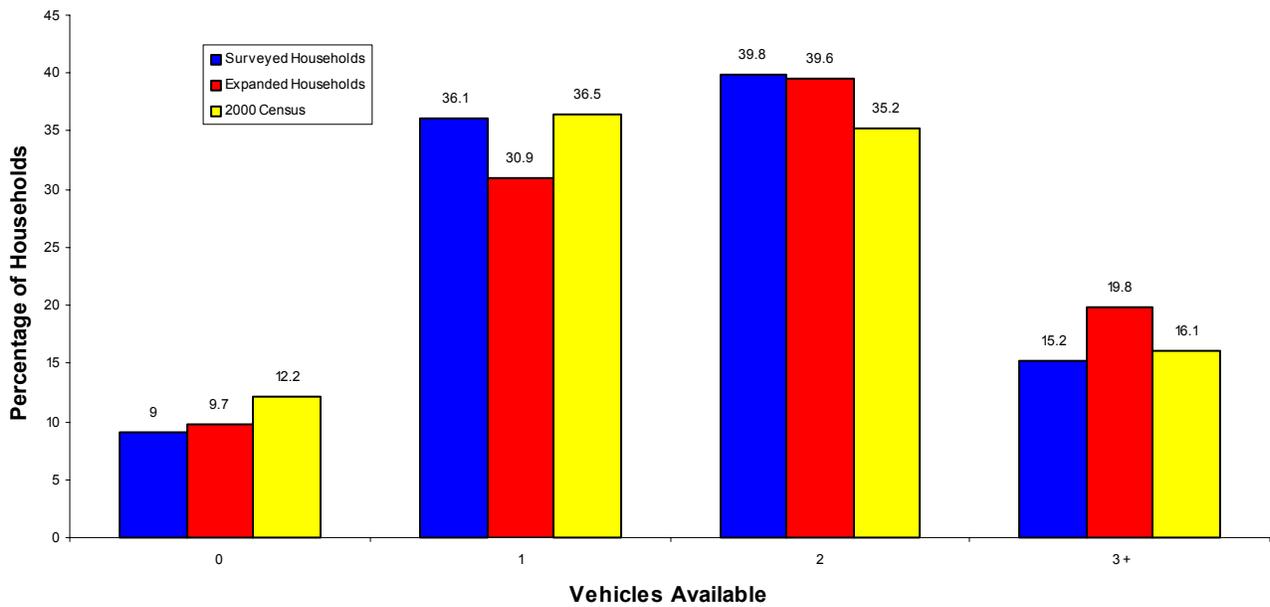


Figure 4. Distribution of Households by Vehicles Available.

Figure 5 presents the distribution of households by the number of persons employed in the household. The average number of persons employed per household from the sample was 1.27 and the average for the expanded households was 1.39. The average number computed from the 2000 census based on the number of workers 16 years of age and older was 1.21. The implication is that the survey included more households with employed persons than exists in the population. This assumes that the data for 2000 is still applicable in 2002. Based on a comparison between the 1990 and 2000 censuses, employment in Webb County grew 36.4 percent. The average number of workers (16 years of age and older) per household dropped from 1.3 in 1990 to 1.2 in 2000. While this distribution is not directly comparable to data from the 2000 census, it does provide a means for estimating the number of persons employed in the area. The number of persons employed in Webb County based on the expanded data from the survey is 70,142. The number of persons over the age of 16 employed in Webb County based on the 2000 census was 61,255.

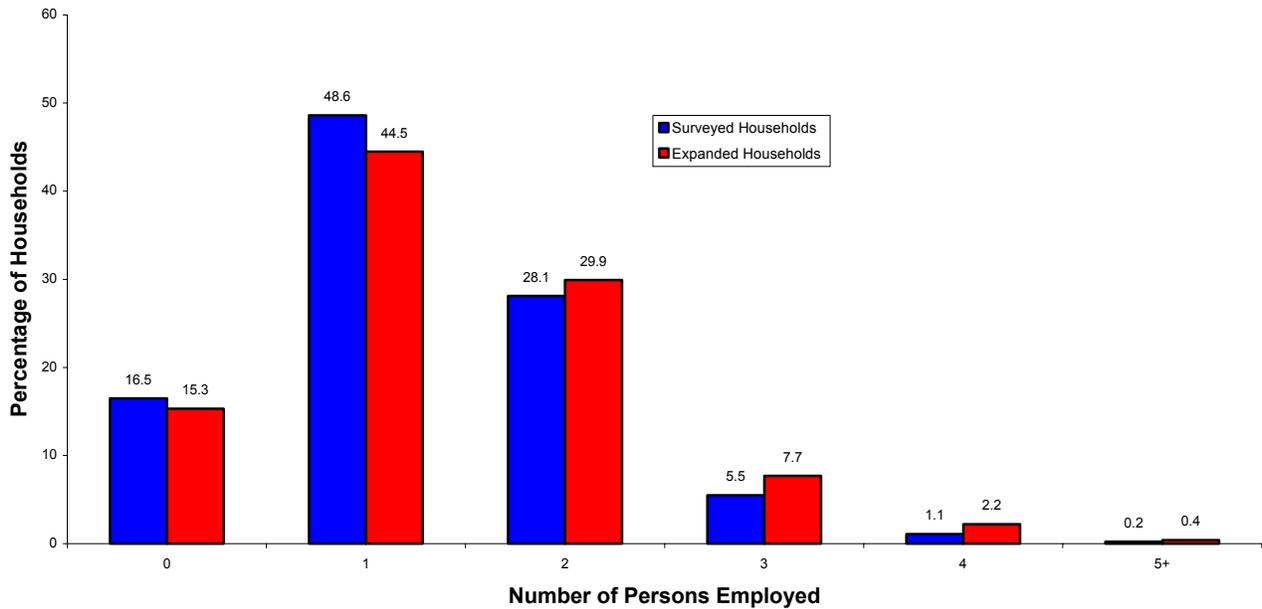


Figure 5. Distribution of Households by Number of Persons in Household Employed.

Figure 6 presents the distribution of households by the number of operating bicycles in the household. The average number of bicycles per household in the sample households was 0.7 and the average for expanded households was 0.85. The number of bicycles in Webb County is estimated at 43,209.

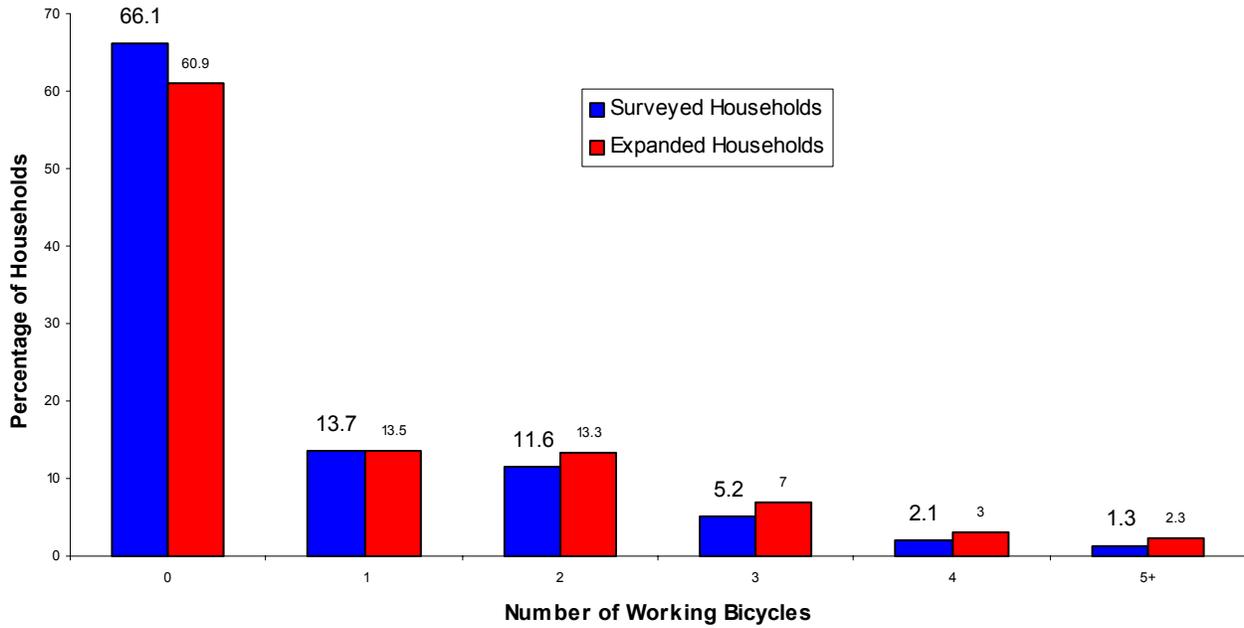


Figure 6. Distribution of Households by Number of Working Bicycles.

The distribution of households by the time lived in the residence is shown in Figure 7. This distribution is dominated by the category of five or more years. Those households where the individuals have resided less than five years are about the same percentage whether it is one, two, three, etc. years. The majority (63 percent) of surveyed households had resided in the same residence for more than five years. This implies that households in the Laredo / Webb County area tend to stay and not move very often.

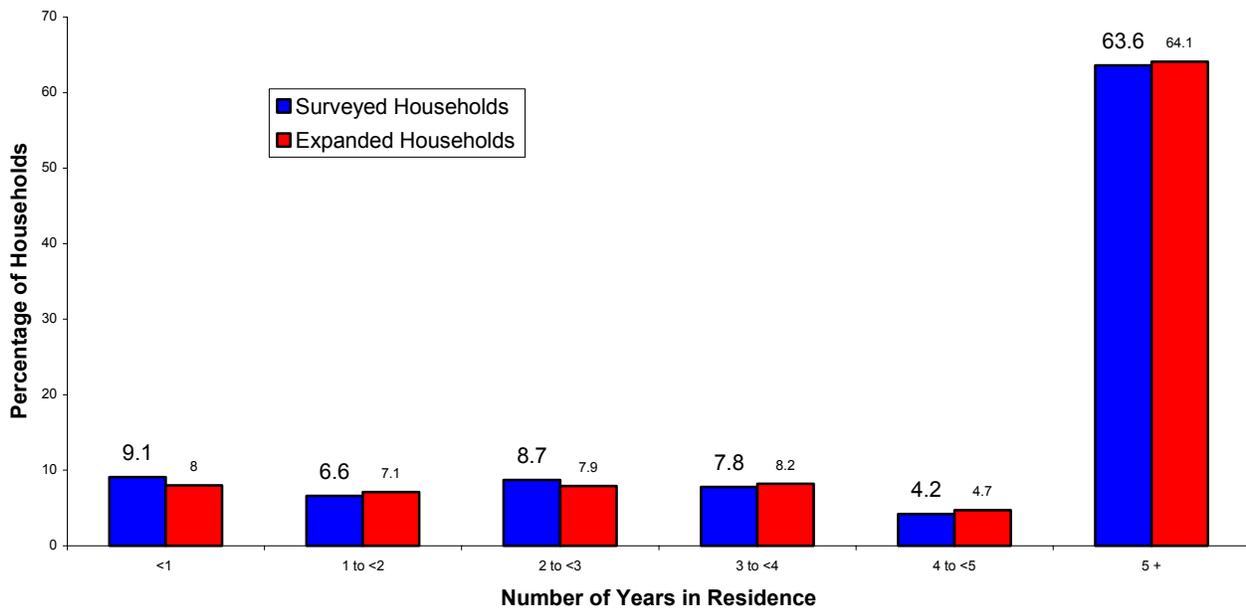


Figure 7. Distribution of Households by Years in Residence.

Households were also asked about the factors they considered when they chose their home location. It is believed that this question was asked of those households that had lived in their residence less than 5 years. Figure 8 shows the breakdown of households by the factors that influenced their choice of home location. The two dominant factors were price of property and other. Proximity to a school was twice as important as the school district. The third most important factor was the character of the neighborhood. Proximity to work was the fourth most important factor.

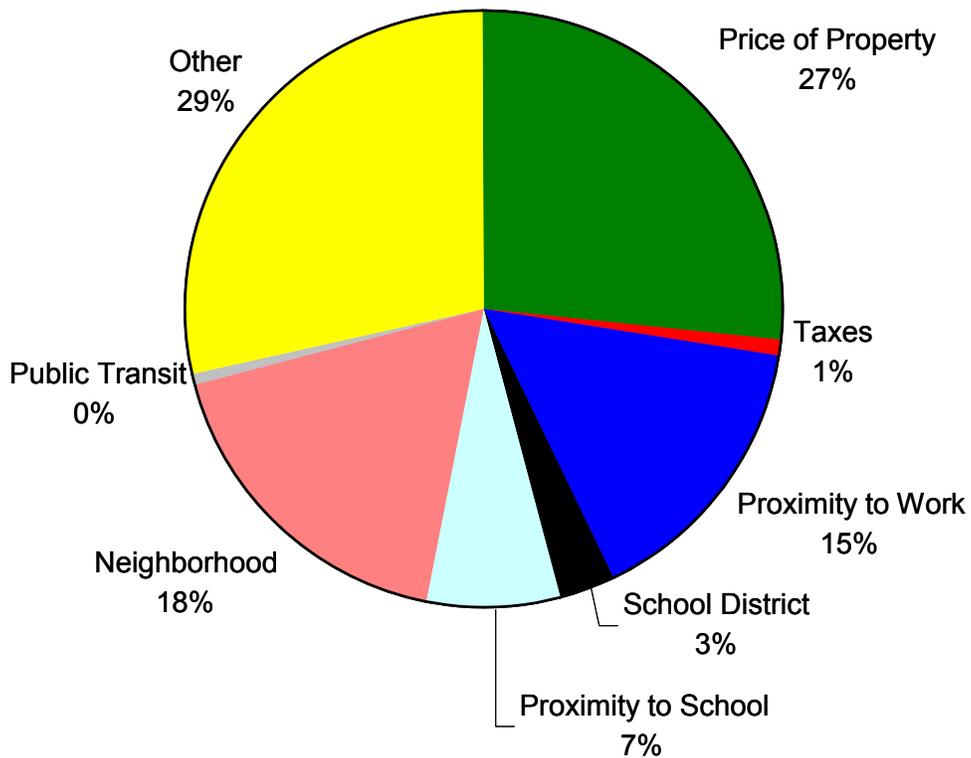


Figure 8. Distribution of Surveyed Households by Factors in Selecting Home Location.

One of the issues which is raised in household surveys of this type is the fact that households without a phone are excluded from the survey. This results because the phone is used as the medium by which households are contacted and asked to participate in the survey. To measure this likelihood, households are asked about the number of times in the previous 12 months the household was without phone service. Figure 9 reflects the distribution of households that responded. Just over seven percent of the households reported they were without phone service at some time during the previous 12 months. Only the percentages of households that reported one or more times without a phone are shown in Figure 9.

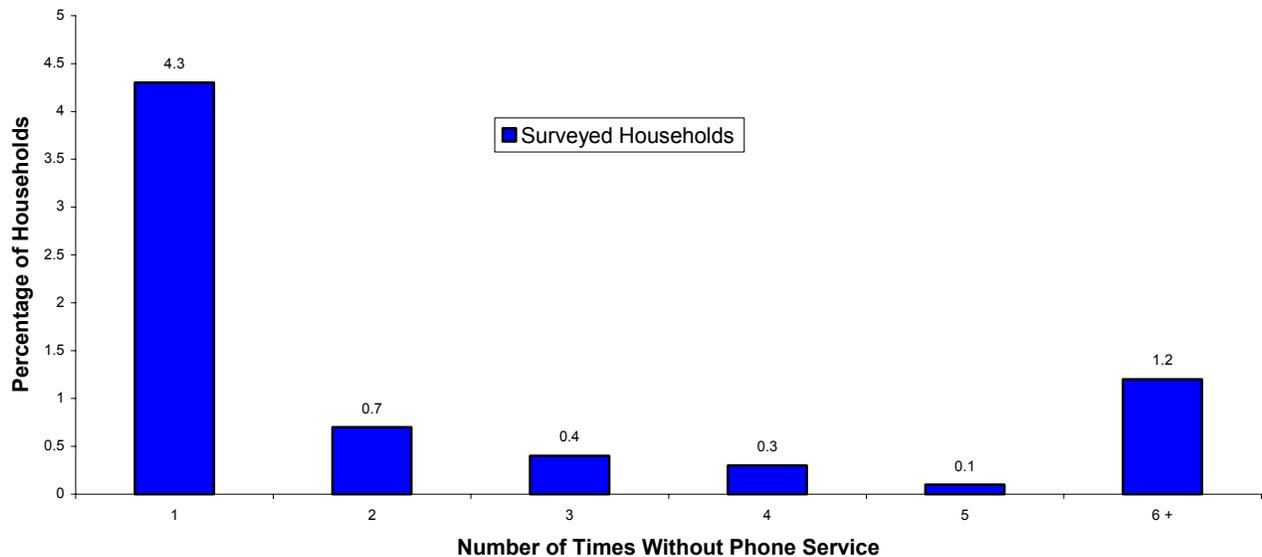


Figure 9. Distribution of Surveyed Households by Number of Times With No Phone.

Households that reported they were without phone service at least once in the previous 12 months were also asked the average length of time they went with no phone. Figure 10 shows this distribution.

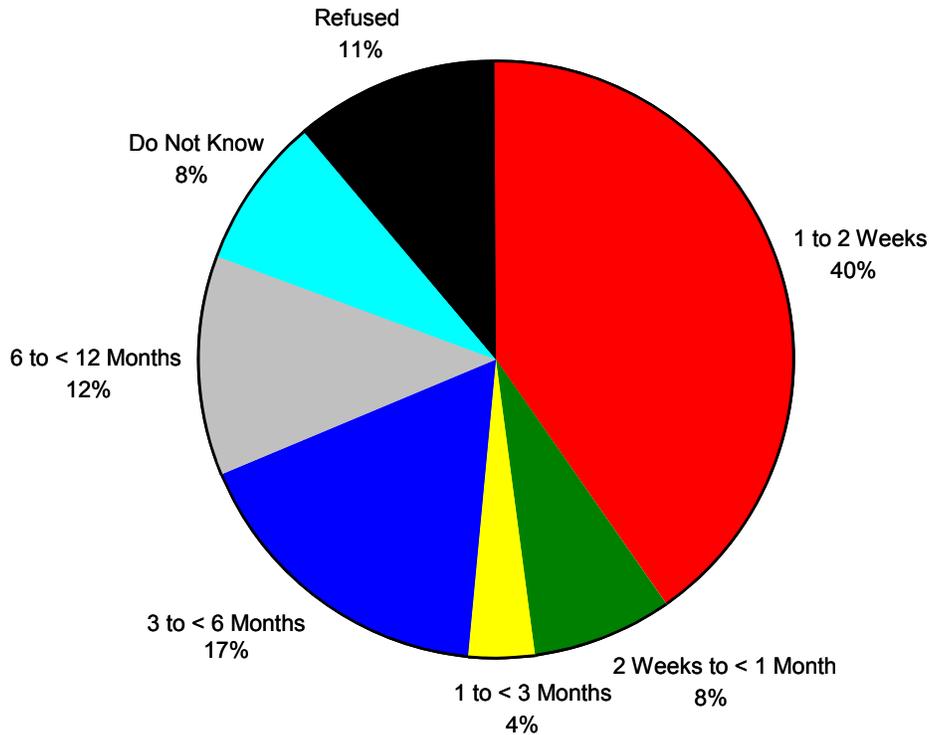


Figure 10. Distribution of Surveyed Households by Length of Time Without Phone.

Person Characteristics

A total of 5,947 persons were found in the 1,970 households surveyed. The number of persons in the 1,838 households analyzed was 5,620. The difference is due to the households that were not included in the analysis. Person characteristics refer to the characteristics of persons in the households that were surveyed. These data include age, type of work place where employed, status as a student, ethnicity, gender, etc. Some of these are reported in the 2000 census and may serve as an indicator of how well the survey data represents the population.

Figure 11 presents the distribution of persons in the surveyed and expanded households by age cohort with the reported distribution from the 2000 census for Webb County. It is important to understand that the distributions in Figure 11 relative to the 2000 Census may be influenced to a certain degree by the fact that the survey was conducted in 2002, two years later than the 2000 Census. This difference in time could partially explain some of the differences in the respective distributions. For example, the 2000 Census reported that about 11 percent of the population was under the age of five. The estimates from the survey were around five percent. It is possible for a significant portion of those less than five in the year 2000 to be older than five in 2002. Overall, the estimated survey distribution matches the 2000 Census distribution reasonably well.

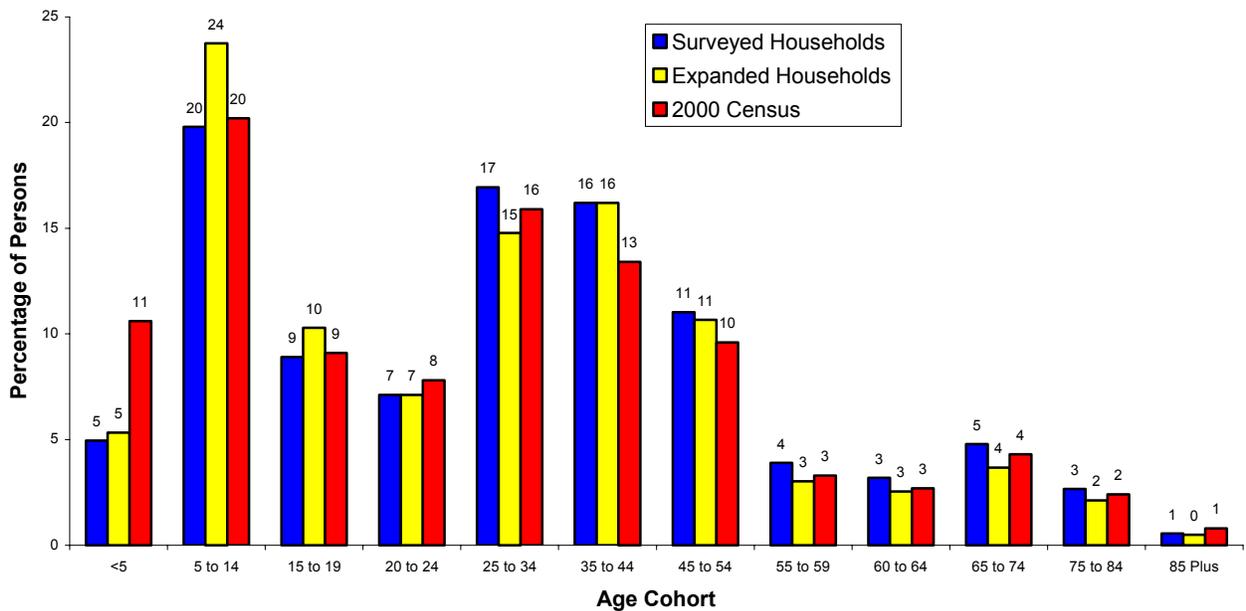


Figure 11. Distribution of Persons by Age Cohort.

In terms of gender, the expanded survey data showed that 47.3 percent of the population was male and 52.7 percent female. The 2000 Census reported that males comprised 48.2 percent and females 51.8 percent of the population. In terms of ethnicity, the expanded survey data estimated that 95.1 percent of the population was Hispanic/Mexican American, 3.5 percent was White/Caucasian, 0.1 percent was Black/African American, and 1.3 percent was other. The 2000

Census reported these percentages for Webb County respectively as 94.3 percent, 4.9 percent, 0.4 percent and 0.4 percent. The survey distribution for all groups is shown in Table 6.

Table 6. Survey Ethnicity Distribution.

Ethnicity	Survey Results		Expanded Results	
	Persons	Percent	Persons	Percent
Black/African American	7	0.1	125	0.1
Hispanic/Mexican American	5,310	94.9	171,936	95.1
Asian/Pacific Islander	18	0.3	452	0.3
Native American	13	0.2	331	0.2
White/Caucasian	219	3.9	6,366	3.5
Other	31	0.6	1,547	0.8
Totals	5,598	100.0	180,757	100.0

As part of the survey, individuals were asked questions relative to their employment and non-employment status and the type of work place they worked. Table 7 presents the results of the survey (expanded) for responses by type of status. In general, all persons under the age of 16 reported they did not work and 44 individuals reported they did not know or refused. Figures 12 and 13 present a graphical picture of the data in Table 7. Figure 12 reflects the distribution of persons (over the age of 15) by status with all unemployed categories combined. Figure 13 presents the distribution of unemployed persons by status of unemployment (as shown in Table 7).

Table 7. Distribution of Persons by Employment and Non-Employment Status.

Status	Males	Percent	Females	Percent	Total	Percent
Employed Full Time	34,539	61.71	22,948	34.07	57,487	46.62
Employed Part Time*	2,979	5.32	4,734	7.03	7,713	6.25
Self Employed Full Time	2,191	3.91	908	1.35	3,099	2.51
Self Employed Part Time	412	0.74	524	0.78	936	0.76
Retired	3,952	7.06	5,149	7.64	9,101	7.38
Unemployed-Disability	1,951	3.49	2,153	3.20	4,104	3.33
Homemaker	42	0.08	21,939	32.57	21,981	17.82
Unemployed Looking for Work	2,404	4.30	1,350	2.00	3,754	3.05
Unemployed Not Looking for Work	609	1.09	558	0.83	1,167	0.95
Unemployed Student	6,693	11.96	6,691	9.93	13,384	10.85
Unemployed Other	192	0.34	404	0.60	596	0.48
Totals	55,964	100.00	67,358	100.00	123,322	100.00

*Part Time is defined as less than 30 hours per week.

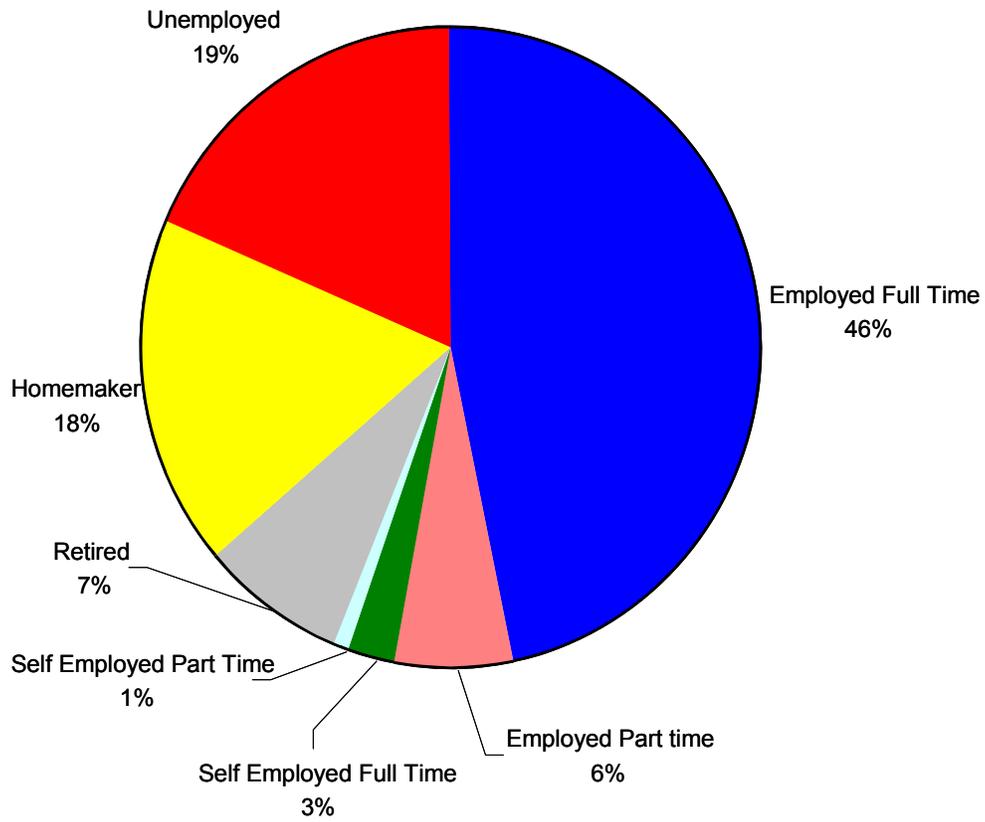


Figure 12. Distribution of Persons by Employment/Non-Employment Status.

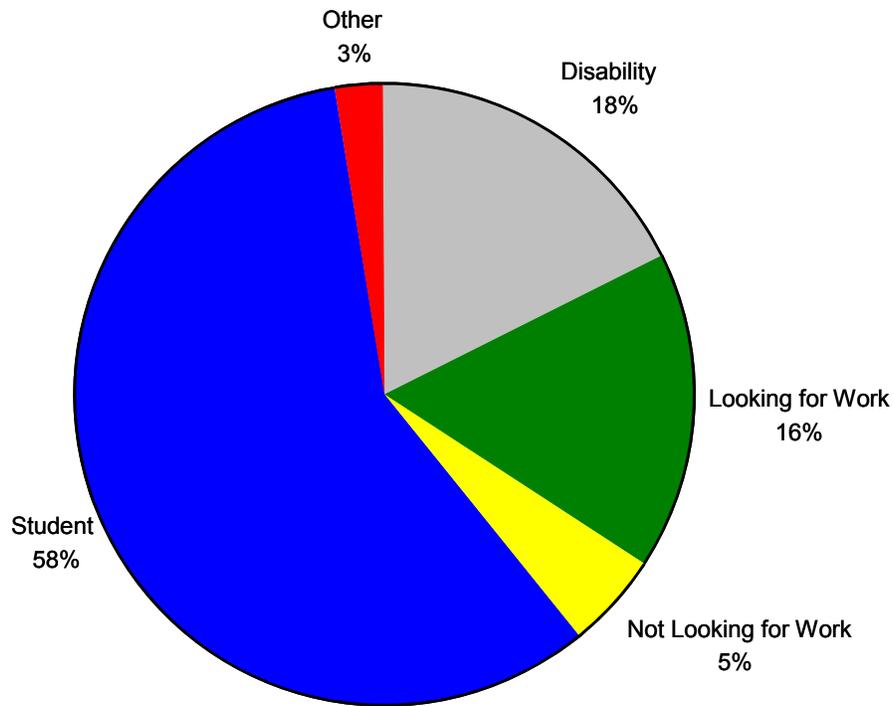


Figure 13. Distribution of Unemployed Persons by Status.

The data in Table 7 indicates that the total employment in Webb County is 69,235. The total employment estimated using the average number of employed persons per household was 70,142. The difference in these two estimates is 1.3 percent. The lower employment estimate from the person data is probably due to the number of persons that fell into the unknown category and refused to answer the question. The data from the survey also estimates the number of persons that are self employed (both full and part time) at just over 4,000. This represents nearly 6 percent of the persons employed.

Table 8 presents the results of the survey for persons employed by the type of work place. This data presents a snapshot of where individuals are working in the region within the general categories used in the survey. Combining the data in Table 8 into the typical categories of basic, retail, and service employment, the data may be compared to that reported for Webb County in the 2000 census. Figure 14 shows this comparison.

Table 8. Employed Persons by Type of Work Place.

Type of Work Place	Persons	Percent
Office	13,918	20.10
Retail	8,422	12.16
Industrial / Manufacturing	4,768	6.88
Medical	3,451	4.98
Education – Day Care/K to 12	8,270	11.94
Education – College, Trade, Other	1,830	2.64
Government	4,066	5.87
Residential Type Work Place	1,638	2.37
Other	19,257	27.81
Refused / Unknown	3,637	5.25
Totals	69,257	100.00

Persons were also asked to report the number of days during the previous seven they worked at home instead of their normal work location. The response to this question was low with only 8 percent of the responders indicating that they worked at home any time. Figure 15 presents the distribution for those persons that reported working at home some time during the previous seven days.

Of the persons surveyed, a surprising 33 percent reported they were a student. When expanded, this resulted in an estimated 70,000 students of all types in Webb County. The distribution of these students by type of school is shown in Figure 16. The majority of students (79 percent) were attending kindergarten through 12th grade. There were 15 percent who reported they were attending a college or other secondary school.

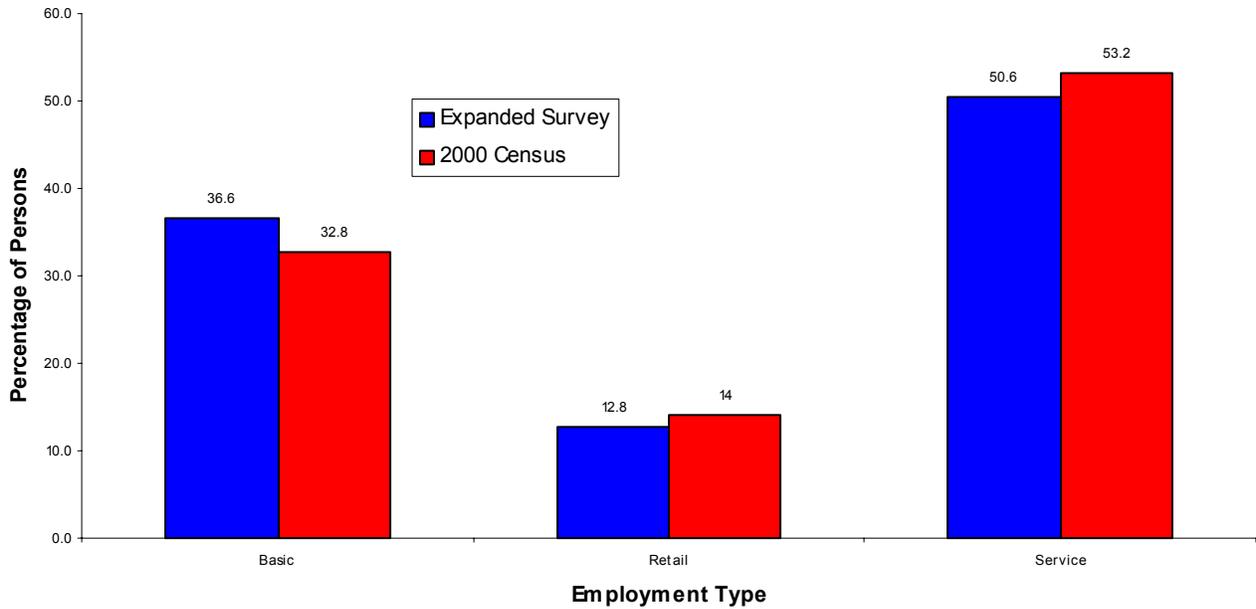


Figure 14. Distribution of Employed Persons by Type of Work Place.

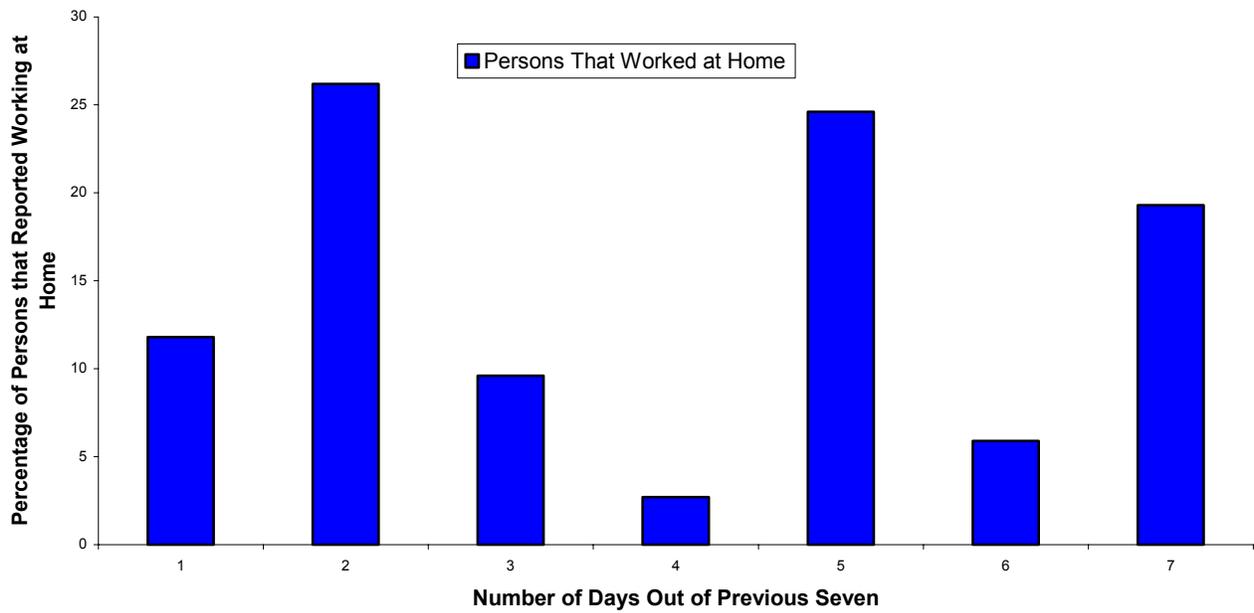


Figure 15. Distribution of Persons that Worked at Home During Previous Seven Days.

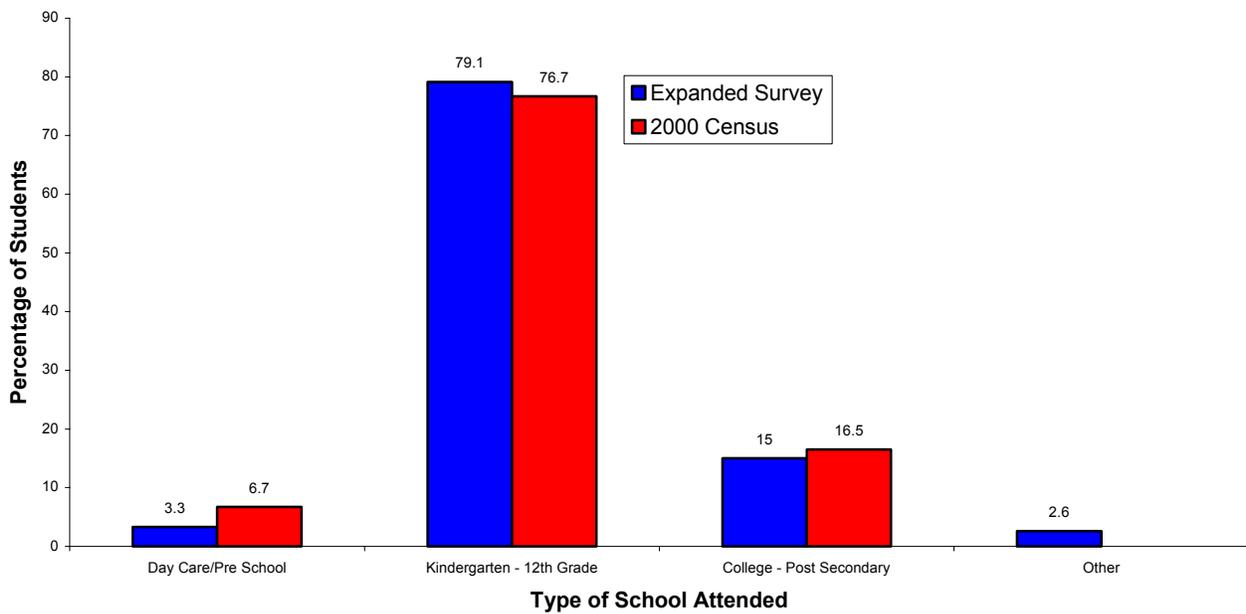


Figure 16. Distribution of Students by Type of School Attended.

The data in Figure 16 shows a comparison with the 200 Census. The census did not have an “Other” category that was included in the survey. It is believed that if the other category were included in the day care and pre-school category, the difference between the survey and the census would be insignificant. The survey data and the census data agree reasonably well.

Just over 7 percent of persons that were working reported they had a second job. This equated to an estimated nearly 5,000 persons with more than one job. About 40 percent of employed persons reported they had a work schedule that allowed them to work flexible hours. When asked about the average number of hours worked per week, the majority of respondents (63 percent) reported working 40 to less than 50 hours per week. Only 9 percent reported working 50 or more hours per week. Over 15 percent reported working less than 40 hours per week. This is comparable to the distribution of persons by the number of days worked per week shown in Figure 17. For those persons with more than one job, about 20 percent reported working 20 hours or less per week at their other job and over 70 percent reported working more than 25 hours a week at their second job.

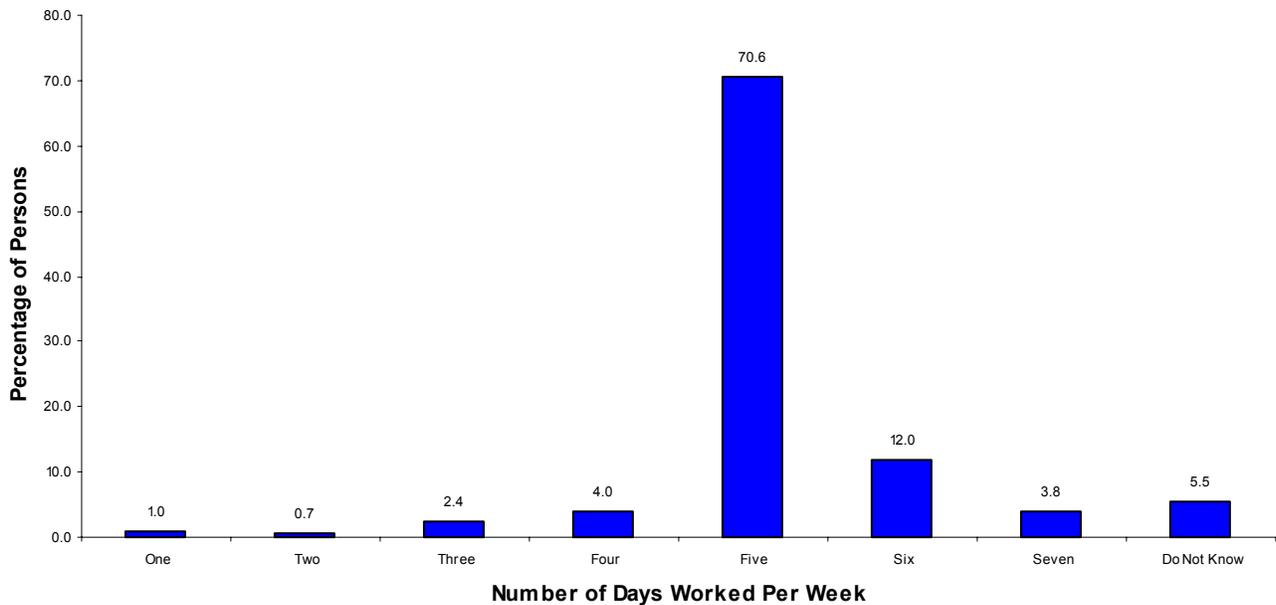


Figure 17. Distribution of Persons by Number of Days Worked Per Week.

To assess the quality of data collected in the survey, the vendor was asked to record the number of individuals that were actually interviewed to obtain their travel and activity data as well as the number of individuals that used the diary during their travel day. The vendor reported that the data for individuals was obtained from a proxy 54 percent of the time and from personal interviews 41 percent of the time. It should be understood that these numbers include situations where adults provided the data for younger members of the household and would be considered as a proxy for those members. It was also reported that only 25 percent of the persons in the survey used the diary and 70 percent did not use the diary. The remaining 5 percent refused to answer the question.

Vehicle Characteristics

The 1,970 households surveyed in Laredo and Webb County had a total of 3,244 vehicles. After removing those households considered questionable, the 1,838 remaining households had 3,159 vehicles. The average number of vehicles per household for the sample was 1.67 and 1.78 for the expanded survey. The average number of vehicles per household reported in the 2000 Census was 1.62. As noted previously, the surveyed households under represented households with no vehicles and over represented households with three or more vehicles. The data collected on vehicle characteristics included information on the year, vehicle type, make, fuel type, and odometer readings.

Figure 18 shows the distribution of vehicles by age. The average age of vehicles found in the survey was 8.5 years. The median age was 7.1 years. Odometer readings were reported for nearly 70 percent of the vehicles. Figure 19 shows the average odometer reading by age of vehicle. The overall average odometer reading was 81,798. Of the 3,159 vehicles, 7 percent were reported being used for commercial purposes. When asked about the type of fuel used in the vehicles, 90 percent responded they used gasoline and 10 percent responded they used diesel. Figure 20 presents the distribution of vehicles by type of vehicle found in the survey. About half of the vehicles were automobiles, 15 percent were sport utility, and 23 percent were pickup trucks.

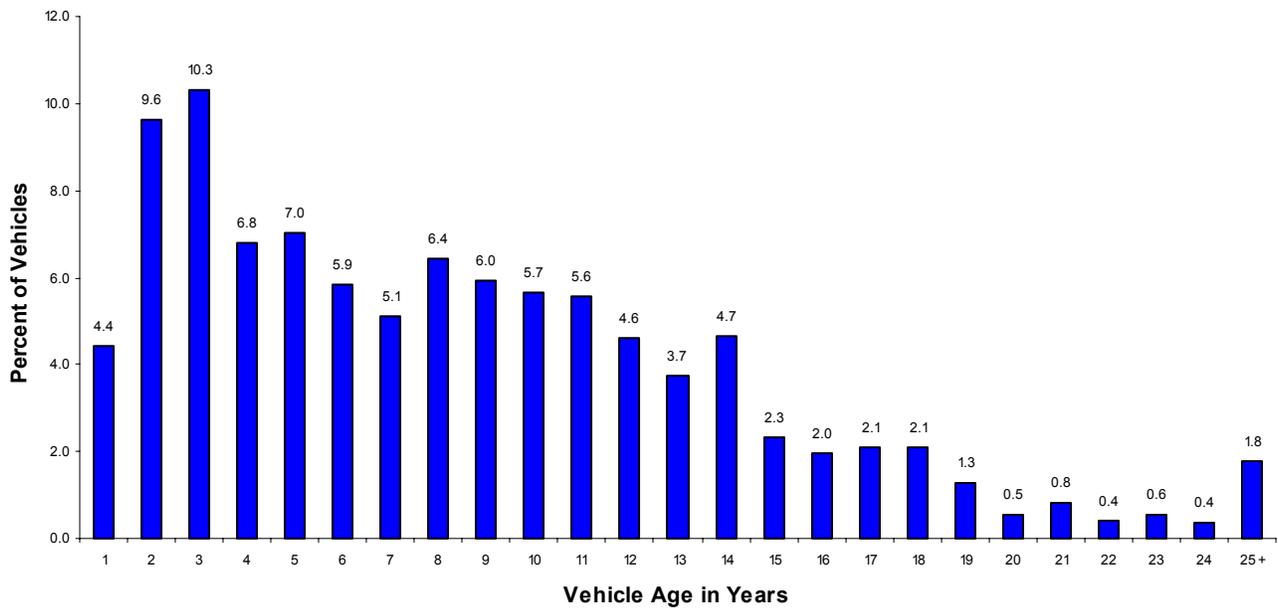


Figure 18. Distribution of Vehicles by Age of Vehicle in Years.

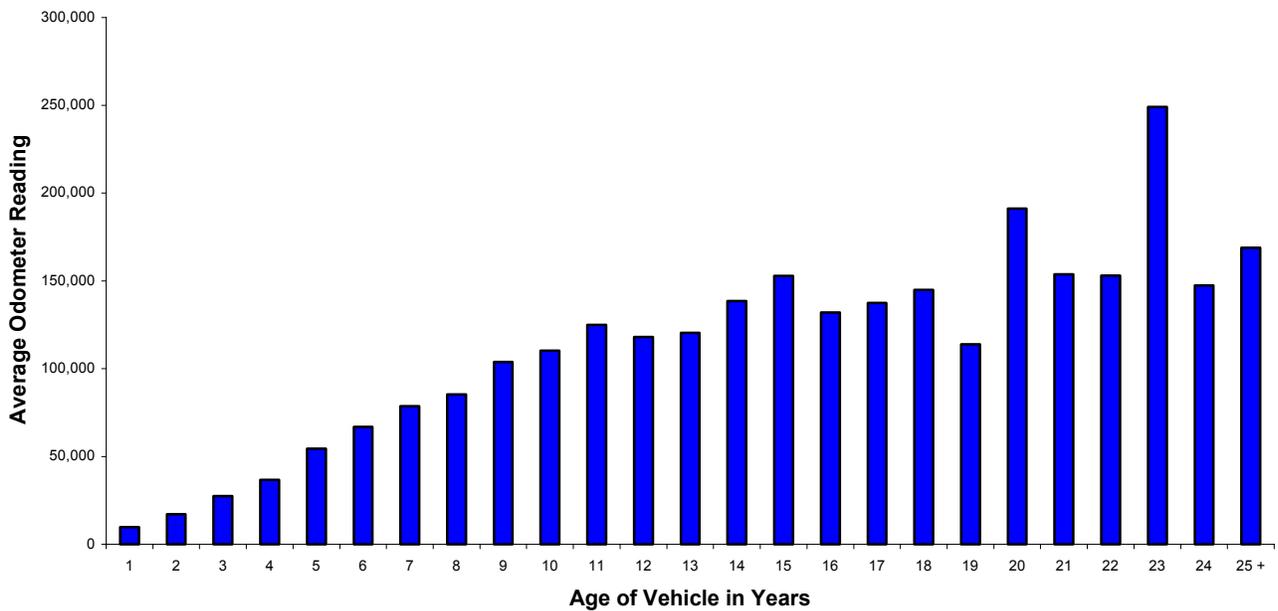


Figure 19. Average Odometer Readings for Vehicles by Age.

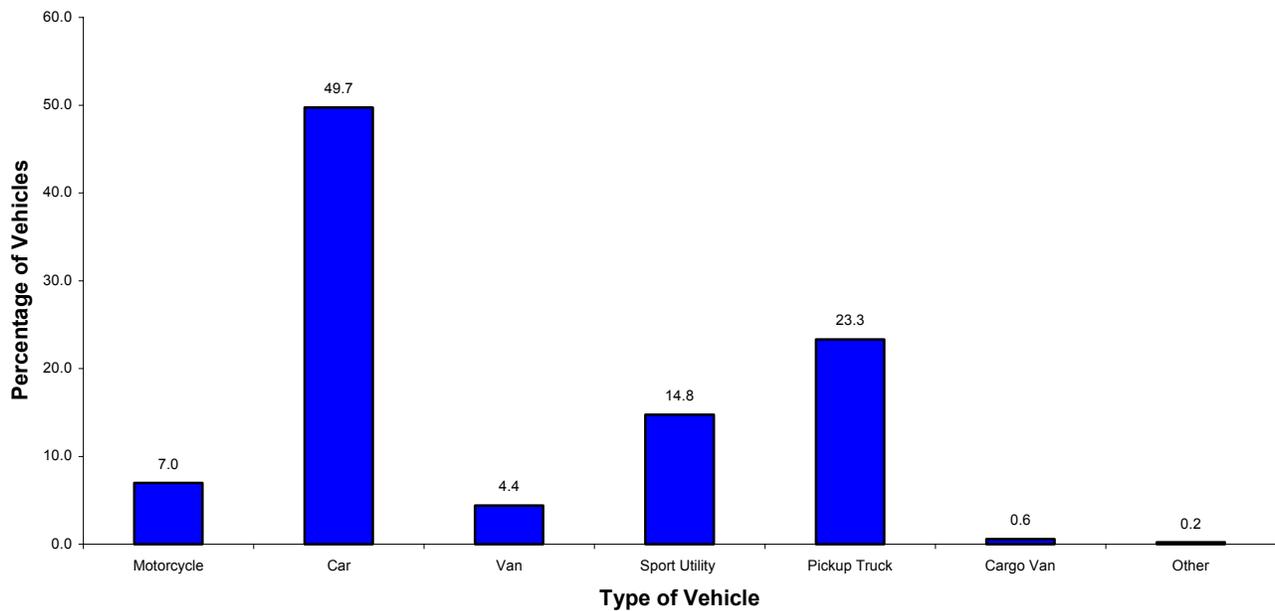


Figure 20. Distribution of Vehicles by Type of Vehicle.

Travel and Activity Characteristics

One of the primary purposes for conducting a household survey is to gather information on the travel and activity characteristics of the population in the area. This information with the data on households, persons, and vehicles is used to develop travel demand models for use in transportation planning in the region. It also provides for a basic understanding of how people are traveling, why they travel, and the types of activities pursued. Table 9 presents the categories of activities and trip purposes that were collected in the survey. It is structured to show the categories of activities that are included in each purpose.

For travel demand modeling, travel is aggregated into three trip purposes; HBW, HBNW, and NHB. HBW trips are those with one end of the trip at home and one end of the trip at work (work and work related are combined and reported as work). HBNW trips are those with one end at home and the other is any purpose but work or work related. NHB trips are those with neither end of the trip at home. These are the trip purposes used in this report. It is noted that more detailed trip purposes may be used in both analysis and travel demand modeling. This is a local decision.

Table 9. Categories of Travel Activities and Purposes in Household Survey.

Activity	Trip Purpose
At home; primary job related	Home
At home; other	
At home; job and non-job related	
Work	Work
Work related	Work related
School; secondary-day care, kindergarten, elementary, middle, high	School; kindergarten thru 12 th grade
School; post secondary, college, trade	School; post secondary
Incidental shopping; gas groceries, etc.	Shopping
Major shopping; clothes, appliances, etc.	
Eat out	
Banking	Personal
Personal business; laundry, dry cleaning, barber, medical, etc.	
Other services	
Civic activities (including church)	
Social / recreation	Social / recreation
Pick-up / drop-off person at work	Pick-up / drop-off person
Pick-up / drop-off person at school / day care	
Pick-up / drop-off person at other	
Change mode of travel	Change mode of travel
Other; all activities not included above	Other

The analysis of the survey data is presented in terms of “trips,” unless otherwise stated. There are two types of trips reported; person trips and auto driver trips. Person trips are those trips made by individuals in the household regardless of mode. For example, a person may walk from home to the store or another may ride to the store in a vehicle with two other persons. The walk trip to the store would be one-person trip while the vehicle trip to the store would be three person

trips (i.e., three individuals made the same trip). An auto driver trip is a trip made by an individual driving a vehicle. For example, the trip made by the vehicle with three persons to the store would be recorded as one auto driver trip. Person trips then include all modes while auto driver trips involve only personal vehicles. By definition, the number of person trips will always be greater than or equal to the number of auto driver trips.

Another clarification that needs to be made is the difference between trip productions and trip attractions. Each trip made consists of one production and one attraction. A home-based trip is produced at the home. The same trip is reported as an attraction at the destination location. A trip that begins at home and ends at the store is reported as a home-based trip production at the home end and a home-based attraction at the destination end. The trip that returns to the home is reported as a home-based production at the home end and a home-based attraction at the store end of the trip. Trips that are NHB (neither end is at home) are reported as productions at the origin of the trip and attractions at the destination end of the trip.

The survey trips were linked using the same procedure previously used in travel surveys in Texas. Linking is the process by which certain intermediate stops between home and work (both directions) are removed. These stops are removed because it is recognized that the true purpose for these trips is to go to work or return from work to home. Only stops that involve serving a passenger or changing mode of travel are removed. The net effect of linking is to increase the number of HBW trips and reduce the number of HBNW and NHB trips. For example, an individual may have reported traveling from home and stopping to drop a child off at a day care and then traveling to work. Before linking this would have been identified as one HBNW trip (from home to the day care) and one NHB trip (from the day care to work). These two trips would be linked to create a single HBW trip. The number of observed trips that were linked out (i.e., removed) was 320. This represented only 2.25 percent of the total observed trips in the survey.

Trips by Mode

The number of households surveyed in Laredo was 1,838. This number represents the households that could be expanded based on the sampling plan discussed previously. A household had to report both the size of the household and the annual income of the household to be expanded and used in this analysis. Table 10 presents the results of the household survey in

terms of survey observations (non-expanded observations from the survey) and expanded trips by mode of travel for HBW, HBNW, NHB, and all trip purposes. It should be noted the expanded results does not always total across the row due to round off error.

Table 10. Observed and Expanded Trips by Mode and Purpose.

Mode	All Purposes		HBW-All		HBNW-All		NHB-All	
	Observed	Expanded	Observed	Expanded	Observed	Expanded	Observed	Expanded
All-Person Trips	13,927	454,157	3,395	101,993	7,899	267,812	2,633	84,343
Auto-Driver	8,316	255,040	2,899	87,149	3,674	115,228	1,743	52,659
Auto-Passenger	3,676	132,534	345	10,651	2,670	97,226	661	24,657
Public Transportation	205	6,424	42	1,085	98	3,513	65	1,825
Walk	1,104	37,346	69	1,897	940	32,231	95	3,218
Bicycle	27	739	3	92	20	524	4	123
School Bus	498	18,220	1	19	451	16,856	46	1,345
Taxi	11	714	0	0	11	714	0	0
Commercial Vehicle	39	1,251	21	587	9	451	9	213
Other	20	710	3	132	13	438	4	140
Unknown	31	1,173	12	380	13	630	6	163

Trip Productions

Figure 21 presents the distribution of expanded trip productions by purpose. The distribution reflected in Figure 21 is not typical with that observed in other travel surveys. The percentage of trip productions that are HBW is much higher for both person and auto driver trips and the percentage of NHB trips is much lower than what has been observed in other areas. It is not known why Laredo would be different from other areas. The published data from the 1964 Laredo Origin-Destination survey was reviewed and some statistics computed for comparison to the 2002 survey results. The 2002 results had to be modified since the 1964 survey only included walk and bicycle trips that were home based work. Bicycle and walk trips for other purposes

were not surveyed or reported in 1964. Table 11 presents the number of HBW, HBNW, and NHB trips reported in 1964 with the estimates (for comparable trips) from the 2002 survey.

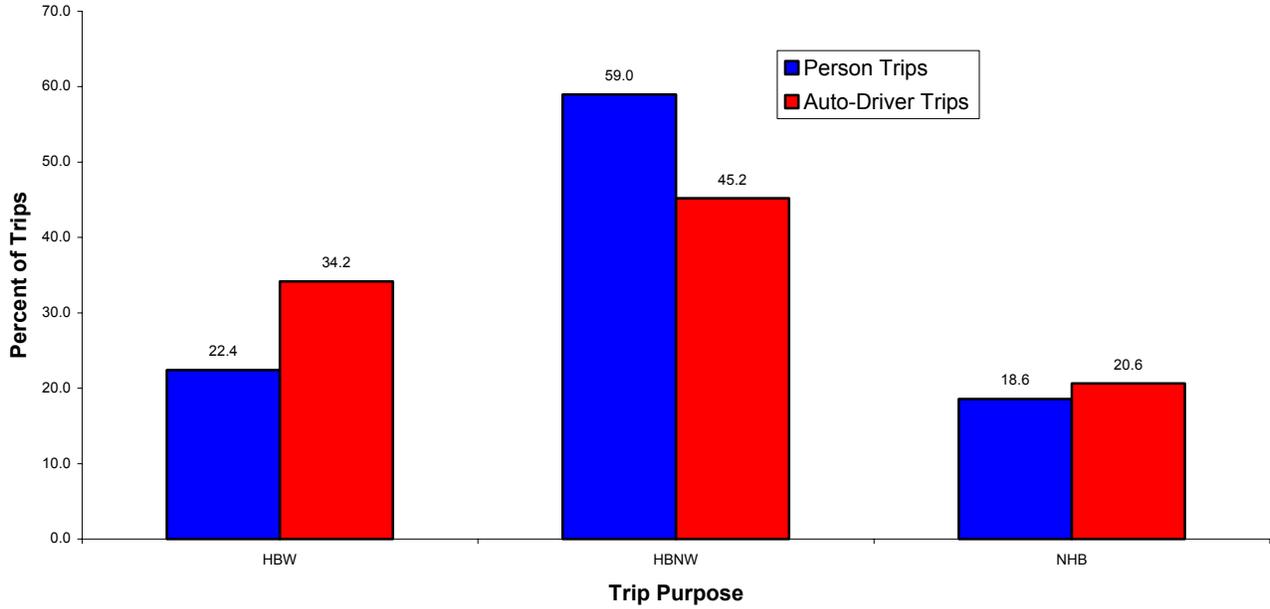


Figure 21. Distribution of Trip Productions by Trip Purpose.

Table 11. Trips by Trip Purpose from 1964 and 2002 Household Surveys.

Trip Purpose	Type of Trip	1964 Origin-Destination Survey		2002 Household Survey	
		Number of Trips	Percent	Number of Trips	Percent
HBW	Person	21,137	15.1	101,993	22.4
	Auto Driver	14,098	18.7	87,149	34.2
HBNW	Person	77,351	55.4	267,812	59.0
	Auto Driver	35,302	46.7	115,228	45.2
NHB	Person	41,090	29.4	84,343	18.6
	Auto Driver	26,115	34.6	52,659	20.6

The data presented in Table 11 is significant in terms of the changes in the percentage of trips by trip purpose. In other areas, it has been noted that the percentage of trips that are HBW have generally been declining over time with the percentage of trips that are NHB increasing over time. The increase in NHB trips (as a percentage of the total) has been largely attributed to increasing numbers of trips being chained (i.e., stops occurring between home and work). It is surprising that the percentage of HBW trips has increased and the percentage of NHB trips have declined between 1964 and 2002. The average number of person trips per capita in 1964 was 2.17 while this value in 2002 was 2.16. The respective values for auto driver trips per capita were 1.17 in 1964 and 1.32 in 2002. It should be noted that the data for 2002 was linked trips whereas the data for 1964 was not linked trips. Trip linking resulted in a slight decrease in total number of trips (less than 3 percent).

Trip Attractions

Trip attractions are reported in terms of the type of land use activity. There were 11 types of land use activity recorded in the survey. These were office building, retail establishment, industrial/manufacturing site, medical, educational – 12th grade or less, educational – college, trade, etc., government offices, residential, other, airport, and unknown. These do not necessarily correspond to the activity that was reported for the trip (i.e., see Table 9). Figures 22 through 29 present the distribution of trip attractions by land use activity for HBW, HBNW, NHB, and all purposes combined. The three major types of activities that attracted home based work trips were office, retail, and educational. The unknown activity category represents the third largest attractor in Laredo. This category is comprised of land use activities that do not fall clearly into one of the other types of activities. The largest attractor of HBNW trips was education-12th grade or less. The second largest attractor was retail. NHB trips were also attracted largely to retail and education types of activities. The activities that attracted the most trips were retail and education-12th grade or less.

Person Trips

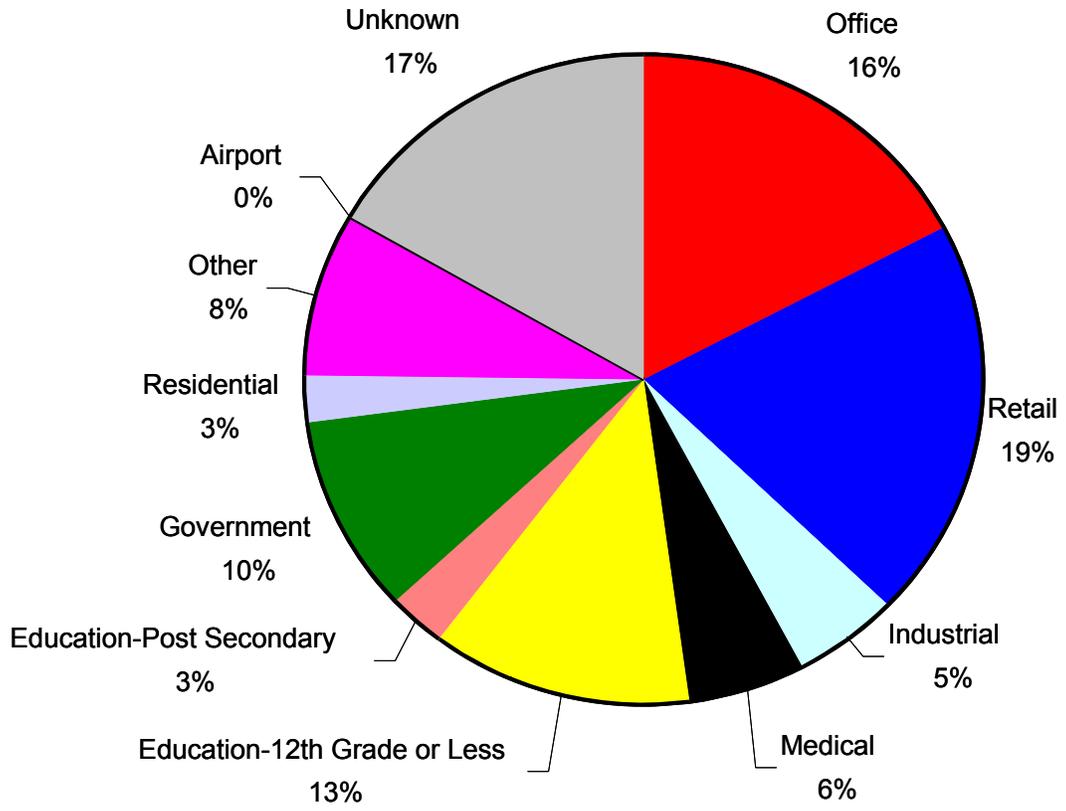


Figure 22. Distribution of HBW Person Attractions by Activity Type.

Auto Driver

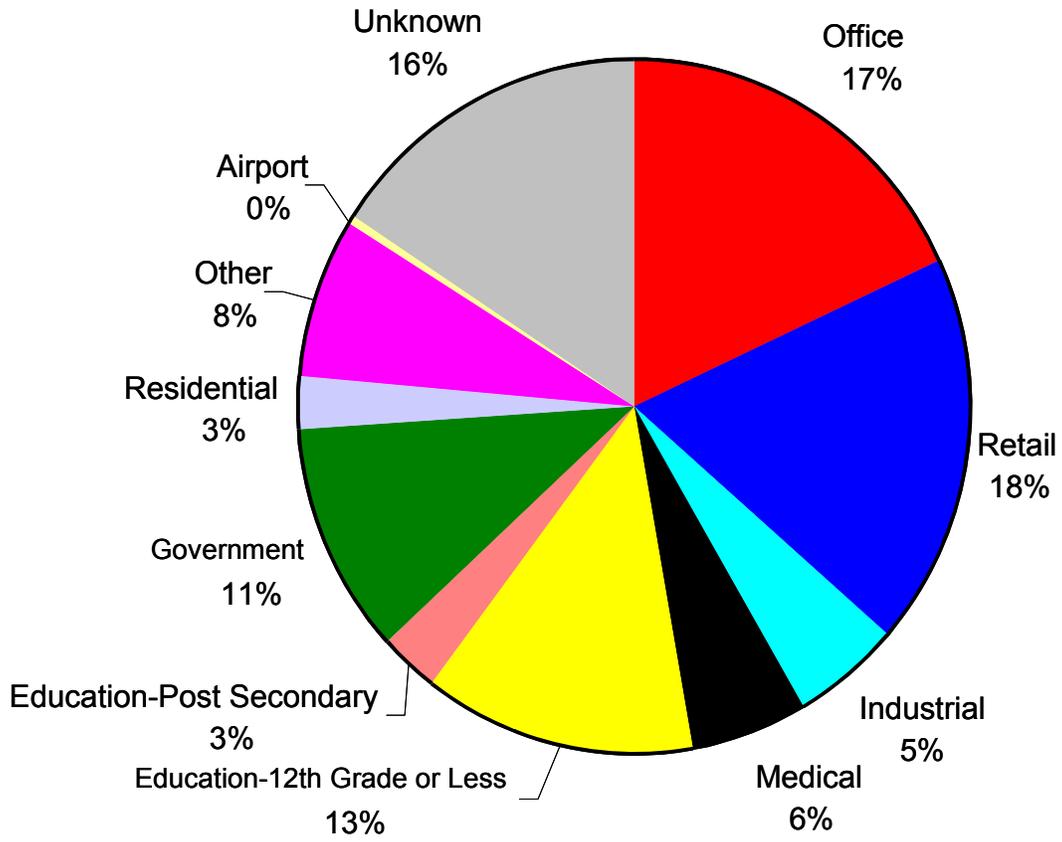


Figure 23. Distribution of HBW Auto Driver Attractions by Activity Type.

Person

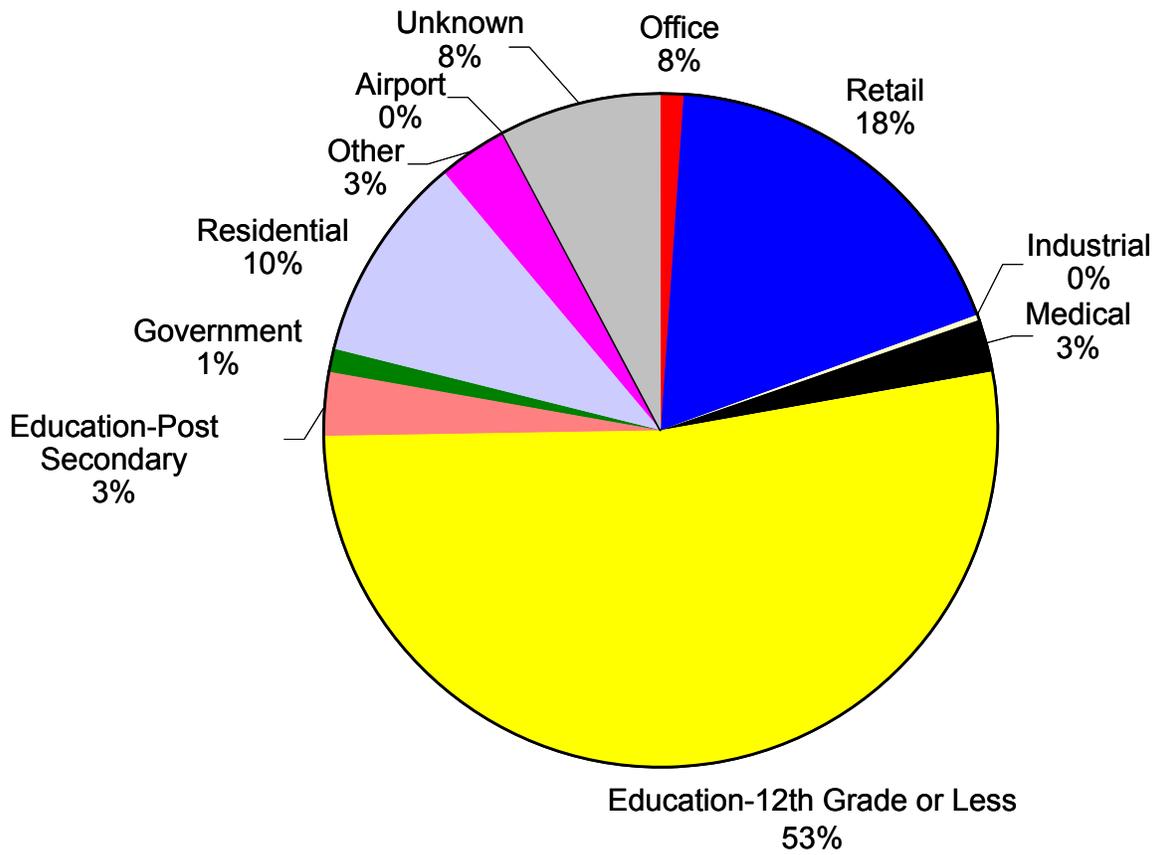


Figure 24. Distribution of HBNW Person Attractions by Activity Type.

Auto Driver

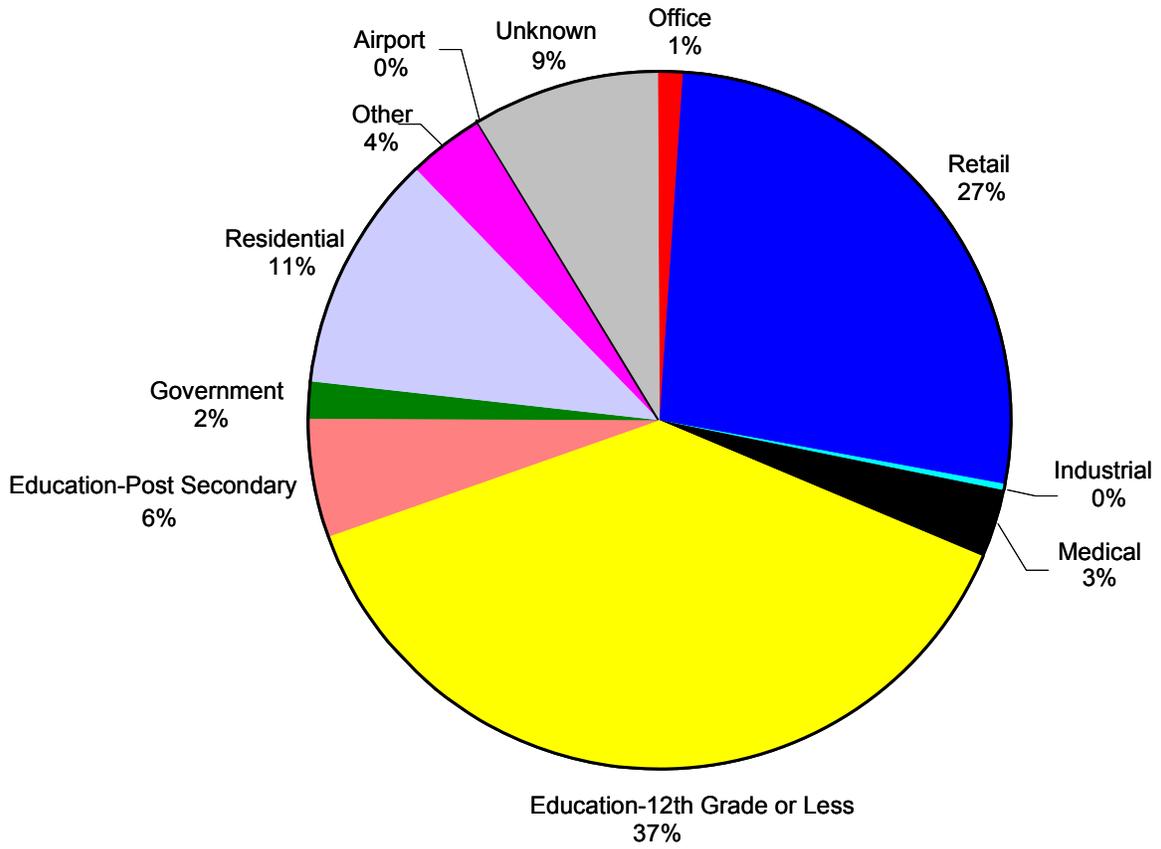


Figure 25. Distribution of HBNW Auto Driver Attractions by Activity Type.

Person

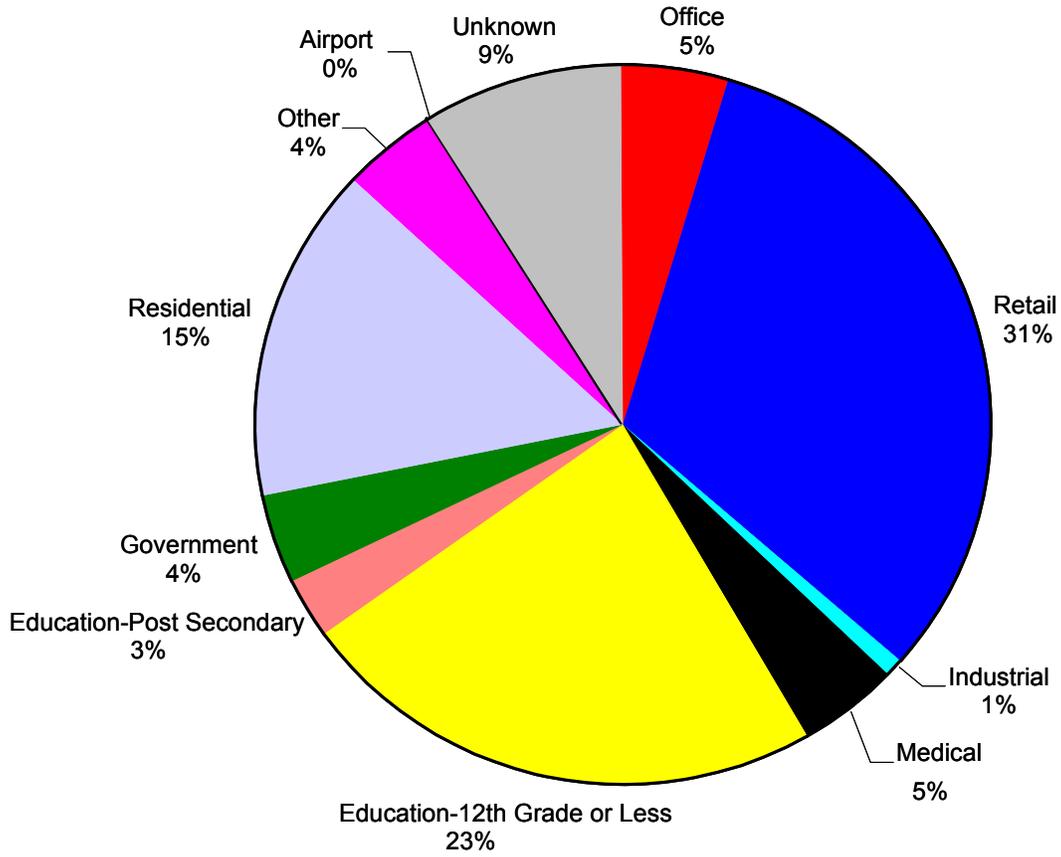


Figure 26. Distribution of NHB Person Attractions by Activity Type.

Auto Driver

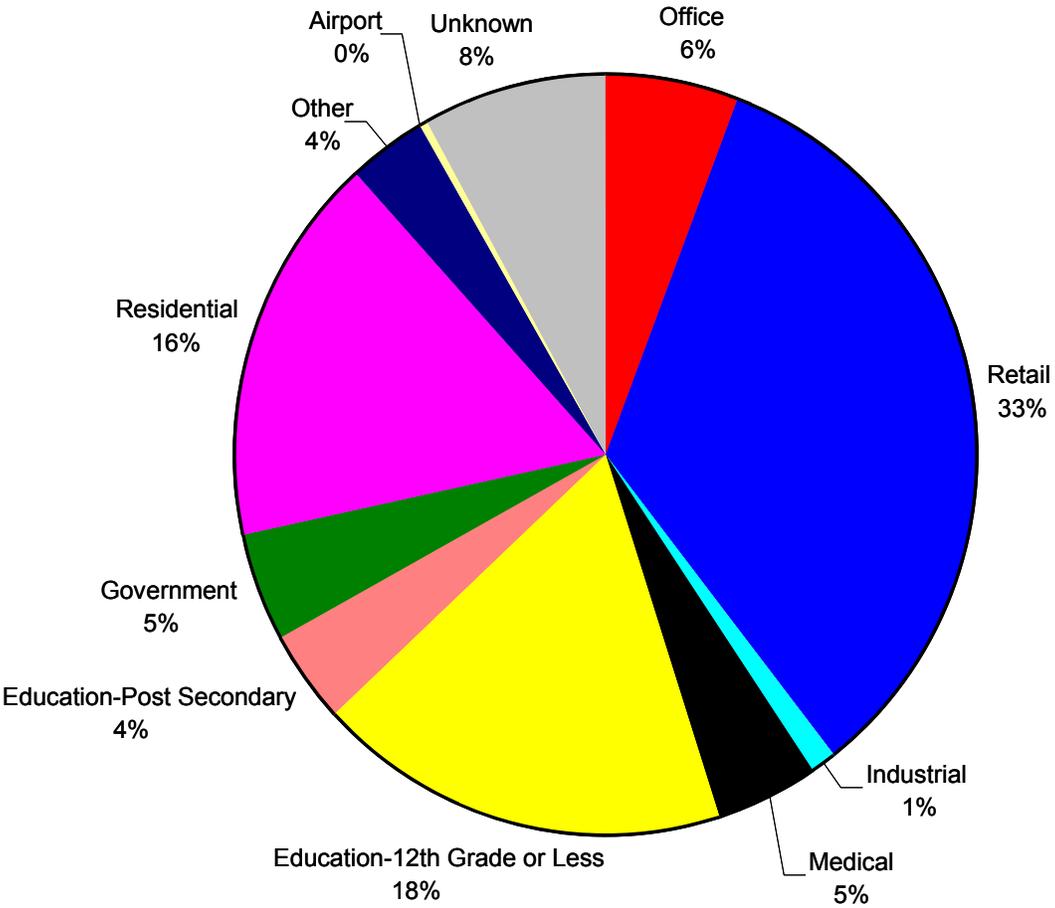


Figure 27. Distribution of NHB Auto Driver Attractions by Activity Type.

Person

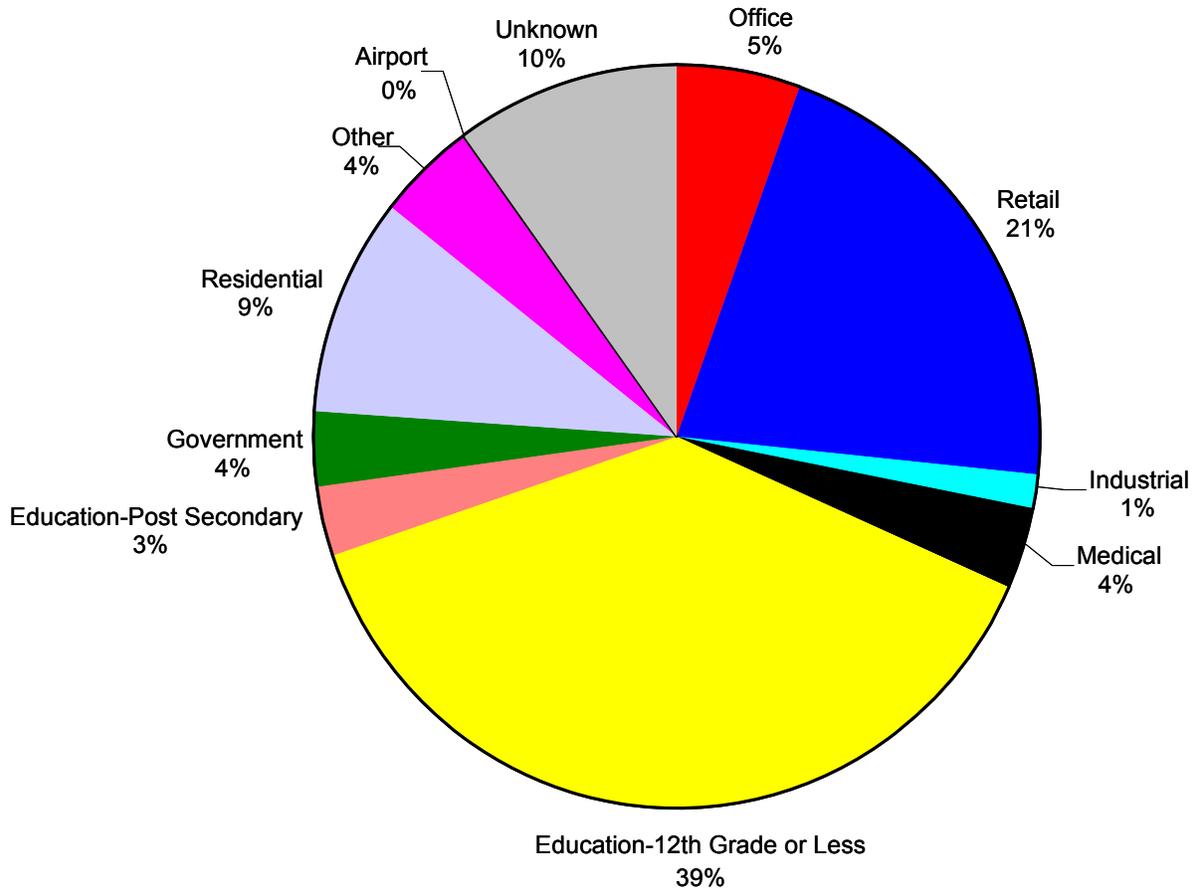


Figure 28. Distribution of All Person Attractions by Activity Type.

Auto Driver

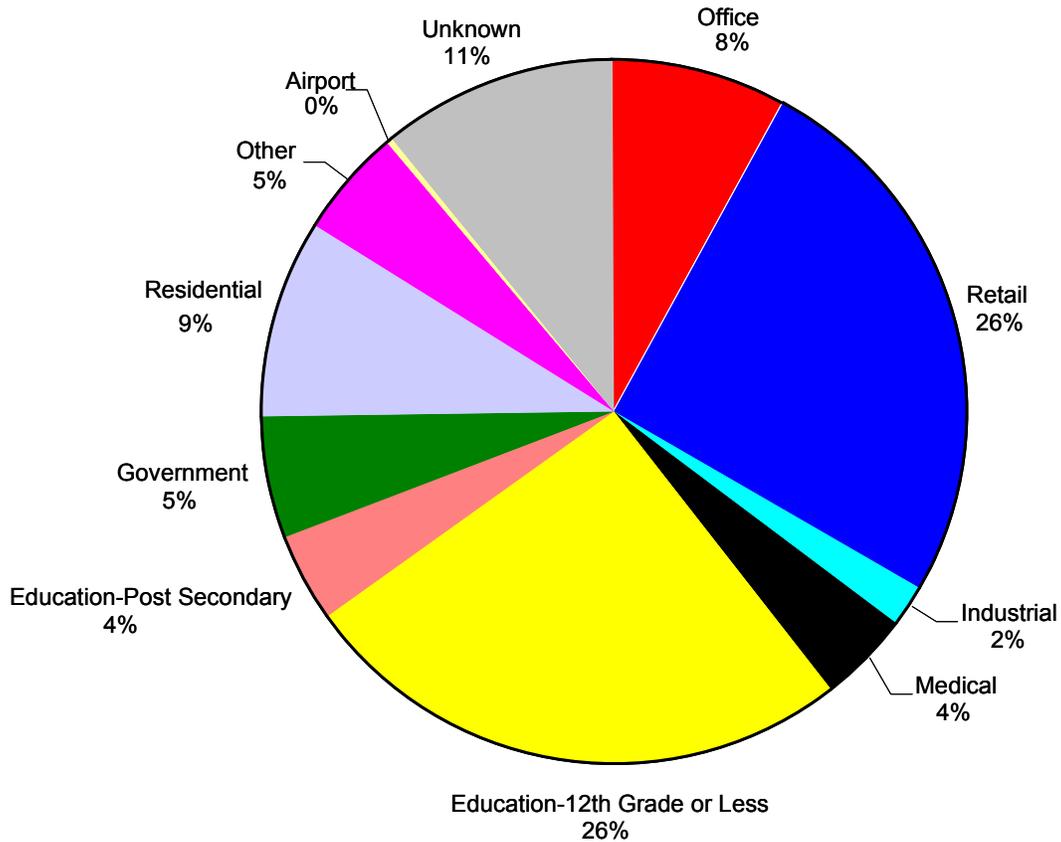


Figure 29. Distribution of All Auto Driver Attractions by Activity Type.

Trip Rates

Household surveys are the primary data source for information used in travel demand models. This information generally consists of the number of trips per household by trip purpose. These trip rates (i.e., trips per household) are typically stratified by several categories of household size and household income. For the purpose of this report, the trip rates are stratified by five categories of household size and household income. It should be understood that the data presented in this report may or may not be what is finally recommended for use in the travel demand models. The reason these values may change is the additional analysis that will be performed to evaluate the GPS data that was collected and as a result, the final trip rates may be significantly different from those presented in this report.

Table 12 present the expanded person and auto driver trip rates by trip purpose. The average person trips per household (weighted) were 8.97 while the average auto driver trips per household were 5.04.

Table 12. Expanded 2002 Survey Trip Rates by Trip Purpose for Laredo.

Home-Based Work

Household Income Range (2002 \$)	Person Trips Per Household					Auto Driver Trips Per Household				
	Household Size					Household Size				
	1	2	3	4	5 +	1	2	3	4	5 +
\$0 - \$9,999	0.13	1.00	1.32	1.12	1.51	0.13	0.73	1.00	0.88	1.03
\$ 10,000 - \$ 19,999	0.90	1.47	1.68	1.39	1.98	0.64	1.14	1.21	1.14	1.47
\$ 20,000 - \$ 34,999	1.10	1.79	2.20	2.23	2.67	1.00	1.48	1.89	1.83	2.12
\$ 35,000 - \$ 49,999	1.20	2.07	2.52	2.48	2.31	1.15	1.98	2.22	2.13	2.00
\$ 50,000 Plus	1.24	1.86	2.72	2.41	3.52	1.24	1.77	2.55	2.23	3.28

Home-Based Non-Work

Household Income Range (2002 \$)	Person Trips Per Household					Auto Driver Trips Per Household				
	Household Size					Household Size				
	1	2	3	4	5 +	1	2	3	4	5 +
\$0 - \$9,999	1.20	2.10	3.98	6.15	8.40	0.49	0.96	1.08	1.49	1.86
\$ 10,000 - \$ 19,999	0.88	2.11	3.38	6.54	9.52	0.57	1.09	1.33	2.86	3.11
\$ 20,000 - \$ 34,999	1.20	2.23	3.20	6.73	7.85	1.03	1.66	1.66	3.08	2.98
\$ 35,000 - \$ 49,999	1.20	1.92	4.26	5.62	8.81	0.95	1.51	2.83	2.58	2.81
\$ 50,000 Plus	1.28	2.40	3.45	6.83	9.49	0.85	2.02	2.18	3.61	4.06

Non-Home Based

Household Income Range (2002 \$)	Person Trips Per Household					Auto Driver Trips Per Household				
	Household Size					Household Size				
	1	2	3	4	5+	1	2	3	4	5+
\$0 - \$9,999	0.33	0.51	0.50	2.30	2.16	0.13	0.22	0.16	1.55	1.16
\$ 10,000 - \$ 19,999	0.24	0.72	0.81	1.68	2.45	0.22	0.42	0.44	0.95	1.09
\$ 20,000 - \$ 34,999	0.60	0.91	1.19	1.28	1.93	0.57	0.72	0.82	0.83	1.02
\$ 35,000 - \$ 49,999	0.62	1.06	1.57	2.10	1.84	0.62	0.89	1.30	1.38	0.88
\$ 50,000 Plus	1.48	1.51	2.24	3.04	3.12	1.31	1.42	1.82	1.95	1.82

All Purposes

Household Income Range (2002 \$)	Person Trips Per Household					Auto Driver Trips Per Household				
	Household Size					Household Size				
	1	2	3	4	5+	1	2	3	4	5+
\$0 - \$9,999	1.66	3.61	5.80	9.57	12.07	0.75	1.91	2.24	3.92	4.05
\$ 10,000 - \$ 19,999	2.02	4.30	5.87	9.61	13.95	1.43	2.65	2.98	4.95	5.67
\$ 20,000 - \$ 34,999	2.90	4.93	6.59	10.24	12.45	2.60	3.86	4.37	5.74	6.12
\$ 35,000 - \$ 49,999	3.02	5.05	8.35	10.20	12.96	2.72	4.38	6.35	6.09	5.69
\$ 50,000 Plus	4.00	5.77	8.41	12.28	16.13	3.40	5.21	6.55	7.79	9.16

Trip rates may also be expressed in terms of trips per person stratified by age cohort. Tables 13 and 14 present the person and auto driver trip totals and trips per person for persons grouped by age cohorts. The data in these tables appear consistent with other urban areas with the exception of the trips per person. These appear to be significantly lower than what has been observed in other urban areas.

Vehicle Occupancy

An important measure of vehicular travel is that dealing with vehicle occupancy. Vehicle occupancy is the number of persons in a vehicle (including the driver) during a trip. This is typically measured by trip purpose because it varies significantly by trip purpose. The average vehicle occupancy for all trip purposes was 1.56. The average for HBW trips was 1.12, 1.86 for HBNW trips, and 1.65 for NHB trips. These values are typical of what has been observed in other urban areas. The lowest average vehicle occupancy is normally observed for HBW trips and the highest is for HBNW trips. When individual trip purposes are used, the values vary significantly depending on the purpose of travel.

Table 13. Person Trips by Age Cohorts.

Age Cohort	Home-Based Work		Home-Based Non-Work		Non-Home Based		All Purposes	
	Total	Per Person	Total	Per Person	Total	Per Person	Total	Per Person
5-15	171	0.004	100,232	2.123	16,596	0.352	116,999	2.479
16-19	3,805	0.270	25,712	1.826	5,664	0.402	35,181	2.498
20-24	11,350	0.886	12,566	0.981	4,858	0.379	28,774	2.246
25-29	11,955	0.961	14,404	1.158	4,995	0.402	31,354	2.521
30-34	15,277	1.080	21,145	1.495	9,472	0.670	45,894	3.245
35-39	13,227	0.934	23,681	1.673	11,857	0.838	48,765	3.445
40-44	15,683	1.044	23,687	1.577	10,847	0.722	50,217	3.344
45-49	12,194	1.107	14,400	1.307	6,901	0.626	33,495	3.040
50-54	8,640	1.055	8,608	1.051	4,470	0.546	21,718	2.653
55-59	4,069	0.747	5,273	0.967	3,463	0.635	12,805	2.349
60-64	2,081	0.454	5,420	1.181	1,818	0.396	9,319	2.031
65-69	2,045	0.520	4,542	1.154	1,364	0.347	7,951	2.020
70-74	522	0.196	3,121	1.173	901	0.339	4,544	1.707
75-79	421	0.161	2,066	0.791	577	0.221	3,064	1.173
80 +	116	0.055	1,437	0.687	353	0.169	1,906	0.912

Table 14. Auto-Driver Trips by Age Cohorts.

Age Cohort	Home-Based Work		Home-Based Non-Work		Non-Home Based		All Purposes	
	Total	Per Person	Total	Per Person	Total	Per Person	Total	Per Person
5-15	127	0.003	1,910	0.040	370	0.008	2,407	0.051
16-19	2,503	0.178	8,471	0.602	2,201	0.156	13,175	0.936
20-24	9,390	0.733	7,501	0.585	3,315	0.259	20,206	1.577
25-29	10,309	0.829	9,641	0.775	3,743	0.301	23,693	1.905
30-34	13,679	0.967	16,569	1.172	8,129	0.575	38,377	2.714
35-39	11,498	0.812	19,750	1.395	9,938	0.702	41,186	2.910
40-44	14,044	0.935	20,031	1.334	9,435	0.628	43,510	2.897
45-49	10,325	0.937	11,404	1.035	5,698	0.517	27,427	2.489
50-54	7,391	0.903	6,244	0.763	3,484	0.426	17,119	2.091
55-59	3,311	0.608	3,923	0.720	3,024	0.555	10,258	1.882
60-64	1,863	0.406	2,870	0.625	1,212	0.264	5,945	1.295
65-69	1,639	0.416	2,822	0.717	855	0.217	5,316	1.351
70-74	392	0.147	2,021	0.760	649	0.244	3,062	1.151
75-79	219	0.084	1,111	0.425	381	0.146	1,711	0.655
80 +	23	0.011	529	0.253	98	0.047	650	0.311

Travel by Time of Day

Travel within urban areas typically follows a trend where a large number of trips are observed during the morning (i.e., the morning peak) and during the afternoon (i.e., evening peak). Figure 30 presents the distribution of trips by trip purpose and the time the trip began. The patterns of travel by time of day shown in Figure 30 are typical for most urban areas. All trips have a distinct peak in the morning around 8 a.m. while the afternoon peaks are more spread with the peak for HBW trips occurring around 6 p.m. and the peak for the other trips occurring around 4 p.m. The peaks for the non-work trips are probably associated with schools. With the exception of work trips, a minor peak also occurs around 1 p.m. It is probably related to the noon hour activities.

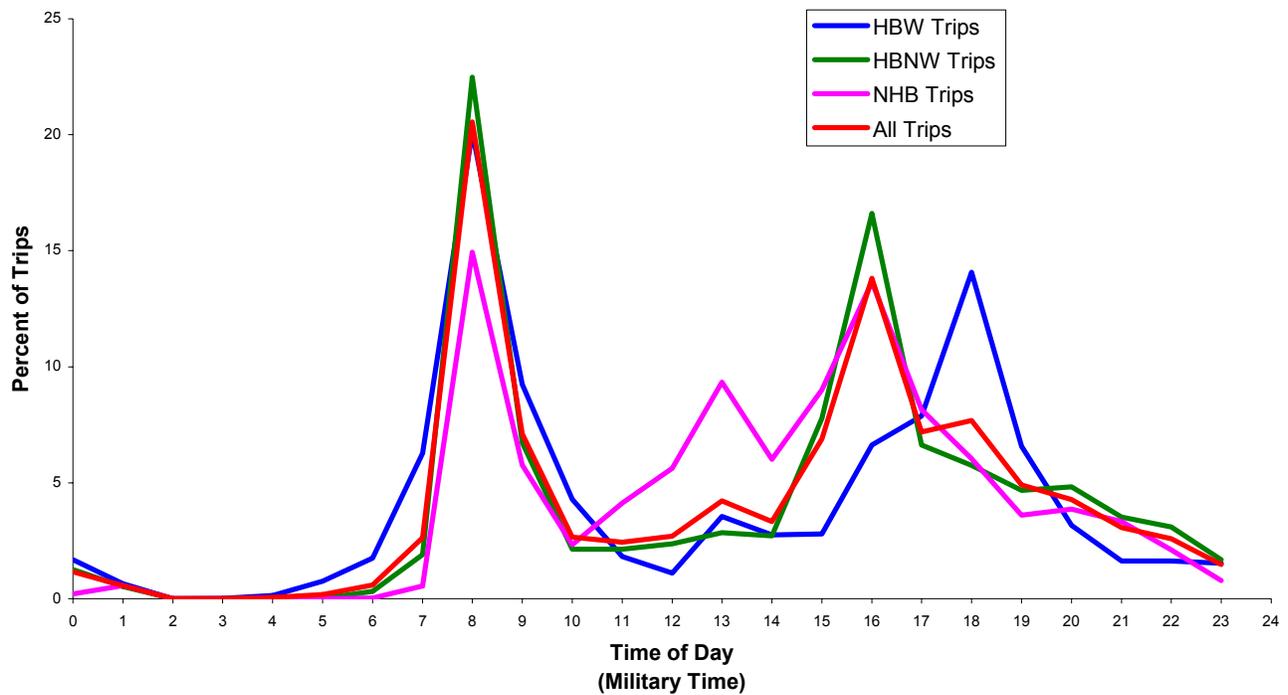


Figure 30. Distribution of Trips by Time of Day.

Activities

It is recognized that people travel to pursue different activities. Data were collected in the survey for 20 different activities. These were presented in Table 9 with the groupings used for categorizing the activities into trip purposes. For reporting purposes, the 20 activities are grouped into nine general activities as shown below. The trip data was summed by the nine activity groups based on the time of day the activity began. These data are plotted in Figures 31 through 33. The data in these figures illustrate the pattern of activities (by the time they began) throughout the day. Home activities have three time periods when they begin; one in the morning, one at noon, and one in the afternoon. Most work activities begin in the morning and are spread throughout the remainder of the day. School activities largely begin in the morning period. Shopping and personal activities beginning times are distributed throughout the and evenly spread between the hours of 10 a.m. and 8 p.m. Serve passenger activities mostly occur during the morning and afternoon peak periods. Social/recreational activities increase steadily throughout the day and peak between 6 p.m. and 8 p.m. Eating out activities largely begin during

the noon period and evening periods. Other activities begin mostly during the morning, noon, and afternoon periods. All of these distributions are what would be expected in an urban area and imply that the activity information obtained in the survey follows the types of patterns that would be expected during the day.

<u>Activity</u>	<u>Activity Group</u>
At home; primary job related	Home
At home; other	
At home; job and non-job related	
Work	Work
Work Related	
School; post secondary, college, trade, etc.	School
School; day care thru high school	
Incidental Shopping	Shopping
Major Shopping	
Banking	Personal
Personal Business	
Other Services	
Civic Activities	
Social Recreational	Social/Recreation
Eat Out	Eat Out
Pick-up / Drop-off person at work	Serve Passenger
Pick-up / Drop-off person at school/day care	
Pick-up / Drop-off person at other	
Change mode of travel	Other
Other	

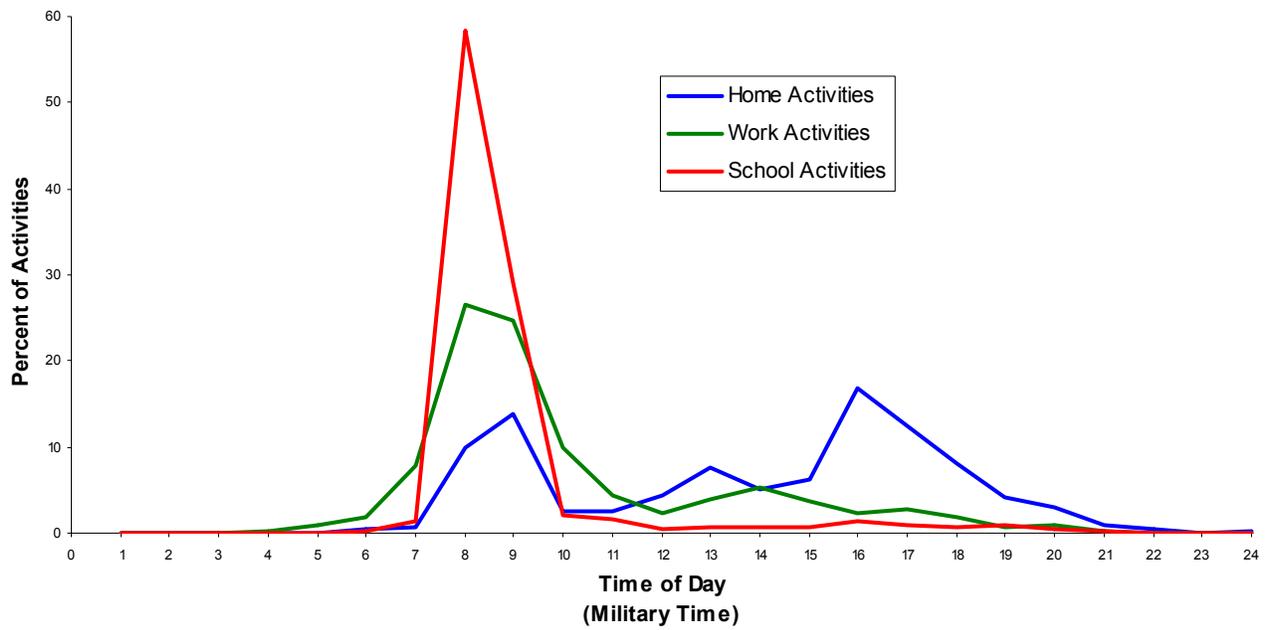


Figure 31. Distribution of Home, Work, and School Activities by Time Activity Began.

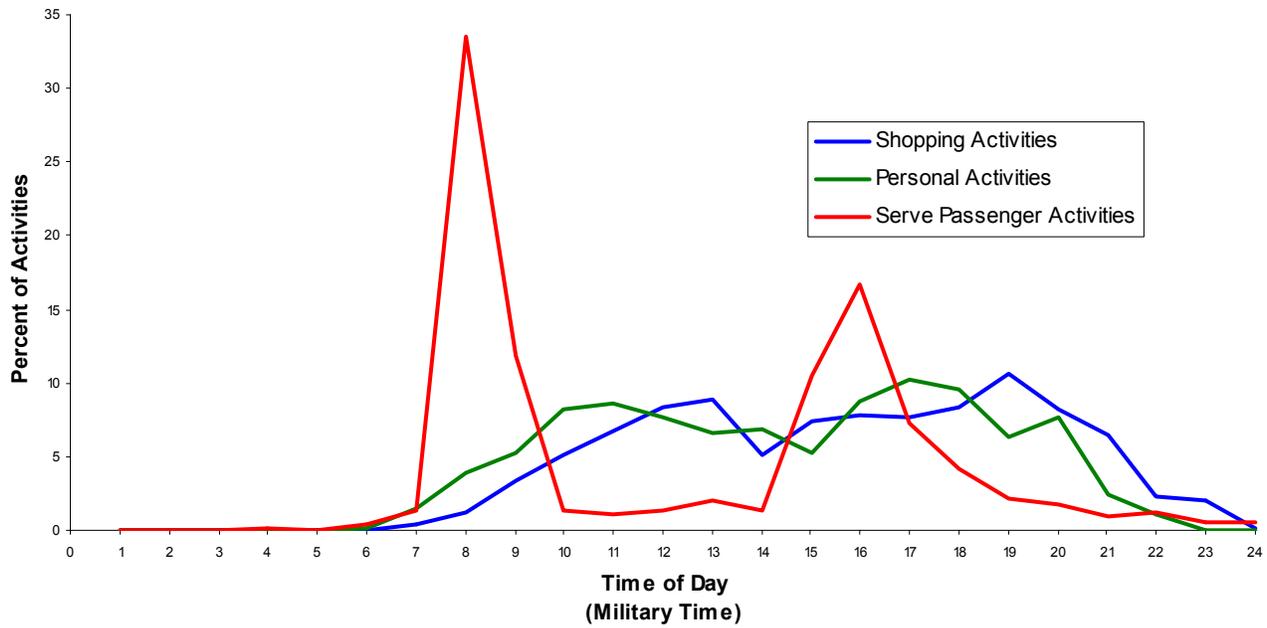


Figure 32. Distribution of Shopping, Personal, and Serve Passenger Activities by Time Activity Began.

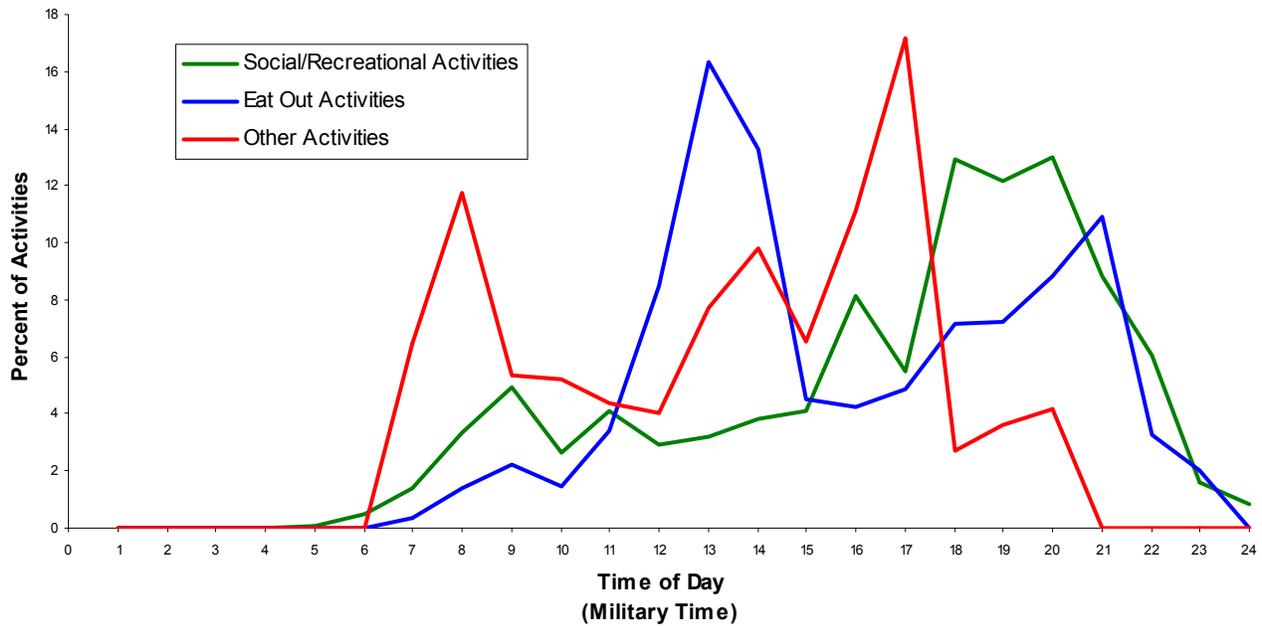


Figure 33. Distribution of Social, Eating, and Other Activities by Time Activity Began.

The time an individual participates in an activity may be measured by the reported time they arrive at an activity and the time they depart from that activity. These computations were performed for the activity groups shown previously. The average time for each activity group is shown in Table 15. As would be expected the activities people spend the most time are work and school with average times of 6.9 hours and 6.8 hours respectively. These averages also imply that many trips/activities for eating during the noon may not be reported. Assuming that most individuals work eight hours a day with one hour for lunch, the expected average time spent working would be between four and five hours. The same would be expected for school activities except the lunch period for students may not involve traveling away from the school. At home activities average 2.6 hours while shopping averages just over one hour and personal activities average slightly higher at 1.3 hours. Social/recreational activities average just over two hours and eating out averages about one hour. Serve passenger activities average about 26 minutes.

Table 15. Number and Time Spent in Activities.

Activity Group	Number	Total Time (Hours)	Average Time Per Activity (Hours)
Home Activities	51,971	136,971	2.6
Work Activities	62,229	430,258	6.9
School Activities	56,057	382,198	6.8
Shopping Activities	26,138	26,403	1.0
Personal Activities	26,111	32,955	1.3
Social/Recreational Activities	21,299	43,944	2.1
Eating Out Activities	13,685	13,138	1.0
Serve Passenger Activities	52,653	23,234	0.4
Other Activities	4,049	2,999	0.7
	314,192	1,092,100	3.5

SUMMARY OF FINDINGS

The 2002 Laredo Household Survey collected data on household characteristics, person characteristics, vehicle characteristics and travel/activity patterns for 1,970 households in the Laredo / Webb County area. Data from 1,838 households was expanded and evaluated. The expanded data provides a snapshot of household and travel characteristics in Laredo and Webb County. Analysis of the data in the survey have resulted in the following findings:

- Average household size in Webb County based on the survey is estimated to be 3.75 persons per household. This is slightly less than the 3.81 persons per household reported in the 2000 census.
- Average household income in Webb County based on the survey is estimated to be \$36,121. This is less than the \$40,467 average household income reported in the 2000 census for Webb County.

- Average number of workers per household in Webb County based on the survey is estimated to be 1.39. This is slightly higher than the average of 1.21 reported in the 2000 census.
- Average number of vehicles available per household in Webb County based on the survey is estimated to be 1.78 while the average reported in the 2000 census was 1.62.
- It is estimated that a total of 43,209 working bicycles are available to households in Webb County. This is less than one per household.
- Over 60 percent of residents in households have been in the household for five or more years. The most important factor reported when choosing a home location was the price of the property and other.
- Just over 7 percent of the households reported they were without phone service at least once during the previous 12 months. Nearly half of those were without phone service less than one month.
- Just over 47 percent of the population in Webb County is male and nearly 53 percent is female.
- Nearly 47 percent of the persons over the age of 15 are employed full time and 6 percent are employed part time. About 3.3 percent of persons over the age of 15 (just over 4,000) are self employed either full or part time. The majority of unemployed persons (58 percent) are students. Just over 7 percent of the employed persons reported having a second job.

- It is estimated that there are over 90,000 vehicles available for travel by individuals in households in Webb County. The average age of these vehicles is 8.5 years. The median age is 7.1 years. The average odometer reading is 81,798 miles. About 50 percent of the vehicles available are passenger cars, 15 percent are sport utility vehicles, 23 percent are pickup trucks and 7 percent are motorcycles.
- The total number of daily person trips that occur within Webb County is 454,000. The total vehicle trips are 255,000. The average number of person trips per household in 2002 was 9.0 and the average number of auto driver trips per household was 5.0.
- One in every four person trips and one in every three vehicle trips are a HBW trip. About one in every five person and vehicle trips is a NHB trip.
- Comparing the 2002 survey results with the 1964 Laredo survey indicates that the proportion of trips (person and auto driver) that are HBW have increased significantly and the proportion of trips that are NHB have declined significantly.
- The average number of person trips per capita in 2002 (2.2) is the same as that reported in 1964. The average number of auto driver trips per capita in 2002 (1.3) is slightly higher than that reported in 1964 (1.2).
- The average vehicle occupancy for all vehicle trips is estimated to be 1.6. The average occupancy for HBW trips was 1.1, for HBNW trips was 1.9 and for NHB trips was 1.7.
- The morning peak period for person trips occurs around 8 a.m. and the average afternoon peak for HBNW and NHB occurs around 4 p.m. The afternoon peak for HBW trips occurs around 6 p.m.

- There were four activities that comprised 70 percent of the activities reported. These, in order of magnitude, were work (19.8 percent), school (17.8 percent), serve passenger (16.8 percent), and home (16.5 percent).
- The average time spent on each of the four most reported activities was 6.9 hours for work, 6.8 hours for school, 0.4 hours for serve passenger, and 2.6 hours for home activities.

The data reported in this document are subject to change. It has been noted in several places that the expanded survey results did not match data from the 2000 census. Additional analyses are also being conducted with other data collected in the Laredo surveys that may result in significant changes to the data presented in this document. The trip rates presented should not be used in travel demand modeling since it is expected that these will be revised to address issues in the data where the survey was not found representative and the results of analyses involving other data collection efforts.

APPENDIX

Laredo Urban Area Household Travel Survey
Matrix of Data Items

Item #	Variable Name	Variable Description	Data Type	Width	Values
H-1	RECTYPE	Record Type	N	2	1 = Household
H-2	SAMPN	Sample Number	N	7	
H-3	PHONE	Phone Number	A	12	
H-4	MONTH	Month of Travel	N	2	
H-5	DAY	Date of Travel	N	2	
H-6	WEEKDAY	Weekday of Travel	N	1	1 = Monday; 2 = Tuesday; 3 = Wednesday; 4 = Thursday; 5 = Friday
H-7	ASSN	Travel Assignment Number	N	3	
H-8	ADVPOST	Mailed Advance Postcard	A	1	1 = Yes; 2 = No; 9 = DK/RF
H-9	HHADDR	Household Address	A	60	
H-10	HHCITY	Household City	A	30	
H-11	HHZIP	Household Zip	N	5	
H-12	HHZONE	Household Zone	N	5	
H-13	HHLONG	Household Longitude	N	10.0	
H-14	HHLAT	Household Latitude	N	10.0	
H-15	HHSIZE	Household Size	N	2	
H-16	HHSIZ5	Household Size (Age 5+)	N	2	
H-17	HHEMP	Household Workers	N	2	
H-18	TOTVEH	Household Vehicles	N	2	Ordinal Variable; 98 = Don't Know; 99 = Refused
H-19	BIKES	Household Bicycles	N	2	Ordinal Variable; 98 = Don't Know; 99 = Refused
H-20	RESTYPE	Residence Type	N	1	Code Set RESTYPE
H-21	RESTYPOT	"Other" Residence Type	A	25	

Item #	Variable Name	Variable Description	Data Type	Width	Values
H-22	HLIVE	Tenure	N	1	0 = <1 yr; 1 = 1 yr; 2 = 2 yrs; 3 = 3 yrs; 4 = 4 yrs; 5 = 5+ yrs
H-23	PREVRES	Previous Residence in Laredo	N	1	1 = Yes; 2 = No; 9 = DK/RF
H-24	REVZIP	Previous Zip code	N	5	9999 = DK/RF
H-25	HHFACT	Factors Influencing Location Choice	N	2	Code Set HHFACT
H-26	OFACT	Other Factors	A	30	
H-27	INCOME	Total 2001 Annual Household Income	N	2	Code Set INCOME
H-28	INCAT	Income Categories for Quotas	N	1	1 = <\$10K; 2 = \$10K-<\$20K; 3 = \$20K-<\$35K; 4 = \$35K-<\$50K; 5 = \$50+K
H-29	VOVER	Overnight Visitors	N	2	Ordinal Variable (1-20); 99 = DK/RF
H-30	VDAY	Day Visitors	N	2	Ordinal Variable (1-20); 99 = DK/RF
H-31	DRDLV	Household Member(s) drive(s) delivery vehicle	N	1	1 = Yes; 2 = No; 9 = DK/RF
H-32	HHDELIV	Number of Delivery Drivers	N	2	Ordinal Variable
H-33	NOPHN	No Phone Service	N	2	Ordinal Variable
H-34	LENGTH	How Long Without Service	N	2	Code Set LENGTH
H-35	SHAR2	Share Phone Line with Other Household	N	2	Ordinal Variable; 98 = Don't Know; 99 – Refused
H-36	GPS	GPS Household	N	1	1 = Yes; 2 = No
V-1	RECTYPE	Record Type	N	1	3 = Vehicle
V-2	SAMPN	HH ID Number	N	7	
V-3	VEHNO	Vehicle Number	N	2	
V-4	BTYPE	Body Type	N	2	Code Set BTYPE
V-5	OTHBTYP	Other Body Type	A	35	

Item #	Variable Name	Variable Description	Data Type	Width	Values
V-6	YEAR	Year	N	4	9998 = Don't Know; 9999 = Refused
V-7	MAKE	Make	N	2	Code Set MAKE
V-8	O_MAKE	Other Make	A	60	
V-9	MODEL	Model	A	60	
V-10	FUEL	Fuel Type	N	1	1 – Gasoline; 2 = Diesel; 7 = Other, Specify; 8 – Don't Know; 9 = Refused
V-11	OTHFUEL	Other Fuel Type	A	15	
	CLASSIFICATION	Vehicle Classification	N	2	
V-12	COMMERCIAL	Commercial Use	N	1	1 = Yes; 2 = No; 9 = DK/RF
V-13	BEGODOM	Beginning Odometer Reading	N	8	
V-14	ENDODOM	Ending Odometer Reading	N	8	8888 = Don't Know; 9999 = Refused
P-1	RECTYPE	Record Type	N	1	2 = Person
P-2	SAMPN	HH ID Number	N	7	
P-3	PERNO	Person ID Number	N	2	
P-4	RELATE	Relation to Head	N	2	Code Set RELATE
P-5	GENDER	Gender	N	1	1 = Male; 2 = Female; 9 = Refused
P-6	ETHN	Ethnicity	N	1	Code Set ETHN
P-7	O_ETHN	Other	A	60	
P-8	AGE	Age	N	3	Ordinal Variable; 999 -= DK/RF
P-9	LIC	Valid Drivers License	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-10	EMPLY	Employed?	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-11	EMPSTAT	Employment Status	N	1	Code Set EMPSTAT
P-12	MAINHRS	Total Number of Hours Worked per Week at Main Job	N	3	Ordinal Number; 999 = Varies

Item #	Variable Name	Variable Description	Data Type	Width	Values
P-13	PRIMACT	Not Employed	N	2	Code Set PRIMACT
P-14	O_PRMACT		A	60	
P-15	DELIVERY	Delivery Driver	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-16	FLEXT	Flex Time	N	1	1 = FLEXIBLE; 2 = FIXED; 99 = DK/RF
P-17	JOBS	Number of Jobs	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-18	WKNAME	Work Name	A	60	1 = Self at Home; 2 = Self Outside Home; 7 = Other; 9 = DK/RF
P-19	WKTYPE	Work Type	N	2	Code Set WKTYPE
P-20	WKTYPEO		A	30	
P-21	WKADDR	Work Address	A	60	
P-22	WKCITY	Work City	A	30	
P-23	WKCNTY	Work County	A	60	
P-24	WKZIP	Work Zip	N	5	
P-25	WKZONE	Work Zone	N	5	
P-26	WKLONG	Work Longitude	N	10.0	
P-27	WKLAT	Work Latitude	N	10.0	
P-28	DAYSWK	Days Worked	N	1	Ordinal, 97 = Varies, 98 = DK; 99 = RF
P-29	HOMEWK	Work at Home	N	1	Ordinal Number; 9 = DK/RF
P-30	WKTYP2	Second Job Type	N	2	Code Set WKTYPE
P-31	WKTYP2O		A	60	
P-32	TOTHR	Total Hours Worked, All Jobs	N	3	Ordinal Number; 999 = Varies
P-33	STUDENT	Student Status	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-34	SCHOOL	School Type	N	1	1 = Daycare; 2 = K-12; 3 = Post-Secondary; 7 = Other; 9 = DK/RF
P-35	O_SCHOOL		A	60	

Item #	Variable Name	Variable Description	Data Type	Width	Values
P-36	SCHLHRS	School Hours Enrolled	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-37	BIKEU	Bike Use	N	1	Ordinal; 8 = DK; 9 = RF
P-38	BIKEP	Bike Purpose	N	1	1 = Work; 2 = School; 3 = Shop; 4 = Visit; 5 = Rec; 7 = Other; 9 = DK/RF
P-39	DISAB	Disability Status	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-41	NOGO	Made Trips on Travel Day	N	1	1 = Yes; 2 = No; 9 = Out of Town on Travel Day
P-42	WHY	Reason for No Trips	A	60	
P-43	USEDIARY	Diary Use	N	1	1 = Yes; 2 = No; 9 = DK/RF
P-44	PROXY	Interviewed in Person?	N	2	1 = Yes; 2 = No; 9 = DK/RF
T-1	RECTYPE	Record Type	N	1	4 = Trip
T-2	SAMPN	HH ID Number	N	7	
T-3	MONTH	Travel Month	N	2	
T-4	DAY	Travel Day	N	2	
T-5	PERNO	Person ID Number	N	2	Ordinal Variable
T-6	PLANO	Place Number	N	2	Ordinal Variable
T-7	ACT	Primary Trip Purpose	N	2	Code Set ACT
T-8	O_ACT	Other Primary Trip Purpose	A	60	
T-9	LOC	Location	A	30	
T-10	LOCADDR	Location Address	A	60	
T-11	LOCCITY	Location City	A	30	
T-12	LOCCNTY	Location County	A	60	
T-13	LOCZIP	Location Zip	N	5	
T-14	ROUTE	Route Used (If Outside County)	N	2	Code Set ROUTE
T-15	LOCZONE	Location Zone	N	5	
T-16	LOCLONG	Location Longitude	N	10.0	

Item #	Variable Name	Variable Description	Data Type	Width	Values
T-17	LOCLAT	Location Latitude	N	10.0	
T-18	PTYPE	Where They Went	N	2	Code Set PTYPE
T-19	PTYPEO		A	20	
T-21	TRIPPURP	Trip Purpose	N	2	Code Set TRIPPURP
T-22	MODE	Mode of Trip	N	2	Code Set MODE
T-23	OTHMODE	Other Mode Type	A	30	
T-24	PARTY	Members in Travel Party	N	2	Ordinal Variable; 0 = Non-AUTO MODE
T-25	HH_MEM	Household Member Number	N	2	Ordinal Variable; 99 = DK/RF
T-26	PERTP	Persons on Trip	C	10	
T-27	NONHH	Non-HH Members on Trip	N	2	Computed; 99 = DK/RF
T-28	HHVEH	Household Vehicle Used	N	1	1 = Yes; 2 = No; 9 = DK/RF
T-29	HHVEHU	Household Vehicle Number	N	2	99 = Non-HHLD Vehicle
T-30	BTYPE	Body Type	N	2	Code Set BTYPE
T-31	OTHBTYP	Other Body Type	A	35	
T-32	Year	Year	N	4	9998 = Don't Know; 9999 = Refused
T-33	MAKE	Make	N	2	Code Set MAKE
T-34	O_MAKE	Other Make	A	60	
T-35	MODEL	Model	A	60	
T-36	Fuel	Fuel Type	N	1	1 = Gasoline; 2 = Diesel; 7 = Other, Specify; 8 = Don't Know; 9 = Refused
T-37	OTHFUEL	Other Fuel Type	A	15	
T-38	CLASSIFICATION	Vehicle Classification	N	2	
T-39	COMMERCIAL	Commercial Use	N	1	1 = Yes; 2 = No; 9 = DK/RF
T-40	TOBUS	To Bus Stop	N	1	1 = Yes; 2 = No; 9 = DK/RF
T-41	FROMBUS	From Bus to Activity	N	1	1 = Yes; 2 = No; 9 = DK/RF

Item #	Variable Name	Variable Description	Data Type	Width	Values
T-42	FROMPARK	From Parking Location	N	1	1 = Yes; 2 = No; 9 = DK/RF
T-43	BLKADDR	Address of Where Parked/Got Off Bus	A	60	
T-44	BLKCITY	City of Where Parked/Got Off Bus	A	30	
T-45	BLKCNTY	County of Where Parked/Got Off Bus	A	20	
T-46	BLKZIP	Zip of Where Parked/Got Off Bus	N	5	
T-47	PRK_COST	Parking Cost	N	7.2	XXX.XX
T-48	PRK_UNIT	Parking Cost Unit	N	1	1 = Hourly; 2 = Daily; 3 = Weekly; 4 = Monthly; 5 = Annually; 8 = Other; 9 = DK/RF
T-49	OTHPKMET	Other-Parking Pay Method	A	60	
T-50	ARRIVE	Arrival Time	N	4	Military Time
T-51	ARRIVE	Arrival Time	N	4	Military Time
T-52	DEPART	Departure Time	N	4	Military Time

Laredo Household Travel/Activity Survey

Personal One-Day Travel Diary for:

Sponsored by:



Survey conducted by NuStats on behalf of the Texas Department of Transportation and the City of Laredo.

Questions? Please call NuStats at:
1-888-530-2242



Diary Instructions

Use this diary to record the **ACTIVITIES** you did, the **PLACES** where you did the **ACTIVITY**, and the **TRIPS** you made to get there. Specifically, you should record the following, in as much detail as possible:

- ✓ **TRIP-RELATED ACTIVITIES.** Record all trip-related activities starting at 2:59am the day of travel and ending at 2:59am the next day.
Important note: Stop-overs on the way to a destination are separate activities. For example, picking up groceries on the way home from work is a separate activity (shopping).
The "Example Activity Types" on the next page will help you determine which activities to record.

What is a TRIP-RELATED ACTIVITY?

An **ACTIVITY** is how you spend your time.
A **TRIP** is how you get to an activity. Record every activity that requires a trip, whether you drive, walk, take a bus, or use any other means to get from one place to another.

- ✓ **PLACES** where activities take place (place name; exact address and/or nearest intersection of cross-streets, county, city, and zipcode are critical for assessing areas with traffic congestion.)
- ✓ **TIMES** you began and ended each trip to the closest possible minute.
- ✓ **HOW YOU TRAVELED** to each activity.
- ✓ **ODOMETER READINGS** for each household vehicle at the **START** and **END** of the travel day.

Please fill out the diary carefully and completely. Parents should help children under the age of 12 complete their entries. Remember, you are very important to the success of this survey - no matter how much or little you travel.

Questions? Please call our hotline at:

1-888-530-2242

Example Activity Types

- ✓ Activities done at home related to primary job
- ✓ Activities done at home not related to primary job
- ✓ Combination of job and non-job related activities done at home
- ✓ Work/Work related business: office/plant, on-site, driving around, job search, meetings, training
- ✓ School (elementary - college/trade)
- ✓ Shopping (gas, groceries, clothes, appliances, etc.)
- ✓ Personal business (banking, medical, barber/beauty salon, etc.)
- ✓ Recreation/social activities
- ✓ Eating out
- ✓ Civic activities
- ✓ Church activities
- ✓ Picking up/dropping someone off
- ✓ Changing bus routes
- ✓ Changing forms of transportation (riding a bus and then walking to final destination)

Vehicle Odometer Readings

Use the space below to record each of your household vehicle's odometer readings at the beginning and end of your travel day.

Year	Vehicle		Odometer	
	Make	Model	Start	End

Example List of Daily Activities

Record your activities as a list of events (see below).

See next page for an illustration of how to fill out the questions for Activity 1 "Dropped child off at day care."

Activity Number/Name	Start of Trip to Activity	Arrival Time at Activity
1 Dropped child off at day care <i>(stayed at day care from 7:46 to 7:56)</i>	7:23am	7:46am
2 Work <i>(worked from 8:07 to 12:00)</i>	7:56am	8:07am
3 Restaurant <i>(ate lunch from 12:11 to 12:51)</i>	12:00pm	12:11pm
4 Work <i>(worked from 1:03 to 5:03)</i>	12:51pm	1:03pm
5 Picked up child at day care <i>(stayed at day care from 5:15 to 5:19)</i>	5:03pm	5:15pm
6 Home <i>(stayed at home from 5:42 to 7:00)</i>	5:19pm	5:42pm
7 Shopping <i>(went shopping from 7:05 to 7:42)</i>	7:00pm	7:05pm
8 Home <i>(stayed home from 7:47pm until the next morning at 7:23am)</i>	7:42pm	7:47pm

Questions? Please call our hotline at:

1-888-530-2242

EXAMPLE ACTIVITY **A** WHAT is this ACTIVITY?

Dropped child off at day care.

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?

7 : 23 (am) / pm

7 : 46 (am) / pm

NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: Cabbage Patch Day Care
 Address: 808 E. San Pedro Street
 or Cross streets: Logan Avenue/E. San Pedro Street
 City/County/Zip: Laredo/Webb/78041

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Where you: Driver Passenger
 Vehicle Year/Make/Model: 2000/Ford/Explorer
 Is this Household Vehicle Non Household Vehicle
 Total # of passengers in vehicle? (including yourself) # 2
 How much did you pay for parking? Did not pay \$

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: Does not apply - I parked at the day care
 or Cross streets:
 City/County/Zip:

G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 1 **A** WHAT is your ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?

 : am / pm

 : am / pm

NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Where you: Driver Passenger
 Vehicle Year/Make/Model: _____
 Is this Household Vehicle Non Household Vehicle
 Total # of passengers in vehicle? (including yourself) # _____
 How much did you pay for parking? Did not pay \$ _____

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 3 **A** WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?
 YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Were you: Driver Passenger
 Vehicle Year/Make/Model: _____
 Is this Household Vehicle Non Household Vehicle
 Total # of passengers in vehicle (including yourself) # _____
 How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

E What is the address or cross streets of where you parked your car or got off the bus? (If more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

F Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 2 **A** WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?
 YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Were you: Driver Passenger
 Vehicle Year/Make/Model: _____
 Is this Household Vehicle Non Household Vehicle
 Total # of passengers in vehicle (including yourself) # _____
 How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

E What is the address or cross streets of where you parked your car or got off the bus? (If more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

F Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 4 WHAT IS THIS ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Where you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Vehicle: Household Vehicle Non Household Vehicle

Total # of passengers in vehicle (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

G Was this your LAST ACTIVITY for the day? No → **Go to Next Page** Yes → **Done**

ACTIVITY 5 WHAT IS THIS ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Where you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Vehicle: Household Vehicle Non Household Vehicle

Total # of passengers in vehicle (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

G Was this your LAST ACTIVITY for the day? No → **Go to Next Page** Yes → **Done**

ACTIVITY 6 A WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

- YES → What TIME did you START your trip? What TIME did you ARRIVE!
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Were you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Household Vehicle Non Household Vehicle

Total # of passengers in vehicle? (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

- G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 7 A WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

- YES → What TIME did you START your trip? What TIME did you ARRIVE!
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Were you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Household Vehicle Non Household Vehicle

Total # of passengers in vehicle? (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

- G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 8 A WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

_____ : _____ am / pm

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Were you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Household Vehicle Non Household Vehicle

Total # of passengers in vehicle? (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 9 A WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

_____ : _____ am / pm

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Were you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Household Vehicle Non Household Vehicle

Total # of passengers in vehicle? (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

ACTIVITY 10 **A** WHAT is this ACTIVITY?

B Did you MAKE A TRIP to get to this ACTIVITY?

YES → What TIME did you START your trip? What TIME did you ARRIVE?
 NO → Go to Next ACTIVITY

C WHERE did this ACTIVITY take place?

Place name: _____
 Address: _____
 or Cross streets: _____
 City/County/Zip: _____

If this trip was made to or from Mexico or a county other than Webb, what route, road or bridge did you use to enter or leave Webb County?

D How did you TRAVEL to this ACTIVITY? (check one type of travel only)

Auto/Truck/Van Motorcycle/Moped Public Bus Taxi/Limo Walk
 Carpool/Vanpool Commercial Veh. School Bus Bicycle Other

Where you: Driver Passenger

Vehicle Year/Make/Model: _____

Is this Household Vehicle Non Household Vehicle

Total # of passengers in vehicle (including yourself) # _____

How much did you pay for parking? Did not pay \$ _____

Public bus: Did you walk more than one block to the bus stop? Yes No

Go to Next ACTIVITY →

E What is the address or cross streets of where you parked your car or got off the bus? (if more than one block from your final destination)

Address: _____
 or Cross streets: _____
 City/County/Zip: _____

G Was this your LAST ACTIVITY for the day? No → Go to Next Page Yes → Done

Thank You for Your Participation!

Keep your completed Travel Diaries by the phone and we'll call you to collect the information. After we collect your information, please return all diaries for your household in the enclosed postage paid envelope.

If you need help filling out your Travel Diary or more information about the survey, please call:

Dody Soto of NuStats at 1-888-530-2242,
 or visit our survey webpage at
www.nustats.com/laredo

TxDOT Contact:
 Raul Leal 956-712-7411

Laredo Metropolitan Planning Organization Contact:
 Gabriel Del Bosque 956-791-7441



NuStats