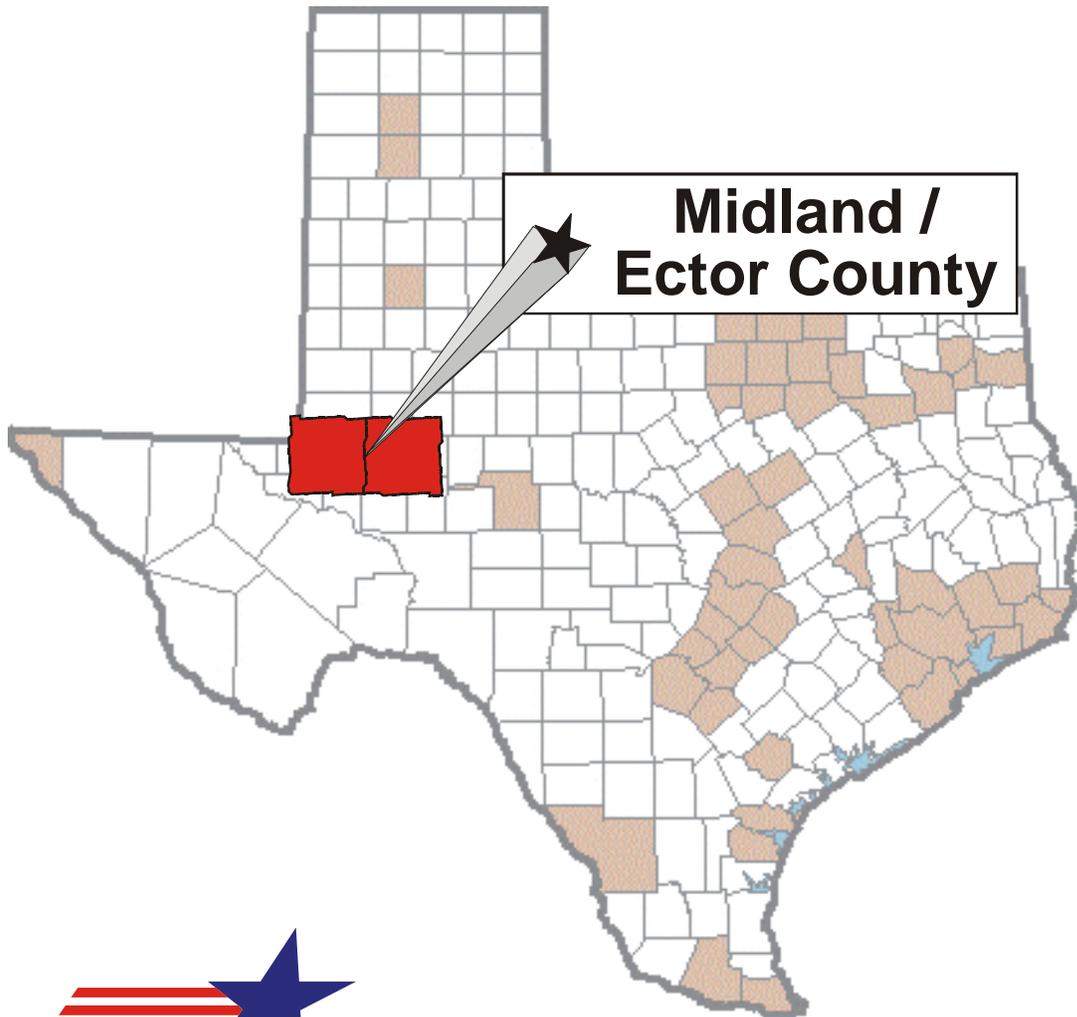


# 2002 Midland / Ector County External Survey Technical Summary



Prepared by the  
Texas Transportation Institute  
January 2004



# **2002 Midland / Ector County External Station Survey**

## **TECHNICAL SUMMARY**

**Prepared by**

**Patricia Ellis  
Associate Research Scientist**

**of the  
Texas Transportation Institute**

**January 2004**



## **INTRODUCTION**

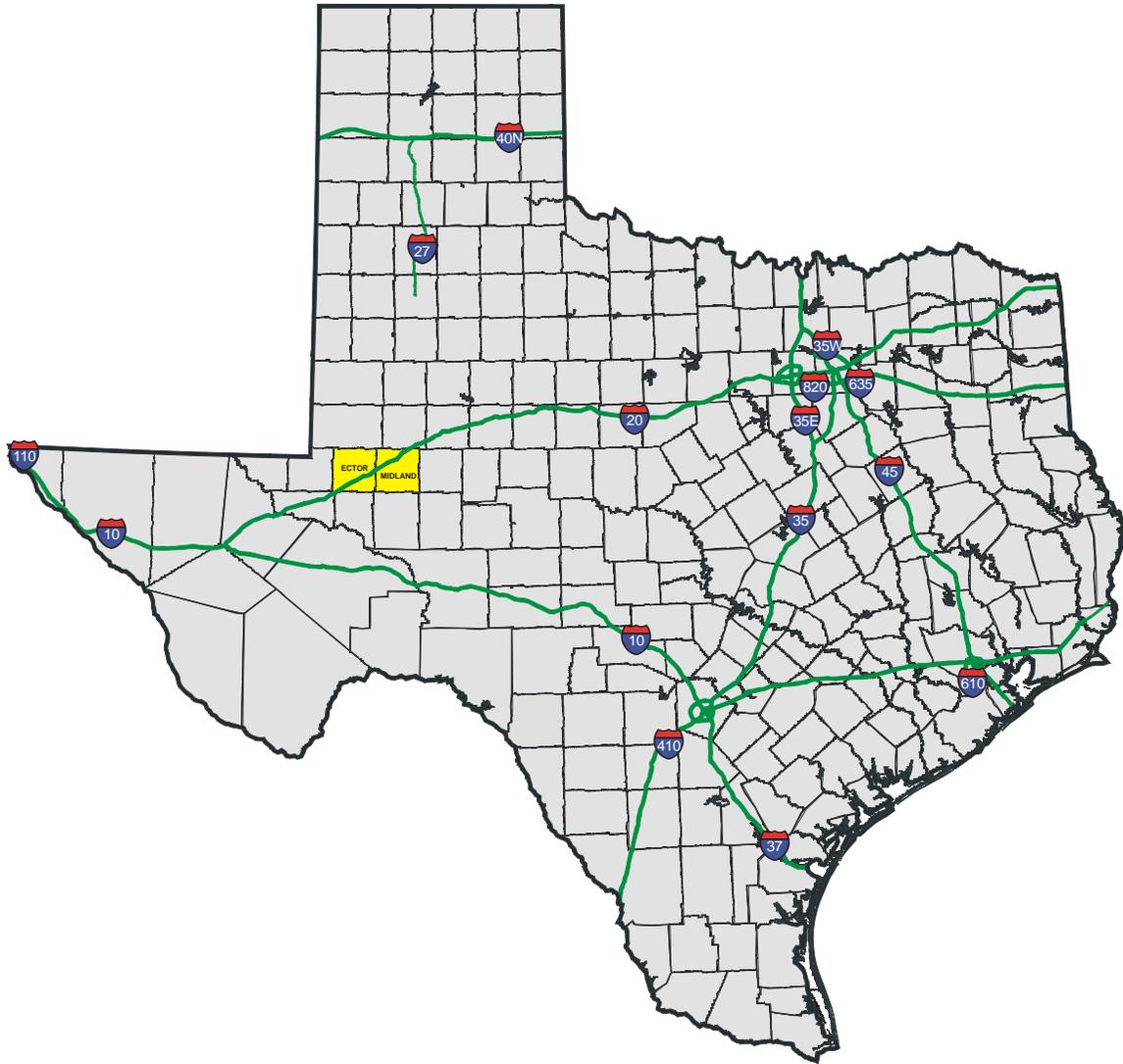
This report presents a technical summary of the 2002 Midland / Ector County External Station Survey conducted for the Transportation Planning and Program (TPP) Division of the Texas Department of Transportation (TxDOT). The survey measured and identified travel patterns into, within, and out of Midland and Ector counties.

## **EXTERNAL STATION SURVEY**

An external station survey is a survey of vehicles traversing the survey boundary to identify and measure travel in, out, and through the Midland / Ector county survey area. The survey identifies and measures the characteristics of travel in and out of the survey area as well as the travel through the area. Estimates of travel within the survey area by individuals that do not live in the survey area are also developed from this survey data.

## **MIDLAND / ECTOR COUNTY SURVEY AREA**

The boundary established for the Midland / Ector external survey was Midland and Ector counties in West Texas. The area is located in the western portion of Texas, south of the panhandle and just east of the Texas-New Mexico border as shown in Figure 1. The population center of Midland County is the city of Midland, and for Ector County it is the city of Odessa.



**Figure 1. Midland / Ector County Survey Area.**

## **EXTERNAL STATIONS**

A total of 19 locations on the borders of Midland and Ector counties were identified. Of these, 11 locations are in Midland County and 8 are in Ector County. Surveys were conducted at 13 of the stations. Table 1 lists the stations, their location, whether the site was surveyed, and the 24-hour traffic count at the location. It should be noted that for one site, IH 20 at the Midland / Martin county line, the survey location was moved from the county line to inside of Midland County so that separate surveys could be conducted on IH 20 and IH 20 Business. As a result, Table 1 lists data for 20 stations rather than 19. Figure 2 shows the locations of the stations in Ector and Midland counties.

**Table 1. Midland / Ector County External Stations.**

Station Number	Facility	Location	Surveyed	24-Hour Vehicle Count		Location Group
				Inbound	Outbound	
701	FM 1053 South	Ector / Crane Line	Yes	539	403	Southwest
702	FM 1601 South	Ector / Crane Line	No	204	206	Southwest
703	US 385 South	Ector / Crane Line	Yes	1,733	1,743	Southwest
704	FM 1492 South	Midland / Upton Line	No	151	153	Southeast
705	FM 1788 South	Midland / Upton Line	No	62	51	Southeast
706	SH 349 South	Midland / Upton Line	Yes	584	589	Southeast
707	FM 3095 South	Midland / Upton Line	No	318	281	Southeast
708	FM 1357 East	Midland / Glasscock Line	No	199	209	East
709	SH 158 East	Midland / Glasscock Line	Yes	1,127	1,238	East
710	SH 137 South	Midland / Glasscock Line	Yes	218	194	East
711	SH 137 North	Midland / Martin Line	No	436	435	Northeast
712	IH 20 East Main Lanes	Midland – 2 mi. west of IH20 business split	Yes	5,432	5,770	Northeast
712b	Bus. IH 20 Ramp East	Midland – just south of IH20 business split	Yes	2,289	2,013	Northeast
713	FM 1208 North	Midland / Martin Line	No	191	186	Northeast
714	SH 349 North	Midland / Martin Line	Yes	1,281	1,155	Northeast
715	FM 1788 North	Ector / Andrews Line	Yes	1,009	1,073	Northwest
716	US 385 North	Ector / Andrews Line	Yes	3,005	3,020	Northwest
717	FM 181 North	Ector / Andrews Line	Yes	650	691	Northwest
718	SH 302 West	Ector / Winkler Line	Yes	1,043	1,037	West
719	IH 20 West	Ector / Crane Line	Yes	5,371	5,183	Southwest

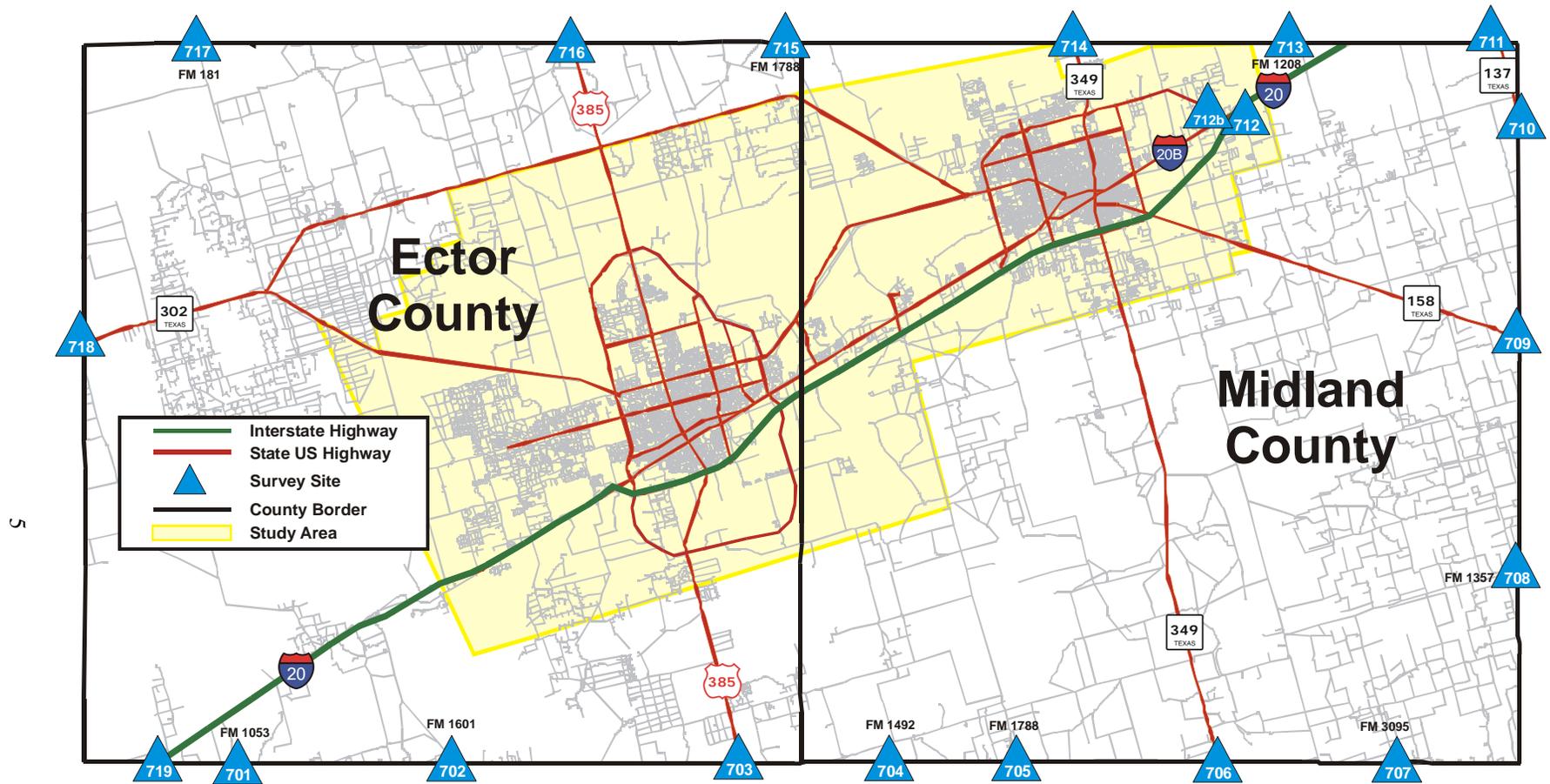


Figure 2. Location of External Survey Stations in the Midland / Ector County Survey Area.

## **SURVEY METHODOLOGY**

The methodology employed in the survey was personal interview. Traffic control plans were set up and vehicles in the outbound direction were directed to the side of the road and the drivers interviewed by trained personnel. Drivers of commercial and non-commercial vehicles were interviewed and interviewers used different survey instruments for commercial vehicles and non-commercial vehicles as shown in the Appendix. Figure 3 shows a typical traffic control plan at an external station survey site.



**Figure 3. Traffic Control at an External Station Survey Site.**

## **DATA ANALYSIS**

There were two survey instruments used in this project, one for non-commercial vehicles and one for commercial vehicles. Non-commercial vehicles are typically personal use passenger cars, trucks, and vans. Commercial vehicles are those used for commercial purposes and, in most cases, were heavy-duty trucks (e.g., 18 wheels). Most of the analyses in the following sections present results for commercial and non-commercial vehicles.

### **Trip Types**

There are two types of trips identified as a part of an external survey — external local trips and external through trips. A local trip is one where either the origin or destination of the trip is in the survey area and the other trip end is outside of the survey area. A through trip is one traveling through the survey area without stopping. Table 2 presents a breakdown of the survey data for non-commercial and commercial vehicles in terms of the trips identified as local or through movements.

**Table 2. Survey Results by Type of Trip.**

Station Number	Survey Direction		Facility	Non Commercial			Commercial		
				Local	Through	Total	Local	Through	Total
701	South	Outbound	FM 1053 South	168	10	178	26	5	31
702	South	N/A	FM 1601 South	Not Surveyed					
703	South	Outbound	US 385 South	298	10	308	35	6	41
704	South	N/A	FM 1492 South	Not Surveyed					
705	South	N/A	FM 1788 South	Not Surveyed					
706	South	Outbound	SH 349 South	113	3	116	23	3	26
707	South	N/A	FM 3095 South	Not Surveyed					
708	East	N/A	FM 1357 East	Not Surveyed					
709	East	Outbound	SH 158 East	343	4	347	52	2	54
710	South	Outbound	SH 137 South	12	66	78	2	27	29
711	North	N/A	SH 137 North	Not Surveyed					
712	East	Outbound	IH 20 East main lanes	236	23	259	65	63	128
712B	East	Outbound	Bus IH 20 Ramp East	344	2	346	24	0	24
713	North	N/A	FM 1208 North	Not Surveyed					
714	North	Outbound	SH 349 North	301	9	310	42	1	43
715	North	Outbound	FM 1788 North	281	8	289	31	0	31
716	North	Outbound	US 385 North	365	4	369	51	1	52
717	North	Outbound	FM 181 North	161	6	167	50	1	51
718	West	Inbound	SH 302 West	305	4	309	52	3	55
719	West	Inbound	IH 20 West	249	34	283	55	44	99
Total				3,176	183	3,359	508	156	664

The second type of trip identified in the survey is a sub-category of external local trips. These are reported as resident and non-resident trips. A resident is a survey respondent that reported they resided in Midland County or Ector County. A non-resident is a respondent that reported they lived outside of Midland and Ector county. Table 3 presents a breakdown of the surveys by residents and non-residents as well as the number of reported trips within the survey area. An important element of the trips reported by non-residents is the number of trips made prior to being surveyed. These trips are evaluated to estimate the number of internal trips, trips where both the origin and destination are within either Ector or Midland counties, made by non-residents. By measuring the number of non-residents that travel in and out of the Midland / Ector county area and the number of internal trips they make, an estimate of the total internal trips within the Midland / Ector county survey area attributable to individuals that do not live in the county may be made.

The residency questions were only asked of respondents in non-commercial vehicles. Table 3 indicates that almost 54 percent of non-commercial travel in and out of the Midland / Ector county survey area is made by individuals that do not live in either Midland or Ector counties. The number of internal trips associated with those individuals is relatively small, only 0.272 trips per vehicle.

**Table 3. Survey Results by Residency (Non-Commercial Vehicles Only).**

<b>Station Number</b>	<b>Facility</b>	<b>Surveys</b>	<b>Residents Surveyed</b>	<b>Percent</b>	<b>Non-Residents Surveyed</b>	<b>Percent</b>	<b>Non-Resident Internal Trips</b>
701	FM 1053 South	178	111	62.4	67	37.6	17
702	FM 1601 South	Not Surveyed					
703	US 385 South	308	117	38.0	191	62.0	48
704	FM 1492 South	Not Surveyed					
705	FM 1788 South	Not Surveyed					
706	SH 349 South	116	60	51.7	56	48.3	3
707	FM 3095 South	Not Surveyed					
708	FM 1357 East	Not Surveyed					
709	SH 158 East	347	192	55.3	155	44.7	54
710	SH 137 South	78	15	19.2	63	80.8	3
711	SH 137 North	Not Surveyed					
712	IH 20 East Main Lanes	259	113	43.6	146	56.4	30
712b	Bus. IH 20 Ramp East	346	153	44.2	193	55.8	85
713	FM 1208 North	Not Surveyed					
714	SH 349 North	310	141	45.5	169	54.5	71
715	FM 1788 North	289	145	50.2	144	49.8	40
716	US 385 North	369	170	46.1	199	53.9	57
717	FM 181 North	167	119	71.3	48	28.7	10
718	SH 302 West	309	131	42.4	178	57.6	33
719	IH 20 West	283	84	29.7	199	70.3	42
Totals		3,359	1,551	46.2	1,808	53.8	493

## Travel Purpose

To understand the reasons people travel, the survey included questions about the driver's purpose for being at the location where the trip began (i.e., trip origin) and the purpose for traveling to their destination. There were 15 different purposes included on the survey instrument for non-commercial vehicles and eight purposes on the commercial vehicle survey. Table 4 provides the trip purposes for each survey. For the purpose of presenting survey results, the trip purpose categories are combined into a fewer number to reflect the primary purposes of travel.

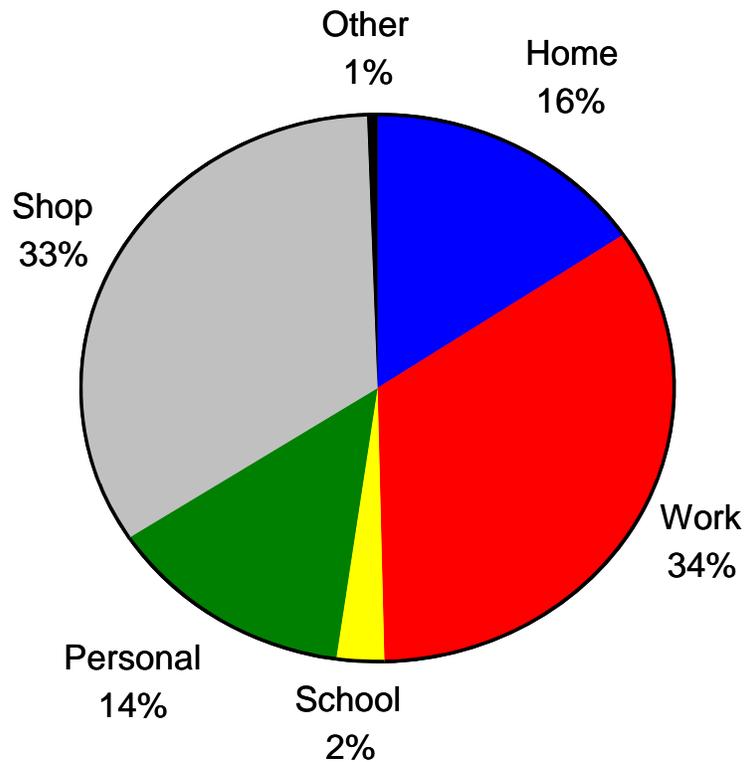
**Table 4. Categories of Trip Purpose.**

Code	Non-Commercial Vehicle Trip Purpose	Code	Commercial Vehicle Trip Purpose
1	Home / Return Home	1	Base location / Return to Base
2	Go / Return to Work	2	Delivery
3	Work Related	3	Pick-Up
4	School	4	Maintenance
5	Vacation	5	Driver Needs (lunch, etc.)
6	Visit Friends / Family	6	To Home
7	Eat Out	7	Purchase Fuel
8	Shop	8	Other
9	Purchase Gasoline	99	Refused / Unknown
10	Personal Business		
11	Pick-Up / Drop-Off Passenger		
12	Change Travel Mode		
13	Delivery		
14	Other		
15	Refused / Do Not Know		

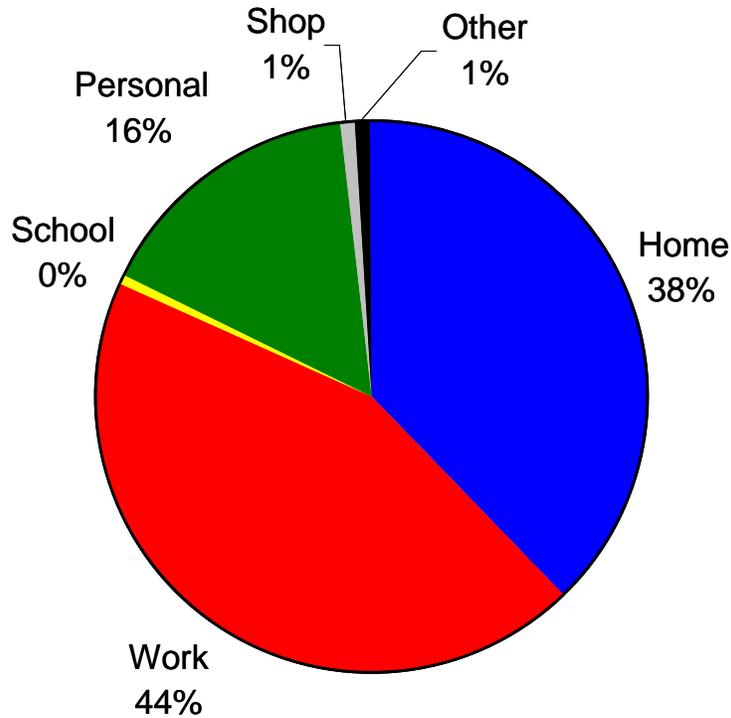
For non-commercial vehicles, the trip purposes listed in Table 4 were combined into the following six categories:

<u>Category</u>	<u>Trip Purpose Codes</u> (from Table 4)
Home	1
Work	2 and 3
School	4
Personal	5, 6, 10, and 11
Shop	7, 8, and 9
Other	12, 13, 14, and 15

Figure 4 presents the distribution of non-commercial vehicles by reported trip purpose at the origin of the trip and Figure 5 shows the distribution of non-commercial vehicles at the destination of the trip.

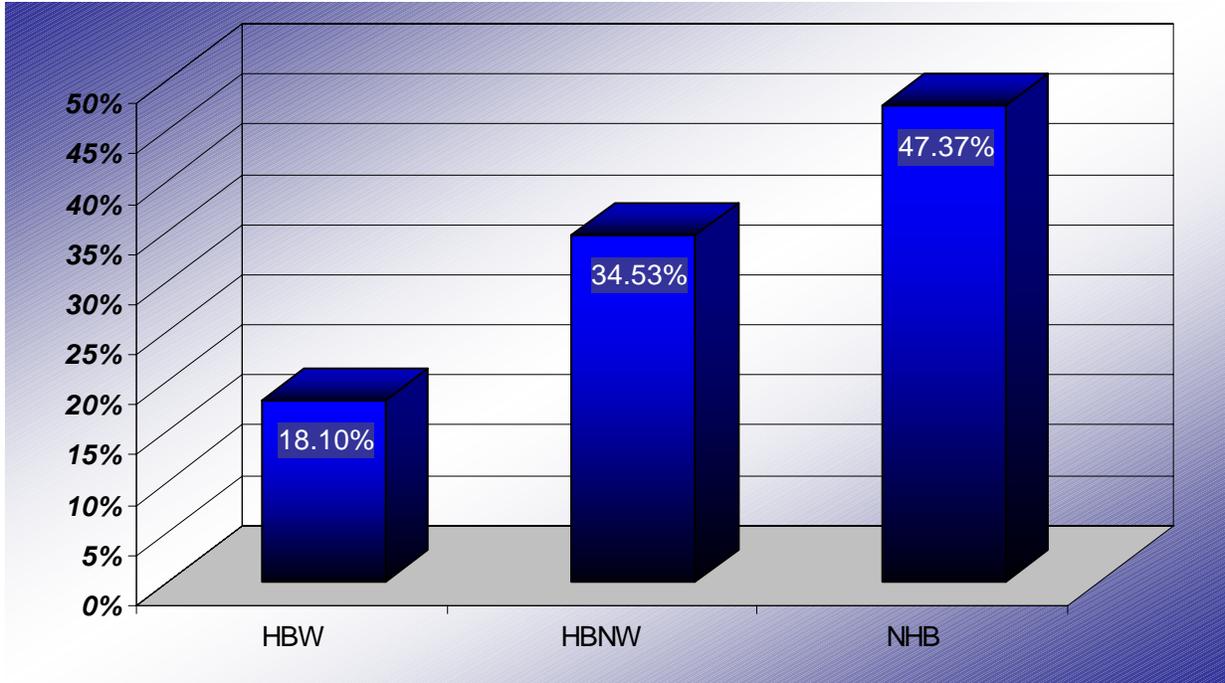


**Figure 4. Trip Purpose From Origin for Non-Commercial Vehicles.**



**Figure 5. Trip Purpose To Destination for Non-Commercial Vehicles.**

Combining the trip purposes into the categories typically used in travel demand modeling (i.e., home-based work [HBW], home-based non-work [HBNW] and non-home based [NHB]) and plotting these distributions yields the results in Figure 6. An HBW trip is 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. An HBNW trip is 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. An NHB trip is a trip which has neither end at home. The majority of trips, over 47 percent, were NHB trips. These are trips for which neither trip end (i.e., the trip origin or the trip destination) is at the home of the individual. HBNW trips accounted for more than 34 percent of the trips and HBW trips accounted for 18 percent of the trips.

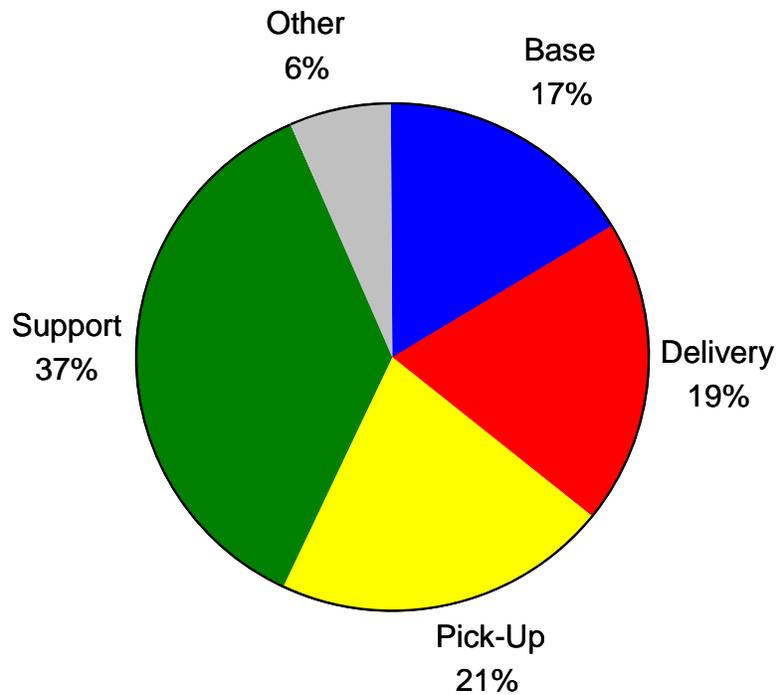


**Figure 6. Distribution of Non-Commercial Vehicle Trips by Trip Purpose.**

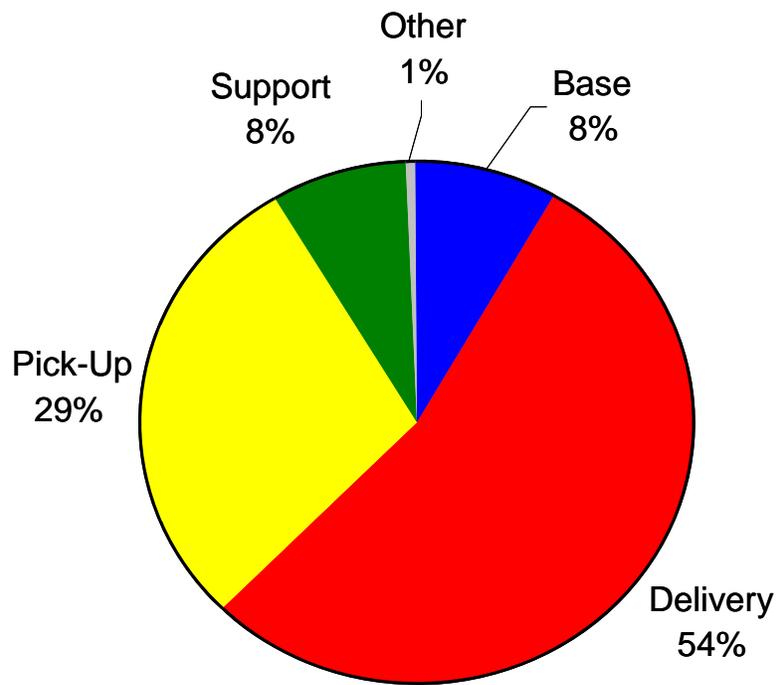
For commercial vehicles, the trip purposes shown in Table 4 were combined into the following five categories:

<u>Category</u>	<u>Trip Purpose Codes</u>
Base Location	1
Delivery	2
Pick-Up	3
Support Functions	4, 5, 6, and 7
Other	8 and 99

Figures 7 and 8 present the distribution of commercial vehicle trips by reported trip purpose at the origin and destination of the trips. The distribution of commercial trips by purpose at the trip origin shows that the majority of trip origins for those surveyed was for support functions which included maintenance, driver needs, home, or to purchase fuel. Pick-up and delivery of cargo accounted for 21 percent and 19 percent of the stated trip origin purpose. This distribution of destination purposes shows that the majority of the surveyed vehicles, 54 percent, were destined for delivery and another 29 percent were destined for pick-up. Support functions and traveling to their base locations were evenly split, each accounting for 8 percent of the stated destination purpose.



**Figure 7. Trip Purpose From Origin for Commercial Vehicles.**

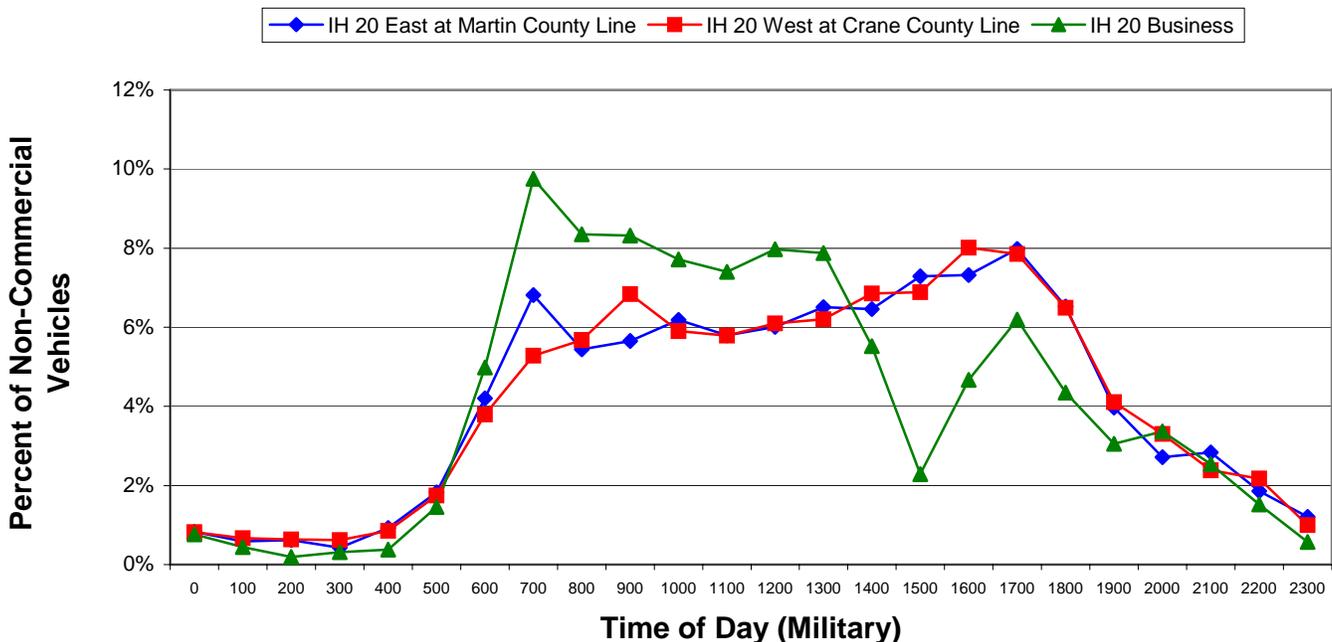


**Figure 8. Trip Purpose To Destination for Commercial Vehicles.**

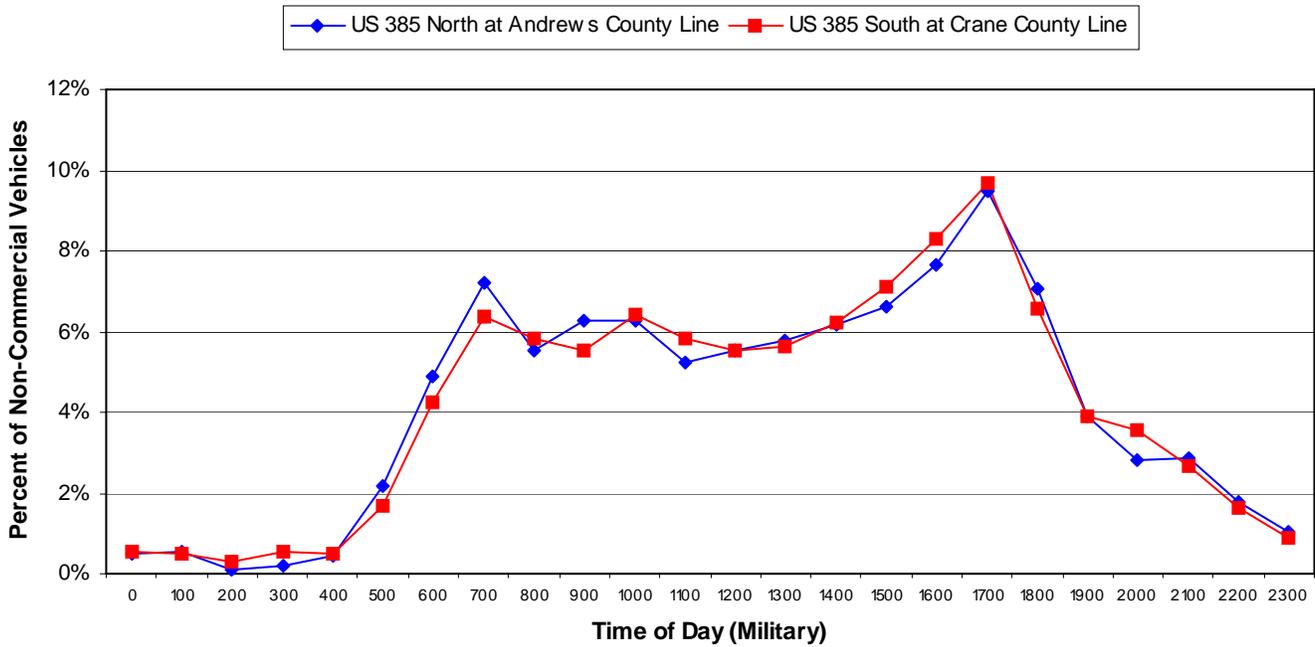
## Time-of-Day

Vehicle classification counts conducted at each external station location (both surveyed and non-surveyed sites) provide information on the number and type of vehicles by direction for 24 hours. This information is primarily used for expansion of the survey data, but is also of interest to examine the distribution of vehicles by time-of-day. The total vehicle counts were shown in Table 1. Figures 9 through 26 present the distribution of non-commercial and commercial vehicles by time-of-day. Note that each chart contains time-of-day information for either two or three locations. For example, Figure 9 contains the time-of-day count data for IH 20 West at the Crane County Line, IH 20 East at the Martin County Line, and IH 20 Business.

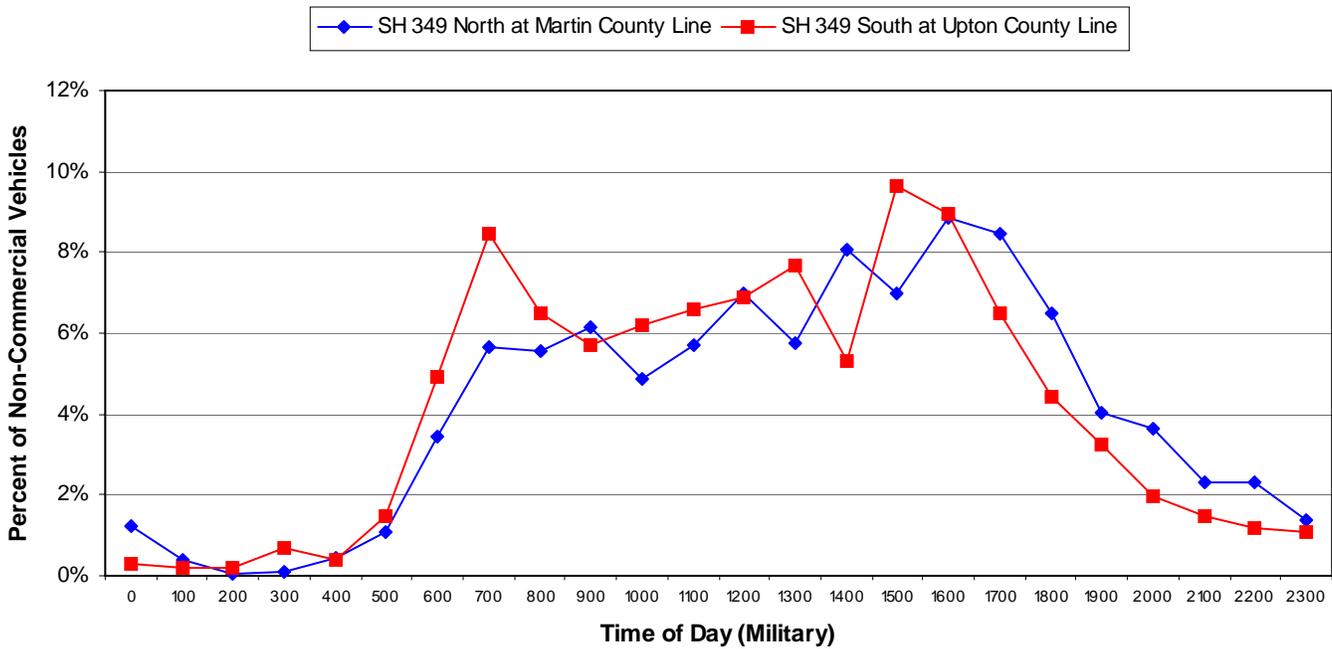
As can be seen from the non-commercial vehicle charts (Figures 9 through 17), most of the roadways, to varying degrees, record the highest percentage of traffic between 6:00 a.m. and 6:00 p.m. Time-of-day records for commercial vehicles show a similar pattern (with the majority of traffic between 6:00 a.m. and 6:00 p.m.) for all roadways with the exception of the IH 20 main lanes which show a relatively even flow of commercial vehicles throughout the 24-hour period.



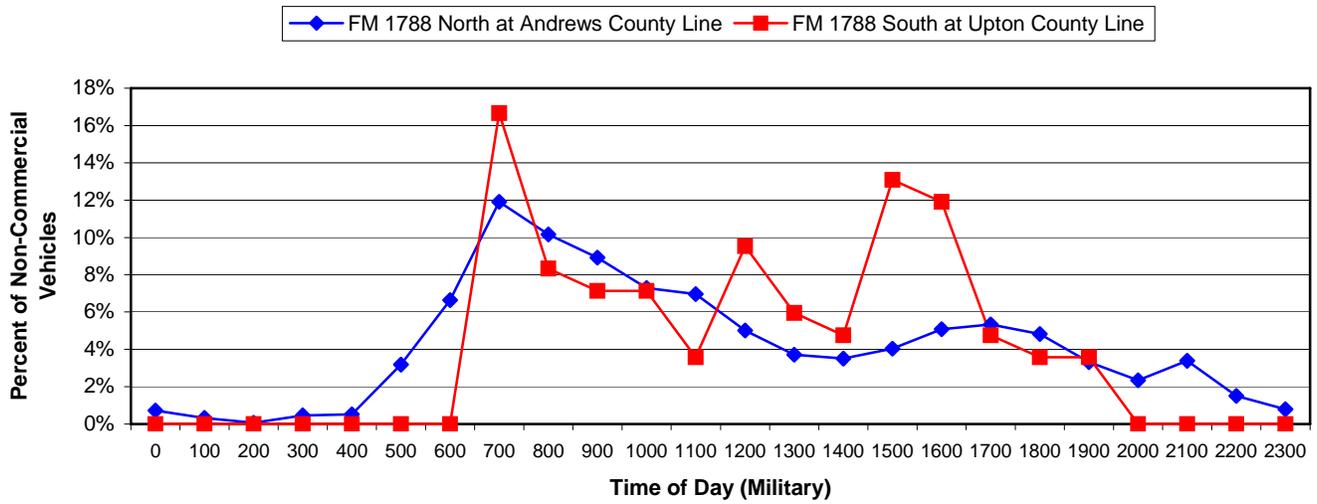
**Figure 9. Distribution of Non-Commercial Vehicles by Time-of-Day for IH 20 East at Martin County Line, IH 20 West at Crane County Line, and IH 20 Business.**



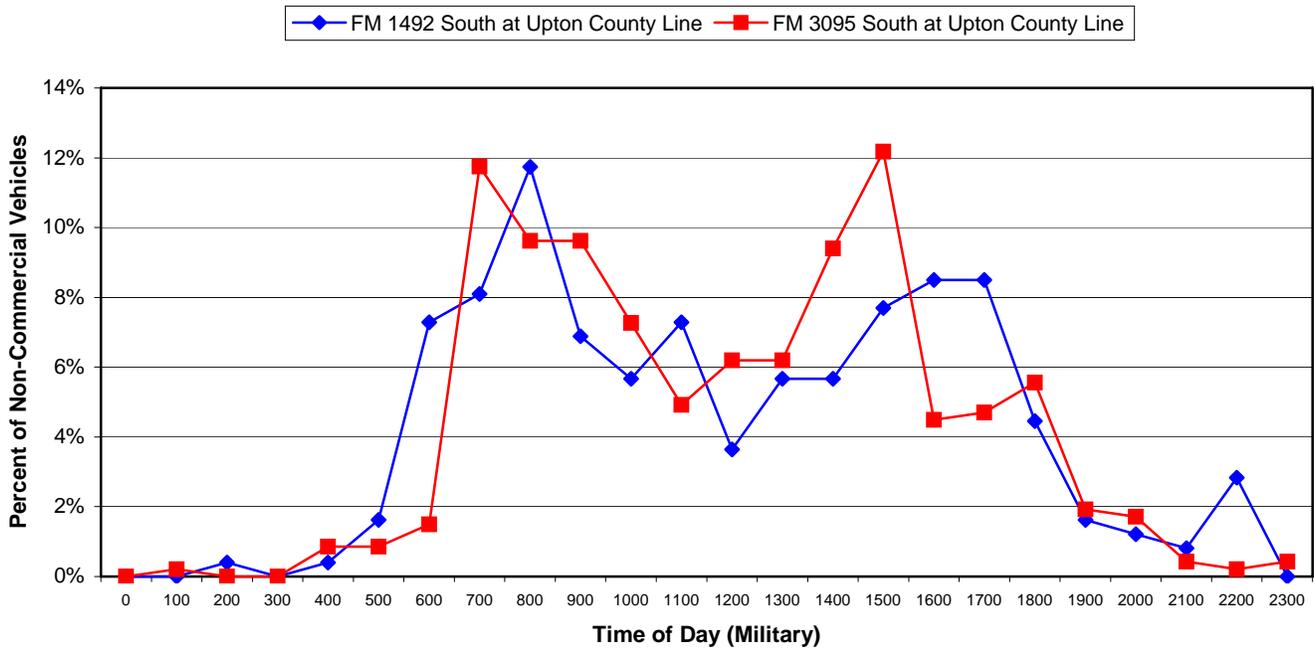
**Figure 10. Distribution of Non-Commercial Vehicles by Time-of-Day for US 385 North at Andrews County Line and US 385 South at Crane County Line.**



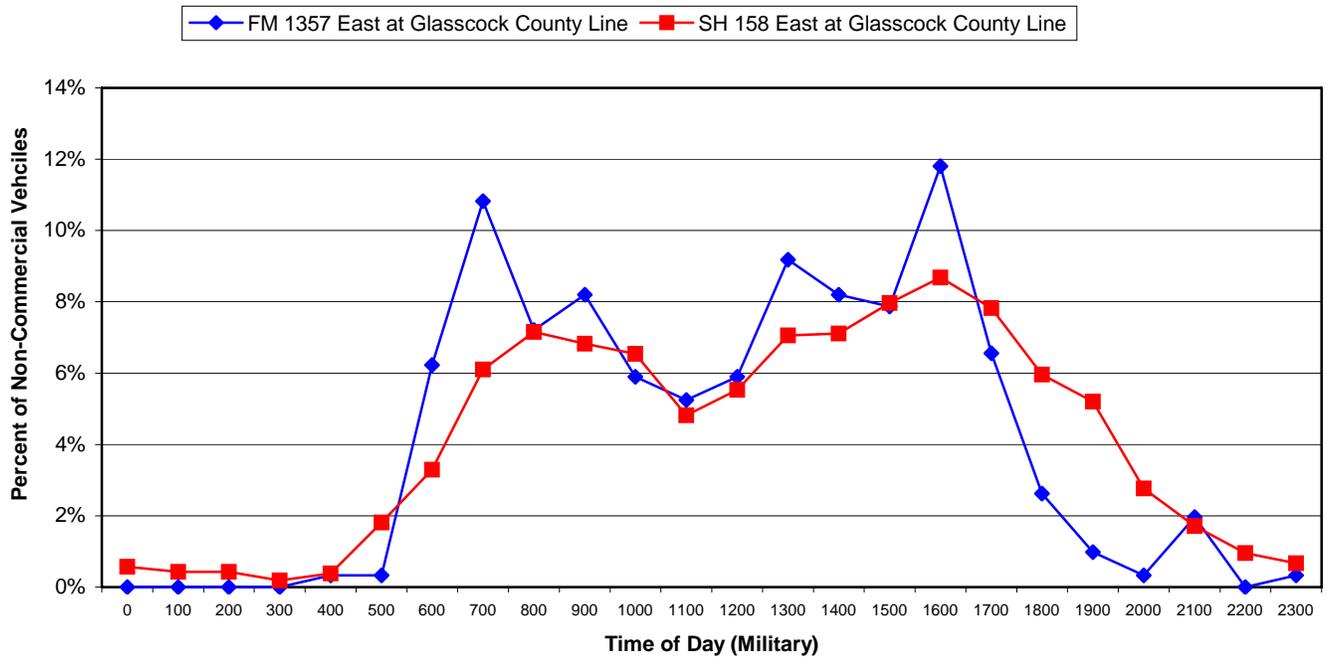
**Figure 11. Distribution of Non-Commercial Vehicles by Time-of-Day for SH 349 North at Martin County Line and SH 349 South at Upton County Line.**



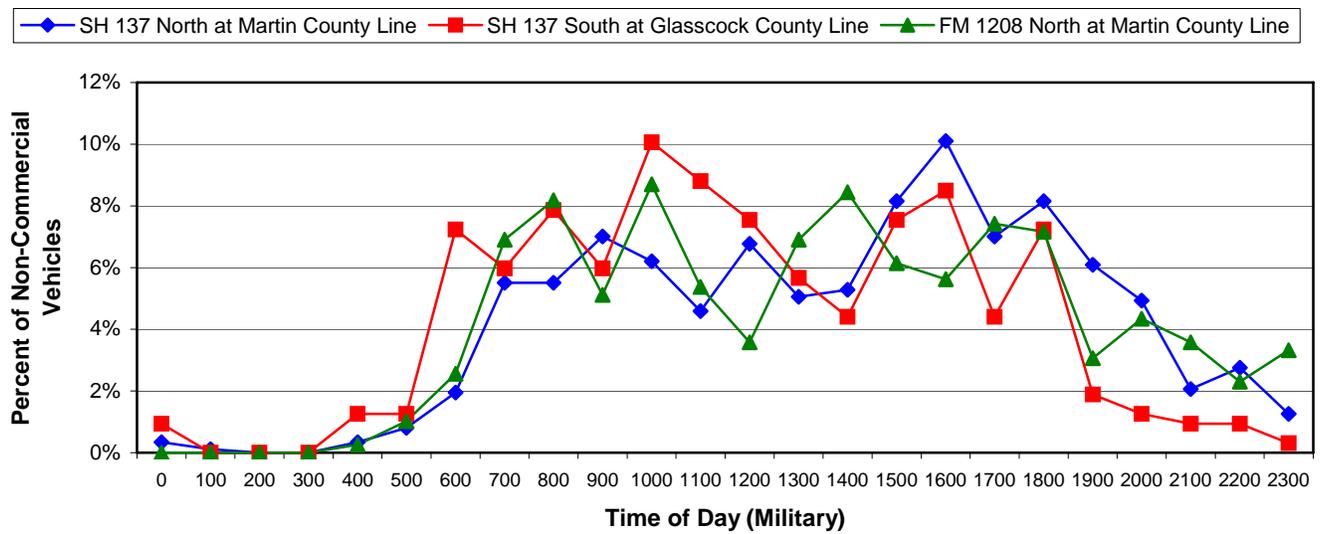
**Figure 12. Distribution of Non-Commercial Vehicles by Time-of-Day for FM 1788 North at Andrews County Line and FM 1788 South at Upton County Line.**



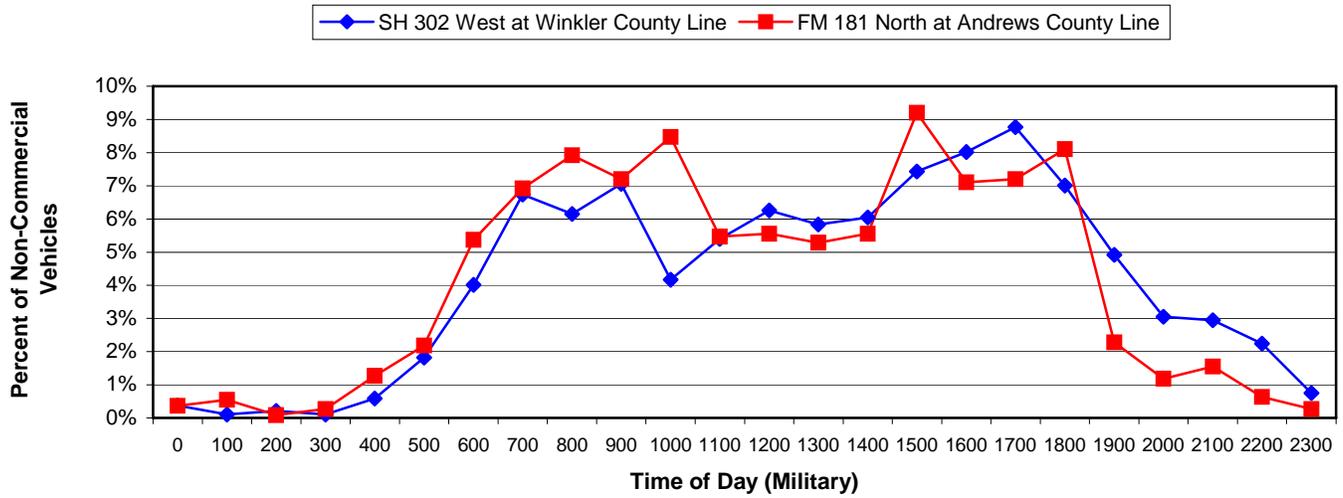
**Figure 13. Distribution of Non-Commercial Vehicles by Time-of-Day for FM 1492 South at Upton County Line and FM 3095 South at Upton County Line**



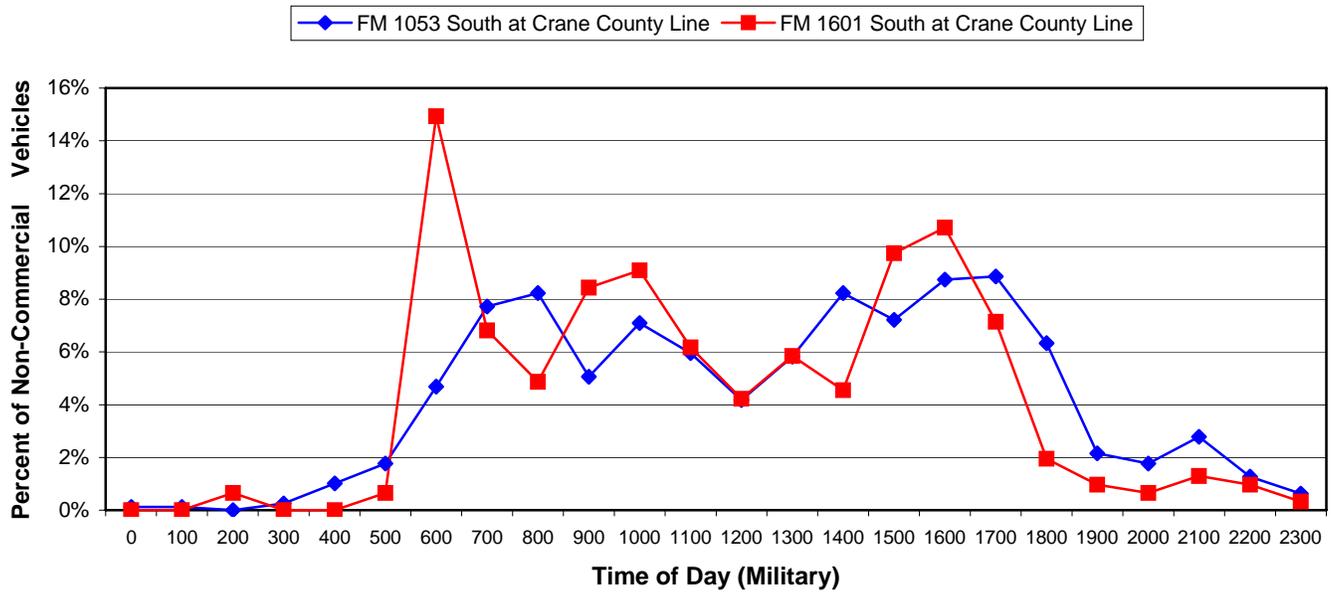
**Figure 14. Distribution of Non-Commercial Vehicles by Time-of-Day for FM 1357 East at Glasscock County Line and SH 158 East at Glasscock County Line.**



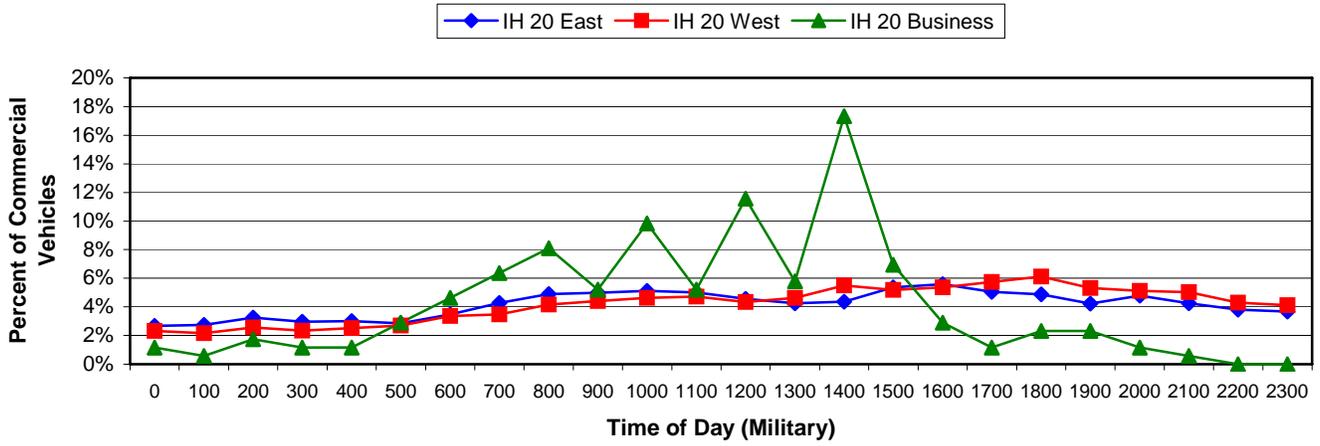
**Figure 15. Distribution of Non-Commercial Vehicles by Time-of-Day for SH 137 North at Martin County Line, SH 137 South at Glasscock County Line, and FM 1208 North at Martin County Line.**



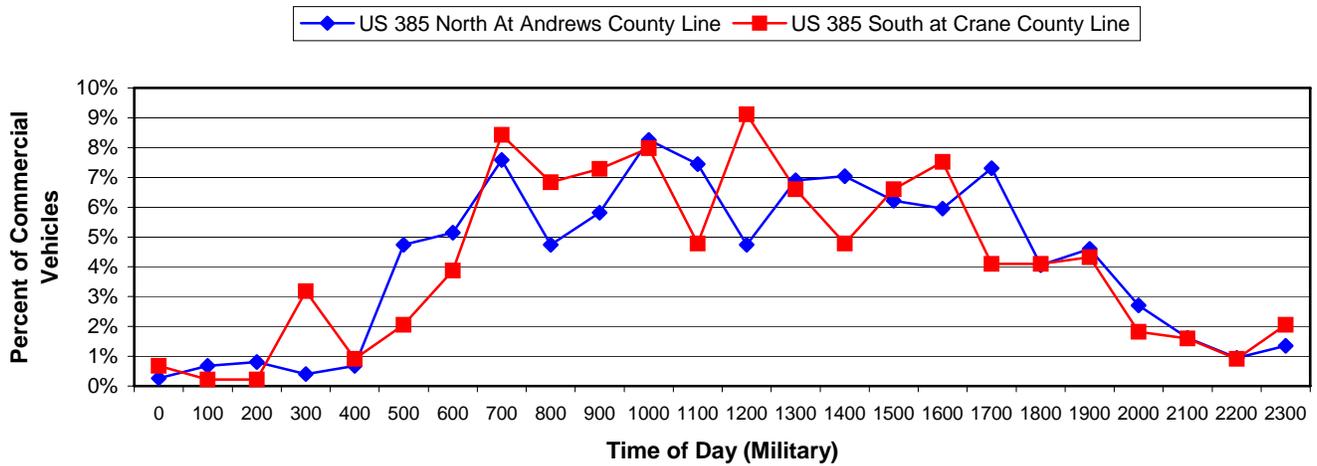
**Figure 16. Distribution of Non-Commercial Vehicles by Time-of-Day for SH 302 West at Winkler County Line and FM 181 North at Andrews County Line.**



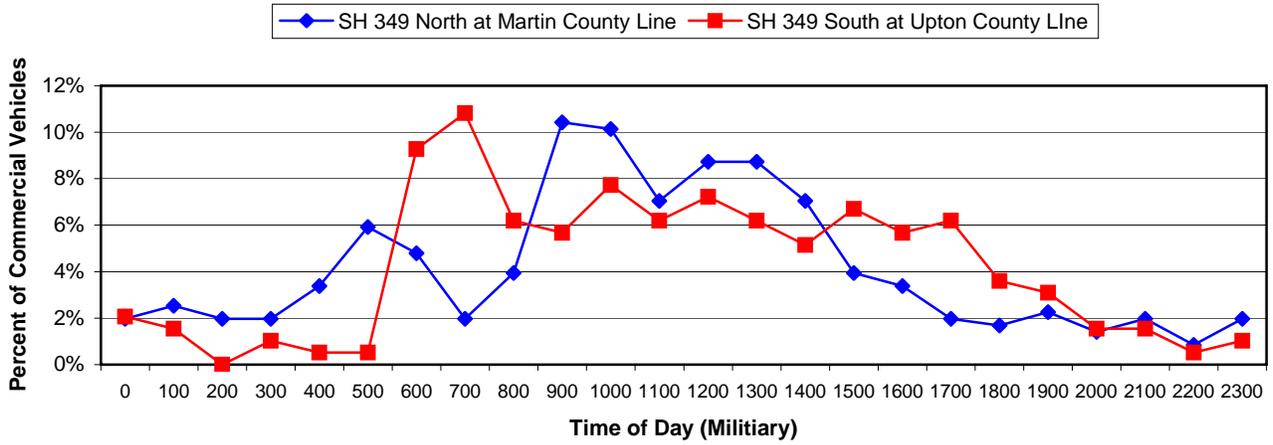
**Figure 17. Distribution of Non-Commercial Vehicles by Time-of-Day for FM 1053 South at Crane County Line and FM 1601 South at Crane County Line.**



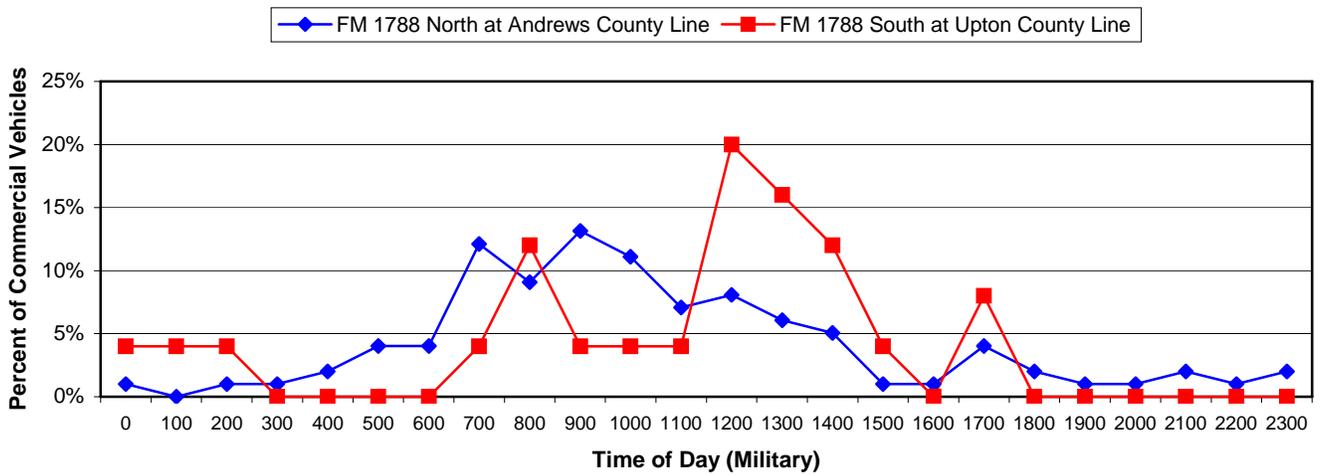
**Figure 18. Distribution of Commercial Vehicles by Time-of-Day for IH 20 East at Martin County Line, IH 20 West at Crane County Line, and IH 20 Business.**



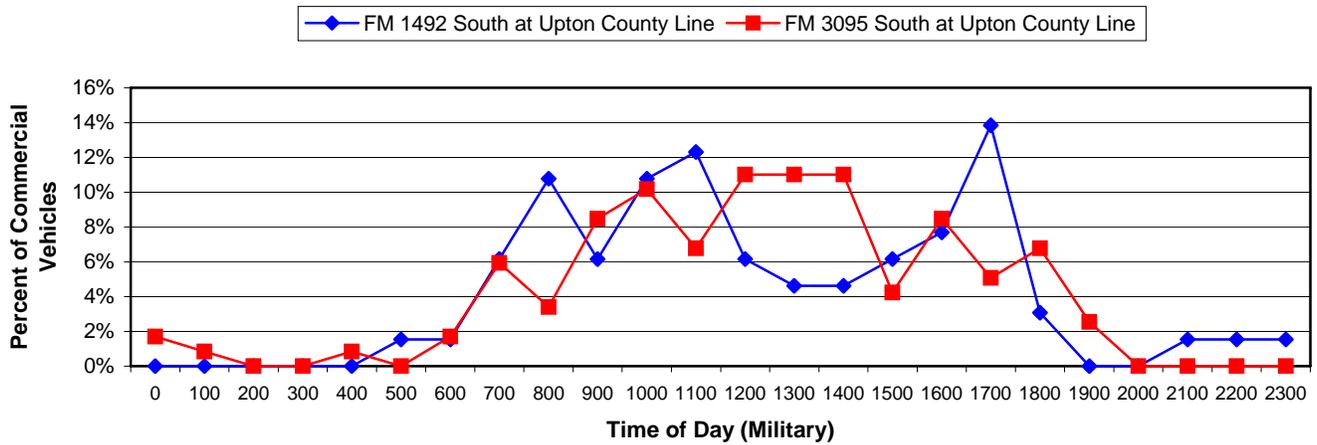
**Figure 19. Distribution of Commercial Vehicles by Time-of-Day for US 385 North at Andrews County Line and US 385 South at Crane County Line.**



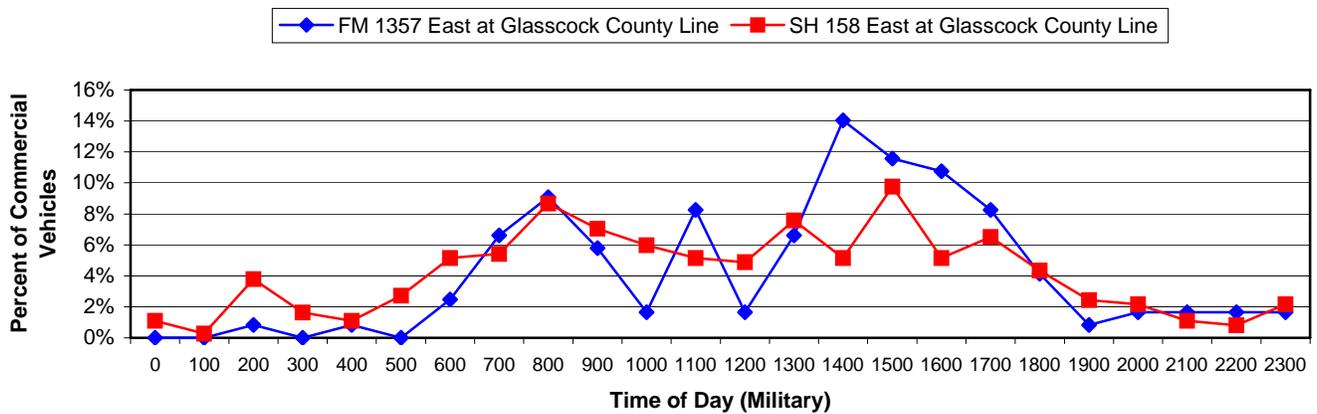
**Figure 20. Distribution of Commercial Vehicles by Time-of-Day for SH 349 North at Martin County Line and SH 349 South at Upton County Line.**



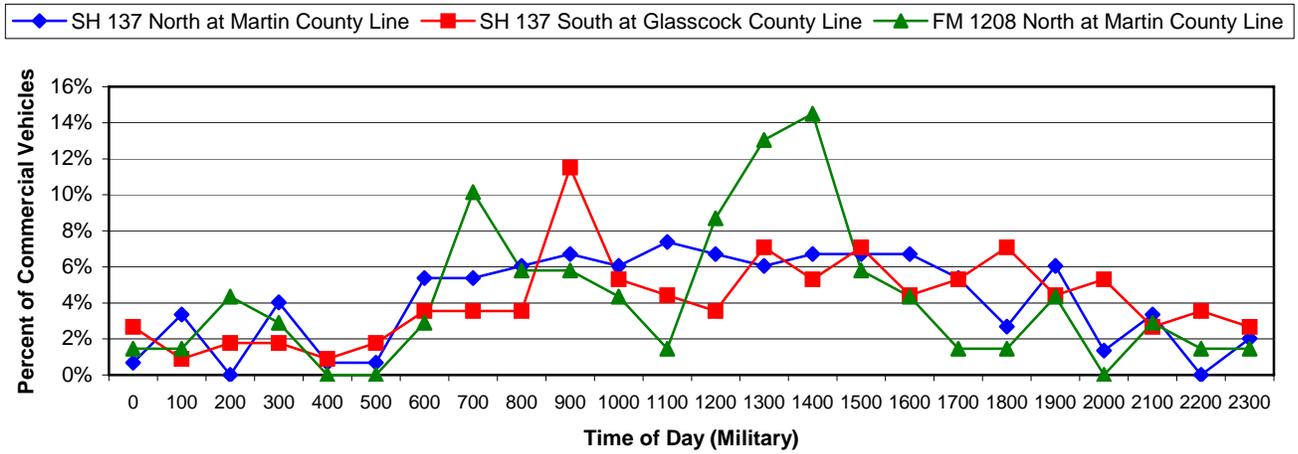
**Figure 21. Distribution of Commercial Vehicles by Time-of-Day for FM 1788 North at Andrews County Line and FM 1788 South at Upton County Line.**



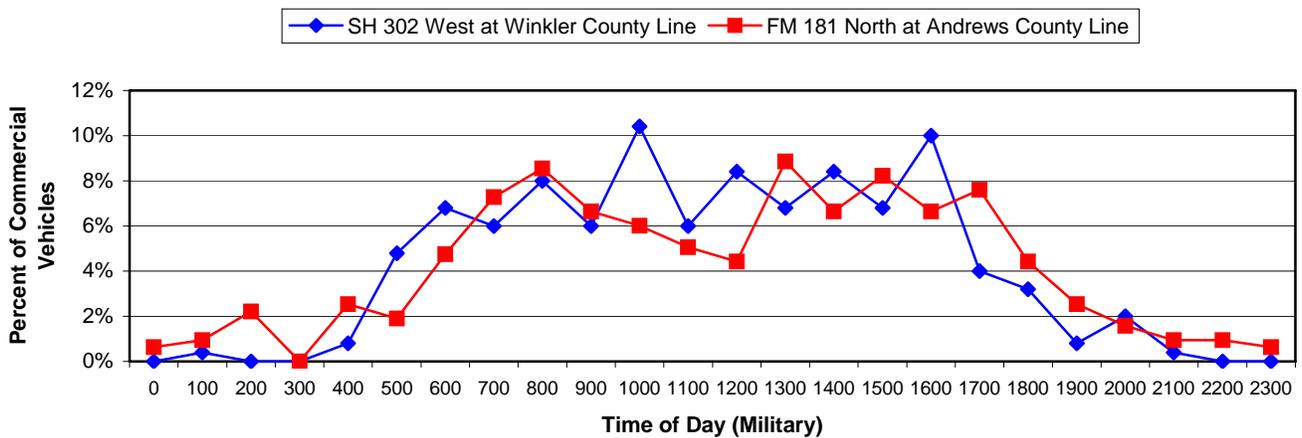
**Figure 22. Distribution of Commercial Vehicles by Time-of-Day for FM 1492 South at Upton County Line and FM 3095 South at Upton County Line.**



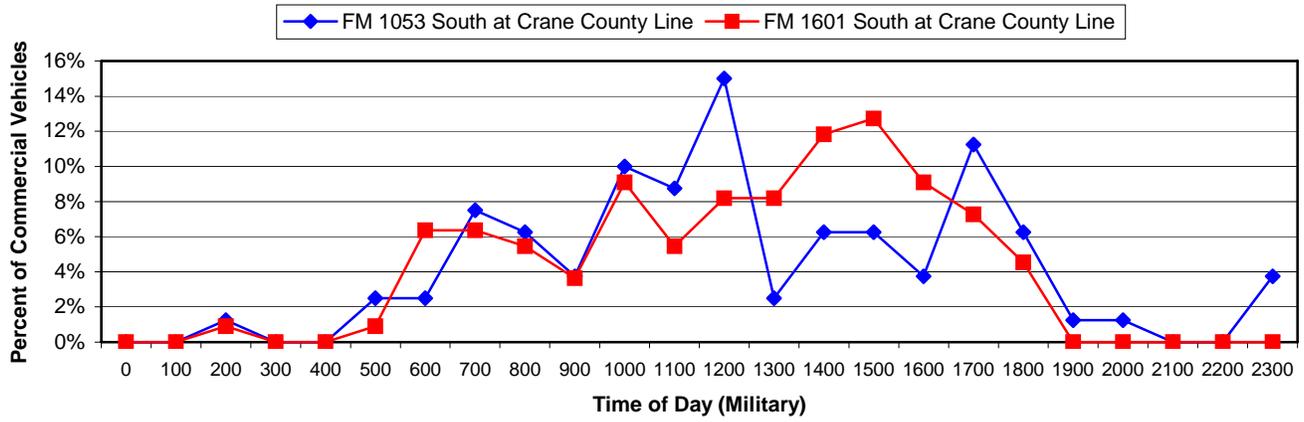
**Figure 23. Distribution of Commercial Vehicles by Time-of-Day for FM 1357 East at Glasscock County Line and SH 158 East at Glasscock County Line.**



**Figure 24. Distribution of Commercial Vehicles by Time-of-Day for SH 137 North at Martin County Line, SH 137 South at Glasscock County Line, and FM 1208 North at Martin County Line.**



**Figure 25. Distribution of Commercial Vehicles by Time-of-Day for SH 302 West at Winkler County Line and FM 181 North at Andrews County Line.**

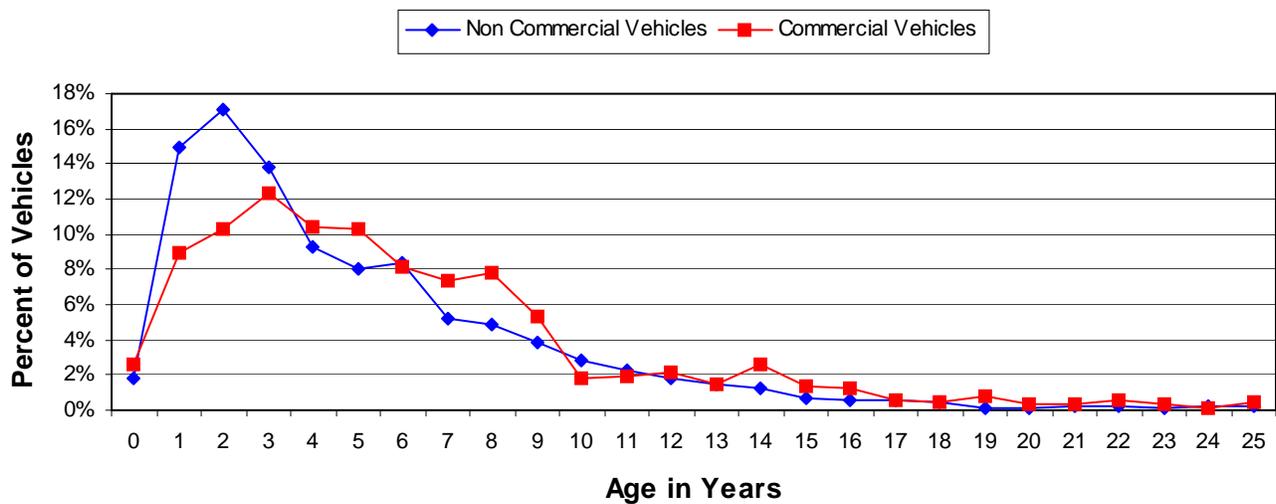


**Figure 26. Distribution of Commercial Vehicles by Time-of-Day for FM 1053 South at Crane County Line and FM 1601 South at Crane County Line.**

## Vehicle Characteristics

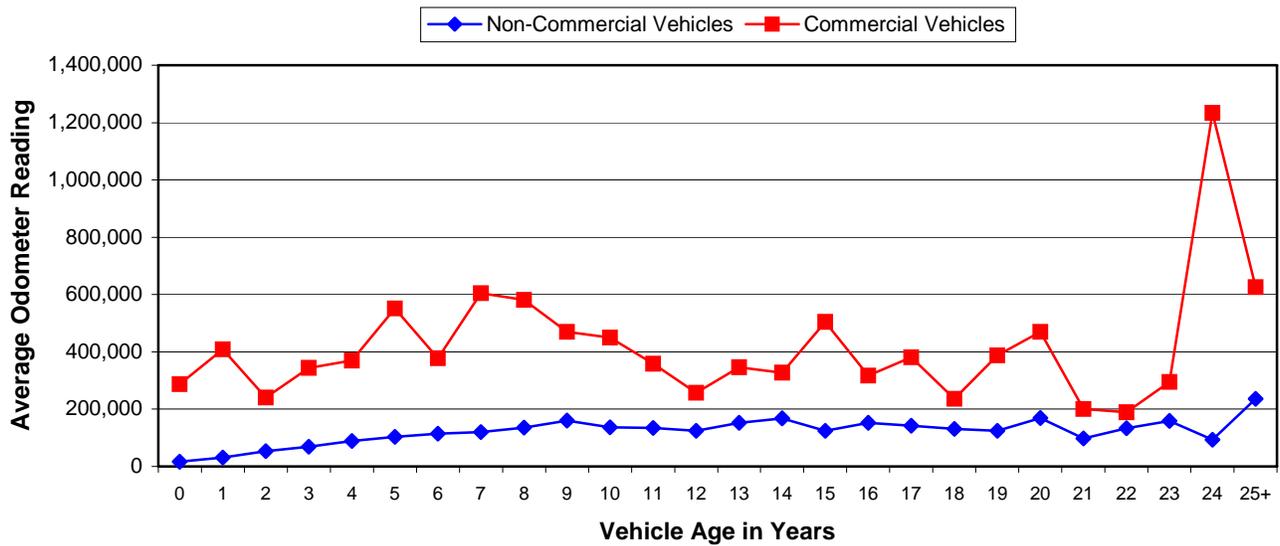
Interviewers collected data on the year, make, odometer readings, and model of each vehicle surveyed. This provides an indication of the distribution of vehicles operating (at least at the external stations) by age and condition (as implied by the number of miles on the vehicle).

Figure 27 presents the distributions of non-commercial and commercial vehicles by age as reported in the surveys. Although there were fewer newer commercial vehicles that are under five years of age, the distribution of commercial and non-commercial vehicles was very similar for vehicles between 5 and 25 years of age. The average age of the non-commercial vehicles was 5.0 years and 6.2 years for the commercial vehicles.



**Figure 27. Distribution of Surveyed Vehicles by Age of Vehicle.**

Figure 28 presents the average odometer readings for commercial vehicles and non-commercial vehicles by age. This data clearly shows the difference in mileage accumulation rates of commercial vehicles as compared to non-commercial vehicles. The data presented in Figure 28 do not show very smooth trends for commercial vehicles. This is due in part to the number of observations in the survey. Table 5 presents the numerical values for the data plotted in Figure 28. The average odometer reading for commercial vehicles was 420,586 miles, almost five times higher than the average for non-commercial vehicles, 87,315 miles.



**Figure 28. Average Odometer Readings for Vehicles by Age of Vehicle.**

**Table 5. Distribution of Surveyed Vehicles by Age and Average Odometer Readings.**

<b>Vehicle Age</b>	<b>Non-Commercial Vehicles</b>	<b>Average Odometer Reading</b>	<b>Commercial Vehicles</b>	<b>Average Odometer Reading</b>
<1	60	16,437	17	287,339
1	500	31,239	59	409,181
2	573	53,578	68	240,034
3	462	69,392	82	344,123
4	310	89,539	69	370,075
5	268	103,736	68	551,826
6	282	114,711	54	377,637
7	174	119,755	49	604,236
8	162	136,000	52	581,651
9	129	160,409	35	470,532
10	94	137,323	12	450,426
11	75	135,291	13	358,538
12	59	124,284	14	257,528
13	50	153,078	10	346,300
14	42	168,152	17	327,871
15	22	124,873	9	504,220
16	18	152,156	8	317,375
17	19	142,506	4	381,000
18	14	131,966	3	236,000
19	5	124,586	5	387,800
20	5	168,800	2	470,500
21	7	98,271	2	200,500
22	8	133,549	4	189,750
23	4	159,250	2	295,579
24	6	93,523	1	123,400
25+	9	236,232	3	625,500
<b>Totals</b>	<b>3,357</b>	<b>87,315</b>	<b>662</b>	<b>420,586</b>

## Vehicle Occupancy

As vehicles were surveyed, one of the data items recorded was the class or type of vehicle and the number of persons in the vehicle. This information provides a means for estimating the number of persons traveling in and out of Midland and Ector counties. Table 6 presents the number of observed non-commercial and commercial vehicles by class and the average occupancy of each. The overall average occupancy for non-commercial vehicles was 1.39 persons and 1.15 persons for commercial vehicles.

**Table 6. Distribution of Vehicles by Class and Average Occupancy.**

<b>Non-Commercial Vehicle Classification</b>	<b>Observed Vehicles</b>	<b>Average Occupancy</b>	<b>Commercial Vehicle Classification</b>	<b>Observed Vehicles</b>	<b>Average Occupancy</b>
Passenger Vehicle	3,276	1.39	Single Unit – 2 Axle 6 Wheels	86	1.30
Bus	27	1.96	Single Unit – 3 Axle 10 Wheels	39	1.25
Taxi-Paid Limo	0	N/A	Single Unit – 4 Axle 14 Wheels	17	1.29
School Bus	1	1.0	Semi-Tractor Trailer Combinations	522	1.11
Commercial Vehicle	41	1.14	Other	0	N/A
Motorcycle	3	1.0			
Recreational Vehicle	11	1.54			
Other	0	N/A			

## Commercial Vehicle Cargo Characteristics

Commercial vehicles represent a major component of travel into, out of, and through Midland and Ector counties. Specific questions were included in the commercial vehicle survey to obtain information on the cargo being transported, the type of facility where it was picked up and its destination, and how the cargo was transported to the vehicle. Table 7 presents data on the number of commercial vehicles surveyed by survey site and whether the cargo was from Mexico. Almost 45 percent of the vehicles surveyed were empty or carrying no cargo. For those vehicles with cargo, almost 95 percent were carrying cargo that was not from Mexico.

**Table 7. Commercial Vehicles by Survey Site and Cargo Origin.**

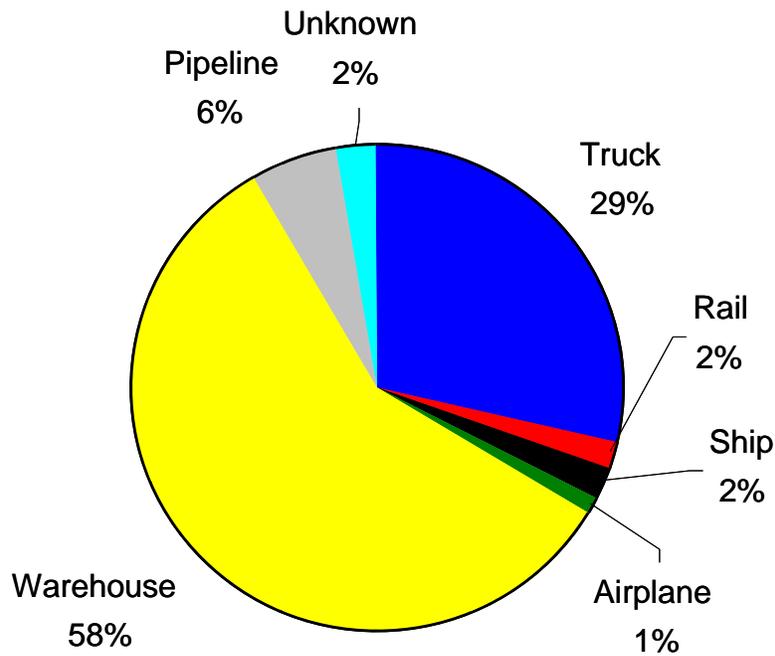
<b>Station Number</b>	<b>Facility</b>	<b>Surveyed Vehicles</b>	<b>Empty Vehicles</b>	<b>Vehicles with Mexico Cargo</b>	<b>Vehicles Without Mexico Cargo</b>
701	FM 1053 South	31	17	2	12
702	FM 1601 South	Not Surveyed			
703	US 385 South	41	20	0	21
704	FM 1492 South	Not Surveyed			
705	FM 1788 South	Not Surveyed			
706	SH 349 South	26	11	0	15
707	FM 3095 South	Not Surveyed			
708	FM 1357 East	Not Surveyed			
709	SH 158 East	54	30	1	23
710	SH 137 South	29	21	0	8
711	SH 137 North	Not Surveyed			
712	IH 20 East Main Lanes	128	42	12	74
712b	Bus. IH 20 Ramp East	24	16	0	8
713	FM 1208 North	Not Surveyed			
714	SH 349 North	43	23	1	19
715	FM 1788 North	31	10	0	21
716	US 385 North	52	25	0	27
717	FM 181 North	51	22	0	29
718	SH 302 West	55	29	2	24
719	IH 20 West	99	32	2	65
Totals		664	298	20	346

Table 8 presents the breakdown of surveyed commercial vehicles by their reported cargo. Empty vehicles comprise the majority, 44 percent, of commercial vehicles surveyed. For those with cargo that was identified, most, 11.31 percent, reported a cargo of manufactured goods / equipment products. Other common reported cargo types for surveyed vehicles included food / health / beauty products, 6.18 percent, metals and minerals, 4.37 percent, and miscellaneous shipments, 4.07 percent.

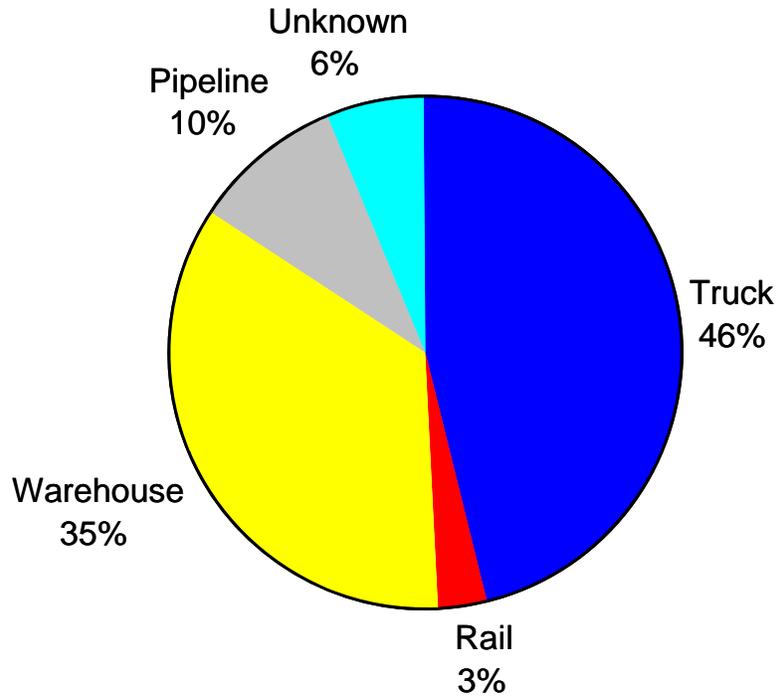
**Table 8. Distribution of Commercial Vehicles by Types of Cargo.**

<b>Type of Cargo</b>	<b>Number of Vehicles</b>	<b>Percent of Vehicles</b>
Farm products	13	1.96
Forest Products	2	0.30
Marine Products	2	0.30
Metals and Minerals	29	4.37
Food, Health, and Beauty Products	41	6.18
Tobacco Products	0	0.00
Textiles	6	0.90
Wood Products	16	2.41
Printed Matter	9	1.36
Chemical Products	24	3.62
Refined Petroleum or Coal Products	2	0.30
Rubber, Plastic, and Styrofoam Products	16	2.41
Clay, Concrete, Glass, or Stone Products	19	2.87
Manufactured Goods / Equipment Products	75	11.31
Wastes	4	0.60
Miscellaneous Shipments	27	4.07
Hazardous Materials	15	2.26
Transportation Products	25	3.77
Unclassified Cargo	33	4.98
Refused to Answer	20	0.30
Unknown to Driver	9	1.36
Empty	294	44.34
Totals	681	100.00

Figures 29 and 30 present the distribution of surveyed commercial vehicles by the type of transfer for their cargo at the origin (point of pick-up) and at the destination (point of delivery). There were no vehicles transferring cargo from plane or ship at the point of delivery (Figure 30) so these categories were not shown in the figure. The majority of respondents reported that cargo transfer at the point of pick-up was from the warehouse, 58 percent, or from a truck, 29 percent. Cargo transfer at the point of delivery was largely to a truck, 46 percent, or to a warehouse, 35 percent.



**Figure 29. Distribution of Commercial Vehicles by Transfer at Point of Cargo Pickup.**



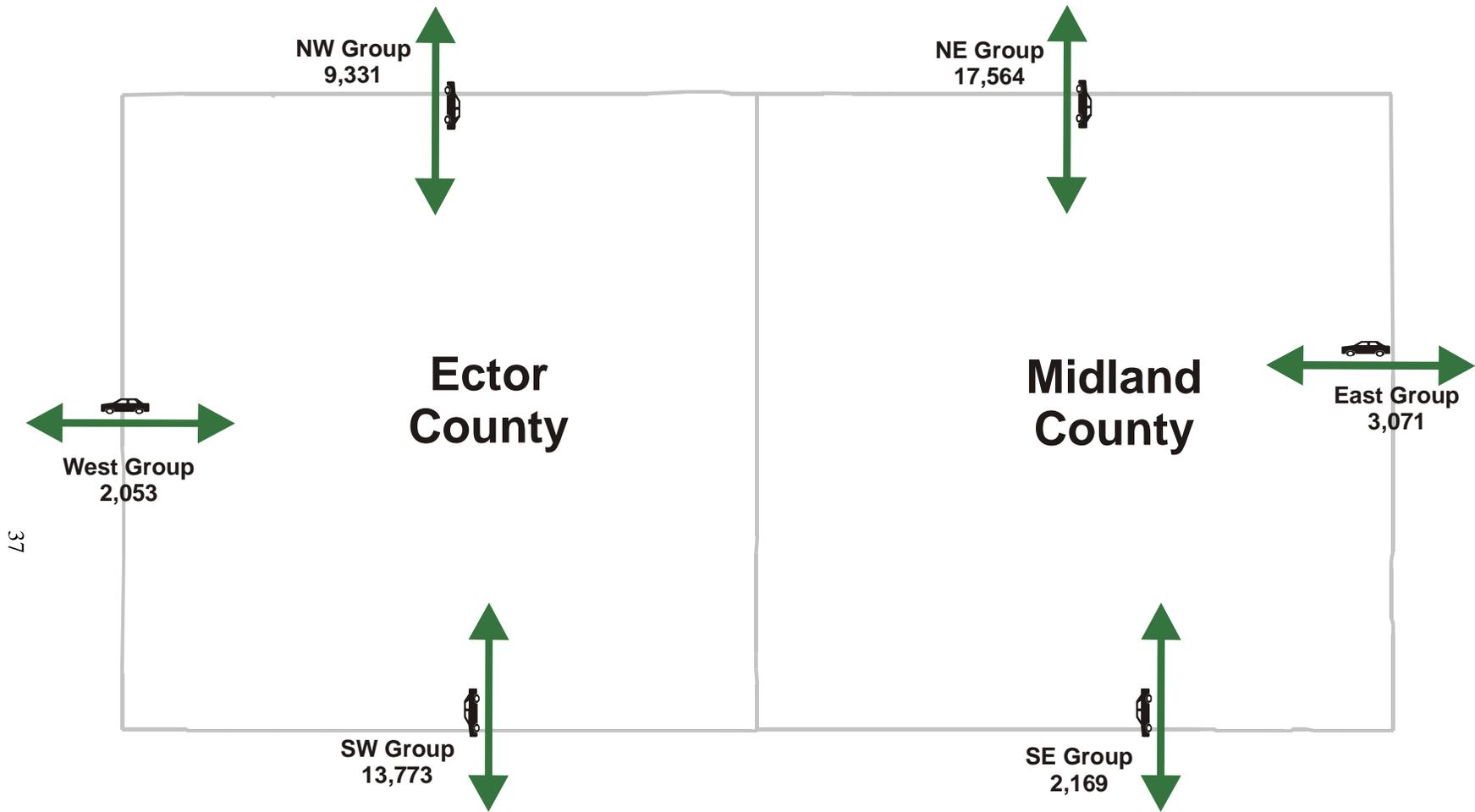
**Figure 30. Distribution of Commercial Vehicles by Transfer at Point of Cargo Delivery.**

### **Expanded Vehicle Survey**

The vehicle survey data were expanded based on the 24-hour directional vehicle classification counts conducted at each survey site on the day the site was surveyed. The assumption is made that the traffic in the non-surveyed direction is a mirror image of the traffic in the surveyed direction. For example, if 10 percent of the surveyed outbound traffic was through trips, it is assumed that 10 percent of the inbound traffic will be through trips. Table 9 presents the expanded estimates of external local and through trips for non-commercial and commercial vehicles by site as well as the estimates of trips by residents and visitors (non-residents). It should be noted that estimates are included in Table 9 for the non-surveyed sites. These estimates are based on the 24-hour vehicle classification counts and two assumptions. The first is that for those sites for which no through trips were reported from the surveyed stations surrounding the non-surveyed site, all the trips are assumed to be local. The second assumption is that the trips are assumed to be made by a similar percentage of residents and non-residents as the surrounding sites that were surveyed. Figure 31 shows the estimates of external local trip movements by direction. Figure 32 shows the estimates of through trip movements by direction and location groups.

**Table 9. Expanded Survey Results by Station.**

Station Number	Facility	Non-Commercial			Commercial			Residents	Visitors
		Local	Through	Total	Local	Through	Total		
701	FM 1053 South	843	19	862	77	3	80	537	325
702	FM 1601 South	300	0	300	110	0	110	187	113
703	US 385 South	2,989	48	3,037	408	31	439	1,151	1,886
704	FM 1492 South	239	0	239	65	0	65	91	148
705	FM 1788 South	88	0	88	25	0	25	33	55
706	SH 349 South	968	11	979	187	7	194	506	473
707	FM 3095 South	481	0	481	116	2	118	249	232
708	FM 1357 East	287	0	287	121	0	121	148	139
709	SH 158 East	1,972	24	1,996	363	6	369	1,104	892
710	SH 137 South	240	59	299	88	25	113	57	242
711	SH 137 North	665	57	722	117	32	149	138	584
712	IH 20 East Main Lanes	5,191	294	5,485	4,507	1,210	5,717	2,391	3,094
712b	Bus. IH 20 Ramp East	4,125	6	4,131	171	0	171	1,826	2,305
713	FM 1208 North	308	0	308	69	0	69	140	168
714	SH 349 North	2,085	16	2,101	326	9	335	954	1,147
715	FM 1788 North	1,969	14	1,983	99	0	99	993	990
716	US 385 North	5,224	62	5,286	709	30	739	2,432	2,854
717	FM 181 North	1,016	9	1,025	314	2	316	730	295
718	SH 302 West	1,809	21	1,830	244	6	250	774	1,056
719	IH 20 West	5,741	316	6,057	3,305	1,192	4,497	1,793	4,264
Totals		36,540	956	37,496	11,421	2,555	13,976	16,234	21,262



**Figure 31. Estimates of External Local Trip Movements by Direction.**

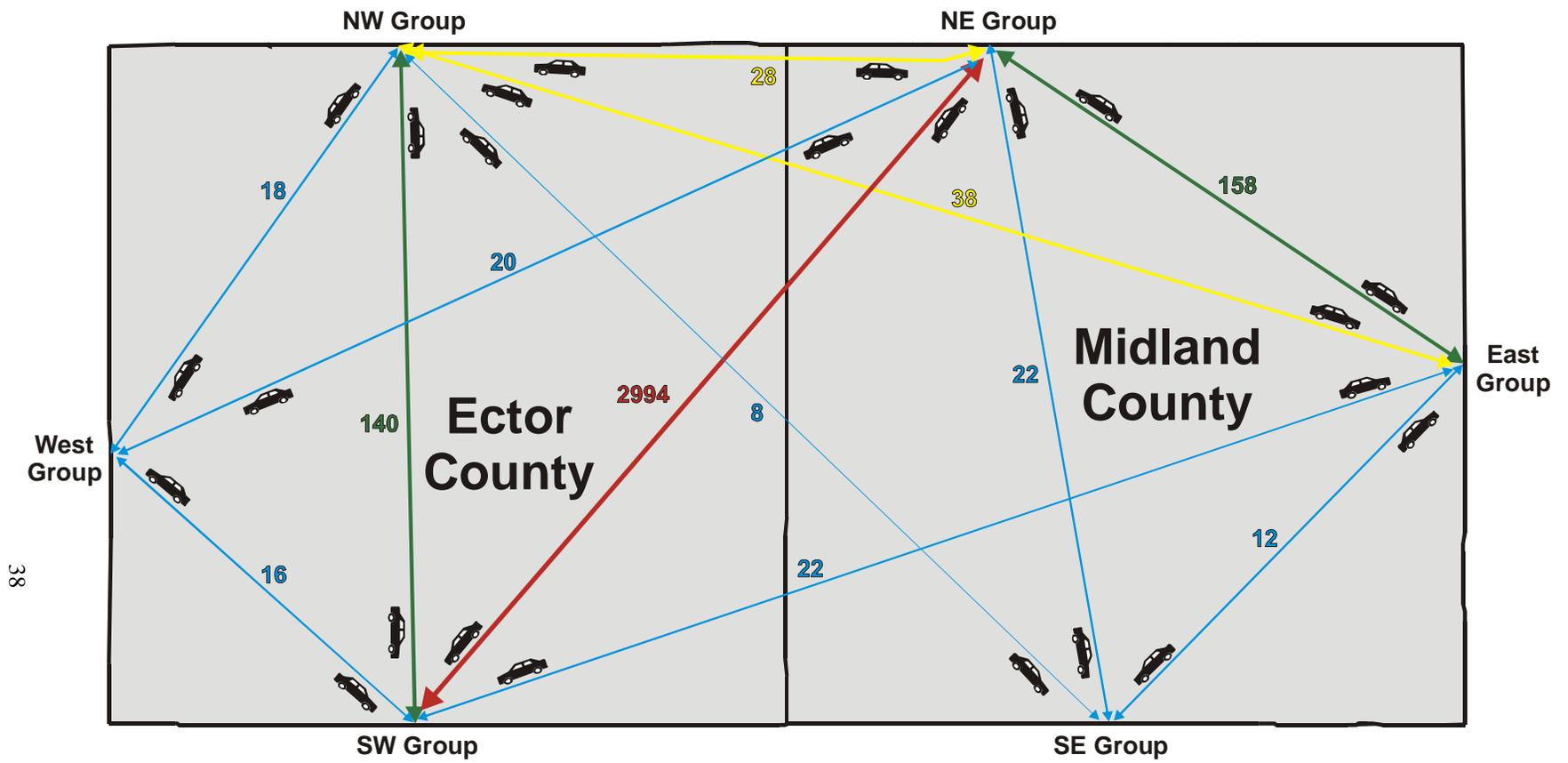


Figure 32. Estimates of Through Trip Movements by Location Group.

The expanded survey data were used to develop external zone-to-internal zone estimates of non-commercial and commercial vehicles trips based on the geocoded origins and destinations for the surveyed trips. Trips for the non-surveyed sites were distributed to the destination zones observed from the surveyed sites that were in close proximity. It is assumed that the surveyed sites surrounding the non-surveyed locations are representative of the most likely destination zones for the non-surveyed sites. Since the volume of vehicle trips at the non-surveyed sites is low, the amount of error that may be generated by that assumption is believed to be small.

## **SURVEY SUMMARY**

Over 51,000 vehicles enter and leave the Midland / Ector County Survey Area daily. Of these vehicles, more than 27 percent are commercial vehicles. Fewer than 7 percent of the vehicles make through trips. More than 26,000 vehicles, representing 42 percent of the non-commercial vehicles and 74 percent of the commercial vehicles, enter or leave the area via IH 20. Non-residents account for almost 57 percent of the non-commercial vehicles entering and leaving the county.

Based on the average vehicle occupancy observed in the survey, an estimated 52,120 persons are entering and leaving Midland and Ector counties daily by non-commercial vehicle and nearly 16,100 persons are entering and leaving by commercial vehicle. The estimated number of non-residents that enter Midland or Ector counties daily is just under 29,600. This implies that the population of Midland and Ector counties increases by 12 percent daily due to local trips made by non-residents. Internal travel by non-residents is estimated to be nearly 6,000 vehicle trips.

The majority of non-commercial trips were NHB trips, trips for which neither the trip origin nor the trip destination were at home. Most non-commercial trips began at work, 34 percent, or shopping, 33 percent. The most common destination for non-commercial trips was work, 44 percent.

A total of 37 percent of commercial vehicle drivers reported support functions as the trip purpose at the origin end of their trip. Picking up and delivering cargo were cited as the origin trip purpose for 21 percent and 19 percent, respectively, of commercial vehicles. The most

common trip purposes for the destination end of commercial vehicle trips were cargo delivery, 54 percent, and cargo pick-up, 29 percent.

The distribution of non-commercial and commercial vehicles by time-of-day was similar for most roadways in that the highest percentage of traffic is recorded between 6:00 a.m. and 6:00 p.m. The only exception to this is for commercial traffic on IH 20. The IH 20 main lanes show a relatively even flow of commercial vehicles throughout the 24-hour period.

The average age for commercial vehicles was 6.2 years and for non-commercial vehicles was 5.0 years. Odometer readings for commercial vehicles revealed that the average mileage of 420,586 was almost five times greater than that for non-commercial vehicles. Average occupancy for non-commercial vehicles was 1.39 persons, or 17 percent higher than the 1.15 persons reported for commercial vehicles.

Of the commercial vehicles surveyed, 379 respondents, 57 percent, reported carrying cargo. The majority of vehicles with identified cargo were carrying manufactured goods or food / beauty / health products. Of the vehicles with cargo, only 5 percent reported that the cargo was destined to / from Mexico.

## **APPENDIX**



**MIDLAND / ECTOR COUNTY EXTERNAL STATION  
NON-COMMERCIAL VEHICLE SURVEY FORM - A**  
(Outbound Direction from Midland / Ector Counties)

Station # \_\_\_\_\_ Survey Date \_\_\_\_\_

Station Name / Location \_\_\_\_\_ Interviewer \_\_\_\_\_

For each vehicle you collect	Vehicle 1	Vehicle 2	Vehicle 3
Time	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.
Number of people in vehicle			
Vehicle Type			

**Vehicle Type Options:**      **1) Passenger (car / truck / van)**    **2) Bus**      **3) Taxi / Paid Limo**      **4) School Bus**  
**5) Commercial Vehicle (over 1 ton)**    **6) Motorcycle**      **7) Recreational Vehicle**    **8) Other (specify in block)**

QUESTIONS:	Vehicle 1	Vehicle 2	Vehicle 3
1. What year, make, and model is this vehicle?  Gas (leaded, unleaded), diesel, propane or other fuel?	<p>_____</p> <p style="text-align: center;">Year</p> <p>_____</p> <p style="text-align: center;">Make</p> <p>_____</p> <p style="text-align: center;">Model</p> <p>Leaded <input type="checkbox"/>    Unleaded <input type="checkbox"/>            Diesel <input type="checkbox"/>    Propane <input type="checkbox"/>            Other <input type="checkbox"/> _____</p>	<p>_____</p> <p style="text-align: center;">Year</p> <p>_____</p> <p style="text-align: center;">Make</p> <p>_____</p> <p style="text-align: center;">Model</p> <p>Leaded <input type="checkbox"/>    Unleaded <input type="checkbox"/>            Diesel <input type="checkbox"/>    Propane <input type="checkbox"/>            Other <input type="checkbox"/> _____</p>	<p>_____</p> <p style="text-align: center;">Year</p> <p>_____</p> <p style="text-align: center;">Make</p> <p>_____</p> <p style="text-align: center;">Model</p> <p>Leaded <input type="checkbox"/>    Unleaded <input type="checkbox"/>            Diesel <input type="checkbox"/>    Propane <input type="checkbox"/>            Other <input type="checkbox"/> _____</p>
2. What is the mileage on your odometer?			
3. Do you live in Texas?	<input type="checkbox"/> Yes <input type="checkbox"/> No (go to 4) <input type="checkbox"/> Refused (go to 4)	<input type="checkbox"/> Yes <input type="checkbox"/> No (go to 4) <input type="checkbox"/> Refused (go to 4)	<input type="checkbox"/> Yes <input type="checkbox"/> No (go to 4) <input type="checkbox"/> Refused (go to 4)
3a. Did you travel from home today?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused
3b. What city / county is your home located in? <i>If Not a resident of Midland / Ector County ask:</i>			
3c. Did you stay in Midland / Ector County overnight?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 5)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 5)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 5)
3d. How many nights have you stayed in Midland / Ector County (after 3d, go to 5)			
4. What city and state do you live in?  (also write in city / state info for Mexico)	<p>_____</p> <p style="text-align: center;">(city / state in US or Mexico)</p> <input type="checkbox"/> Refused	<p>_____</p> <p style="text-align: center;">(city / state in US or Mexico)</p> <input type="checkbox"/> Refused	<p>_____</p> <p style="text-align: center;">(city / state in US or Mexico)</p> <input type="checkbox"/> Refused
4a. Did you enter Texas today?  <i>If No</i> , what date did you enter Texas?	<input type="checkbox"/> Yes (if yes, go to 4b) <input type="checkbox"/> No _____(date) <input type="checkbox"/> Refused	<input type="checkbox"/> Yes (if yes, go to 4b) <input type="checkbox"/> No _____(date) <input type="checkbox"/> Refused	<input type="checkbox"/> Yes (if yes, go to 4b) <input type="checkbox"/> No _____(date) <input type="checkbox"/> Refused
4b. Where outside of Texas did you travel from? (city, county, state)			
4c. What road / bridge did you use to enter Texas?			
4d. Did you stay in Midland / Ector County overnight?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 5)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 5)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 5)
4e. How many nights have you stayed in Midland / Ector County?			

5. Where was the <i>last</i> place you got into your vehicle(place / address or nearest intersection / city)			
5a. What time did you leave that place?	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.
5b. What type of place was that? (choose from type of place options)			
5c. What was your purpose for being at your last location? (Choose from trip purpose options)			
5d. Was that location in Midland or Ector County?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (Yes go to 6)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (Yes go to 6)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (Yes go to 6)
5e <i>If not in Midland / Ector County</i> , what road / bridge did you use to enter Midland / Ector County?			

- Type of Place Options:**      1) Office Building    2) Retail / Shopping    3) Industrial / Manufacturing    4) Medical  
5) Educational (12<sup>th</sup> grade or lower)    6) Educational (college, trade, etc.)    7) Government    8) Residential  
9) Airport    10) Other (specify)    11) Refused / Unknown

- Trip Purpose Options:**    1) Home / Return Home    2) Go / Return to Work    3) Work-Related    4) School    5) Vacation  
6) Visit Friends / Family    7) Eat Out    8) Shop    9) Buy Gas    10) Personal Business  
11) Pick-Up / Drop-Off Passenger    12) Change Travel Modes    13) Delivery    14) Other (specify)    99) Refused/Unknown

6. Where is your next destination? (place / address or nearest intersection / city)			
6a. What is your purpose for traveling to this destination? (Choose from trip purpose options)			
7. Are you going to a location out of Texas?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 7d)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 7d)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if no, go to 7d)
<i>If Yes:</i> 7a. What city and state are you going to?			
7b. What road / bridge will you use to leave Texas?			
7c. How many more days will you be in Texas?			
<i>If No</i> 7d. What city / county in Texas are you going to?			

**To measure the amount of travel you made today, we need to know the number of places you have gone today. Would you please tell us:**

8. Where did your first trip today begin? (city / county / landmark))			
9. Where did you go from there? (city / county / landmark)			
10. Where did you go next? (city / county / landmark)			
11. Where did you go next? (city / county / landmark)			
12. How many more places did you stop today?			

**NOTE:** Address, cross-street, and / or landmark information should be obtained for questions 8 through 11.

**MIDLAND / ECTOR COUNTY EXTERNAL STATION  
COMMERCIAL VEHICLE SURVEY FORM B**  
(Outbound Direction from Midland / Ector Counties)

Station # \_\_\_\_\_ Survey Date \_\_\_\_\_  
Station Name / Location \_\_\_\_\_ Interviewer \_\_\_\_\_

<b>For each vehicle you collect:</b>	Vehicle 1	Vehicle 2	Vehicle 3
1. Time	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.
2. Number of people in vehicle			
3. Vehicle Classification			
4. What is the cargo (choose from vehicle cargo codes, if empty go to 12)			
5. Did your cargo originate in Mexico?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown
6. Where did you pick up your load? (place / address or nearest intersection and city)			
7. Was that location an inter-modal transfer or custom brokerage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown
8. How was your load transferred at that site (choose from transfer codes)?			
9. Where will you drop your cargo off? (place / address or nearest intersection and city)			
10. Is that location an inter-modal transfer or custom brokerage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused or Unknown
11. How will the cargo be transferred at that site (choose from transfer codes)?			

**Vehicle Classification Options:**    1) Single Unit 2-Axle (6 wheels)    2) Single Unit 3-Axle (10 wheels)    3) Single Unit 4-Axle (14 wheels)  
4) Semi (all tractor-trailer combinations)    5) Other (specify)    99) Unknown

**Cargo Transfer Options:**    1) Truck-to-Truck    2) Rail-to-Truck    3) Ship-to-Truck    4) Airplane-to-Truck  
5) Warehouse-to-Truck    6) Pipeline-to-Truck    7) Unknown    99) Refused

**NOTE:** All cargo transfer options are both ways (i.e., Truck-to-Warehouse should be coded same as Warehouse-to-Truck).

**QUESTIONS:**

12. What is the year and gross weight rating of this vehicle ?  Gas (leaded, unleaded), diesel, propane or other fuel?	<p align="center">_____</p> <p align="center">Year</p> <hr/> <p align="center">Gross Weight</p> <p>Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/></p> <p>Diesel <input type="checkbox"/> Propane <input type="checkbox"/></p> <p>Other <input type="checkbox"/> _____</p>	<p align="center">_____</p> <p align="center">Year</p> <hr/> <p align="center">Gross Weight</p> <p>Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/></p> <p>Diesel <input type="checkbox"/> Propane <input type="checkbox"/></p> <p>Other <input type="checkbox"/> _____</p>	<p align="center">_____</p> <p align="center">Year</p> <hr/> <p align="center">Gross Weight</p> <p>Leaded <input type="checkbox"/> Unleaded <input type="checkbox"/></p> <p>Diesel <input type="checkbox"/> Propane <input type="checkbox"/></p> <p>Other <input type="checkbox"/> _____</p>
13. What is the mileage on your odometer?			

14. Where are you coming from? (city / state in US or Mexico)			
14a. Is that location in Midland / Ector County? <i>If No ask:</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If yes go to 16)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If yes go to 16)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If yes go to 16)
14b. Did you stay in Midland / Ector County overnight?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If No go to 15)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If No go to 15)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If No go to 15)
14c. How many nights have you stayed in Midland / Ector County			
15. Did you enter Texas today? <i>If No</i> , what date did you enter Texas?	<input type="checkbox"/> Yes (if yes, go to 15a) <input type="checkbox"/> No _____ (date) <input type="checkbox"/> Refused	<input type="checkbox"/> Yes (if yes, go to 15a) <input type="checkbox"/> No _____ (date) <input type="checkbox"/> Refused	<input type="checkbox"/> Yes (if yes, go to 15a) <input type="checkbox"/> No _____ (date) <input type="checkbox"/> Refused
15a. Where outside of Texas did you travel from? (city / state in US or Mexico)			
15b. What road or bridge did you use to enter Texas?			
16. Where was the last place you got into your vehicle? (place / address or nearest intersection / city)			
16a. What time did you leave that place?	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.	_____ a.m. _____ p.m.
16b. What type of place was this? (choose from type of place options).			
16c. What was your purpose for being at your last location?			
16d. Was that location in Midland or Ector County?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (Yes go to 17)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (Yes go to 17)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (Yes go to 17)
16e. <i>If not in Midland / Ector County</i> , what road / bridge did you use to enter Midland / Ector County?			
17. Where is your next destination? (place / address or nearest intersection / city)			
17a. What is your purpose for traveling to this destination? (Choose from trip purpose options.)			
18. Are you going to a location outside of Texas? <i>If Yes</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If no go to 18d)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (if No go to 18d)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If No go to 18d)
18a. What city and state are you going to?			
18b. What road / bridge will you use to leave Texas?			
18c. How many more days will you be in Texas?			
<i>If No</i> 18d. What city / county in Texas are you going to?			

- Type of Place Options:**
- |  |                                       |                               |                |
|--|---------------------------------------|-------------------------------|----------------|
| 1) Office Building                               | 2) Retail / Shopping                  | 3) Industrial / Manufacturing | 4) Medical     |
| 5) Educational (12 <sup>th</sup> grade or lower) | 6) Educational (college, trade, etc.) | 7) Government                 | 8) Residential |
| 9) Airport                                       | 10) Other (specify)                   |                               |                |

**Trip Purpose Options:**

- |  |                               |                       |
|--|-------------------------------|-----------------------|
| 1) Base Location / Return to Base Location | 2) Delivery                   | 3) Pick-Up            |
| 4) Maintenance                             | 5) Driver Needs (lunch, etc.) | 6) To Home            |
| 7) Buy Fuel                                | 8) Other (specify)            | 99) Refused / Unknown |

**To measure the amount of travel you made today, we need to know the places you have gone today. Would you please tell us:**

19. Where did your first trip today begin? (city / county / landmark)			
20. Where did you go from there? (city / county / landmark)			
21. Where did you go next? (city / county / landmark)			
22. Where did you go next? (city / county / landmark)			
23. Where did you go next? (city / county / landmark)			
24. Where did you go next? (city / county / landmark)			
25. Where did you go next? (city / county / landmark)			
26. How many more places did you stop today?			

**NOTE:** Address, cross-street, and / or landmark information should be obtained for questions 19 through 25 (including locations in Mexico).

**Vehicle Cargo Codes**

- |  |   |
|--|---|
| 1 – Farm Products                        | Livestock, Fertilizer, Dirt, Landscaping, Etc.              |
| 2 – Forest Products                      | Trees, Sod, Etc.  |
| 3 – Marine Products                      | Fresh fish, Seafood, Etc.                                   |
| 4 – Metals and Minerals                  | Crude Petroleum, Natural Gas, Propane, Metals, Gypsum, Etc. |
| 5 – Food, Health, Beauty Products        | Assorted Food Products, Cosmetics, Etc.                     |
| 6 – Tobacco Products                     | Cigarettes, Cigars, and Chewing Tobacco                     |
| 7 – Textiles                             | Clothing, Lines, Etc.                                       |
| 8 – Wood Products                        | Lumber, Paper, Cardboard, Wood pulp, Etc.                   |
| 9 – Printed Matter                       | Newspapers, Magazines, Books, Etc.                          |
| 10 – Chemical Products                   | Soaps, Paints, Household or Industrial Chemicals, Etc.      |
| 11 – Refined Petroleum or Coal Products  | Gasoline, Etc.  |
| 12 – Rubber, Plastic, Styrofoam Products | Finished Products of Rubber, Plastic, or Styrofoam          |
| 13 – Clay, Concrete, Glass, or Stone     | Finished Products of Clay, Concrete, Glass, or Stone        |
| 14 – Manufactured Goods / Equipment      | Miscellaneous Products Such as Machinery, Appliances, Etc.  |
| 15 – Wastes                              | Waste Products, Including Scrap and Recyclable Materials    |
| 16 – Miscellaneous Shipments             | U.S. Mail, U.P.S., Federal Express, and Other Mixed Cargo   |
| 17 – Hazardous Materials                 | Hazardous Chemicals and Substances                          |
| 18 – Transportation                      | Automobiles, Heavy Equipment, Etc.                          |
| 19 – Unclassified Cargo                  | Cargo not Falling Within One of the Above Categories        |
| 20 – Driver Refused to Answer            | Driver Refused to Answer                                    |
| 21 – Unknown to Driver                   | Unknown to Driver   |
| 22 - Empty                               | Empty   |