### Classified Volume Count and Origin-Destination Survey of Bhavnagar – Vataman Road and Rajkot – Ahmadabad Road

## Final Report

# Submitted to Gujarat Infrastructure Development Board (GIDB) GANDHINAGAR

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<b>Classified Volume Count</b>	(CVC	) and Origin	-Destination	(O-D	) Survey

## BHAVNAGAR – VATAMAN ROAD

#### Classified Volume Count and Origin-Destination Survey Report, September 1 – 5, 2005

#### 1. INTRODUCTION

Gujarat Infrastructure Development Board (GIDB), Gandhinagar selected Shashikant Sharma as the consultant for the Classified Volume Count (CVC) and Origin-Destination (O-D) survey. The purpose of this study was to judge the traffic volume from Bhavnagar to rest of Gujarat and other state of the country for starting a ferry service between Bhavnagar and Bharuch as a cost and time saving initiative.

A Classified Volume Count (CVC) survey was conducted, as part of the study, in order to obtain traffic volume. The counting was started Thursday, September 1, 2005. Data was to have been collected for 72 hours – from 0730 AM until 0730 AM next day-on all three days. The survey station was located on Bhavnagar – Vataman Road, approximately 0.5kms from Nari Crossing towards Vataman.

An Origin-Destination (O-D) survey was also conducted, as part of the study on fourth day, in order to obtain traffic data that would be useful in analyzing the feasibility of starting a ferry service between Bhavnagar and Bharuch as a cost and time saving initiative. Roadside interviews were used to collect information on trip origin and destination, trip purpose, and other data from a selected sample of drivers. These interviews were conducted for 24 hours starting on Sunday, September 4, 2005. Data was to have been collected for 24 hours – from 0800 AM until 0800 AM next day. The survey stations were located on Bhavnagar – Vataman Road, approximately 0.5kms from Nari Crossing towards Vataman.

As a consultant to GIDB, Shashikant Sharma assumed overall responsibility for the Classified Volume Count (CVC) and Origin-Destination (O-D) survey – designing the survey, training and supervising field personnel, tabulating the survey results and preparing the final report in consultation with GIDB.

This report describes how the Classified Volume Count (CVC) and roadside interviews were conducted and provides summary tables of the information collected.

#### 2. SURVEY DESIGN

A brief description of the survey design is presented in this chapter.

#### **Survey Location**

The survey stations were located on Bhavnagar – Vataman Road, approximately 0.5kms from Nari Crossing towards Vataman. Bhavnagar – Vataman Road is a two-lane undivided state highway with paved shoulders and carries approximately **2,825** (three day average of CVC) vehicles per day.

This location, approximately 0.5kms from Nari Crossing towards Vataman, was chosen in order to maximize the usefulness of the survey responses.

#### Time of Survey

A Classified Volume Count (CVC) survey was conducted, as part of the study, in order to obtain traffic volume. The counting was started Thursday, September 1, 2005. Data was to have been collected for 72 hours – from 0730 AM until 0730 AM next day-on all three days.

Since the Bhavnagar – Vataman road carries a substantial amount of commercial traffic; the roadside interviews were conducted for 24 hours on Sunday, September 4. Data was to have been collected for 24 hours – from 0800 AM until 0800 AM next day.

#### Selecting the Survey Sample for Origin-Destination (O-D) Survey

Only some of the vehicles passing by the survey station were chosen for interviews. Traffic constables and interviewers were used to slow down traffic and merge all vehicles into a single lane. An Interviewer then directed those drivers selected for interviews over to the roadside, while allowing all other vehicles to continue straight through. Surveyors waited for the selected vehicles to approach in a "buffer zone". Up to five vehicles could be accommodated for interviews at one time.

The original goal was to obtain a 20-percent sample of traffic. This was to be done by stopping five vehicles for interviews and then letting 25 vehicles pass by, before stopping five more vehicles. However, after operating the stations for a short time, it became apparent that a much larger sample could easily be obtained without jeopardizing traffic safety. As soon as the

vehicles previously selected for interviews had left the survey station and merged back into traffic on road, the traffic constables and interviewers would direct the next five vehicles over to the roadside (rather than waiting for 25 vehicles to pass by before starting to select again). While these vehicles were being interviewed, all other traffic was permitted to pass by the survey station.

When it was time to direct more vehicles over to the survey station, the traffic constables and interviewers would normally choose the next five vehicles. However, no more than one large truck (having three axles or more) was ever taken at one time in order to ensure that the selected vehicles would not exceed the storage capacity of the interview station. Also, all type of buses was not stopped for interviews but a separate note was taken by an independent interviewer by reading nameplates to identify the origin and destination of the buses.

#### **Interview Questions**

A draft survey form was developed by Shashikant Sharma (The consultant), which was then modified by GIDB to make it more suitable for roadside use (where interviews have to be completed as quickly as possible). The actual survey form used when interviewing drivers is shown in annexure. The same survey procedures were used for both directions of travel.

All drivers selected for interviews were asked these four questions:

Where did you begin your trip? (Origin)

Where will you end this trip? (Destination)

What is the purpose of making this trip? (For passenger vehicles only)

What are you carrying? (For Goods vehicles only)

How frequently do you travel on this road?

After completing the interview and thanking the driver, the interviewer recorded the number and type of vehicle in the appropriate place on the survey form.

In order to avoid any misinterpretation of the survey data, it is important to understand the terminology used during the interviews and in this summary report. If a driver indicated the trip began in Bhavnagar, then the town was considered the "origin" (starting point) for that

particular trip. Similarly, Bhavnagar was considered the "destination" only if the driver indicated that the trip would end there.

#### **Classified Volume Count (CVC)**

A Classified Volume Count (CVC) was started Thursday, September 1, 2005. Data was to have been collected for 72 hours – from 0730 AM until 0730 AM next day—on all three days. All vehicles passing by the survey station were counted and classified by type. This information was used to calculate the overall sampling rate, and to determine how the vehicles selected for interviews compared to the total traffic passing by the station during the survey period.

#### 3. SURVEY RESULTS FOR SEPTEMBER 1-5, 2005

This chapter presents a summary of the data collected on September 1-5, 2005, between the hours of 7:30 AM to 7:30 AM everyday.

#### **Classified Volume Count (CVC)**

Table-1 shows the total number of vehicles passing by the survey stations, respectively, during the time these stations were operated. Approximately 2,825 (three day average of CVC) vehicles (total of both directions) were recorded per day during the survey period. Over 35 percent of these vehicles were "standard" vehicles such as passenger cars, jeep, and van. Trucks (with one or more axles) accounted for 39 percent of the total traffic.

Table-1: Total number of vehicles passing by the survey stations (3-day average)

Vehicle Type	To Vataman	To Bhavnagar	Total No. of Vehicles	Percent of Total Count	
Car/Jeep/Van	487	494	981	34.7%	
LCV	127	149	276	9.8%	
Govt. Bus	87	86	173	6.1%	
Pvt. Bus	129	160	289	10.2%	
Truck/Tanker	393	390	783	27.8%	
Multi Axle Truck	135	188	323	11.4%	
<b>Total Responses</b>	1358	1467	2825	100.0 %	

#### **Roadside Interviews**

A total of 1,755 usable interviews were obtained on September 4, 2005 – from drivers going towards both the directions. This represents an overall sampling rate of 62 percent, as shown in the following table:

Table-2: Comparison of the vehicle in the survey sample to the total traffic traveling

Direction of Travel	Total No. of Vehicles (3-day avg.)	No. of Interviews	Percent of Vehicles Interviewed
To Vataman	1,358	867	63.8%
To Bhavnagar	1,467	888	60.5%
Total	2825	1755	62.1%

#### Vehicle Type

Although no attempt was made to pre-select vehicles for interviews by vehicle type, the actual survey sample did closely resemble the overall fleet mix observed on Bhavnagar – Vataman road that day. A comparison of the vehicle types in the survey sample to the total traffic traveling on Bhavnagar – Vataman road is shown in the following table:

Table-3: Comparison of the vehicle types in the survey sample to the total traffic traveling

Vehicle Type	To Vataman	Total No. of Interviews	Percent of Total Responses	To Bhavnagar	Total No. of Interviews	Percent of Total Responses	Percent of Total Responses (Both side)
Car/Jeep/ Van	487	288	59.1%	494	314	63.6%	61.3%
LCV	127	75	59.1%	149	76	51.0%	54.9%
Govt. Bus	87	40	46.0%	86	28	32.6%	39.3%
Pvt. Bus	129	42	32.6%	160	24	15.0%	22.9%
Truck/ Tanker	393	300	76.3%	390	344	88.2%	82.1%
Multi Axle Truck	135	122	90.4%	188	102	54.3%	69.3%
Total	1358	867	63.8%	1467	888	60.5%	62.1%

#### **Trip Origin and Destination**

Origin-Destination matrix of all type of vehicle covered with projected Origin-Destination matrix is given in annexure, derived from the Sunday interviews. Upon reviewing Origin-Destination matrix of all type of vehicle covered following results were observed:

- Maximum CAR run from Bhavnagar to Ahmadabad (21%) followed by Ahmadabad to Bhavnagar (14%).
- Maximum LCV run from Ahmadabad to Bhavnagar (21%) followed by Surat to Bhavnagar (9%).
- Maximum GOVERNMENT BUS run from Nari to Bhavnagar (34%) followed by Bhavnagar to Nari (31%).
- Maximum PRIVATE BUS run from Bhavnagar to Ahmadabad (18%) followed by Ahmadabad to Bhavnagar (17%).
- Maximum TRUCK run from Nirma to Bhavnagar (10%) followed by Bhavnagar to Nari (8%).
- Maximum MULTI AXEL run from Ahmadabad to Bhavnagar (6%) and Amreli to Vadodara followed by Bhavnagar to Vadodara (4%).

**NOTE**: Refer to annexure for detailed Origin-Destination matrix of all type of vehicle covered with projections.

In order to make the data more meaningful, the drivers' responses regarding trip ends were grouped into a limited number of geographic areas. These thirty areas were:

Ahmedabad	Navsari
Amreli	Panchmahal
Anand	Patan
Banaskantha	Porbandar
Bharuch	Rajkot
Bhavnagar	Sabarkantha
Dahod	Surat
Dangs	Surendranagar
Gandhinagar	Vadodara
Jamnagar	Valsad
Junagadh	Madhya pradesh
Kuchchh	Maharastra
Kheda	North India
Mahesana	South India
Narmada	East India

**NOTE:** If the trip is within the district then actual taluka name was recorded in the survey forms.

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# **RAJKOT-AHMADABAD ROAD**

#### Classified Volume Count and Origin-Destination Survey Report, September 8 –12, 2005

#### 1. INTRODUCTION

Gujarat Infrastructure Development Board (GIDB), Gandhinagar selected Shashikant Sharma as the consultant for the Classified Volume Count (CVC) and Origin-Destination (O-D) survey. The purpose of this study was to judge the traffic volume from Saurashtra and Kuchchh to rest of Gujarat and other states of the country for starting a ferry service between Bhavnagar and Bharuch as a cost and time saving initiative.

A Classified Volume Count (CVC) survey was conducted, as part of the study, in order to obtain traffic volume. The counting was started Thursday, September 8, 2005. Data was to have been collected for 72 hours – from 0730 AM until 0730 AM next day—on all three days. The survey station was located on Rajkot - Ahmadabad Road, at Bhagodra crossing towards Ahmadabad.

An origin-destination survey was also conducted, as part of the Study, in order to obtain traffic data that would be useful in analyzing the feasibility of starting a ferry service between Bhavnagar and Bharuch as a safety, cost and time saving initiative. Roadside interviews were used to collect information on trip origin and destination, trip purpose, and other data from a selected sample of drivers. These interviews were conducted for 24 hours starting on Sunday, September 11, 2005. Data was to have been collected for 24 hours – from 0800 AM until 0800 AM next day. The survey stations were located on Rajkot - Ahmadabad Road, at Bhagodra crossing towards Ahmadabad.

As a consultant to GIDB, Shashikant Sharma assumed overall responsibility for the Classified Volume Count (CVC) and Origin-Destination (O-D) survey – designing the survey, training and supervising field personnel, tabulating the survey results and preparing the final report in consultation with GIDB.

This report describes how the Classified Volume Count (CVC) and roadside interviews were conducted and provides summary tables of the information collected.

#### 2. SURVEY DESIGN

A brief description of the survey design is presented in this chapter.

#### **Survey Location**

The survey stations were located on Rajkot - Ahmadabad Road, at Bhagodra crossing towards Ahmadabad. Rajkot - Ahmadabad Road is a four-lane divided national highway no. 8 with paved shoulders and carries approximately **11,223** (three day average of CVC) vehicles per day.

This location, at Bhagodra crossing towards Ahmadabad, was chosen in order to maximize the usefulness of the survey responses.

#### Time of Survey

Since the Rajkot - Ahmadabad Road carries a substantial amount of commercial traffic; the roadside interviews were conducted for 24 hours on Sunday, September 11. Data was to have been collected for 24 hours – from 0800 AM until 0800 AM next day.

#### Selecting the Survey Sample for Origin-Destination (O-D) Survey

Only some of the vehicles passing by the survey station were chosen for interviews. Traffic constables and interviewers were used to slow down traffic and merge all vehicles into a single lane. An Interviewer then directed those drivers selected for interviews over to the roadside, while allowing all other vehicles to continue straight through. Surveyors waited for the selected vehicles to approach in a "buffer zone". Up to seven vehicles could be accommodated for interviews at one time.

The original goal was to obtain a 20-percent sample of traffic. This was to be done by stopping seven vehicles for interviews and then letting 35 vehicles pass by, before stopping seven more vehicles. However, after operating the stations for a short time, it became apparent that a much larger sample could easily be obtained without jeopardizing traffic safety. As soon as the vehicles previously selected for interviews had left the survey station and merged back into traffic on Rajkot - Ahmadabad Road, the Traffic constables and interviewers would direct the

next seven vehicles over to the roadside (rather than waiting for 35 vehicles to pass by before starting to select again). While these vehicles were being interviewed, all other traffic was permitted to pass by the survey station.

When it was time to direct more vehicles over to the survey station, the traffic constables and interviewers would normally choose the next seven vehicles. However, no more than one large truck (having three axles or more) was ever taken at one time in order to ensure that the selected vehicles would not exceed the storage capacity of the interview station. Also, all type of buses was not stopped for interviews but a separate note was taken by a independent interviewer by reading nameplates to identify the origin and destination of the buses.

#### **Interview Questions**

A draft survey form was developed by Shashikant Sharma (The consultant), which was then modified by GIDB to make it more suitable for roadside use (where interviews have to be completed as quickly as possible). The actual survey form used when interviewing drivers is shown in annexure. The same survey procedures were used for both directions of travel.

All drivers selected for interviews were asked these four questions:

Where did you begin your trip? (Origin)

Where will you end this trip? (Destination)

What is the purpose of making this trip? (For passenger vehicles only)

What are you carrying? (For Goods vehicles only)

How frequently do you travel on this road?

After completing the interview and thanking the driver, the interviewer recorded the number and type of vehicle in the appropriate place on the survey form.

In order to avoid any misinterpretation of the survey data, it is important to understand the terminology used during the interviews and in this summary report. If a driver indicated the trip began in Rajkot, then the town was considered the "origin" (starting point) for that particular trip. Similarly, Rajkot was considered the "destination" only if the driver indicated that the trip would end there

#### **Classified Volume Count (CVC)**

A Classified Volume Count (CVC) was started Thursday, September 8, 2005. Data was to have been collected for 72 hours – from 0730 AM until 0730 AM next day—on all three days. All vehicles passing by the survey station were counted and classified by type. This information was used to calculate the overall sampling rate, and to determine how the vehicles selected for interviews compared to the total traffic passing by the station during the survey period.

#### 3. SURVEY RESULTS FOR SEPTEMBER 8-12, 2005

This chapter presents a summary of the data collected on **September 8-12, 2005**, between the hours of 7:30 AM to 7:30 AM everyday.

#### **Classified Volume Counts (CVC)**

Table-1 shows the total number of vehicles passing by the survey stations, respectively, during the time these stations were operated. Approximately 11,223 (three day average of CVC) vehicles (total of both directions) were recorded during the survey period. Over 34 percent of these vehicles were "standard" vehicles such as passenger cars, jeep, and van. Trucks (with one or more axles) accounted for 45 percent of the total traffic.

Table 1: Total number of vehicles passing by the survey stations (3-day average)

Table 1. 10	(3-uay average)			
Vehicle Type	To Ahmadabad	hmadabad To Rajkot Total No. of Vehicles		Percent of Total Count
Car/Jeep/Van	1909	1931	3840	34.2%
LCV	504	564	1068	9.5%
Govt. Bus	272	250	522	4.7%
Pvt. Bus	349	374	723	6.4%
Truck/Tanker	1144	1294	2438	21.7%
Multi Axle Truck	1322	1311	2633	23.5%
<b>Total Responses</b>	5500	5724	11224	100.0 %

**Roadside Interviews** 

A total of 3,211 usable interviews were obtained on September 11, 2005 - 1,640 from drivers going towards Ahmadabad and 1,571 from drivers going towards Rajkot. This represents an overall sampling rate of 28.6 percent, as shown in the following table:

Table-2: Comparison of the vehicle in the survey sample to the total traffic traveling

Direction of Travel	Total No. of Vehicles (3-day avg.)	No. of Interviews	Percent of Vehicles Interviewed
To Ahmadabad	5,500	1633	29.7%
To Rajkot	5,722	1578	27.6%
Total	11,222	3211	28.6%

#### **Vehicle Type**

Although no attempt was made to pre-select vehicles for interviews by vehicle type, the actual survey sample did closely resemble the overall fleet mix observed on Rajkot - Ahmadabad Road that day. A comparison of the vehicle types in the survey sample to the total traffic traveling on Rajkot - Ahmadabad Road is shown in the following table:

Table-3: Comparison of the vehicle types in the survey sample to the total traffic traveling

Vehicle Type	To Ahmadabad	Total of Interviews	Percent of Total Responses	To Rajkot	Total No. of Interviews	Percent of Total Responses	Percent of Total Responses (Both side)
Car/ Van	1909	193	10.1%	1931	142	7.4%	8.7%
LCV	504	202	40.1%	564	180	31.9%	35.8%
Govt. Bus	272	125	46.0%	250	124	49.6%	47.7%
Pvt. Bus	349	62	17.8%	374	67	17.9%	17.8%
Truck/tanker	1144	473	41.3%	1294	550	42.5%	42.0%
Multi Axle	1322	578	43.7%	1311	515	39.3%	41.5%
Total Res.	5500	1633	29.7%	5724	1578	27.6%	28.6%

**Trip Origin and Destination** 

Origin-Destination matrix of all type of vehicle covered with projected Origin-Destination matrix is given in annexure, derived from the Sunday interviews. Upon reviewing Origin-Destination matrix of all type of vehicle covered following results were observed:

- Maximum CAR run from Rajkot to Ahmadabad (19%) followed by Bhavnagar to Ahmadabad (7%).
- Maximum LCV run from Rajkot to Ahmadabad (14%) followed by Ahmadabad to Rajkot (10%).
- Maximum GOVERNMENT BUS run from Bhavnagar to Ahmadabad (7%) followed by Ahmadabad to Rajkot (6%).
- Maximum PRIVATE BUS run from Ahmadabad to Bhavnagar (24%) followed by Bhavnagar to Ahmadabad (19%).
- Maximum TRUCK run from Maharashtra to Rajkot (6%) followed by Rajkot to Ahmadabad (4%).
- Maximum MULTI AXEL run from Jamnagar to North India (3%), Bhavnagar to Ahmadabad, Jamnagar to Vadodara (3%), Maharashtra to Kachchh followed by Jamnagar to Ahmadabad (2.5%).

## NOTE: Refer to annexure for detailed Origin-Destination matrix of all type of vehicle covered with projections.

In order to make the data more meaningful, the drivers' responses regarding trip ends were grouped into a limited number of geographic areas. These thirty areas were:

Ahmedabad	Navsari
Amreli	Panchmahal
Anand	Patan
Banaskantha	Porbandar
Bharuch	Rajkot
Bhavnagar	Sabarkantha
Dahod	Surat
Dangs	Surendranagar
Gandhinagar	Vadodara
Jamnagar	Valsad
Junagadh	Madhya pradesh
Kuchchh	Maharastra
Kheda	North India
Mahesana	South India
Narmada	East India

**NOTE:** If the trip is within the district then actual taluka name was recorded in the survey forms.

# **ANNEXURE**

# BHAVNAGAR – VATAMAN ROAD ORIGIN-DESTINATION (O-D) MATRIX

#### ORIGIN and DESTINATION Crosstabulation for "CARS" on BHAVNAGAR - VATAMAN Road

	DESTINATION																							
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	ВНАВИСН	BHAVNAGAR	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NARI	NIRMA	NORTH INDIA	PATAN	RAJKOT	SABARKANTHA	SURAT	SURENDRANAGAR	VADODARA	VALABHIPUR	VALSAD	Total
AHMADABAD	0	3	0	0	0	82	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	88
AMRELI	5	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
ANAND	0	0	0	0	0	31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
BANASKANTHA	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
BHAVNAGAR	127	1	36	2	6	1	1	0	0	2	2	7	52	3	2	1	1	3	18	5	48	1	5	324
BOTAD	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
JAMNAGAR	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	7
JUNAGADH	6	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0	0	11
KACHCHH	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MAHARASHTRA	0	0	0	0	0	5	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	7
MAHESANA	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
NARI	2	3	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
NIRMA	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
PANCHMAHAL	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
RAJKOT	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SIHOR	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SURAT	1	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
SURENDRANAGAR	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
VADODARA	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
VALABHIPUR	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
VARTEJ	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	145	7	38	2	6	240	3	1	1	2	3	7	53	3	3	2	1	3	18	6	52	1	5	602

#### ORIGIN and DESTINATION Crosstabulation for "CARS" on BHAVNAGAR - VATAMAN Road (Projected)

										DE	STI	NAT	ION											
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NARI	NIRMA	NORTH INDIA	PATAN	RAJKOT	SABARKANTHA	SURAT	SURENDRANAGAR	VADODARA	VALABHIPUR	VALSAD	Total
AHMADABAD	0	5	0	0	0	134	2	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	144
AMRELI	8	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
ANAND	0	0	0	0	0	51	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
BANASKANTHA	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
BHAVNAGAR	207	2	59	3	10	2	2	0	0	3	3	11	85	5	3	2	2	5	29	8	78	2	8	529
BOTAD	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
JAMNAGAR	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	11
JUNAGADH	10	0	2	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	3	0	0	18
KACHCHH	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
MAHARASHTRA	0	0	0	0	0	8	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	11
MAHESANA	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
NARI	3	5	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
NIRMA	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
PANCHMAHAL	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
RAJKOT	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SIHOR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
SURAT	2	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
SURENDRANAGAR	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
VADODARA	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
VALABHIPUR	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
VARTEJ	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	237	11	62	3	10	391	5	2	2	3	5	11	86	5	5	3	2	5	29	10	85	2	8	982

#### ORIGIN and DESTINATION Crosstabulation for "LCV" on BHAVNAGAR - VATAMAN Road

							DEST	ΓΙΝΑΤ	ION							
ORIGIN	AHMADABAD	AMRELI	ANAND	BHAVNAGAR	JUNAGADH	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NARI	NORTH INDIA	PANCHMAHAL	RAJKOT	SURAT	VADODARA	VALSAD	Total
AHMADABAD	0	1	0	32	0	0	1	0	0	0	0	1	0	1	0	36
AMRELI	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	4
ANAND	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
BANASKANTHA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
BHARUCH	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
BHAVNAGAR	13	0	7	0	0	1	1	4	6	1	2	0	6	13	1	55
MAHARASHTRA	0	2	0	5	1	0	0	0	0	0	0	0	0	0	0	8
NARI	0	2	0	10	0	0	0	0	0	0	0	0	0	0	0	12
PANCHMAHAL	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
SIHOR	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
SOUTH INDIA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
SURAT	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14
SURENDRANAGAR	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
VADODARA	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
VALSAD	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
VARTEJ	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	13	5	8	82	1	1	2	4	8	1	2	1	7	15	1	151

#### ORIGIN and DESTINATION Crosstabulation for "LCV" on BHAVNAGAR - VATAMAN Road (Projected)

						[	DESTI	NATI	ON							
ORIGIN	AHMADABAD	AMRELI	ANAND	BHAVNAGAR	JUNAGADH	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NARI	NORTH INDIA	PANCHMAHAL	RAJKOT	SURAT	VADODARA	VALSAD	Total
AHMADABAD	0	2	0	58	0	0	2	0	0	0	0	2	0	2	0	66
AMRELI	0	0	2	2	0	0	0	0	0	0	0	0	2	2	0	7
ANAND	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	13
BANASKANTHA	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
BHARUCH	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
BHAVNAGAR	24	0	13	0	0	2	2	7	11	2	4	0	11	24	2	100
MAHARASHTRA	0	4	0	9	2	0	0	0	0	0	0	0	0	0	0	15
NARI	0	4	0	18	0	0	0	0	0	0	0	0	0	0	0	22
PANCHMAHAL	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
SIHOR	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
SOUTH INDIA	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
SURAT	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	25
SURENDRANAGAR	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
VADODARA	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9
VALSAD	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
VARTEJ	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Total	24	9	15	149	2	2	4	7	15	2	4	2	13	27	2	275

#### ORIGIN and DESTINATION Crosstabulation for "GOVERNMENT BUS" on BHAVNAGAR - VATAMAN Road

				DESTIN	NOITA				
ORIGIN	AHMADABAD	BHAVNAGAR	JAMNAGAR	JUNAGADH	NARI	SURAT	VADODARA	VALSAD	Total
AHMADABAD	0	2	0	0	0	0	0	0	2
ANAND	0	1	0	0	0	0	0	0	1
BHAVNAGAR	4	0	0	0	21	3	1	1	30
JAMNAGAR	0	0	0	0	0	0	1	0	1
MAHARASHTRA	0	2	0	0	0	0	0	0	2
NARI	0	23	0	0	0	0	0	0	23
NIRMA	0	3	0	0	0	0	0	0	3
SABARKANTHA	0	1	0	0	0	0	0	0	1
SURAT	0	2	0	0	0	0	0	0	2
VADODARA	0	1	1	1	0	0	0	0	3
Total	4	35	1	1	21	3	2	1	68

#### ORIGIN and DESTINATION Crosstabulation for "PRIVATE BUS" on BHAVNAGAR - VATAMAN Road

					DESTIN	IATION					
ORIGIN	AHMADABAD	BHAVNAGAR	BOTAD	JAMNAGAR	JUNAGADH	MAHARASHTRA	NARI	NIRMA	SURAT	VADODARA	Total
AHMADABAD	0	11	0	0	0	0	0	0	0	0	11
ANAND	0	1	0	0	0	0	0	0	0	0	1
BANASKANTHA	0	1	0	0	0	0	0	0	0	0	1
BHAVNAGAR	12	0	1	0	0	6	3	4	3	8	37
JAMNAGAR	0	0	0	0	0	1	0	0	0	0	1
MAHARASHTRA	0	1	0	1	0	0	0	0	0	0	2
NARI	0	1	0	0	0	0	0	0	0	0	1
SURAT	0	2	0	0	2	0	0	0	0	0	4
VADODARA	0	8	0	0	0	0	0	0	0	0	8
Total	12	25	1	1	2	7	3	4	3	8	66

#### ORIGIN and DESTINATION Crosstabulation for "PRIVATE BUS" on BHAVNAGAR - VATAMAN Road (Projected)

				D	ESTIN	ATION					
ORIGIN	AHMADABAD	BHAVNAGAR	BOTAD	JAMNAGAR	JUNAGADH	MAHARASHTRA	NARI	NIRMA	SURAT	VADODARA	Total
AHMADABAD	0	48	0	0	0	0	0	0	0	0	48
ANAND	0	4	0	0	0	0	0	0	0	0	4
BANASKANTHA	0	4	0	0	0	0	0	0	0	0	4
BHAVNAGAR	52	0	4	0	0	26	13	17	13	35	161
JAMNAGAR	0	0	0	0	0	4	0	0	0	0	4
MAHARASHTRA	0	4	0	4	0	0	0	0	0	0	9
NARI	0	4	0	0	0	0	0	0	0	0	4
SURAT	0	9	0	0	9	0	0	0	0	0	17
VADODARA	0	35	0	0	0	0	0	0	0	0	35
Total	52	109	4	4	9	31	13	17	13	35	288

#### ORIGIN and DESTINATION Crosstabulation for "GOVERNMENT BUS" on BHAVNAGAR - VATAMAN Road (Projected)

				DESTIN	NOITAN				
ORIGIN	AHMADABAD	BHAVNAGAR	JAMNAGAR	JUNAGADH	NARI	SURAT	VADODARA	VALSAD	Total
AHMADABAD	0	5	0	0	0	0	0	0	5
ANAND	0	3	0	0	0	0	0	0	3
BHAVNAGAR	10	0	0	0	53	8	3	3	76
JAMNAGAR	0	0	0	0	0	0	3	0	3
MAHARASHTRA	0	5	0	0	0	0	0	0	5
NARI	0	59	0	0	0	0	0	0	59
NIRMA	0	8	0	0	0	0	0	0	8
SABARKANTHA	0	3	0	0	0	0	0	0	3
SURAT	0	5	0	0	0	0	0	0	5
VADODARA	0	3	3	3	0	0	0	0	8
Total	10	89	3	3	53	8	5	3	173

#### ORIGIN and DESTINATION Crosstabulation for "TRUCK" on BHAVNAGAR - VATAMAN Road

DESTINATION DESTINATION DESTINATION																										
ORIGIN	AHMADABAD	ALANG	AMRELI	ANAND	BHARUCH	BHAVNAGAR	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NARI	NIRMA	NORTH INDIA	PANCHMAHAL	PORBANDER	RAJKOT	SABARKANTHA	SIHOR	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	0	4	0	0	39	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	46
AMRELI	6	0	0	2	0	5	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1	0	6	3	28
ANAND	0	0	1	0	0	19	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	21
BHARUCH	0	0	2	0	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
BHAVNAGAR	41	0	0	14	6	1	3	1	2	2	13	1	53	19	9	1	2	3	3	2	2	9	2	32	2	223
JAMNAGAR	1	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	0	0	0	0	0	1	8
JUNAGADH	3	1	0	0	0	2	0	0	0	0	0	0	1	18	0	0	0	0	0	0	0	0	0	1	0	26
KACHCHH	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	4
MADHYA PRADESH	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MAHARASHTRA	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	31
MAHESANA	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
NARI	0	0	5	0	0	25	1	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	36
NIRMA	1	0	9	0	0	66	0	8	1	0	1	0	0	0	0	0	10	2	0	0	0	0	0	0	0	98
NORTH INDIA	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
PANCHMAHAL	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
PATAN	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
PORBANDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	12
RAJKOT	0	0	0	0	0	1	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	6
SIHOR	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SOUTH INDIA	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4
SURAT	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
SURENDRANAGAR	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
VADODARA	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
VALSAD	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
VARTEJ	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	52	1	21	16	6	281	5	13	3	2	15	2	60	70	10	1	12	7	3	2	2	10	3	41	6	644

#### ORIGIN and DESTINATION Crosstabulation "TRUCK" on BHAVNAGAR - VATAMAN Road (Projected)

											D	ESTI	NAT	ΓΙΟΝ												
ORIGIN	AHMADABAD	ALANG	AMRELI	ANAND	BHARUCH	BHAVNAGAR	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NARI	NIRMA	NORTH INDIA	PANCHMAHAL	PORBANDER	RAJKOT	SABARKANTHA	SIHOR	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	0	5	0	0	47	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	56
AMRELI	7	0	0	2	0	6	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	1	0	7	4	34
ANAND	0	0	1	0	0	23	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	26
BHARUCH	0	0	2	0	0	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
BHAVNAGAR	50	0	0	17	7	1	4	1	2	2	16	1	65	23	11	1	2	4	4	2	2	11	2	39	2	271
JAMNAGAR	1	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	0	0	0	0	0	0	1	10
JUNAGADH	4	1	0	0	0	2	0	0	0	0	0	0	1	22	0	0	0	0	0	0	0	0	0	1	0	32
KACHCHH	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	5
MADHYA PRADESH	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MAHARASHTRA	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	38
MAHESANA	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
NARI	0	0	6	0	0	30	1	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	44
NIRMA	1	0	11	0	0	80	0	10	1	0	1	0	0	0	0	0	12	2	0	0	0	0	0	0	0	119
NORTH INDIA	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
PANCHMAHAL	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
PATAN	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
PORBANDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	15
RAJKOT	0	0	0	0	0	1	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	7
SIHOR	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SOUTH INDIA	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
SURAT	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
SURENDRANAGAR	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
VADODARA	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
VALSAD	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
VARTEJ	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	63	1	26	19	7	342	6	16	4	2	18	2	73	85	12	1	15	9	4	2	2	12	4	50	7	784

#### ORIGIN and DESTINATION Crosstabulation for "MULTI AXEL" on BHAVNAGAR - VATAMAN Road

										DEST	INA	ΓΙΟΝ										
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	JAMNAGAR	JUNAGADH	КАСНСНН	MAHARASHTRA	MAHESANA	NARI	NIRMA	NORTH INDIA	PANCHMAHAL	RAJKOT	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	9	0	0	0	14	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	25
ALANG	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
AMRELI	7	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	9	0	14	2	36
ANAND	0	1	0	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
BANASKANTHA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
BHARUCH	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
BHAVNAGAR	6	0	4	1	5	0	0	2	0	2	2	3	5	7	1	1	6	4	1	10	2	62
JAMNAGAR	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3
JUNAGADH	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4
KACHCHH	0	1	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5
MADHYA PRADESH	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MAHARASHTRA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NARI	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
NIRMA	0	9	0	0	0	5	0	0	4	0	0	0	0	0	0	2	0	0	0	0	0	20
NORTH INDIA	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
PORBANDAR	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2
RAJKOT	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SABARKANTHA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SOUTH INDIA	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
SURAT	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SURENDRANAGAR	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
VADODARA	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
VALSAD	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
VARTEJ	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	14	36	7	1	5	67	1	5	4	3	3	4	11	7	2	3	7	13	1	25	5	224

#### ORIGIN and DESTINATION Crosstabulation for "MULTI AXEL" on BHAVNAGAR - VATAMAN Road (Projected)

	DESTINATION																					
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	JAMNAGAR	JUNAGADH	КАСНСНН	MAHARASHTRA	MAHESANA	NARI	NIRMA	NORTH INDIA	PANCHMAHAL	RAJKOT	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	13	0	0	0	20	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	36
ALANG	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
AMRELI	10	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	13	0	20	3	52
ANAND	0	1	0	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12
BANASKANTHA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
BHARUCH	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
BHAVNAGAR	9	0	6	1	7	0	0	3	0	3	3	4	7	10	1	1	9	6	1	14	3	89
JAMNAGAR	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	4
JUNAGADH	1	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	6
KACHCHH	0	1	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	7
MADHYA PRADESH	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
MAHARASHTRA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NARI	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
NIRMA	0	13	0	0	0	7	0	0	6	0	0	0	0	0	0	3	0	0	0	0	0	29
NORTH INDIA	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
PORBANDAR	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	3
RAJKOT	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SABARKANTHA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SOUTH INDIA	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
SURAT	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
SURENDRANAGAR	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
VADODARA	0	7	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
VALSAD	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
VARTEJ	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	20	52	10	1	7	97	1	7	6	4	4	6	16	10	3	4	10	19	1	36	7	323

# RAJKOT-AHMADABAD ROAD ORIGIN-DESTINATION (O-D) MATRIX

#### ORIGIN and DESTINATION Crosstabulation for "CAR"on RAJKOT - AHMADABAD Road

								I	DEST	INAT	ON									
ORIGIN	АНМАDABAD	AMRELI	ANAND	BANASKANTHA	BHAVNAGAR	DHANDHUKA	JAMNAGAR	JUNAGADH	КАСНСНН	MAHARASHTRA	MAHESANA	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	1	2	0	15	0	0	2	1	0	0	2	1	1	21	0	6	3	0	55
AMRELI	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	8
ANAND	0	1	0	0	5	2	0	3	3	0	0	0	0	0	9	0	5	0	0	28
BAGODRA	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
BHARUCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	3
BHAVNAGAR	23	0	0	1	0	0	0	0	0	1	1	0	0	0	0	3	0	2	0	31
DHANDHUKA	9	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	13
JAMNAGAR	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4
JUNAGADH	4	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	6
KACHCHH	0	0	0	0	0	2	0	0	0	1	0	0	0	0	1	1	1	3	0	9
MADHYA PRADESH	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
MAHARASHTRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
MAHESANA	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	0	1	0	0	6
NORTH INDIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
PANCHMAHAL	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
PORBANDAR	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2
RAJKOT	64	0	5	0	0	0	0	0	0	3	3	0	2	0	0	7	1	9	1	95
SABARKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
SARANGPUR	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SOUTH INDIA	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
SURAT	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3	0	2	0	0	9
SURENDRANAGAR	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	12
VADODARA	5	0	0	0	3	0	3	1	3	0	0	0	0	0	9	0	5	0	0	29
VALSAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Total	124	2	15	1	28	6	6	6	9	6	7	2	3	1	55	16	24	23	1	335

#### ORIGIN and DESTINATION Crosstabulation for "CAR" on RAJKOT - AHMADABAD Road (Projected)

								ļ	DEST	NAT	ON									
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHAVNAGAR	DHANDHUKA	JAMNAGAR	JUNAGADH	КАСНСНН	MAHARASHTRA	MAHESANA	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	11	23	0	172	0	0	23	11	0	0	23	11	11	241	0	69	34	0	630
AMRELI	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	23	0	92
ANAND	0	11	0	0	57	23	0	34	34	0	0	0	0	0	103	0	57	0	0	321
BAGODRA	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
BHARUCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	23	0	0	34
BHAVNAGAR	264	0	0	11	0	0	0	0	0	11	11	0	0	0	0	34	0	23	0	355
DHANDHUKA	103	0	0	0	0	0	0	0	0	0	23	0	0	0	0	23	0	0	0	149
JAMNAGAR	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	11	0	11	0	46
JUNAGADH	46	0	11	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	69
KACHCHH	0	0	0	0	0	23	0	0	0	11	0	0	0	0	11	11	11	34	0	103
MADHYA PRADESH	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11	0	0	0	0	23
MAHARASHTRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	11	0	0	46
MAHESANA	0	0	0	0	11	11	0	0	0	0	0	0	0	0	34	0	11	0	0	69
NORTH INDIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
PANCHMAHAL	0	0	0	0	11	11	0	0	11	0	0	0	0	0	0	0	0	0	0	34
PORBANDAR	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11	0	23
RAJKOT	734	0	57	0	0	0	0	0	0	34	34	0	23	0	0	80	11	103	11	1089
SABARKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	11
SARANGPUR	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
SOUTH INDIA	11	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	34
SURAT	0	0	0	0	23	0	23	0	0	0	0	0	0	0	34	0	23	0	0	103
SURENDRANAGAR	57	0	57	0	0	0	0	0	0	0	0	0	0	0	0	11	0	11	0	138
VADODARA	57	0	0	0	34	0	34	11	34	0	0	0	0	0	103	0	57	0	0	332
VALSAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	34
Total	1421	23	172	11	321	69	69	69	103	69	80	23	34	11	630	183	275	264	11	3840

#### ORIGIN and DESTINATION Crosstabulation for "LCV" on RAJKOT - AHMADABAD Road

	DESTINATION																								
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	DHANDHUKA	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NAVSARI	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTHA	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	3	2	0	0	18	1	0	8	1	0	2	0	0	0	0	0	38	0	0	1	8	0	0	82
AMRELI	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	6
ANAND	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	5	0	0	21
BANASKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
BHARUCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
BHAVNAGAR	29	0	2	1	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	2	0	0	0	38
HIMMATNAGAR	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
JAMNAGAR	7	0	1	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	1	0	0	0	13
JUNAGADH	5	0	2	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	5	0	2	0	18
KACHCHH	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	3	0	8
MAHARASHTRA	0	0	0	0	0	0	0	5	2	5	0	0	0	0	1	0	0	9	0	0	0	0	0	0	22
MAHESANA	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	7
NORTH INDIA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
PORBANDAR	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
RAJKOT	52	0	14	0	2	0	0	0	0	0	0	15	2	1	1	1	0	0	3	0	10	0	8	0	109
SABARKANTHA	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
SOUTH INDIA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SURAT	0	1	0	0	0	0	0	2	1	2	0	0	0	0	0	0	0	9	0	0	0	2	0	0	17
SURENDRANAGAR	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	11
VADODARA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	8	0	0	0	4	0	0	13
VALSAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
Total	104	6	25	1	4	25	1	8	12	9	1	24	6	2	2	1	1	87	3	2	19	22	16	1	382

#### ORIGIN and DESTINATION Crosstabulation for "LCV" on RAJKOT - AHMADABAD Road (Projected)

	DESTINATION																								
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	DHANDHUKA	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NAVSARI	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTHA	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	8	6	0	0	50	3	0	22	3	0	6	0	0	0	0	0	106	0	0	3	22	0	0	229
AMRELI	11	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0	17
ANAND	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	14	0	0	59
BANASKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	6
BHARUCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
BHAVNAGAR	81	0	6	3	3	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	6	0	0	0	106
HIMMATNAGAR	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
JAMNAGAR	20	0	3	0	0	0	0	0	0	0	3	6	3		0	0	0	0	0	0	3	0	0	0	36
JUNAGADH	14	0	6	0	0	0	0	0	0	0	0	6	3	3	0	0	0	0	0	0	14	0	6	0	50
KACHCHH	8	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	8	0	22
MAHARASHTRA	0	0	0	0	0	0	0	14	6	14	0	0	0	0	3	0	0	25	0	0	0	0	0	0	62
MAHESANA	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	3	8	0	0	0	0	0	0	20
NORTH INDIA	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
PORBANDAR	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	6
RAJKOT	145	0	39	0	6	0	0	0	0	0	0	42	6	3	3	3	0	0	8	0	28	0	22	0	305
SABARKANTHA	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	8
SOUTH INDIA	3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SURAT	0	3	0	0	0	0	0	6	3	6	0	0	0	0	0	0	0	25	0	0	0	6	0	0	48
SURENDRANAGAR	8	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	31
VADODARA	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	22	0	0	0	11	0	0	36
VALSAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
Total	291	17	70	3	11	70	3	22	34	25	3	67	17	6	6	3	3	243	8	6	53	62	45	3	1068

#### ORIGIN and DESTINATION Crosstabulation for "GOVERNMENT BUS" on RAJKOT - AHMADABAD Road

	DESTINATION																				
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BAPUNAGAR	BHARUCH	BHAVNAGAR	DHANDHUKA	JAMNAGAR	JUNAGADH	MADHYA PRADESH	MAHARASHTRA	MAHESANA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTHA	SURAT	SURENDRANAGAR	VADODARA	Total
AHMADABAD	0	8	2	0	3	0	11	1	5	10	0	0	1	0	1	16	0	0	2	0	60
AMRELI	9	0	1	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	17
ANAND	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
BAGODRA	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
BANASKANTHA	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
BAPUNAGAR	1	3	0	0	0	0	3	0	0	0	1	0	0	0	0	2	0	0	0	0	10
BHARUCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
BHAVNAGAR	17	0	0	2	7	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	30
DHANDHUKA	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
HIMMATNAGAR	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
JAMNAGAR	4	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	1	1	0	2	11
JUNAGADH	10	0	2	4	5	0	0	0	0	0	0	0	1	1	0	0	4	3	0	3	33
KACHCHH	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
MADHYA PRADESH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
MAHESANA	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	4
NORTH INDIA	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	3
PANCHMAHAL	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	4	0	0	0	0	8
PORBANDAR	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
RAJKOT	14	0	0	0	2	0	0	0	0	0	0	1	1	1	0	0	0	2	0	5	26
SABARKANTHA	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	1	0	0	0	0	5
SURAT	0	1	0	0	0	0	0	0	1	4	0	0	0	0	0	3	0	0	1	0	10
SURENDRANAGAR	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3
VADODARA	0	1	0	0	0	0	0	0	1	1	0	0	0	0	1	2	0	0	1	0	7
Total	65	14	6	9	21	2	18	1	9	26	1	1	7	5	2	31	5	9	4	13	249

#### ORIGIN and DESTINATION Crosstabulation for "GOVERNMENT BUS" on RAJKOT - AHMADABAD Road (Projected)

									DES	STINA	OITA	1									
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BAPUNAGAR	ВНАВОСН	BHAVNAGAR	DHANDHUKA	JAMNAGAR	JUNAGADH	MADHYA PRADESH	MAHARASHTRA	MAHESANA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTHA	SURAT	SURENDRANAGAR	VADODARA	Total
AHMADABAD	0	17	4	0	6	0	23	2	10	21	0	0	2	0	2	34	0	0	4	0	126
AMRELI	19	0	2	0	6	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	36
ANAND	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	6
BAGODRA	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
BANASKANTHA	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
BAPUNAGAR	2	6	0	0	0	0	6	0	0	0	2	0	0	0	0	4	0	0	0	0	21
BHARUCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
BHAVNAGAR	36	0	0	4	15	2	0	0	0	0	0	0	6	0	0	0	0	0	0	0	63
DHANDHUKA	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
HIMMATNAGAR	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4
JAMNAGAR	8	0	0	0	2	2	0	0	0	0	0	0	0	2	0	0	2	2	0	4	23
JUNAGADH	21	0	4	8	10	0	0	0	0	0	0	0	2	2	0	0	8	6	0	6	69
KACHCHH	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MADHYA PRADESH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
MAHESANA	0	0	0	0	0	0	2	0	0	4	0	0	0	0	0	2	0	0	0	0	8
NORTH INDIA	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	0	6
PANCHMAHAL	0	2	0	0	0	0	2	0	0	4	0	0	0	0	0	8	0	0	0	0	17
PORBANDAR	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8
RAJKOT	29	0	0	0	4	0	0	0	0	0	0	2	2	2	0	0	0	4	0	10	55
SABARKANTHA	0	0	0	0	0	0	2	0	2	4	0	0	0	0	0	2	0	0	0	0	10
SURAT	0	2	0	0	0	0	0	0	2	8	0	0	0	0	0	6	0	0	2	0	21
SURENDRANAGAR	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	6
VADODARA	0	2	0	0	0	0	0	0	2	2	0	0	0	0	2	4	0	0	2	0	15
Total	136	29	13	19	44	4	38	2	19	55	2	2	15	10	4	65	10	19	8	27	522

#### ORIGIN and DESTINATION Crosstabulation for "PRIVATE BUS" on RAJKOT - AHMADABAD Road

					DES	STINAT	ION					
ORIGIN	AHMADABAD	AMRELI	BAPUNAGAR	BHAVNAGAR	JAMNAGAR	КАСНСНН	MAHARASHTRA	NORTH INDIA	RAJKOT	SURAT	VADODARA	Total
AHMADABAD	0	1	1	31	4	0	1	2	9	0	0	49
AMRELI	2	0	0	0	0	0	0	0	0	0	1	3
ANAND	0	0	0	0	0	1	0	0	0	0	0	1
BHAVNAGAR	25	0	0	0	0	0	3	0	1	0	1	30
JAMNAGAR	1	0	1	0	0	0	0	0	0	0	1	3
KACHCHH	0	0	2	0	1	0	0	0	0	0	0	3
MAHARASHTRA	0	0	0	2	0	0	0	0	0	0	0	2
NORTH INDIA	2	0	0	0	1	0	0	0	1	0	0	4
PORBANDAR	2	0	0	0	0	0	0	0	0	0	0	2
RAJKOT	18	0	1	0	3	0	0	1	0	2	0	25
SURAT	0	0	0	1	0	0	0	0	2	0	0	3
VADODARA	1	0	0	0	0	0	0	0	3	0	0	4
Total	51	1	5	34	9	1	4	3	16	2	3	129

#### ORIGIN and DESTINATION Crosstabulation for "PRIVATE BUS" on RAJKOT - AHMADABAD Road (Projected)

					DEST	INATIO	N					
ORIGIN	AHMADABAD	AMRELI	BAPUNAGAR	BHAVNAGAR	JAMNAGAR	КАСНСНН	MAHARASHTRA	NORTH INDIA	RAJKOT	SURAT	VADODARA	Total
AHMADABAD	0	6	6	174	22	0	6	11	50	0	0	275
AMRELI	11	0	0	0	0	0	0	0	0	0	6	17
ANAND	0	0	0	0	0	6	0	0	0	0	0	6
BHAVNAGAR	140	0	0	0	0	0	17	0	6	0	6	168
JAMNAGAR	6	0	6	0	0	0	0	0	0	0	6	17
KACHCHH	0	0	11	0	6	0	0	0	0	0	0	17
MAHARASHTRA	0	0	0	11	0	0	0	0	0	0	0	11
NORTH INDIA	11	0	0	0	6	0	0	0	6	0	0	22
PORBANDAR	11	0	0	0	0	0	0	0	0	0	0	11
RAJKOT	101	0	6	0	17	0	0	6	0	11	0	140
SURAT	0	0	0	6	0	0	0	0	11	0	0	17
VADODARA	6	0	0	0	0	0	0	0	17	0	0	22
Total	286	6	28	191	50	6	22	17	90	11	17	723

#### ORIGIN and DESTINATION Crosstabulation for "TRUCK" on RAJKOT - AHMADABAD Road

										D	EST	INA	ΓΙΟΝ	١										
ORIGIN	AHMADABAD	AMRELI	ANAND	BHARUCH	BHAVNAGAR	EAST INDIA	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NAVSARI	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTHA	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	7	0	0	27	0	15	3	5	0	2	0	0	0	0	5	30	0	3	0	23	1	1	122
AMRELI	17	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	0	1	0	6	3	32
ANAND	3	1	0	0	4	0	2	6	8	0	0	0	0	0	0	0	14	0	0	0	5	0	0	43
BANASKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
BHARUCH	0	3	0	0	1	0	2	2	5	0	0	0	0	0	0	0	8	0	0	0	4	0	0	25
BHAVNAGAR	33	0	5	1	0	0	0	0	0	0	1	0	0	4	0	0	0	3	2	1	0	7	1	58
EAST INDIA	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
JAMNAGAR	18	0	2	2	0	0	0	0	0	1	8	1	0	4	2	0	0	1	2	2	0	12	5	60
JUNAGADH	18	0	3	1	0	0	0	0	0	0	5	1	0	3	0	0	0	0	0	2	0	5	1	39
KACHCHH	5	0	3	11	0	0	0	0	0	3	25	1	0	1	4	0	0	0	0	19	0	4	6	82
MADHYA PRADESH	0	0	0	0	2	0	1	0	6	0	0	0	0	0	0	0	4	0	0	0	1	0	0	14
MAHARASHTRA	0	5	0	0	6	0	15	10	12	0	0	0	0	1	0	1	60	0	0	1	1	0	0	112
MAHESANA	1	1	0	0	2	0	0	1	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	10
NAVSARI	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
NORTH INDIA	2	0	0	0	4	0	3	5	0	0	0	1	0	0	0	0	18	0	1	0	0	0	0	34
PANCHMAHAL	0	1	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	6
PORBANDAR	14	0	2	2	0	0	0	0	0	0	2	0	0	1	0	0	0	0	1	1	0	4	0	27
RAJKOT	43	0	19	5	0	3	0	0	0	5	28	1	1	6	1	0	0	2	10	6	0	8	4	142
SABARKANTHA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SOUTH INDIA	2	0	0	0	1	0	2	1	4	0	0	0	0	0	0	2	17	0	0	0	0	0	0	29
SURAT	2	1	0	0	6	0	6	4	27	1	0	0	0	1	0	2	18	0	0	0	5	0	0	73
SURENDRANAGAR	17	0	2	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0	2	0	0	6	2	33
VADODARA	1	2	0	0	2	0	3	4	16	0	0	1	0	0	0	2	14	0	0	0	2	0	1	48
VALSAD	0	2	0	0	2	0	3	2	9	0	0	0	0	0	0	1	6	0	0	0	2	0	0	27
Total	176	23	37	22	60	3	52	39	97	10	73	8	1	21	7	14	197	8	21	33	44	53	24	1023

#### ORIGIN and DESTINATION Crosstabulation for "TRUCK" on RAJKOT - AHMADABAD Road (Projected)

										D	ESTI	NAT	ION											
ORIGIN	AHMADABAD	AMRELI	ANAND	BHARUCH	BHAVNAGAR	EAST INDIA	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NAVSARI	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTHA	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	17	0	0	64	0	36	7	12	0	5	0	0	0	0	12	71	0	7	0	55	2	2	291
AMRELI	40	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	5	0	2	0	14	7	76
ANAND	7	2	0	0	10	0	5	14	19	0	0	0	0	0	0	0	33	0	0	0	12	0	0	102
BANASKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
BHARUCH	0	7	0	0	2	0	5	5	12	0	0	0	0	0	0	0	19	0	0	0	10	0	0	60
BHAVNAGAR	79	0	12	2	0	0	0	0	0	0	2	0	0	10	0	0	0	7	5	2	0	17	2	138
EAST INDIA	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0	7
JAMNAGAR	43	0	5	5	0	0	0	0	0	2	19	2	0	10	5	0	0	2	5	5	0	29	12	143
JUNAGADH	43	0	7	2	0	0	0	0	0	0	12	2	0	7	0	0	0	0	0	5	0	12	2	93
KACHCHH	12	0	7	26	0	0	0	0	0	7	60	2	0	2	10	0	0	0	0	45	0	10	14	195
MADHYA PRADESH	0	0	0	0	5	0	2	0	14	0	0	0	0	0	0	0	10	0	0	0	2	0	0	33
MAHARASHTRA	0	12	0	0	14	0	36	24	29	0	0	0	0	2	0	2	143	0	0	2	2	0	0	267
MAHESANA	2	2	0	0	5	0	0	2	0	0	0	0	0	0	0	2	10	0	0	0	0	0	0	24
NAVSARI	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	5
NORTH INDIA	5	0	0	0	10	0	7	12	0	0	0	2	0	0	0	0	43	0	2	0	0	0	0	81
PANCHMAHAL	0	2	0	0	5	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	14
PORBANDAR	33	0	5	5	0	0	0	0	0	0	5	0	0	2	0	0	0	0	2	2	0	10	0	64
RAJKOT	102	0	45	12	0	7	0	0	0	12	67	2	2	14	2	0	0	5	24	14	0	19	10	338
SABARKANTHA	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
SOUTH INDIA	5	0	0	0	2	0	5	2	10	0	0	0	0	0	0	5	40	0	0	0	0	0	0	69
SURAT	5	2	0	0	14	0	14	10	64	2	0	0	0	2	0	5	43	0	0	0	12	0	0	174
SURENDRANAGAR	40	0	5	0	2	0	0	0	0	0	2	2	0	0	0	0	2	0	5	0	0	14	5	79
VADODARA	2	5	0	0	5	0	7	10	38	0	0	2	0	0	0	5	33	0	0	0	5	0	2	114
VALSAD	0	5	0	0	5	0	7	5	21	0	0	0	0	0	0	2	14	0	0	0	5	0	0	64
Total	419	55	88	52	143	7	124	93	231	24	174	19	2	50	17	33	469	19	50	79	105	126	57	2437

#### ORIGIN and DESTINATION Crosstabulation for "MULTI AXEL" on RAJKOT - AHMADABAD Road

											DES	TIN	ATIC	N											
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	EAST INDIA	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTA	SABARKANTHA	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	10	0	0	0	21	0	29	5	6	0	0	0	0	0	3	17	0	0	2	0	1	1	0	95
AMRELI	5	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	10
ANAND	0	0	0	0	0	0	0	6	1	1	0	0	0	0	0	0	5	0	0	0	0	1	0	0	14
BANASKANTHA	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
BHARUCH	0	5	0	0	0	1	0	8	0	11	0	0	0	0	0	1	5	0	0	0	0	1	0	0	32
BHAVNAGAR	20	0	1	0	0	0	0	0	0	0	0	3	2	11	1	0	0	0	0	0	3	0	3	0	44
EAST INDIA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
JAMANGAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
JAMNAGAR	28	0	9	0	16	0	1	0	0	0	10	19	2	37	0	0	0	0	6	8	21	0	33	10	200
JUNAGADH	18	0	5	1	3	0	0	0	0	0	0	4	0	4	5	0	0	0	1	2	1	0	6	0	50
KACHCHH	5	0	5	0	17	3	1	0	0	0	17	36	2	4	3	0	0	1	1	20	21	0	6	20	162
MADHYA PRADESH	0	1	0	0	0	0	0	3	0	11	0	0	0	0	0	0	1	0	0	0	0	0	0	0	16
MAHARASHTRA	0	4	0	0	0	3	0	14	3	31	0	0	0	0	0	1	13	0	0	0	0	0	0	0	69
MAHESANA	2	1	1	0	0	1	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	9
NORTH INDIA	1	1	0	0	0	12	0	7	2	13	0	0	0	0	0	0	27	0	0	0	0	1	0	0	64
PANCHMAHAL	0	1	0	0	0	0	0	4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	7
PORBANDAR	0	0	1	0	0	0	0	0	0	0	1	2	0	4	0	0	0	0	1	7	1	0	0	1	18
RAJKOT	12	0	3	0	2	0	2	0	0	0	3	11	0	10	0	0	1	0	0	18	3	0	7	1	73
SABARKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
SOUTH INDIA	1	0	0	0	0	1	0	8	3	15	0	0	0	2	0	3	27	0	0	0	0	2	0	0	62
SURAT	1	0	0	0	0	0	0	13	0	23	0	0	0	0	0	1	7	0	0	0	0	2	0	0	47
SURENDRANAGAR	4	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	9
VADODARA	1	3	0	0	0	6	0	35	3	17	0	0	0	2	0	3	9	0	0	0	0	1	0	0	80
VALSAD	0	0	0	0	0	2	0	4	1	15	0	0	0	0	0	0	2	0	0	0	0	0	0	0	24
Total	98	26	29	2	39	50	4	134	18	145	31	75	6	74	10	13	119	1	9	57	54	10	57	32	1093

#### ORIGIN and DESTINATION Crosstabulation for "MULTI AXEL" on RAJKOT - AHMADABAD (Projected)

											DE	STIN	IATI	NC											
ORIGIN	AHMADABAD	AMRELI	ANAND	BANASKANTHA	BHARUCH	BHAVNAGAR	EAST INDIA	JAMNAGAR	JUNAGADH	КАСНСНН	MADHYA PRADESH	MAHARASHTRA	MAHESANA	NORTH INDIA	PANCHMAHAL	PORBANDAR	RAJKOT	SABARKANTA	SABARKANTHA	SOUTH INDIA	SURAT	SURENDRANAGAR	VADODARA	VALSAD	Total
AHMADABAD	0	24	0	0	0	51	0	70	12	14	0	0	0	0	0	7	41	0	0		0	2	2	0	229
AMRELI	12	0	5	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	24
ANAND	0	0	0	0	0	0	0	14	2	2	0	0	0	0	0	0	12	0	0	0	0	2	0	0	34
BANASKANTHA	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	7
BHARUCH	0	12	0	0	0	2	0	19	0	26	0	0	0	0	0	2	12	0	0	0	0	2	0	0	77
BHAVNAGAR	48	0	2	0	0	0	0	0	0	0	0	7	5	26	2	0	0	0	0	0	7	0	7	0	106
EAST INDIA	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5
JAMANGAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
JAMNAGAR	67	0	22	0	39	0	2	0	0	0	24	46	5	89	0	0	0	0	14	19	51	0	79	24	482
JUNAGADH	43	0	12	2	7	0	0	0	0	0	0	10	0	10	12	0	0	0	2	5	2	0	14	0	120
KACHCHH	12	0	12	0	41	7	2	0	0	0	41	87	5	10	7	0	0	2	2	48	51	0	14	48	390
MADHYA PRADESH	0	2	0	0	0	0	0	7	0	26	0	0	0	0	0	0	2	0	0	0	0	0	0	0	39
MAHARASHTRA	0	10	0	0	0	7	0	34	7	75	0	0	0	0	0	2	31	0	0	0	0	0	0	0	166
MAHESANA	5	2	2	0	0	2	0	2	0	0	0	0	0	0	0	2	5	0	0		0	0	0	0	22
NORTH INDIA	2	2	0	0	0	29	0	17	5	31	0	0	0	0	0	0	65	0	0		0	2	0	0	154
PANCHMAHAL	0	2	0	0	0	0	0	10	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	17
PORBANDAR	0	0	2	0	0	0	0	0	0	0	2	5	0	10	0	0	0	0	2	17	2	0	0	2	43
RAJKOT	29	0	7	0	5	0	5	0	0	0	7	26	0	24	0	0	2	0	0	43	7	0	17	2	176
SABARKANTHA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	5
SOUTH INDIA	2	0	0	0	0	2	0	19	7	36	0	0	0	5	0	7	65	0	0	0	0	5	0	0	149
SURAT	2	0	0	0	0	0	0	31	0	55	0	0	0	0	0	2	17	0	0	0	0	5	0	0	113
SURENDRANAGAR	10	0	5	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	0	0	0	22
VADODARA	2	7	0	0	0	14	0	84	7	41	0	0	0	5	0	7	22	0	0	0	0	2	0	0	193
VALSAD	0	0	0	0	0	5	0	10	2	36	0	0	0	0	0	0	5	0	0	0	0	0	0	0	58
Total	236	63	70	5	94	120	10	323	43	349	75	181	14	178	24	31	287	2	22	137	130	24	137	77	2632

# SURVEY FORMS

Classified	Volume Coun	t (CVC) an	d Origin-D	estination	(O-D) Survey
Ciassilicu	volume Coun		IU ()  IZIII-I)	CSUHAUVII	11 <i>7</i> -171 Mul vev

## BHAVNAGAR – VATAMAN ROAD

Point Name:	 Date of Survey:	
<b>Investigators Name:</b>	Sheet No.	

TIME	CAR/JEEP/VAN	LIGHT GOODS VEHICLE	TIME	CAR/JEEP/VAN	LIGHT GOODS VEHICLE
	TOTAL	TOTAL		TOTAL	TOTAL
	TOTAL	TOTAL		TOTAL	TOTAL
	TOTAL	TOTAL		TOTAL	TOTAL

Point Name:	 Date of Survey:	
<b>Investigators Name:</b>	 Sheet No.	

TIME	GOVT. BUS	PVT. BUS	TIME	GOVT. BUS	PVT. BUS
	TOTAL	TOTAL		TOTAL	TOTAL
	TOTAL	TOTAL		TOTAL	TOTAL

Point Name:	 Date of Survey:	
<b>Investigators Name:</b>	Sheet No.	

TIME	TRUCK/ TANKER	MULTI AXLE VEHICLE	TIME	TRUCK/ TANKER	MULTI AXLE VEHICLE
	TOTAL	TOTAL		TOTAL	TOTAL
_	TOTAL	TOTAL		TOTAL	TOTAL
	TOTAL	TOTAL		TOTAL	TOTAL

#### ORIGIN – DESTINATION (O – D) SURVEY

<b>Point Name:</b>	 Date of Survey:	
<b>Investigators Name:</b>	 Sheet No.	

TIME	VEHICLE NUMBER	VEHICLE TYPE	ORIGIN	DESTINATION	TYPE OF GOODS /PURPOSE	FREQENCY

Classified Volume	Count (CVC) a	nd Origin-Destina	tion (O-D) Survey
Classifica volume	COUNTRY VIA	(7) 12111 <b>-</b> 17 <b>5</b> 5111112	LIOH (17 <b>7-17)</b> Mul VEV

# **RAJKOT-AHMADABAD ROAD**

Point Nat Investiga	me:tors Name:		Date of Survey: Sheet No.		
TIME	CAD/IEED/MAN	TIME	$C\Lambda$	D/IEED/NAN	

TIME	CAR/JEEP/VAN	TIME	CAR/JEEP/VAN
1 IIVIE	CAR/JEEF/VAIN	IIIVIE	CAR/JEEF/VAIN
	TOTAL		TOTAL
	TOTAL		TOTAL

Point Name:	 Date of Survey:	
Investigators Name:	Sheet No.	

TIME	LIGHT GOODS VEHICLE	TIME	LIGHT GOODS VEHICLE
TIME	LIGITI GOODS VEHICLE	1 11/117	LIGHT GOODS VEHICLE
	TOTAL		TOTAL
	TOTAL		TOTAL

Point Name:	 Date of Survey:	
<b>Investigators Name:</b>	 Sheet No.	
_		

TIME	GOVERNMENT BUS	TIME	GOVERNMENT BUS
	TOTAL		TOTAL
	TOTAL		TOTAL

Point Name:	 Date of Survey:	
Investigators Name:	Sheet No.	
_		

TIME	DDIVATE DUC	TIME	DDIVATE DUC
TIME	PRIVATE BUS	TIME	PRIVATE BUS
	TOTAL		TOTAL
	TOTAL		TOTAL
	TOTAL		TOTAL
	IOIAL		IVIAL

<b>Point Name:</b>	 Date of Survey:	
<b>Investigators Name:</b>	Sheet No.	
C		

TIME	TRUCK/ TANKER	TIME	TRUCK/ TANKER
	mom . x		mom . r
	TOTAL		TOTAL
	TOTAL		TOTAL

Point Name:	Date of Survey:	
Investigators Name:	Sheet No.	
	<del></del>	

TIME	MULTI AXLE VEHICLE	TIME	MULTI AXLE VEHICLE
1111112	MOLII AALE VEINCEE	11111112	WOLITABLE VEHICLE
	TOTAL		TOTAL
	TOTAL		TOTAL

#### ORIGIN – DESTINATION (O – D) SURVEY

<b>Point Name:</b>	 Date of Survey:	
<b>Investigators Name:</b>	Sheet No.	

TIME	VEHICLE NUMBER	VEHICLE TYPE	ORIGIN	DESTINATION	TYPE OF GOODS /PURPOSE	FREQENCY