

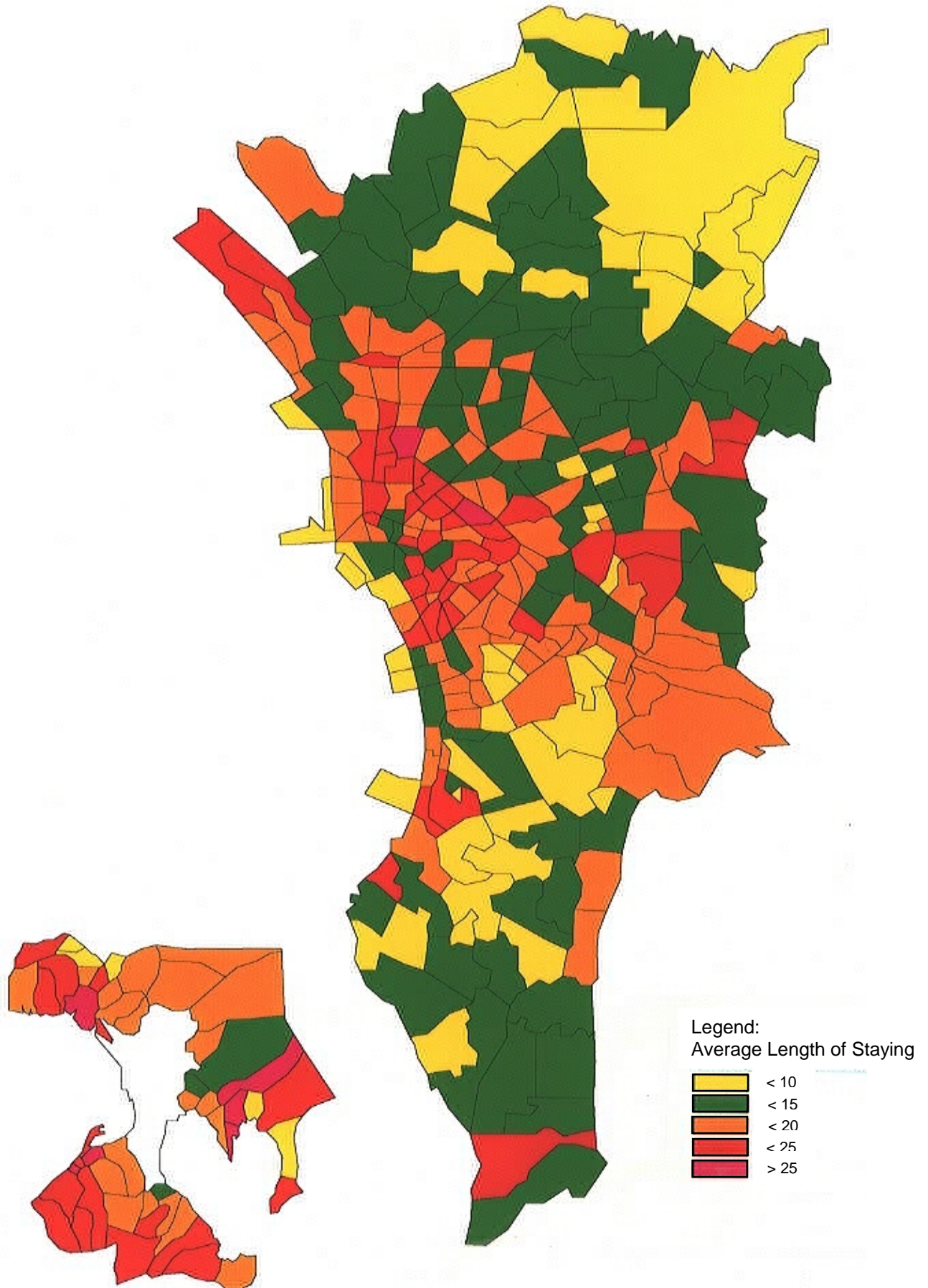
### 4.3 Length of Habitation

Household heads were asked how long they have been living in their present houses. As shown in Table 4.3 and Figure 4.5, the population of Manila has the longest average length of stay (20.6 years); followed by San Juan (18.1); Pateros (17.9); Pasay (16.2); and Makati (16.0). Outside Metro Manila, Bulacan has the biggest dwelling years (19.9), followed closely by Cavite (19.5).

**TABLE 4.3**  
**AVERAGE DWELLING YEARS BY ZONE**

City/ Municipality	Dwelling Years
City of Manila	20.6
1 <sup>st</sup>	20.3
2nd	20.5
3rd	21.0
4th	20.6
Pasay	16.2
Makati	16.0
Mandaluyong	15.1
San Juan	18.1
Quezon City	12.4
I	15.4
II	11.0
III	15.4
IV	14.9
Caloocan City	13.9
South	17.9
North	9.6
Valenzuela	13.0
Malabon	15.0
Navotas	15.7
Marikina	15.2
Pasig City	15.2
Pateros	17.9
Taguig	12.4
Parañaque	13.1
Muntinlupa	14.0
Las Piñas	11.5
Metro Manila Total	15.0
Bulacan	19.9
Cavite	19.5
Laguna	18.3
Rizal	17.4
Provinces Total	18.8
<b>Survey Area Total</b>	<b>16.2</b>

**FIGURE 4.5**  
**AVERAGE DWELLING YEARS BY TRAFFIC ZONE**



#### 4.4 Car Ownership

Out of 3,155 thousand households, 591 thousand households or 19 percent own vehicle(s) excluding bicycles and motorcycles as shown in Table 4.4.

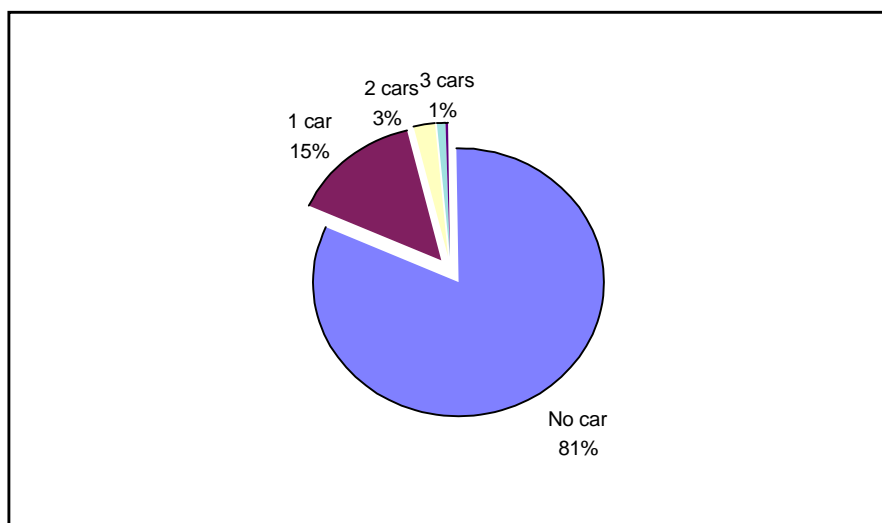
**TABLE 4.4 CAR OWNERSHIP**

Car Ownership	No. of HHs	%
No. Car Owned	2,563,387	81.3
Car Owned	591,422	18.7
<b>Total</b>	<b>3,154,809</b>	<b>100.0</b>

#### 4.5 Number of Cars Owned

Figure 4.6 and Table 4.5 show the breakdown of household car ownership by number of cars owned. Out of 591 thousand car-owning households, 107 thousand (3 percent) own more than one car. The total number of owned cars in the study area is 738.9 thousand, or 23 cars per 100 households. The average number of cars per car-owning household is 1.2.

**FIGURE 4.6  
 HOUSEHOLD CAR OWNERSHIP BY NUMBER OF CARS OWNED**



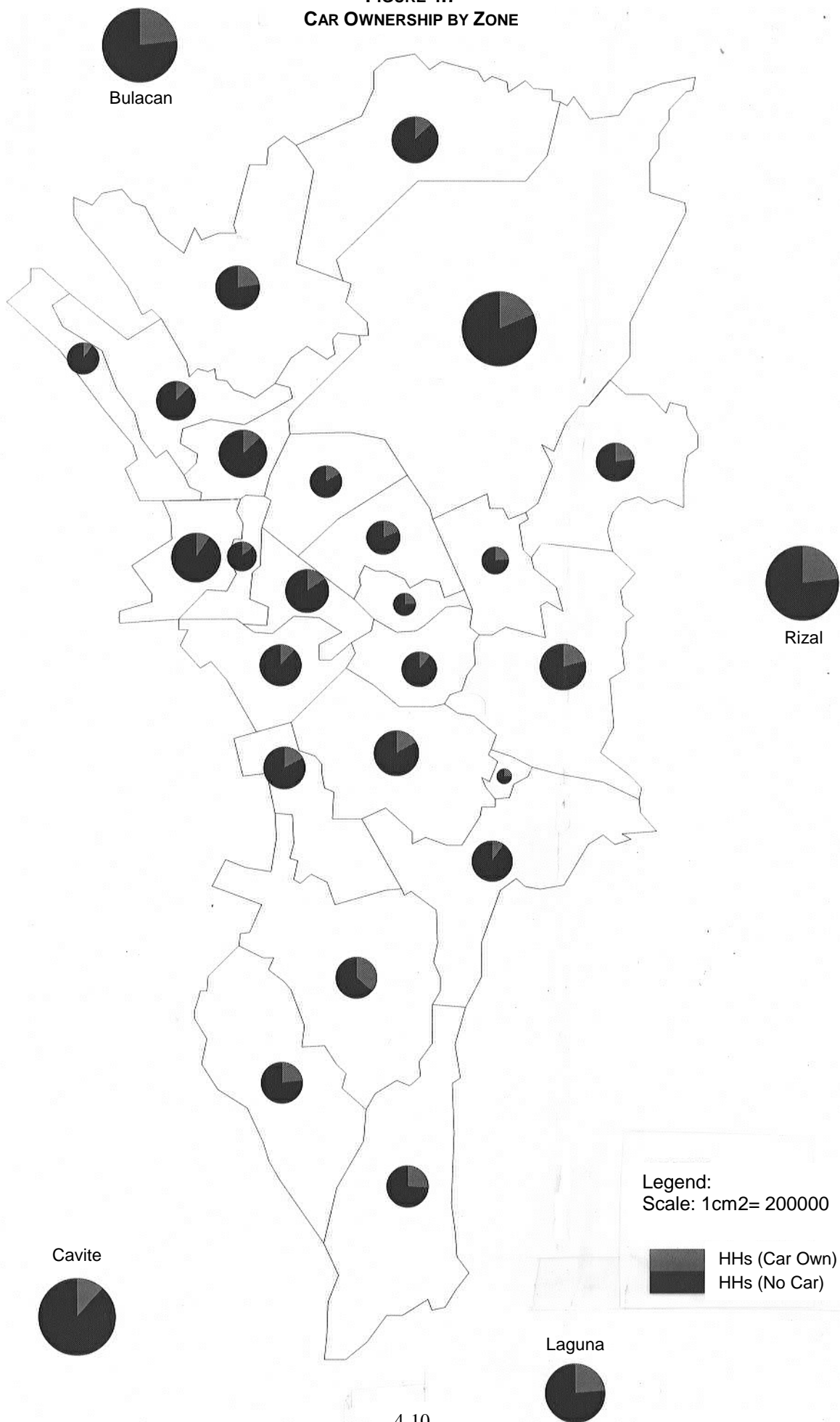
**TABLE 4.5  
 HOUSEHOLD CAR OWNERSHIP BY NUMBER OF CARS OWNED**

Car Ownership	Households		No. of Cars
	No.	%	
Not owning	2,563,387	81.3	0
1 car	484,840	15.4	484,840
2 cars	80,283	2.5	160,566
3 cars	16,858	0.5	50,574
4 & over	9,441	0.3	42,954
<b>Total</b>	<b>3,154,809</b>	<b>100.0</b>	<b>738,934</b>
Average No. of Cars Owned per 100 HHs			23.4
Average No. of Cars Owned per Own HHs			1.2

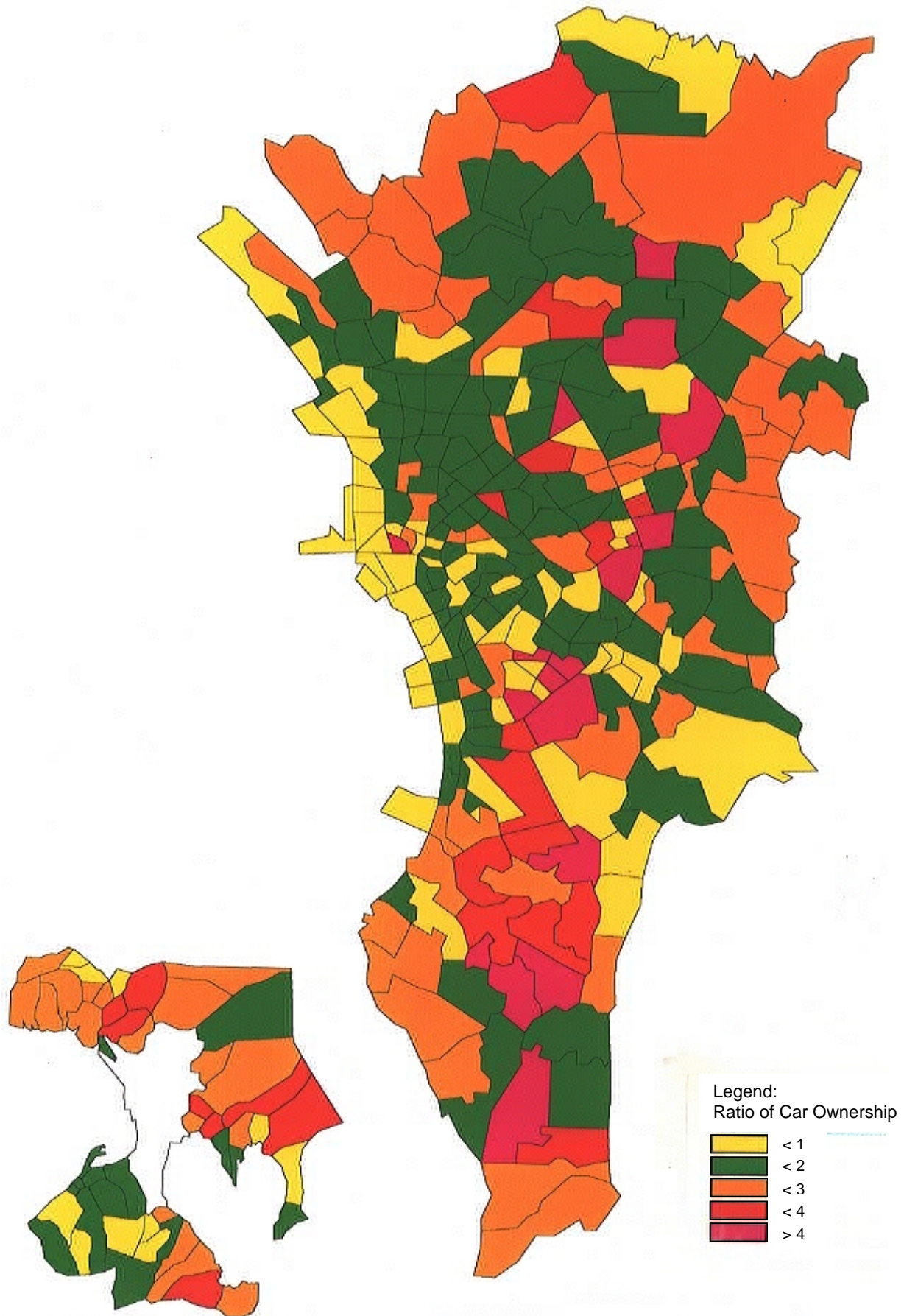
**TABLE 4.6**  
**NUMBER OF CARS OWNED BY ZONE**

City/ Municipality	Number of Cars by Vehicle Type				Total
	Car/Jeep + UV	Bicycle M-cycle	Others	Truck	
City of Manila	57,351	4,271	42,972	1,049	105,643
1 <sup>st</sup>	13,790	1,685	15,101	787	31,363
2 <sup>nd</sup>	8,811	326	4,873	121	14,131
3 <sup>rd</sup>	20,032	1,419	11,537	105	33,093
4 <sup>th</sup>	14,718	841	11,461	36	27,056
Pasay	21,866	1,593	14,004	326	37,789
Makati	33,779	1,243	7,542	76	42,640
Mandaluyong	10,212	743	4,029	0	14,984
San Juan	15,746	482	2,279	63	18,570
Quezon City	124,940	5,269	49,373	3,308	182,890
I	13,700	665	6,234	348	20,947
II	77,653	3,430	34,445	1,646	117,174
III	15,677	358	3,271	34	19,340
IV	17,910	816	5,423	1,280	25,429
Caloocan City	35,705	2,015	19,544	675	57,939
South	20,576	1,164	10,655	462	32,857
North	15,129	887	8,889	213	25,118
Valenzuela	25,087	2,185	21,016	878	49,166
Malabon	11,794	687	8,366	184	21,031
Navotas	5,326	736	6,197	444	12,703
Marikina	24,536	2,129	16,116	411	43,192
Pasig City	24,783	2,586	25,941	305	53,615
Pateros	3,558	685	3,338	0	7,581
Taguig	9,656	1,204	8,633	352	19,845
Parañaque	58,603	2,711	15,688	597	77,599
Muntinlupa	31,801	1,303	14,306	756	48,166
Las Piñas	31,937	1,135	10,128	35	43,235
<b>Metro Manila Total</b>	<b>526,680</b>	<b>31,013</b>	<b>269,472</b>	<b>9,459</b>	<b>836,624</b>
Bulacan	45,981	7,219	85,110	2,625	140,935
Cavite	43,240	3,507	32,005	303	79,055
Laguna	45,643	8,050	50,154	2,358	106,205
Rizal	77,390	13,752	67,905	3,259	162,306
<b>Provinces Total</b>	<b>212,254</b>	<b>35,528</b>	<b>235,174</b>	<b>8,545</b>	<b>491,501</b>
<b>Survey Area Total</b>	<b>738,934</b>	<b>63,541</b>	<b>504,646</b>	<b>18,004</b>	<b>1,325,125</b>

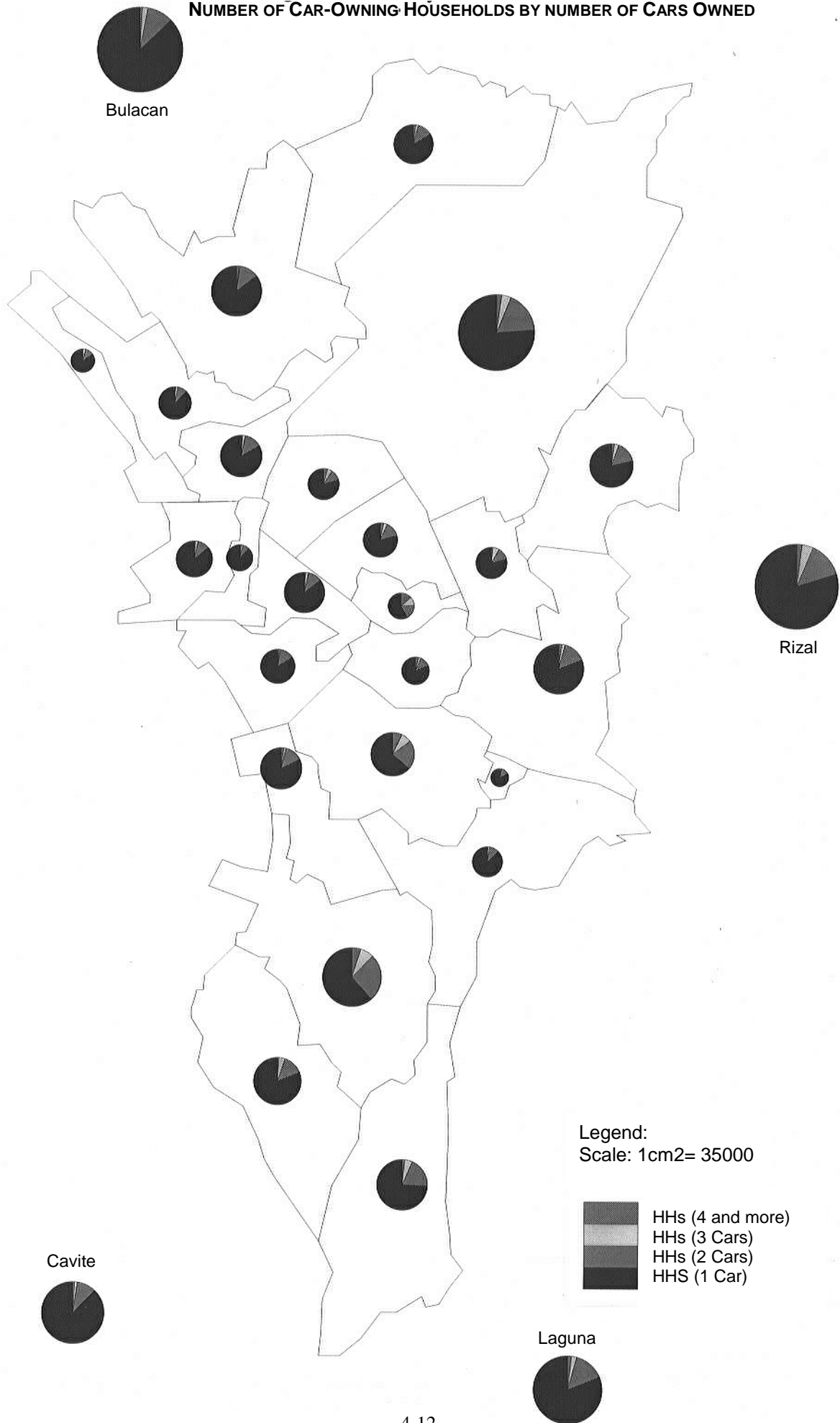
**FIGURE 4.7**  
**CAR OWNERSHIP BY ZONE**



**FIGURE 4.8**  
**CAR OWNERSHIP BY TRAFFIC ZONE**



**FIGURE 4.9**  
**NUMBER OF CAR-OWNING HOUSEHOLDS BY NUMBER OF CARS OWNED**

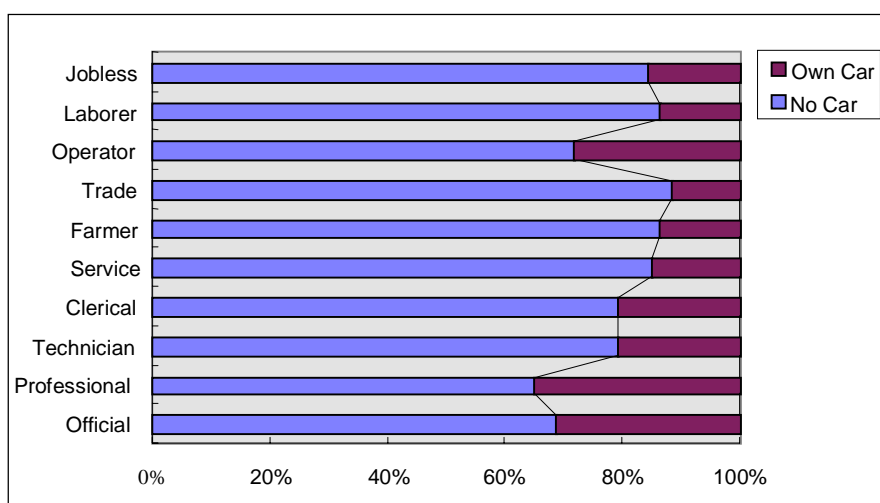


## 4.6 Car Ownership and Household Characteristics

### (1) Car Ownership by Occupation

Figure 4.10 and Table 4.7 present car ownership by occupation. “Professional” and “Official/Manager” have a car ownership rate of more than 20 percent.

**FIGURE 4.10**  
**CAR OWNERSHIP BY OCCUPATION**



**TABLE 4.7**  
**CAR OWNERSHIP BY OCCUPATION**

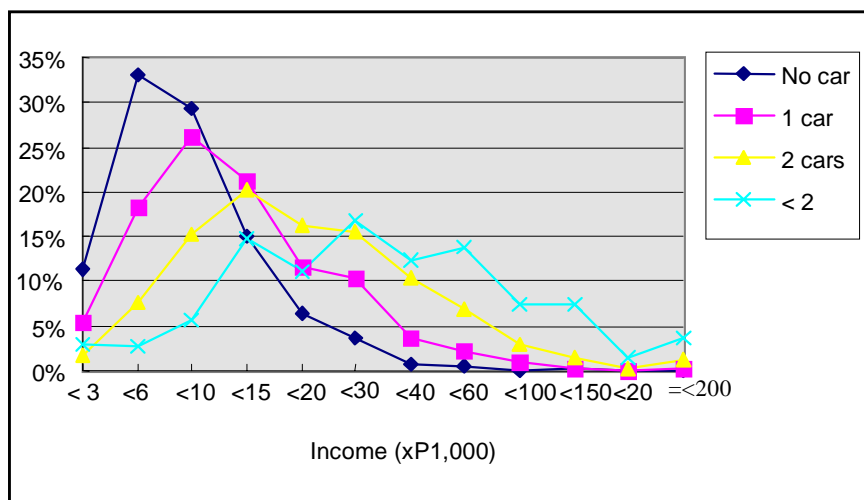
Occupation	Population			
	No Car Owned		Car Owned	
	No. (000)	%	No. (000)	%
Official, Manager	822.2	15.8	437.5	31.1
Professional	274.3	5.3	209.8	14.9
Technician	215.2	4.1	77.0	5.5
Clerical Worker	294.3	5.7	99.7	7.1
Service Worker	684.5	13.2	119.2	8.5
Farmer	110.0	2.1	11.0	0.8
Trade	397.8	7.7	46.6	3.3
Operator	497.5	9.6	76.3	5.4
Laborer	810.0	15.6	137.8	9.8
Jobless	1,085.3	20.9	193.3	13.7
<b>Total</b>	<b>5,191.6</b>	<b>100.0</b>	<b>1,408.1</b>	<b>100.0</b>



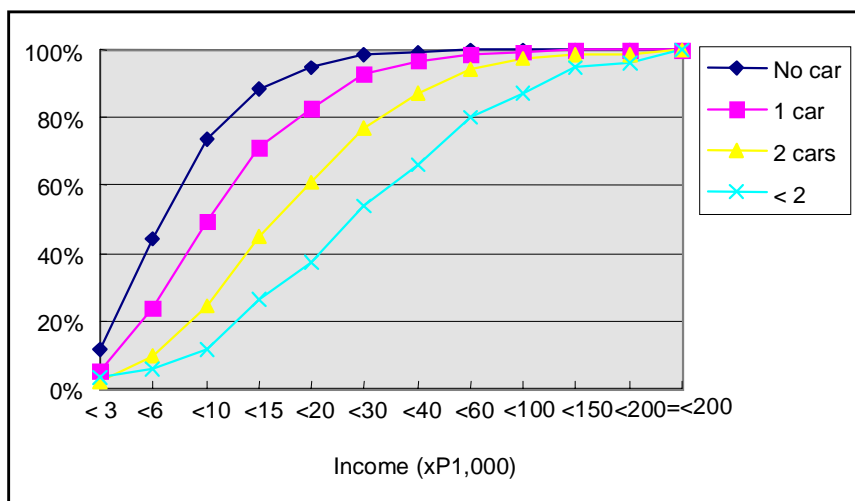
(2) Car Ownership by Income Level

In general, car ownership is determined by income level. Figures 4.11 and 4.13 show the distribution of income levels by car ownership. It is clear that the income level goes up as the car ownership level grows.

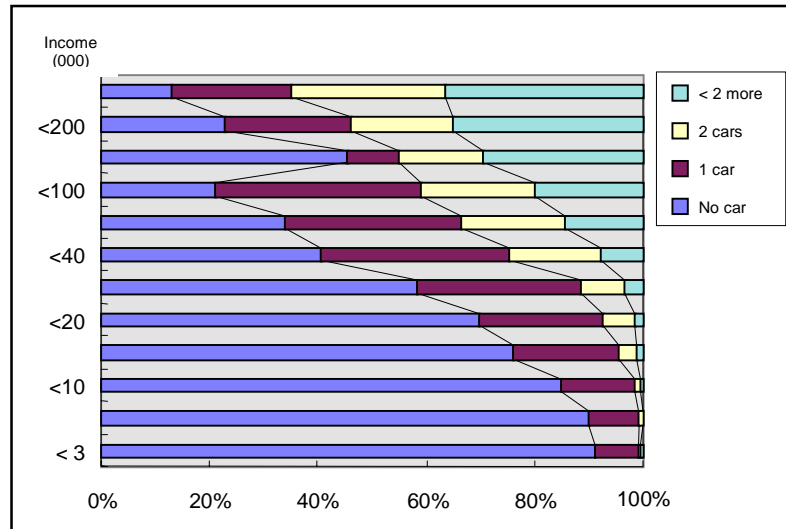
**FIGURE 4.11**  
**INCOME LEVEL DISTRIBUTION BY CAR OWNERSHIP**



**FIGURE 4.12**  
**INCOME LEVEL DISTRIBUTION BY CAR OWNERSHIP (CUMULATIVE)**



**FIGURE 4.13**  
**CAR OWNERSHIP BY INCOME LEVEL**



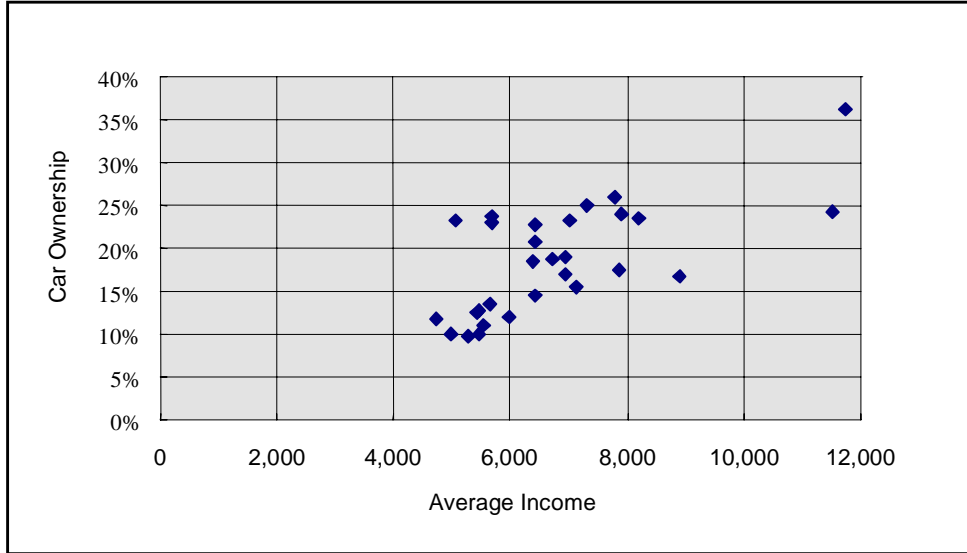
**TABLE 4.8**  
**CAR OWNERSHIP BY INCOME LEVEL**

(per 1,000 HHs)

Household Income	No Car Owned	No. of Cars Owned			Total
		1 Car	2 Cars	3 Cars & over	
< 3,000	261.2	10.6	0.7	0.6	273.1
<6,000	838.0	47.3	3.2	0.2	888.7
<10,000	752.1	110.4	7.0	0.6	870.1
<15,000	387.8	120.0	12.9	2.9	523.5
<20,000	163.3	71.7	14.3	1.9	251.3
<30,000	93.5	70.0	16.3	3.5	183.3
<40,000	21.1	27.8	11.8	4.0	64.8
<60,000	10.6	16.7	8.2	4.4	39.9
<100,000	2.7	7.1	2.9	2.9	15.7
<150,000	3.8	1.1	1.6	2.8	9.3
<200,000	0.3	0.6	0.3	0.5	1.8
200,000 & Over	0.5	1.2	1.0	1.4	4.1
<b>Total</b>	<b>2,535.0</b>	<b>484.5</b>	<b>80.2</b>	<b>25.8</b>	<b>3,125.4</b>

Figure 4.14 illustrates the interrelationship between car ownership and average household income by zone.

**FIGURE 4.14**  
**INTERRELATIONSHIP BETWEEN CAR OWNERSHIP AND AVERAGE HOUSEHOLD INCOME**  
**(BY ZONE)**

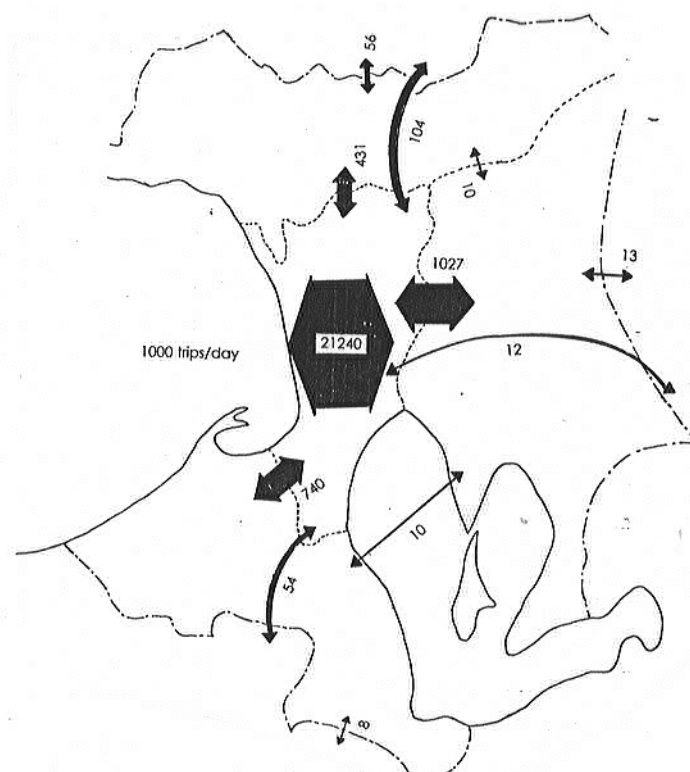


## 5. OUTLINE OF TRIPS

### 5.1 Number of Trips

The total number of person trips concerning the study area is 31,689 thousand trips a day. Out of this total, 30,490 thousand trips, or 98 percent, are those made by the residents in the study area, while the rest is made by the residents outside the study area. About 21 percent of the study area residents' trips are walk trips. This percentage is considerably lower than those in other developing countries (typically 30 percent), probably reflecting the dense public transport network in the study area. Figure 5.1 and Table 5.1 show the outline of these trips.

**FIGURE 5.1**  
**DISTRIBUTION OF PERSON TRIPS BY RESIDENTS IN THE STUDY AREA**



**TABLE 5.1**  
**NUMBER OF TRIPS BY RESIDENTS AND NON-RESIDENTS**

Residents	No. of Trips (000 trips)		
	Walking	Other Modes	Total
Metro Manila	4,471	17,676	22,147
Province	2,039	6,304	8,343
<b>Survey Area Total</b>	<b>6,510</b>	<b>23,980</b>	<b>30,490</b>
Outside		551	551
<b>Study Area Total</b>	<b>6,510</b>	<b>24,531</b>	<b>31,041</b>

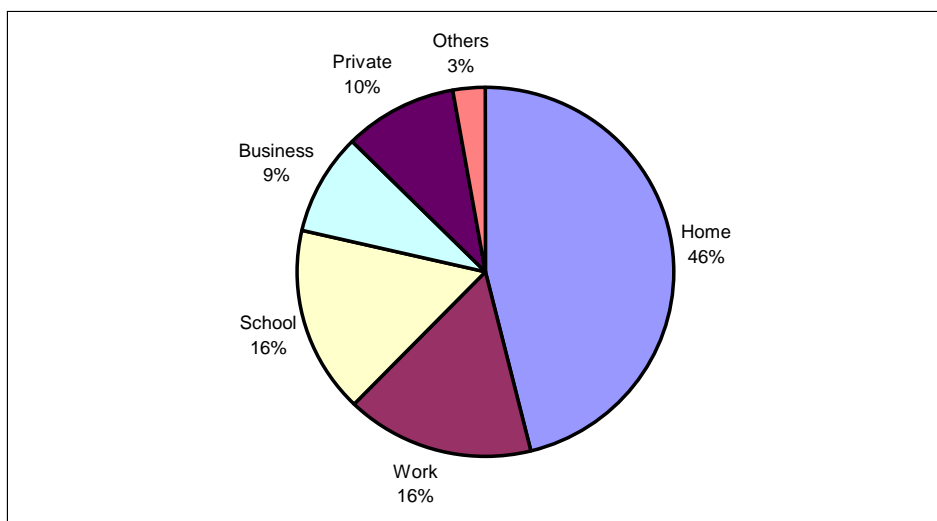
## 5.2 Trip Purpose

Table 5.2 and Figures 5.2 to 5.5 show the composition of trip purposes. Excluding “to Home” trips and “walk” trips, “to Work” and “to School” trips account for 32 percent and 26 percent, respectively. Nineteen (19) percent are shared by “Business” trips, and 17 percent by “Private” trips.

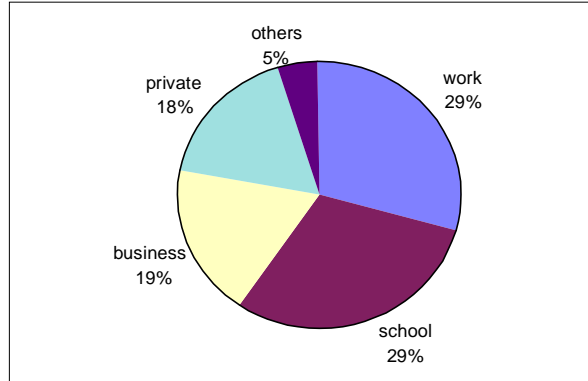
**TABLE 5.2**  
**NUMBER OF TRIPS BY TRIP PURPOSE**

Trip Purpose	Including Walk Trips			Excluding Walk Trips		
	(000)	%	%	(000)	%	%
to Home	14,017	46.0		11,220	45.6	
to Work	4,921	16.1	29.9	4,295	17.5	32.1
to School	4,991	16.4	30.3	3,524	14.3	26.4
Business	2,702	8.9	16.4	2,515	10.2	18.8
Private Business	647	2.1	3.9	593	2.4	4.4
Employer's Business	2,055	6.7	12.5	1,921	7.8	14.4
Private	2,991	9.8	18.2	2,316	9.4	17.3
Medical	131	0.4	0.8	121	0.5	0.9
Social	689	2.3	1.2	510	2.1	3.8
Eating	331	1.1	2.0	208	0.8	1.6
Shopping	1,656	5.4	10.1	1,331	5.4	10.0
Church	184	0.6	1.1	146	0.6	1.1
Others	868	2.8	5.3	716	2.9	5.4
Accompany	591	1.9	3.6	492	2.0	3.7
Others	277	0.9	1.7	224	0.9	1.7
<b>Total</b>	<b>30,491</b>	<b>100.0</b>		<b>24,586</b>	<b>100.0</b>	

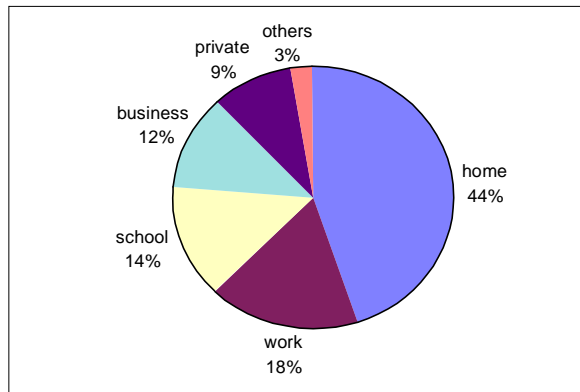
**FIGURE 5.2**  
**TRIP PURPOSE COMPOSITION**  
**(TOTAL)**



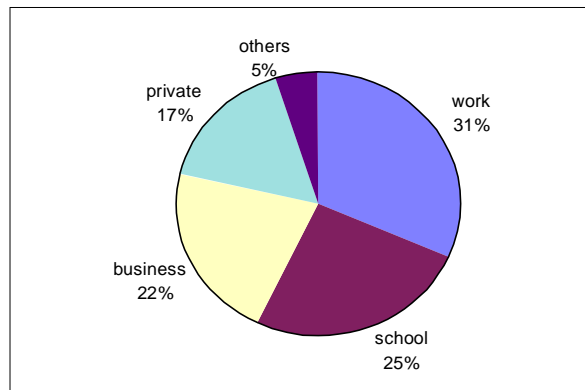
**FIGURE 5.3**  
**TRIP PURPOSE COMPOSITION**  
**(EXCLUDING “TO HOME” TRIPS)**



**FIGURE 5.4**  
**TRIP PURPOSE COMPOSITION**  
**(EXCLUDING “WALK” TRIPS)**



**Figure 5.5**  
**TRIP PURPOSE COMPOSITION**  
**(EXCLUDING “TO HOME” AND “WALK” TRIPS)**



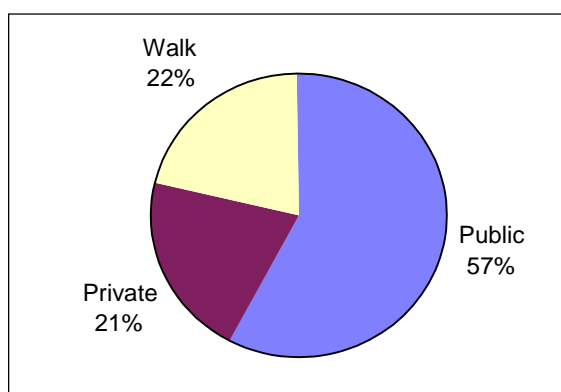
### 5.3 Travel Mode

Table 5.3 and Figure 5.6 to Figure 5.8 present the share of each travel mode. Modal share of public transportation is 59 percent when “Walk” trips are included. When walk trips are excluded, public transportation represents 75 percent of total trips. Among public transportation modes, the jeepney represents the majority at 53 percent, followed by tricycle (24 percent) and bus (20 percent). In relation to the private mode, the share of the car is largest at 69 percent, followed by taxi at 19 percent. Note that the taxi is sometimes classified as public transportation depending on the purpose of analysis.

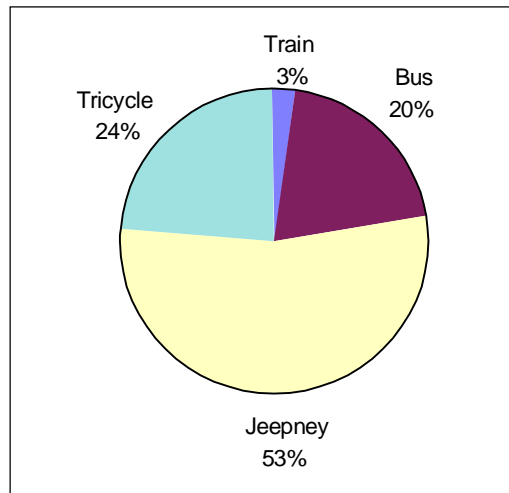
**TABLE 5.3**  
**NUMBER OF TRIPS BY TRAVEL MODE**

Mode	No. of Trips (000 trips)	% of Public/Private	% to Total
<i>Public Mode</i>	18,002	100.0	59.0
Train	453	2.5	1.5
Bus	3,674	20.4	12.0
Jeepney	9,587	53.3	31.4
Tricycle	4,288	23.8	14.1
<i>Private Mode</i>	5,978	100.0	19.6
Car	4,139	69.2	13.6
Taxi	1,149	19.2	3.8
Truck	621	10.4	2.0
Others	69	1.2	0.2
<i>Walking</i>	6,511	-	21.4
<b>Total</b>	<b>30,491</b>	-	<b>100.0</b>

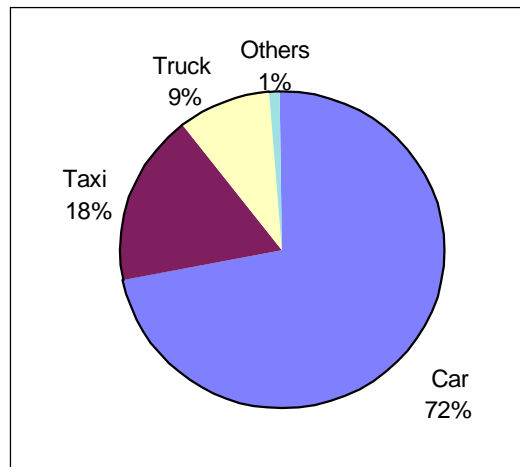
**FIGURE 5.6**  
**OVERALL MODAL SHARES**



**FIGURE 5.7**  
**MODAL SHARES WITHIN PUBLIC MODE**



**FIGURE 5.8**  
**MODAL SHARES WITHIN PRIVATE MODE**  
**(INCLUDING TAXI)**





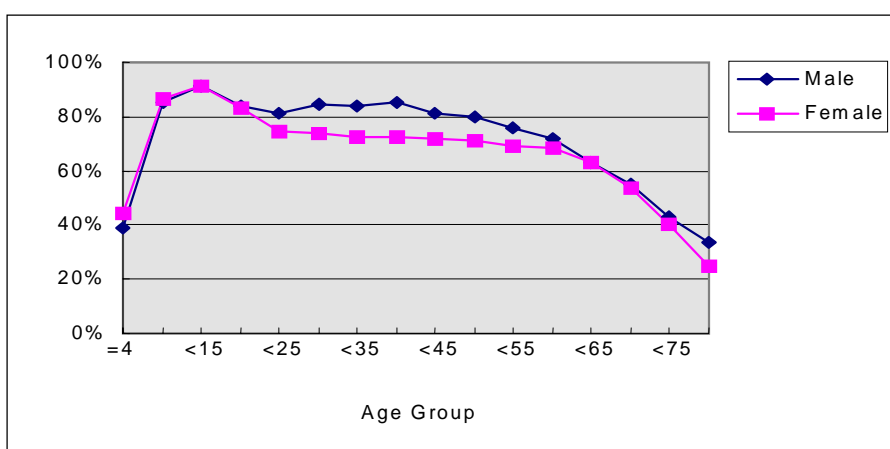
## 6. TRIP PRODUCTION

### 6.1 Trip Production Ratio by Socioeconomic Group

#### (1) By Sex and By Age Group

Figure 6.1 and Table 6.1 show the trip production ratio by sex and by age group. The average ratio is 79 percent with a difference of about 5 percent between males (82 percent) and females (76 percent). The age group of 10-14 years old has the highest trip ratio both for male and female.

**FIGURE 6.1**  
**TRIP PRODUCTION RATIO BY SEX AND BY AGE GROUP**

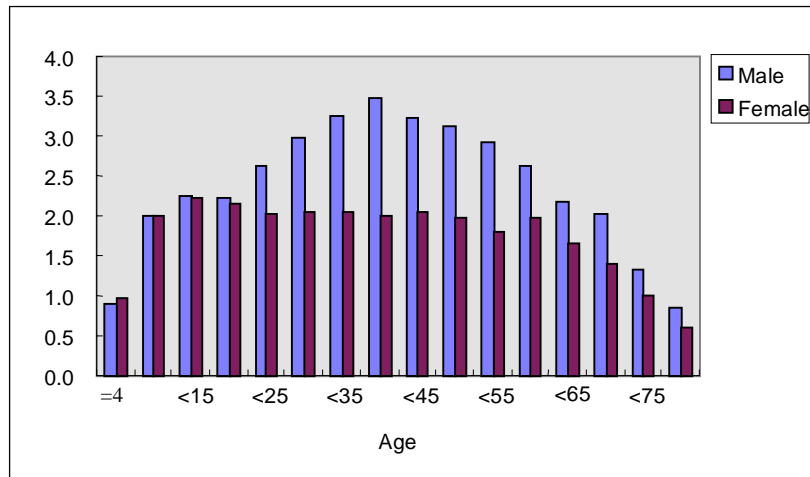


**TABLE 6.1**  
**TRIP MAKER RATIO BY SEX AND BY AGE GROUP (%)**

Age Group	Male	Female	Total
4 Years old	41.1	46.2	43.6
5 - 9	85.3	86.5	85.9
10 - 14	91.1	91.2	91.2
15 - 19	84.2	83.1	83.6
20 - 24	81.0	74.2	77.5
25 - 29	84.3	73.6	78.7
30 - 34	84.4	72.4	78.3
35 - 39	85.6	72.7	79.1
40 - 44	82.2	71.9	77.0
45 - 49	80.4	71.2	75.9
50 - 54	76.7	68.9	72.8
55 - 59	73.1	68.8	70.9
60 - 64	64.7	63.4	64.0
65 - 69	56.7	53.5	55.0
70 - 74	42.9	39.4	40.9
75 & over	34.3	24.6	28.1
<b>Total</b>	<b>82.2</b>	<b>76.2</b>	<b>79.2</b>

Figure 6.2 and Table 6.2 give the trip production rates by sex and by age group. The rate for male is 2.5, which is considerably higher than that for female (2.0). In the case of female, the trip production rate by age group is almost proportional to the trip maker ratio, while the rate for male differs largely by age group with a peak in the age group of 35-39 years old.

**FIGURE 6.2**  
**TRIP PRODUCTION RATE BY SEX AND BY AGE GROUP**



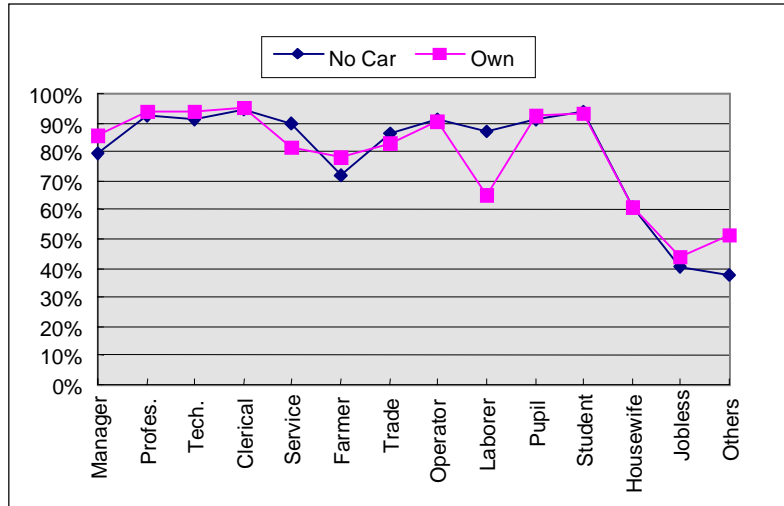
**TABLE 6.2**  
**TRIP PRODUCTION RATE BY SEX AND BY AGE GROUP**

Age Group	Male	Female	Total
4 Years old	0.96	1.04	1.00
5 - 9	1.91	1.96	1.93
10 - 14	2.19	2.17	2.18
15 - 19	2.24	2.17	2.20
20 - 24	2.48	2.05	2.25
25 - 29	2.87	2.07	2.45
30 - 34	3.02	2.07	2.54
35 - 39	3.11	2.04	2.57
40 - 44	3.06	1.98	2.52
45 - 49	2.91	1.99	2.46
50 - 54	2.70	1.87	2.28
55 - 59	2.52	1.87	2.18
60 - 64	2.18	1.70	1.92
65 - 69	1.81	1.43	1.60
70 - 74	1.32	1.04	1.16
75 & Over	1.00	0.65	0.78
<b>Total</b>	<b>2.50</b>	<b>2.00</b>	<b>2.25</b>

(2) By Occupation and By Car Ownership

Figure 6.3 and Table 6.3 shows the trip maker ratio by occupation and by car ownership. Trip maker ratio by car ownership indicates no significant result. By occupation, “Housewife” and “Jobless” show a low trip maker ratio.

**FIGURE 6.3**  
**TRIP MAKER RATIO BY OCCUPATION AND BY CAR OWNERSHIP**

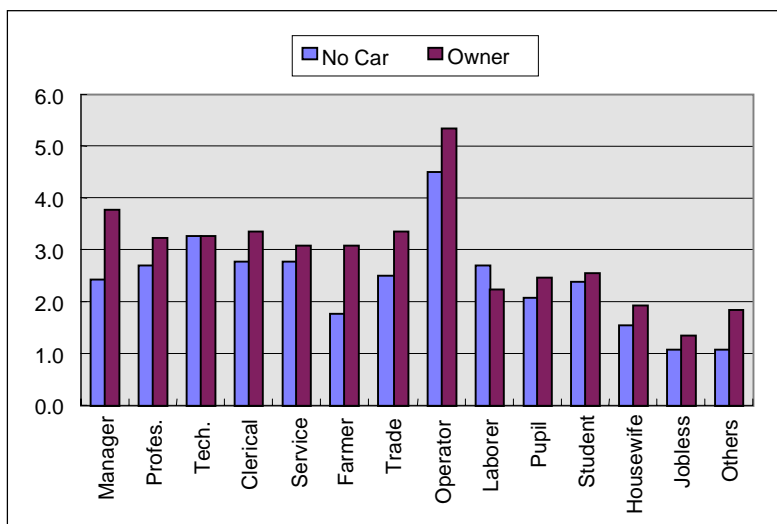


**TABLE 6.3**  
**TRIP MAKER RATIO BY OCCUPATION AND BY CAR OWNERSHIP (%)**

Occupation	Non-Car Owner	Car Owner	Total
Official, Manager	79.7	86.9	82.2
Professional	92.2	94.0	93.0
Technician	91.0	93.9	91.8
Clerical Worker	94.2	96.0	94.7
Service Worker	89.4	79.8	88.0
Farmer	72.6	80.0	73.2
Trade	85.8	82.0	85.4
Operator	91.0	89.7	90.8
Laborer	87.1	57.0	82.7
Pupil	91.3	92.4	91.5
Student	93.3	93.4	93.4
Housewife	60.5	62.8	60.8
Jobless	40.3	47.8	41.4
Others	38.1	56.9	41.3
<b>Total</b>	<b>78.4</b>	<b>82.0</b>	<b>79.2</b>

Figure 6.4 and Table 6.4 presents the trip production rate by occupation and by car ownership. Car owners have a rate of 2.60 which is much higher than that of 2.16 of non-car owners. By occupation, “Operator” and “Professional” have rates exceeding 3.0.

**FIGURE 6.4**  
**TRIP PRODUCTION RATE BY OCCUPATION AND BY CAR OWNERSHIP**



**TABLE 6.4**  
**TRIP PRODUCTION RATE BY OCCUPATION AND BY CAR OWNERSHIP**

Occupation	Non-Car Owner	Car Owner	Total
Official, Manager	2.40	3.33	2.72
Professional	2.75	3.37	3.02
Technician	2.79	3.28	2.92
Clerical Worker	2.80	3.12	2.88
Service Worker	2.71	2.84	2.73
Farmer	1.75	3.18	1.88
Trade	2.41	2.96	2.47
Operator	4.08	4.41	4.13
Laborer	2.52	1.78	2.41
Pupil	2.07	2.18	2.09
Student	2.39	2.62	2.45
Housewife	1.56	1.89	1.61
Jobless	1.08	1.57	1.16
Others	1.10	1.91	1.24
<b>Total</b>	<b>2.16</b>	<b>2.60</b>	<b>2.25</b>

## 6.2 Trip Production Ratio by Trip Purpose

Table 6.5 and Figure 6.5 show the trip production ratio by sex and by trip purpose. Males have a higher rate for “to Work” and “Business” purposes, while females have a higher rate for “Private” purpose.

**TABLE 6.5**  
**TRIP PRODUCTION RATE BY SEX AND BY TRIP PURPOSE**

Category	Trip Production Rate by Trip Purpose						Total
	to Home	to Work	To School	Business	Private	Others	
Male	1.11	0.51	0.38	0.29	0.15	0.06	2.50
Female	0.96	0.22	0.36	0.11	0.29	0.07	2.00
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.5**  
**TRIP PRODUCTION RATE BY SEX AND BY TRIP PURPOSE**



Table 6.6 and Figure 6.6 give the trip production rate by age group and by trip purpose.

**TABLE 6.6**  
**TRIP PRODUCTION RATE BY AGE GROUP AND BY TRIP PURPOSE**

Category	Trip Production Rate by Trip Purpose						Total
	to Home	to Work	to School	Business	Private	Others	
4 years old	0.49	0.02	0.35	0.01	0.05	0.07	1.00
5 – 9	0.96	0.01	0.91	0.00	0.03	0.02	1.93
10 – 14	1.07	0.01	1.03	0.01	0.05	0.02	2.18
15 – 19	1.06	0.12	0.79	0.06	0.15	0.03	2.20
20 – 24	1.04	0.52	0.23	0.16	0.24	0.06	2.25
25 – 29	1.10	0.68	0.03	0.27	0.30	0.09	2.45
30 – 34	1.11	0.65	0.01	0.36	0.30	0.11	2.54
35 – 39	1.12	0.63	0.01	0.38	0.33	0.10	2.57
40 – 44	1.09	0.58	0.01	0.43	0.33	0.09	2.52
45 – 49	1.07	0.56	0.01	0.40	0.34	0.09	2.46
50 – 54	1.01	0.46	0.00	0.37	0.35	0.08	2.28
55 – 59	0.98	0.38	0.01	0.34	0.38	0.10	2.18
60 – 64	0.87	0.26	0.00	0.29	0.41	0.08	1.92
65 – 69	0.74	0.15	0.00	0.24	0.39	0.07	1.60
70 – 74	0.55	0.10	0.00	0.14	0.32	0.05	1.16
74 over	0.37	0.05	0.01	0.07	0.22	0.05	0.78
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.6**  
**TRIP PRODUCTION RATE BY AGE GROUP AND BY TRIP PURPOSE**

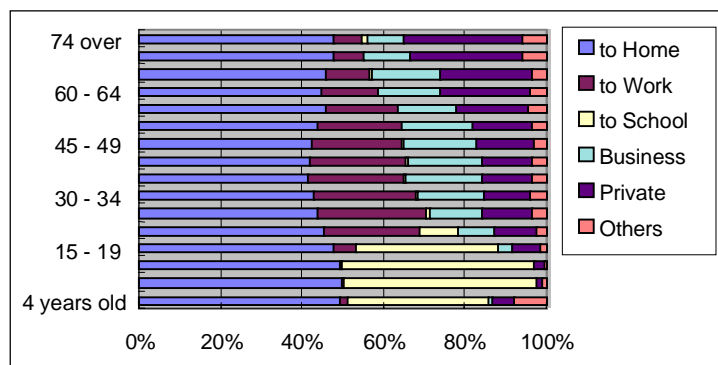
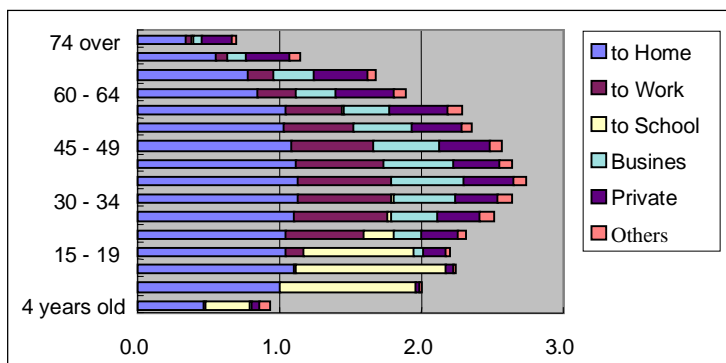


Table 6.7 and Figure 6.7 present trip production rate by car ownership and by trip purpose. Although the rate is higher in car-owning households for all trip purposes, the relative shares by trip purpose do not differ largely by car ownership.

**TABLE 6.7**  
**TRIP PRODUCTION RATE BY CAR OWNERSHIP AND BY TRIP PURPOSE**

Category	Trip Production Rate by Trip Purpose						Total
	to Home	to Work	To School	Business	Private	Others	
No Car	0.99	0.36	0.36	0.16	0.21	0.05	2.13
Own Car	1.15	0.37	0.40	0.30	0.25	0.11	2.57
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.7**  
**TRIP PRODUCTION RATE BY CAR OWNERSHIP AND BY TRIP PURPOSE**

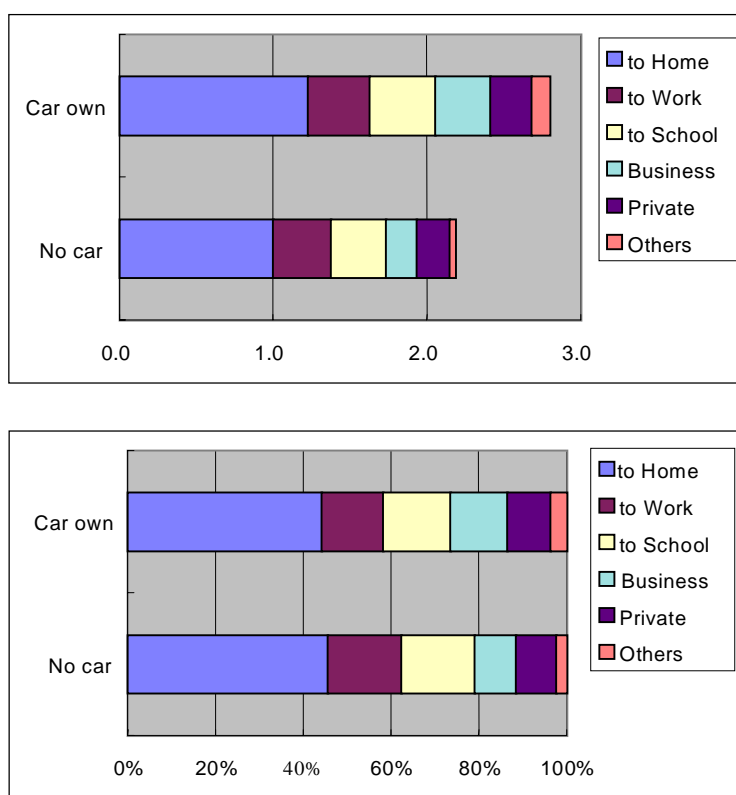
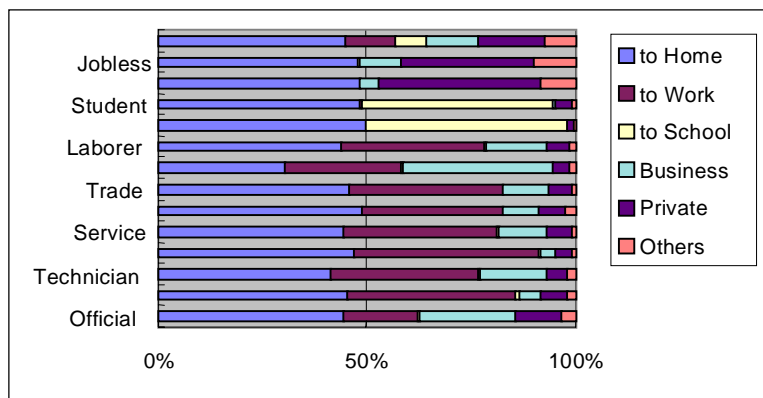
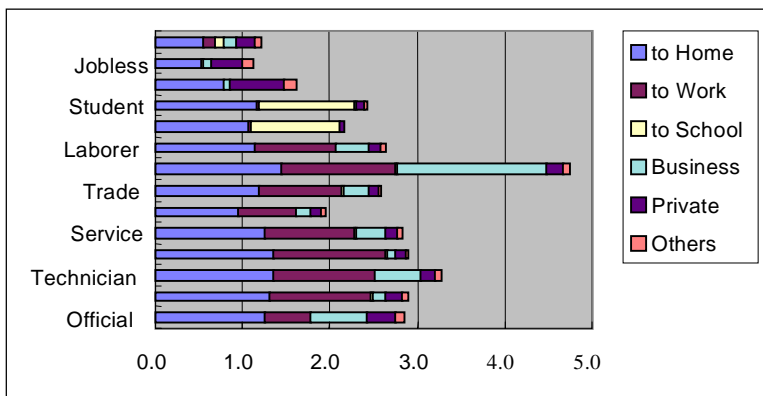


Table 6.8 and Figure 6.8 show the trip production rate by occupation and by trip purpose. “Operator” and “Official/Manager” have high percentages of “Business” trips.

**TABLE 6.8**  
**TRIP PRODUCTION RATE BY OCCUPATION AND BY TRIP PURPOSE**

Category	Trip Production Rate by Trip Purpose						Total
	to Home	to Work	to School	Business	Private	Others	
Official	1.21	0.51	0.01	0.60	0.30	0.11	2.72
Professional	1.37	1.22	0.03	0.15	0.19	0.06	3.02
Technician	1.32	1.14	0.02	0.23	0.16	0.05	2.92
Clerical	1.34	1.28	0.02	0.09	0.12	0.03	2.88
Service	1.24	1.01	0.02	0.27	0.15	0.04	2.73
Farmer	0.91	0.65	0.00	0.15	0.12	0.04	1.88
Trade	1.15	0.93	0.01	0.21	0.14	0.03	2.47
Operator	1.34	1.15	0.01	1.36	0.17	0.08	4.13
Laborer	1.10	0.84	0.01	0.28	0.14	0.05	2.41
Pupil	1.04	0.01	1.00	0.00	0.03	0.02	2.09
Student	1.18	0.01	1.12	0.02	0.10	0.02	2.45
Housewife	0.78	0.00	0.00	0.07	0.62	0.13	1.61
Jobless	0.55	0.00	0.01	0.12	0.37	0.12	1.16
Others	0.56	0.14	0.08	0.15	0.21	0.09	1.24
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.8**  
**TRIP PRODUCTION RATE BY OCCUPATION AND BY TRIP PURPOSE**





By household income group, the trip production rate is generally lower both in the low and high income groups, as presented in Table 6.9 and Figure 6.9. However, for those earning P100,000 and above, the rate of “Business” trip production is noticeably high.

**TABLE 6.9**  
**TRIP PRODUCTION RATE BY HOUSEHOLD INCOME AND BY TRIP PURPOSE**

Category	Trip Production Rate by Trip Purpose						Total
	To Home	to Work	To School	Business	Private	Others	
<P3,000	0.85	0.19	0.35	0.14	0.20	0.05	1.78
<P6,000	0.97	0.30	0.37	0.17	0.22	0.05	2.10
<P10,000	1.04	0.36	0.38	0.21	0.21	0.06	2.26
<P15,000	1.09	0.42	0.38	0.21	0.22	0.07	2.37
<P20,000	1.11	0.46	0.35	0.22	0.24	0.07	2.46
<P30,000	1.15	0.48	0.36	0.22	0.22	0.09	2.52
<P40,000	1.17	0.49	0.35	0.23	0.23	0.10	2.58
<P60,000	1.20	0.51	0.34	0.29	0.25	0.13	2.72
<P100,000	1.13	0.42	0.33	0.30	0.23	0.12	2.53
<P150,000	1.16	0.43	0.34	0.39	0.31	0.09	2.72
<P200,000	1.21	0.24	0.29	0.42	0.28	0.24	2.68
P200,000 & Over	1.27	0.32	0.32	0.55	0.42	0.22	3.09
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.9**  
**TRIP PRODUCTION RATE BY HOUSEHOLD INCOME AND BY TRIP PURPOSE**

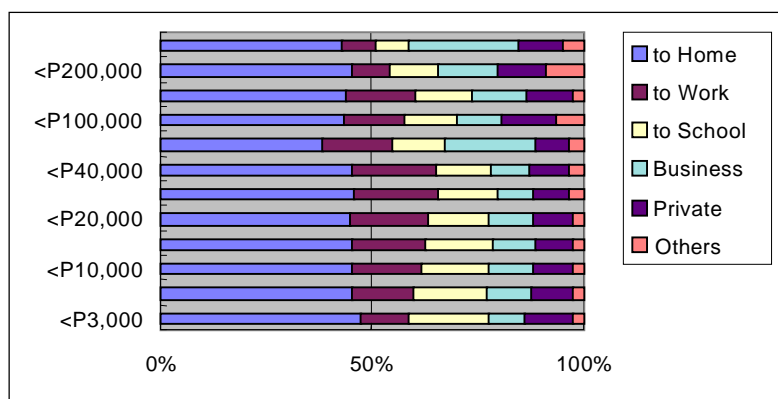
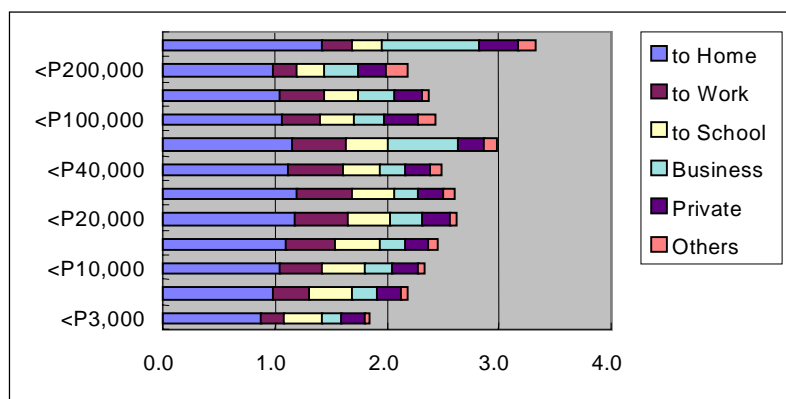
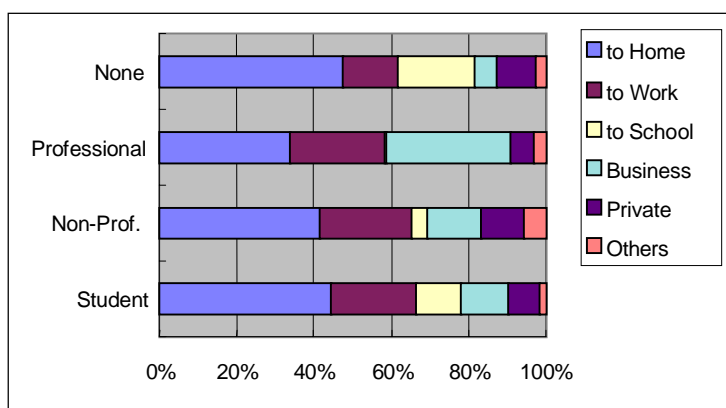
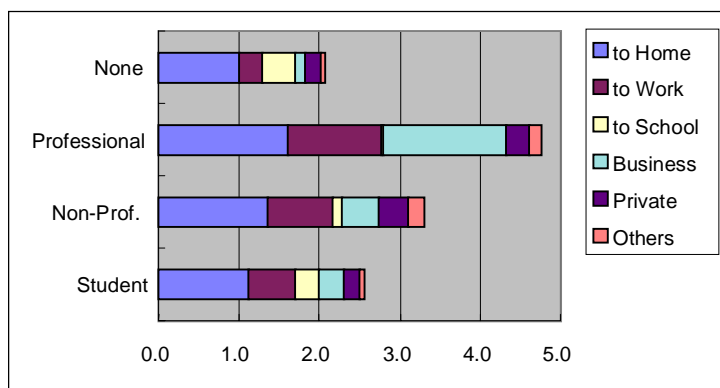


Table 6.10 and Figure 6.10 show the trip production rate by category of driving license and by trip purpose. The rate of holders of professional driving license is the highest at 3.94, followed by non-professional license holders (3.22), student license holders (2.69) and non-holders (2.04). The share of “Business” trips for professional license holders is outstanding.

**TABLE 6.10**  
**TRIP PRODUCTION RATE BY CATEGORY OF DRIVING LICENSE AND BY TRIP PURPOSE**

Category	Trip Production Rate by Trip Purpose						Total
	to Home	to Work	to School	Business	Private	Others	
Student	1.20	0.56	0.34	0.33	0.21	0.06	2.69
Non-Prof.	1.40	0.77	0.16	0.40	0.31	0.19	3.22
Professional	1.43	0.97	0.04	1.08	0.27	0.16	3.94
None	0.98	0.29	0.41	0.10	0.21	0.05	2.04
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.10**  
**TRIP PRODUCTION RATE BY CATEGORY OF DRIVING LICENSE AND BY TRIP PURPOSE**



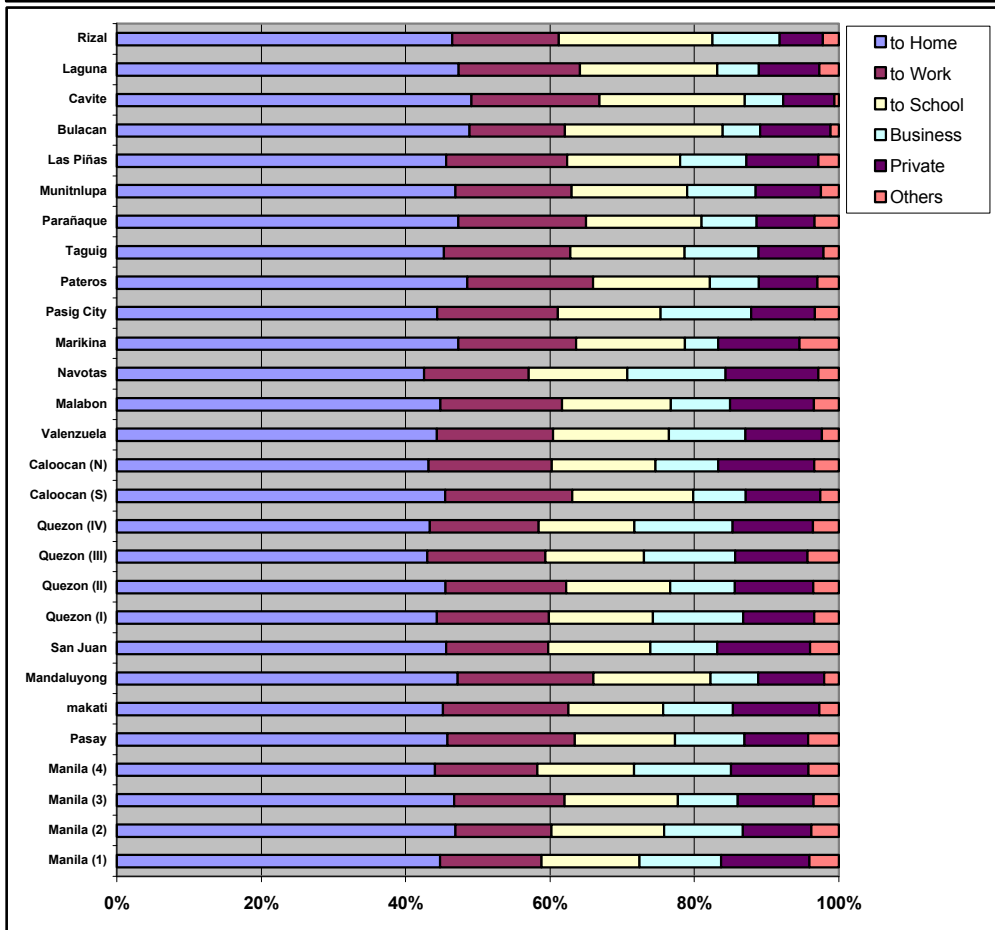
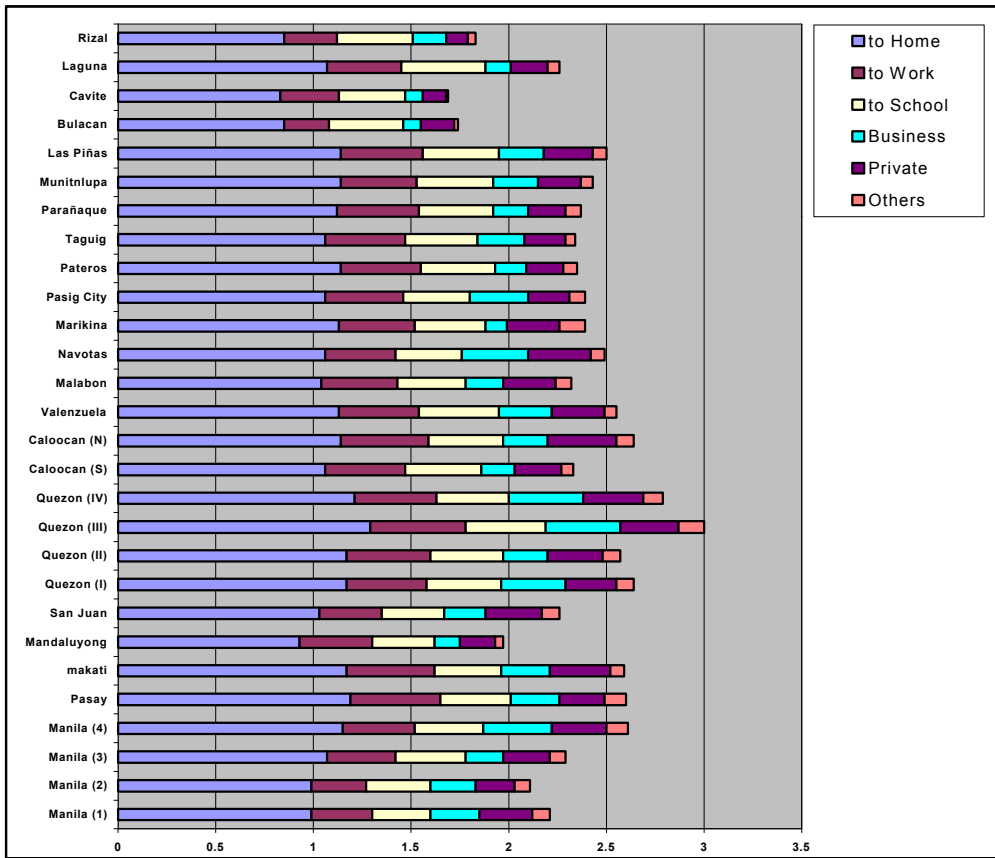
### 6.3 Trip Production Ratio by Zone

Table 6.11 and Figure 6.11 summarize the trip production rate by zone and by purpose. Quezon (III) has the highest production rate at 3.00. This is due to its high production rate of “Business” trips. The production rates of “to Work” and “to School” trips do not differ largely by zone.

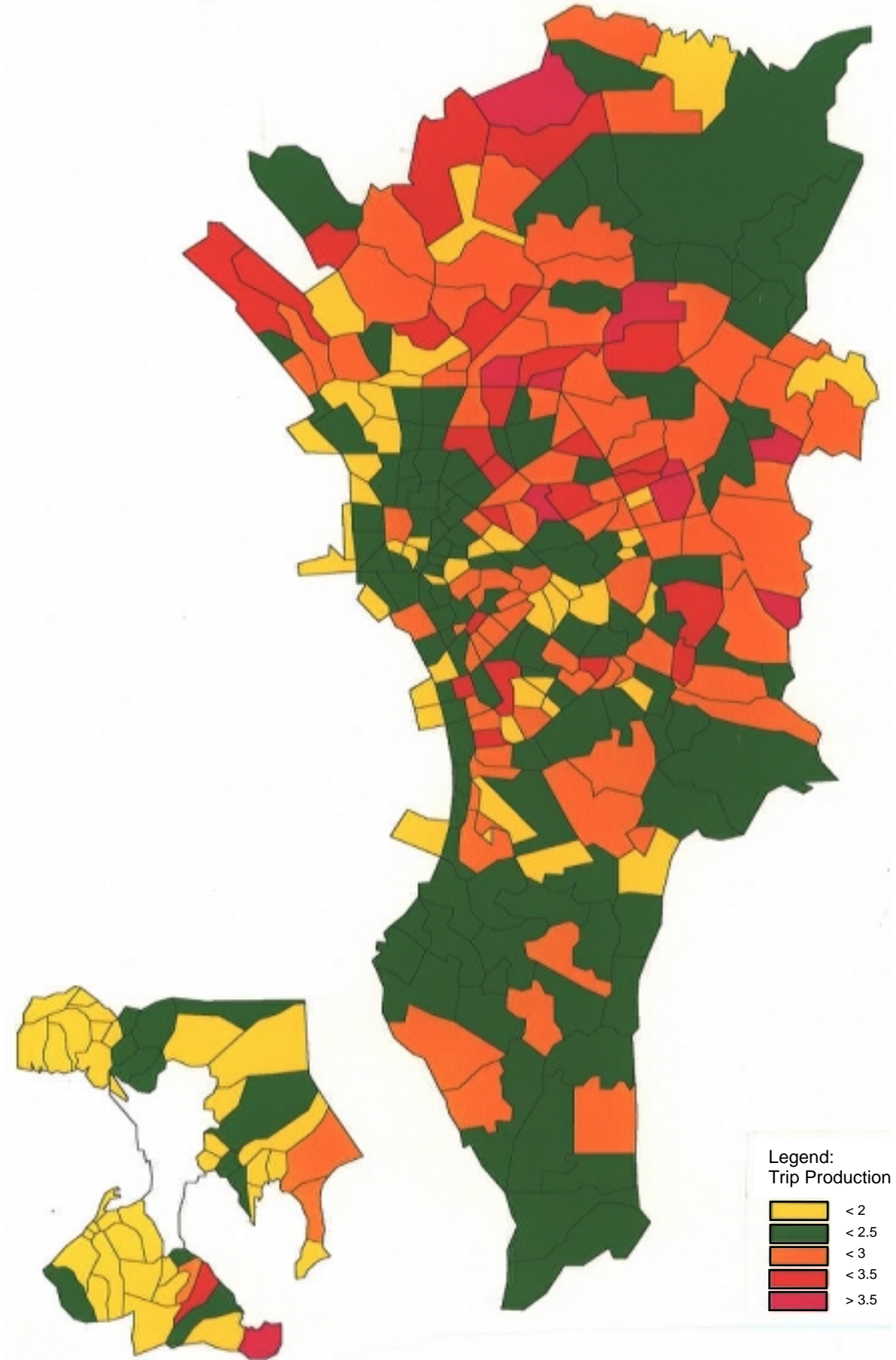
**TABLE 6.11**  
**TRIP PRODUCTION RATE BY ZONE AND BY TRIP PURPOSE**

Category	Trip Production Rate						Total
	to Home	to Work	to School	Business	Private	Others	
Manila (1)	0.99	0.31	0.30	0.25	0.27	0.09	2.21
Manila (2)	0.99	0.28	0.33	0.23	0.20	0.08	2.11
Manila (3)	1.07	0.35	0.36	0.19	0.24	0.08	2.30
Manila (4)	1.15	0.37	0.35	0.35	0.28	0.11	2.61
Pasay	1.19	0.46	0.36	0.25	0.23	0.11	2.59
Makati	1.17	0.45	0.34	0.25	0.31	0.07	2.58
Mandaluyong	0.93	0.37	0.32	0.13	0.18	0.04	1.97
San Juan	1.03	0.32	0.32	0.21	0.29	0.09	2.26
Quezon (I)	1.17	0.41	0.38	0.33	0.26	0.09	2.64
Quezon (II)	1.17	0.43	0.37	0.23	0.28	0.09	2.57
Quezon (III)	1.29	0.49	0.41	0.38	0.30	0.13	3.00
Quezon (IV)	1.21	0.42	0.37	0.38	0.31	0.10	2.79
Caloocan (S)	1.06	0.41	0.39	0.17	0.24	0.06	2.33
Caloocan (N)	1.14	0.45	0.38	0.23	0.35	0.09	2.64
Valenzuela	1.13	0.41	0.41	0.27	0.27	0.06	2.54
Malabon	1.04	0.39	0.35	0.19	0.27	0.08	2.31
Navotas	1.06	0.36	0.34	0.34	0.32	0.07	2.48
Marikina	1.13	0.39	0.36	0.11	0.27	0.13	2.40
Pasig City	1.06	0.40	0.34	0.30	0.21	0.08	2.39
Pateros	1.14	0.41	0.38	0.16	0.19	0.07	2.35
Taguig	1.06	0.41	0.37	0.24	0.21	0.05	2.35
Parañaque	1.12	0.42	0.38	0.18	0.19	0.08	2.37
Muntinlupa	1.14	0.39	0.39	0.23	0.22	0.06	2.43
Las Piñas	1.14	0.42	0.39	0.23	0.25	0.07	2.50
Bulacan	0.85	0.23	0.38	0.09	0.17	0.02	1.74
Cavite	0.83	0.30	0.34	0.09	0.12	0.01	1.71
Laguna	1.07	0.38	0.43	0.13	0.19	0.06	2.26
Rizal	0.85	0.27	0.39	0.17	0.11	0.04	1.84
<b>Total</b>	<b>1.03</b>	<b>0.36</b>	<b>0.37</b>	<b>0.20</b>	<b>0.22</b>	<b>0.06</b>	<b>2.25</b>

**FIGURE 6.11**  
**TRIP PRODUCTION RATE BY ZONE AND BY TRIP PURPOSE**



**FIGURE 6.12**  
**TRIP PRODUCTION RATE BY TRAFFIC ZONE**



## **7. TRIP GENERATION AND ATTRACTION**

### **7.1 Trip Generation and Attraction by Trip Purpose**

The trip generation/attraction by zone and by trip purpose is presented in Table 7.1. Their percentages are given in Table 7.2.

The following can be pointed out from these tables:

- Attraction of “to Work” trips is the largest in Makati, followed by Quezon (II)
- “Business” trips are concentrated in three (3) zones, i.e., Quezon (II) Makati and Manila (IV).
- A number of “to Work” trips are generated from Quezon (II), Makati, Caloocan (S), etc. The adjoining provinces also generate a large number of “to Work” trips.

**TABLE 7.1**  
**TRIP GENERATION / ATTRACTION BY ZONE AND BY TRIP PURPOSE**

Municipality	To Home		To Work		To School		Business		Private		Others		Total	
	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.
Manila (1)	417,864	547,834	158,100	107,307	161,924	131,307	121,485	103,079	135,822	122,727	46,583	35,226	1,041,778	1,047,480
Manila (2)	514,581	184,530	67,030	152,393	64,497	159,314	85,131	132,693	67,503	157,159	22,088	36,188	820,830	822,277
Manila (3)	481,817	446,776	148,184	99,160	153,409	307,702	85,083	70,304	118,853	73,532	34,667	29,810	1,022,013	1,027,284
Manila (4)	781,850	442,172	150,402	284,863	137,467	305,466	159,227	182,219	129,747	130,922	49,358	62,184	1,408,051	1,407,826
Passay	444,344	454,826	177,852	171,682	137,645	130,443	104,097	123,856	90,499	75,429	40,481	51,407	994,918	1,007,643
Makati	904,898	528,036	224,596	575,492	152,932	137,720	168,611	202,445	164,839	158,242	40,766	49,437	1,656,642	1,651,372
Mandaluyong	475,014	251,331	109,716	216,364	87,534	96,799	68,775	96,591	68,259	120,288	15,063	32,348	824,361	813,721
San Juan	116,316	118,750	38,444	50,597	36,408	32,431	30,350	27,678	31,139	25,537	10,551	7,999	263,208	262,992
Quezon (I)	324,101	259,364	95,112	127,867	85,276	79,198	70,406	90,476	63,322	78,307	20,872	24,937	659,089	660,149
Quezon (II)	1,334,045	1,457,710	535,154	433,775	457,808	425,197	276,603	254,492	356,101	384,437	106,658	101,691	3,066,369	3,057,302
Quezon (III)	415,915	210,315	86,210	165,630	66,629	101,415	75,106	105,745	62,411	115,531	23,240	31,746	729,511	730,382
Quezon (IV)	402,920	297,963	106,283	169,778	93,607	124,099	90,616	87,731	83,445	90,774	26,473	34,562	803,344	804,907
Kaloocan (S)	443,316	522,697	205,115	132,751	191,207	171,565	88,529	89,961	118,871	129,229	32,477	29,090	1,079,515	1,075,293
Kaloocan (N)	247,105	545,457	189,068	50,106	177,288	130,357	63,963	30,354	111,886	49,797	36,071	20,266	825,381	826,337
Valenzuela	338,979	468,108	158,986	134,117	167,176	119,404	85,469	64,021	104,281	74,292	21,612	16,478	876,503	876,420
Malabon	240,799	339,113	122,644	71,768	112,445	94,684	51,462	41,246	75,028	59,022	23,259	19,426	625,637	625,259
Navotas	136,547	223,397	71,842	45,611	70,172	51,280	47,506	30,326	51,310	29,639	12,004	7,152	389,381	387,405
Marikina	276,790	380,802	129,994	75,682	120,931	105,322	39,107	36,251	81,200	61,942	39,406	25,913	687,428	685,912
Pasig City	451,859	465,612	175,157	207,514	148,614	130,567	116,954	102,479	91,354	81,085	34,495	31,392	1,018,433	1,018,649
Pateros	38,914	57,819	20,726	6,095	19,293	22,590	9,673	6,915	9,652	5,515	3,052	2,550	101,310	101,484
Taguig	247,602	384,184	135,734	97,783	130,719	94,794	65,605	36,961	59,826	37,621	18,044	12,430	657,530	663,773
Parañaque	410,254	420,144	159,156	146,015	143,676	114,246	82,156	82,615	75,853	109,527	26,838	23,443	897,933	895,990
Muntinlupa	348,437	445,437	153,221	118,921	151,694	119,124	92,408	78,393	80,595	70,658	21,699	17,706	848,054	850,239
Las Piñas	338,015	455,629	158,078	97,822	155,703	134,429	71,888	48,616	89,216	80,585	26,073	19,141	838,973	836,222
Bulacan	1,109,954	1,067,517	286,832	293,967	473,741	487,796	118,943	125,385	219,322	232,781	24,573	28,812	2,233,365	2,236,258
Cavite	952,790	1,122,598	403,118	314,696	464,118	414,899	132,477	122,927	162,816	133,288	19,552	19,619	2,134,871	2,128,027
Laguna	810,556	862,274	305,974	288,402	346,654	334,731	106,843	108,272	150,165	148,500	46,592	45,643	1,766,784	1,767,822
Rizal	893,931	1,055,004	337,271	267,388	481,989	420,471	179,286	167,558	129,026	120,709	43,018	35,875	2,064,521	2,067,005
<b>Total</b>	<b>13,899,513</b>	<b>14,015,399</b>	<b>4,909,999</b>	<b>4,883,546</b>	<b>4,990,556</b>	<b>4,977,350</b>	<b>2,687,759</b>	<b>2,649,589</b>	<b>2,982,341</b>	<b>2,957,075</b>	<b>865,565</b>	<b>852,471</b>	<b>30,335,733</b>	<b>30,335,430</b>

TABLE 7.2  
 SHARE OF TRIP GENERATION / ATTRACTION BY ZONE AND BY PURPOSE (%)

Municipality	To Home		To Work		To School		Business		Private		Others		Total	
	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.
Manila (1)	3.0%	3.9%	3.2%	2.2%	3.2%	2.6%	4.5%	3.9%	4.6%	4.2%	5.4%	4.1%	4.1%	3.5%
Manila (2)	3.7%	1.3%	1.4%	3.1%	1.3%	3.2%	3.2%	5.0%	2.3%	5.3%	2.6%	4.2%	4.2%	2.7%
Manila (3)	3.5%	3.2%	3.0%	2.0%	3.1%	6.2%	3.2%	2.7%	4.0%	2.5%	4.0%	3.5%	3.5%	3.4%
Manila (4)	5.6%	3.2%	3.1%	5.8%	2.8%	6.1%	5.9%	6.9%	4.4%	4.4%	5.7%	7.3%	7.3%	4.6%
Pasay	3.2%	3.2%	3.6%	3.5%	2.8%	2.9%	3.9%	4.7%	3.0%	2.6%	4.7%	6.0%	6.0%	3.3%
Makati	6.5%	3.8%	4.6%	11.8%	3.1%	2.8%	6.3%	7.6%	5.5%	5.4%	4.7%	5.8%	5.8%	5.4%
Mandaluyong	3.4%	1.8%	2.2%	4.4%	1.8%	1.9%	2.6%	3.6%	2.3%	4.1%	1.7%	3.8%	3.8%	2.7%
San Juan	0.8%	0.8%	0.8%	1.0%	0.7%	0.7%	1.1%	1.0%	1.0%	0.9%	1.2%	0.9%	0.9%	0.9%
Quezon (I)	2.3%	1.9%	1.9%	2.6%	1.7%	1.6%	2.6%	3.4%	2.1%	2.6%	2.4%	2.9%	2.9%	2.2%
Quezon (II)	9.6%	10.4%	10.9%	8.9%	9.2%	8.5%	10.3%	9.7%	11.9%	13.0%	12.3%	11.9%	11.9%	10.1%
Quezon (III)	3.0%	1.5%	1.8%	3.4%	1.3%	2.0%	2.8%	4.0%	2.1%	3.9%	2.7%	3.7%	3.7%	2.4%
Quezon (IV)	2.9%	2.1%	2.2%	3.5%	1.9%	2.5%	3.4%	3.3%	2.8%	3.1%	3.1%	4.1%	4.1%	2.7%
Kaloocan (S)	3.2%	3.7%	4.2%	2.7%	3.8%	3.4%	3.3%	3.4%	4.0%	4.4%	3.8%	3.4%	3.4%	3.3%
Kaloocan (N)	1.8%	3.9%	3.9%	1.0%	3.6%	2.6%	2.4%	1.1%	3.8%	1.7%	4.2%	2.4%	2.4%	2.7%
Valenzuela	2.4%	3.3%	3.2%	2.7%	3.3%	2.4%	3.2%	2.4%	3.5%	2.3%	2.5%	1.9%	1.9%	2.9%
Malabon	1.7%	2.4%	2.5%	1.5%	2.3%	1.9%	1.9%	1.6%	2.5%	2.0%	2.7%	2.3%	2.3%	2.1%
Navotas	1.0%	1.6%	1.5%	0.9%	1.4%	1.0%	1.8%	1.1%	1.7%	1.0%	1.4%	0.8%	0.8%	1.3%
Marikina	2.0%	2.7%	2.6%	1.5%	2.4%	2.1%	1.5%	1.4%	2.7%	2.1%	4.6%	3.0%	3.0%	2.3%
Pasig City	3.3%	3.3%	3.6%	4.2%	3.0%	2.6%	4.4%	3.9%	3.1%	2.7%	4.0%	3.7%	3.7%	3.4%
Pateros	0.3%	0.4%	0.4%	0.5%	0.4%	0.5%	0.4%	0.3%	0.3%	0.2%	0.4%	0.3%	0.3%	0.3%
Taguig	1.8%	2.7%	2.8%	2.0%	2.6%	1.9%	2.4%	1.4%	2.0%	1.3%	2.1%	1.8%	1.5%	2.2%
Parañaque	3.0%	3.0%	3.2%	3.0%	2.8%	2.3%	3.1%	3.1%	2.5%	3.7%	3.1%	2.8%	2.8%	3.0%
Muntinlupa	2.5%	3.2%	3.1%	2.4%	3.0%	2.4%	3.4%	3.0%	2.7%	2.4%	2.5%	2.1%	2.2%	2.8%
Las Piñas	2.4%	3.3%	3.2%	2.0%	3.1%	2.7%	2.4%	1.8%	3.0%	2.7%	3.0%	2.0%	2.2%	2.8%
Bulacan	8.0%	7.6%	5.8%	6.0%	9.5%	9.8%	4.4%	4.7%	7.4%	7.9%	2.5%	3.4%	3.4%	7.4%
Cavite	6.9%	8.0%	8.2%	6.4%	9.3%	8.3%	4.9%	4.6%	5.5%	4.5%	2.3%	2.3%	2.3%	7.0%
Laguna	5.8%	6.2%	6.2%	5.5%	6.9%	6.7%	4.0%	4.1%	5.0%	5.0%	5.4%	5.4%	5.4%	5.8%
Rizal	6.4%	7.6%	6.9%	5.5%	9.7%	8.4%	6.7%	6.3%	4.3%	4.1%	5.0%	4.2%	4.2%	6.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## 7.2 Trip Generation and Attraction by Type of Facility

The trip generation/attraction by type of facility is shown in Table 7.3. The largest share is held by “residence” at about 47 percent both for generation and attraction. This implies that about 90 percent of the total trips are home-based. Following “residence” is “educational” which has a share of 19 percent.

**TABLE 7.3**  
**TRIP GENERATION/ATTRACTION BY FACILITY TYPE**

Type of Facility	Generation		Attraction	
	000 trips	%	000 trips	%
Residential	14,223	46.6	14,238	46.7
Commercial	651	2.1	642	2.1
Office	2,289	7.5	2,260	7.4
Factory	1,239	4.1	1,231	4.0
Educational	5,612	18.4	5,670	18.6
Recreational	112	0.4	112	0.4
Medical	320	1.1	314	1.0
Social	406	1.3	408	1.3
Wholesale	2,660	8.7	2,655	8.7
Restaurant	527	1.7	513	1.7
Others	2,453	8.0	2,447	8.0
<b>Total</b>	<b>30,491</b>	<b>100.0</b>	<b>30,491</b>	<b>100.0</b>

## 7.3 Trip Generation and Attraction by Travel Mode

Trip generation/attraction by travel mode and by zone is tabulated in Tables 7.4 and 7.5.

- Generation/attraction of car trips is largest in Quezon (II), followed by Makati, Parañaque, Manila (IV), Pasay, and so on.
- Generation/attraction of jeepney trips is large in Quezon (II), Manila (IV), Manila (III), Caloocan (S), Manila (II), Las Piñas , etc.
- Generation/attraction of bus trips is concentrated in the zones along EDSA, such as Quezon (II), Makati and Mandaluyong.

**TABLE 7.4**  
**TRIP GENERATION / ATTRACTION BY TRAVEL MODE AND BY ZONE**

Municipality	Car		Jeepney		Bus		Truck		Others		Total	
	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.
Manila (1)	129,606	129,564	394,526	398,747	30,037	31,579	40,894	40,604	446,715	446,986	1,041,778	1,047,480
Manila (2)	153,644	148,174	346,019	352,059	42,004	42,759	19,736	21,377	259,427	257,908	820,830	822,277
Manila (3)	182,425	188,411	447,234	449,660	73,829	77,336	11,318	10,955	307,207	300,922	1,022,013	1,027,284
Manila (4)	308,593	300,427	485,519	488,604	145,508	149,589	49,144	47,506	419,287	421,700	1,408,051	1,407,826
Passay	235,026	256,970	304,670	303,105	149,191	140,863	10,414	13,064	295,617	293,641	994,918	1,007,643
Makati	539,339	527,936	323,031	325,438	431,225	430,680	15,010	15,233	348,037	352,085	1,656,642	1,651,372
Mandaluyong	184,867	178,455	226,830	223,964	207,835	205,755	10,193	10,027	194,636	195,520	824,361	813,721
San Juan	93,155	94,435	71,008	69,182	40,301	40,200	4,368	5,095	54,376	54,080	263,208	262,992
Quezon (I)	151,977	149,156	174,157	176,685	107,350	109,085	24,134	25,389	201,471	199,834	659,089	660,149
Quezon (II)	593,521	595,345	932,333	925,283	543,636	545,717	54,152	48,629	942,727	942,328	3,066,369	3,057,302
Quezon (III)	204,850	199,485	207,788	211,305	158,531	159,369	10,347	11,770	147,995	148,453	729,511	730,382
Quezon (IV)	212,105	207,898	213,456	212,210	139,301	146,022	10,342	9,013	228,140	229,764	803,344	804,907
Kaloocan (S)	152,531	150,614	370,701	368,484	133,297	129,057	26,317	27,504	396,669	399,634	1,079,515	1,075,293
Kaloocan (N)	74,627	75,783	229,766	229,732	124,673	123,735	3,068	3,068	393,247	394,019	825,381	826,337
Valenzuela	111,392	112,800	273,886	274,857	67,793	65,582	19,700	20,600	403,732	402,581	876,503	876,420
Malabon	59,434	63,222	189,090	186,754	42,579	41,808	11,187	10,785	323,347	322,690	625,637	625,259
Navotas	34,337	36,907	100,530	98,417	19,354	17,661	10,510	10,510	224,650	223,910	389,381	387,405
Marikina	140,738	143,703	225,486	224,417	64,671	65,808	13,943	11,410	242,590	240,574	687,428	685,912
Pasig City	171,516	172,380	319,522	320,619	114,858	113,646	28,702	28,123	383,835	383,881	1,018,433	1,018,649
Pateros	11,864	13,126	24,324	24,358	14,539	13,807	2,050	2,050	48,533	48,143	101,310	101,484
Taguig	53,296	54,901	185,824	185,977	79,285	83,904	13,956	13,729	325,169	325,262	657,530	663,773
Parañaque	271,316	269,330	262,868	261,446	117,290	118,161	13,654	12,985	232,805	234,068	897,933	895,990
Muntinlupa	151,535	152,177	315,739	316,936	134,691	132,610	11,927	14,447	234,162	234,069	848,054	850,239
Las Piñas	154,737	153,418	327,804	327,024	111,517	109,483	7,328	8,924	237,587	237,373	838,973	836,222
Bulacan	193,725	194,227	623,512	625,285	82,073	82,602	56,701	58,417	1,277,354	1,275,727	2,233,365	2,236,258
Cavite	231,064	231,629	807,532	804,157	198,384	192,728	30,189	29,192	867,702	870,321	2,134,871	2,128,027
Laguna	217,285	218,362	553,152	552,282	147,772	149,604	25,796	25,194	822,779	822,380	1,766,784	1,767,822
Rizal	222,059	223,609	625,225	622,768	101,639	104,514	61,627	61,600	1,053,971	1,054,514	2,064,521	2,067,005
<b>Total</b>	<b>5,240,564</b>	<b>5,242,444</b>	<b>9,561,532</b>	<b>9,559,755</b>	<b>3,623,163</b>	<b>3,623,664</b>	<b>596,707</b>	<b>597,200</b>	<b>11,313,767</b>	<b>11,312,367</b>	<b>30,335,733</b>	<b>30,335,430</b>

TABLE 7.5  
 SHARE OF TRIP GENERATION / ATTRACTION TRAVEL MODE AND BY ZONE (%)

Municipality	Car		Jeepney		Bus		Truck		Others		Total	
	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.
Manila (1)	2.5%	2.5%	4.1%	4.2%	0.8%	0.9%	6.9%	6.8%	3.9%	3.9%	3.4%	3.4%
Manila (2)	2.9%	2.8%	3.6%	3.7%	1.2%	1.2%	3.3%	3.6%	2.3%	2.3%	2.7%	2.7%
Manila (3)	3.5%	3.6%	4.7%	4.7%	2.0%	2.1%	1.9%	1.8%	2.7%	2.7%	3.4%	3.4%
Manila (4)	5.9%	5.7%	5.1%	5.1%	4.0%	4.1%	8.5%	8.0%	3.7%	3.7%	4.6%	4.6%
Pasay	4.5%	4.9%	3.2%	3.3%	4.1%	3.9%	1.7%	2.2%	2.6%	2.6%	3.3%	3.3%
Makati	10.3%	10.1%	3.4%	3.4%	11.9%	11.9%	2.5%	2.6%	3.1%	3.1%	5.5%	5.5%
Mandaluyong	3.5%	3.4%	2.4%	2.3%	5.7%	5.7%	1.7%	1.7%	1.7%	1.7%	2.7%	2.7%
San Juan	1.9%	1.8%	0.7%	0.7%	1.1%	1.1%	0.7%	1.0%	0.5%	0.5%	0.9%	0.9%
Quezon (1)	2.9%	2.8%	1.8%	1.8%	3.0%	5.7%	4.0%	4.3%	1.8%	1.8%	2.2%	2.2%
Quezon (II)	11.3%	11.4%	9.8%	9.7%	15.0%	1.1%	9.1%	8.1%	8.3%	10.1%	10.1%	10.1%
Quezon (III)	3.9%	3.8%	2.2%	2.2%	4.4%	3.0%	1.7%	2.0%	1.3%	1.3%	2.4%	2.4%
Quezon (IV)	4.0%	4.0%	2.2%	2.2%	3.8%	15.1%	1.7%	1.5%	2.0%	2.6%	2.6%	2.6%
Kaloocan (S)	2.9%	2.9%	3.9%	3.9%	3.7%	4.4%	4.4%	4.7%	3.5%	3.5%	3.6%	3.6%
Kaloocan (N)	1.4%	1.4%	2.4%	2.4%	3.4%	4.0%	0.5%	0.5%	3.5%	3.5%	2.7%	2.7%
Valenzuela	2.1%	2.2%	2.9%	2.9%	1.9%	3.6%	3.3%	3.4%	3.6%	3.6%	2.9%	2.9%
Malabon	1.1%	1.2%	2.0%	2.0%	1.2%	3.4%	1.9%	1.8%	2.9%	2.9%	2.1%	2.1%
Navotas	0.7%	0.7%	1.1%	1.0%	0.5%	1.8%	1.8%	1.8%	2.0%	2.0%	1.3%	1.3%
Marikina	2.7%	2.7%	2.4%	2.3%	1.8%	1.2%	2.3%	1.9%	2.1%	2.1%	2.3%	2.3%
Pasig City	3.3%	3.3%	3.3%	3.4%	3.2%	0.5%	4.8%	4.7%	3.4%	3.4%	3.4%	3.4%
Pateros	0.2%	0.3%	0.3%	0.3%	0.4%	1.8%	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%
Taguig	1.0%	1.0%	1.9%	1.9%	2.2%	3.1%	2.3%	2.1%	2.8%	2.8%	2.2%	2.2%
Parañaque	5.2%	5.1%	2.7%	2.7%	3.2%	0.4%	2.3%	2.2%	2.1%	2.1%	3.0%	3.0%
Muntinlupa	2.9%	2.9%	3.3%	3.3%	3.7%	2.3%	2.0%	2.4%	2.1%	2.1%	2.6%	2.6%
Las Piñas	3.0%	2.9%	3.4%	3.4%	3.1%	3.1%	1.2%	1.5%	2.1%	2.1%	2.8%	2.8%
Bulacan	3.7%	3.7%	6.5%	6.5%	2.3%	2.3%	9.5%	9.8%	11.3%	11.3%	7.4%	7.4%
Cavite	4.4%	4.4%	8.4%	8.4%	5.5%	5.3%	5.1%	4.9%	7.7%	7.7%	7.0%	7.0%
Laguna	4.1%	4.2%	5.8%	5.8%	4.1%	4.1%	4.3%	4.2%	7.3%	7.3%	5.8%	5.8%
Rizal	4.2%	4.3%	6.5%	6.5%	2.8%	2.9%	10.3%	10.3%	9.3%	9.3%	6.8%	6.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

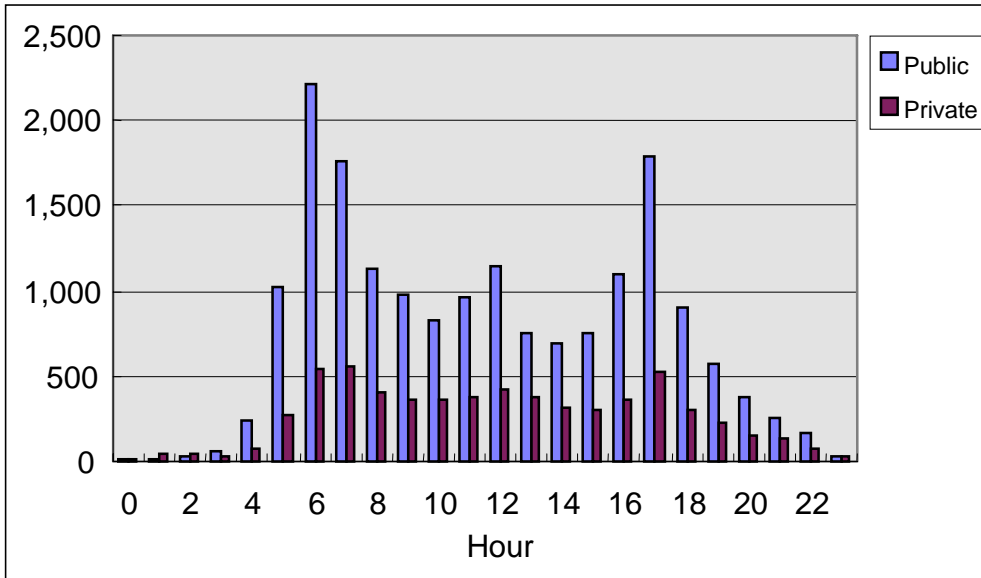
## 7.4 Trip Generation and Attraction by Hour of the Day

Table 7.6 shows the trip generation by hour of the day and by public and private modes. The pattern is similar both for both modes. However, the peak hour ratio is higher for public mode at 12.6 percent (6:00 - 7:00 a.m.) rather than for private mode at 9.5 percent (also at 6:00 - 7:00 a.m.).

**TABLE 7.6**  
**TRIP GENERATION BY HOUR OF THE DAY**

Hour	Public Mode	Private Mode
0:00 - 0:59	9	8
1:00 - 1:59	18	20
2:00 - 2:59	28	28
3:00 - 3:59	60	29
4:00 - 4:59	227	72
5:00 - 5:59	1,007	222
6:00 - 6:59	2,229	552
7:00 - 7:59	1,761	512
8:00 - 8:59	1,131	400
9:00 - 9:59	976	341
10:00 - 10:59	827	303
11:00 - 11:59	968	303
12:00 - 12:59	1,154	324
13:00 - 13:59	747	301
14:00 - 14:59	704	269
15:00 - 15:59	759	283
16:00 - 16:59	1,107	364
17:00 - 17:59	1,779	559
18:00 - 18:59	896	297
19:00 - 19:59	565	223
20:00 - 20:59	370	160
21:00 - 21:59	254	115
22:00 - 22:59	156	69
23:00 - 23:59	36	33
<b>Total</b>	<b>17,767</b>	<b>5,786</b>

**FIGURE 7.1**  
**TRIP GENERATION BY HOUR OF THE DAY**  
**(000 TRIPS)**



**FIGURE 7.2**  
**HOURLY DISTRIBUTION OF TRIP GENERATION**

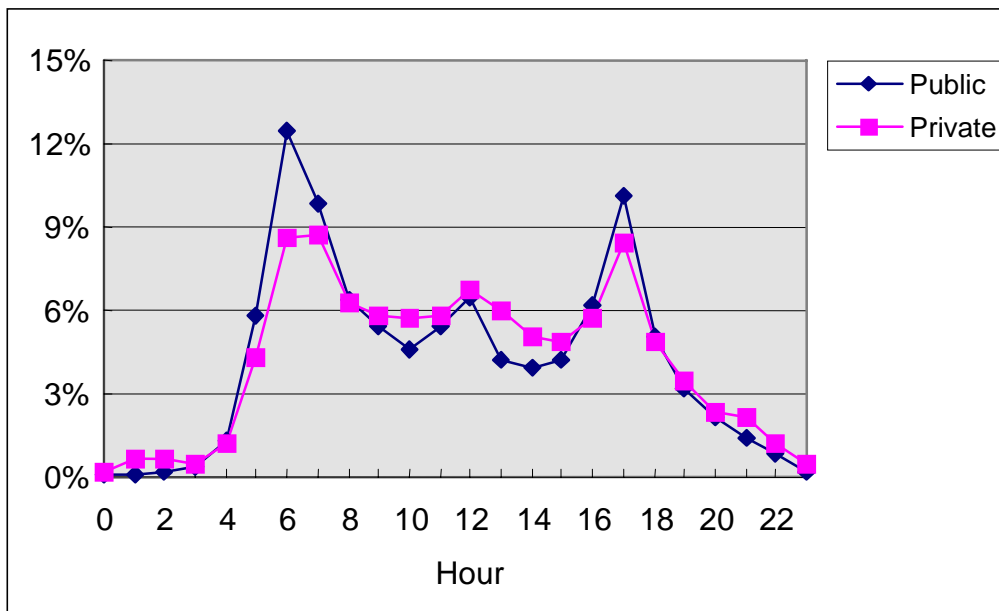
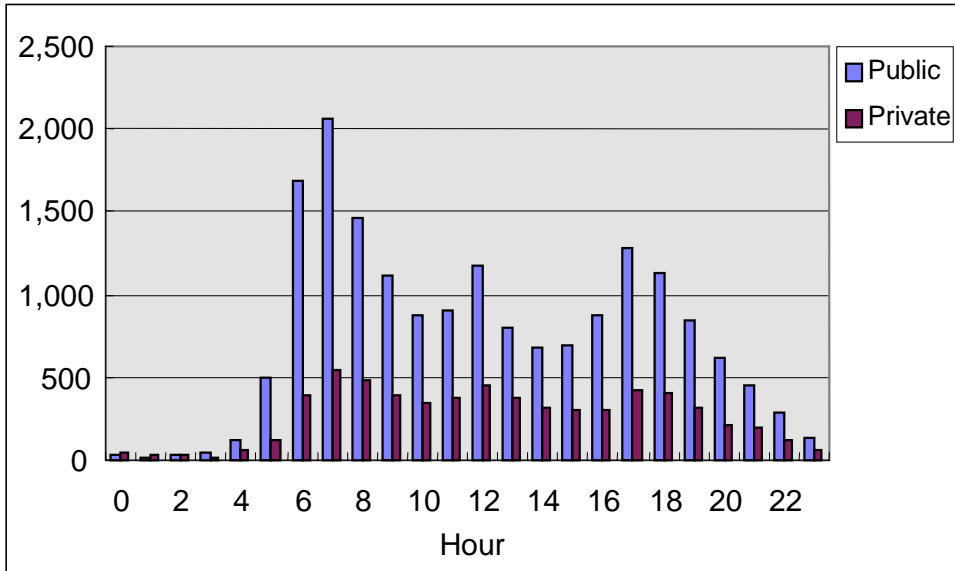


Table 7.7 shows the trip attraction by hour of the day and by public/private mode. The peak hour moved by one hour (7:00 - 8:00 a.m.) as compared to the trip generation's 6:00 - 7:00 a.m.

**TABLE 7.7**  
**TRIP ATTRACTION BY HOUR OF THE DAY**

Hour	Public	Private
0:00 - 0:59	32	28
1:00 - 1:59	11	13
2:00 - 2:59	24	22
3:00 - 3:59	41	20
4:00 - 4:59	111	50
5:00 - 5:59	479	102
6:00 - 6:59	1,682	334
7:00 - 7:59	2,076	535
8:00 - 8:59	1,466	486
9:00 - 9:59	1,108	382
10:00 - 10:59	885	319
11:00 - 11:59	896	315
12:00 - 12:59	1,182	346
13:00 - 13:59	810	295
14:00 - 14:59	674	258
15:00 - 15:59	700	263
16:00 - 16:59	885	298
17:00 - 17:59	1,282	398
18:00 - 18:59	1,131	391
19:00 - 19:59	839	322
20:00 - 20:59	603	240
21:00 - 21:59	433	177
22:00 - 22:59	282	124
23:00 - 23:59	132	67
<b>Total</b>	<b>17,767</b>	<b>5,786</b>

**FIGURE 7.3**  
**TRIP ATTRACTION BY HOUR OF THE DAY**  
**(000 TRIPS)**



**FIGURE 7.4**  
**HOURLY DISTRIBUTION OF TRIP ATTRACTION**

