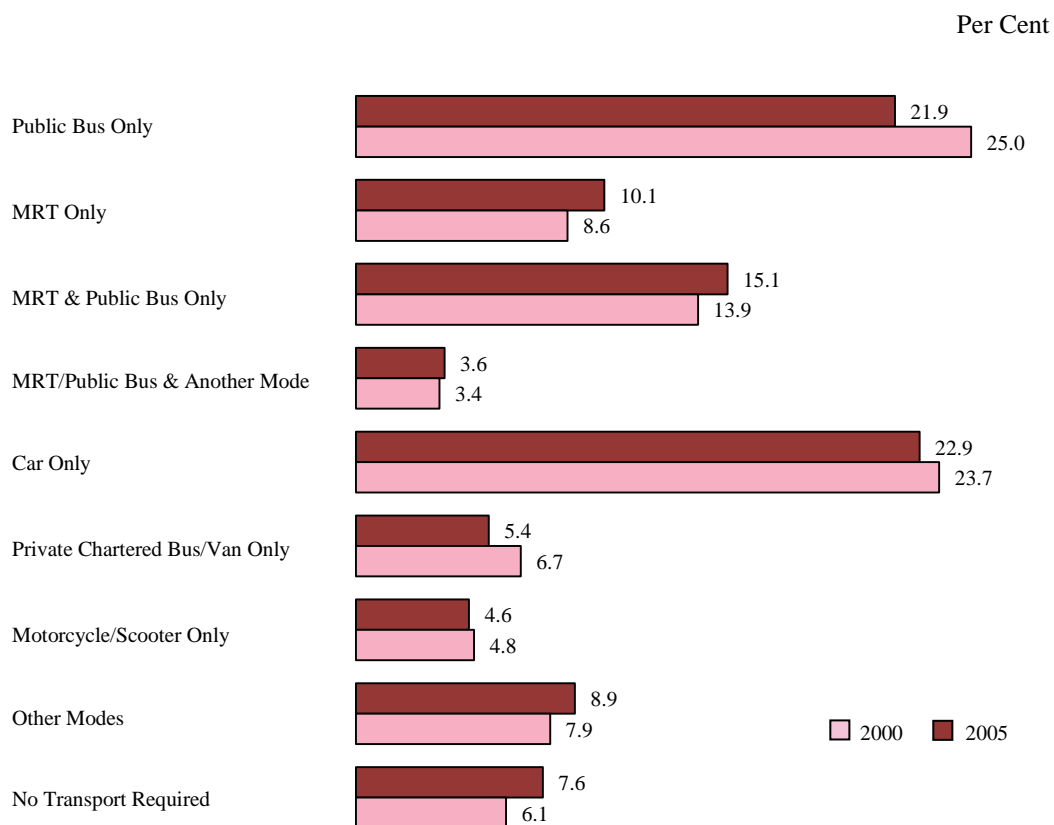


# 1 TRANSPORT

## Usual Mode of Transport to Work

Public bus and MRT remained the most important modes of transport for commuting to work in Singapore. In 2005, one in two residents commuted to work by public bus and/or MRT only (Chart1). This proportion had remained stable in the last five years.

**Chart 1 Resident Working Persons Aged 15 Years and Over  
by Mode of Transport to Work**



There was a further shift from bus to MRT with the opening of the Northeast Line. The proportion of resident working persons commuting to work by MRT only or MRT with transfer to/from public bus increased from 23 per cent in 2000 to 25 per cent in 2005. Over the same period, there was a corresponding decline in the proportion commuting by public bus only, from 25 per cent to 22 per cent.

Usage of car fell marginally, with the proportion of residents commuting to work by car decreasing from 24 per cent in 2000 to 23 per cent in 2005.

Correlation between Mode of Transport Used and Income

A higher proportion of residents in lower-income households commuted to work by public bus and/or MRT. In contrast, a higher proportion of those in higher-income households travelled to work by car (Table 1).

Among resident working persons with monthly household income from work of \$8,000 or more in 2005, 44 per cent relied on car compared with 4.8 per cent of those with less than \$2,000. Workers in lower-income households were more likely to use chartered bus/van and motorcycle/scooter than those in higher-income households.

**Table 1 Resident Working Persons Aged 15 Years and Over by Mode of Transport to Work and Monthly Household Income from Work**

Transport Mode	Per Cent							
	Below \$2,000		\$2,000-\$4,999		\$5,000-\$7,999		\$8,000 & Over	
	2000	2005	2000	2005	2000	2005	2000	2005
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public Bus Only	36.0	34.5	28.1	25.8	23.5	20.4	15.7	12.7
MRT Only	7.1	7.8	8.7	10.4	9.7	11.3	8.1	9.6
MRT & Public Bus only	12.6	14.9	14.8	16.3	15.5	16.7	11.4	12.1
MRT/Public Bus & Another Mode	2.4	2.3	3.1	3.2	3.8	3.9	4.1	4.5
Car Only	6.4	4.8	15.2	12.7	25.0	23.1	45.4	43.7
Private Chartered Bus/Van Only	7.7	6.0	8.7	7.1	6.3	5.5	3.1	2.9
Motorcycle/Scooter Only	6.1	5.3	6.5	6.6	4.3	4.5	1.8	1.9
Other Modes	8.6	8.9	8.0	9.3	7.6	8.5	7.7	8.4
No Transport Required	13.0	15.4	7.1	8.7	4.3	6.1	2.7	4.2

### Higher Usage of Public Transport to Work among HDB Dwellers

About 60 – 70 per cent of resident working persons in the smaller HDB flats commuted to work by public bus and/or MRT in 2005 (Table 2). Among those in HDB 4-room or larger flats, at least 40 per cent relied on public bus and/or MRT only. In contrast, 54 per cent of resident working persons staying in private housing relied on car as their mode of transport to work in 2005.

Between 2000 and 2005, the proportion of resident working persons who commuted by car only declined for all dwelling types. In particular, there was a marked decrease among private house dwellers who travelled by car (from 60 per cent to 54 per cent) and a corresponding increase in the proportion who travelled by public bus and/or MRT only (from 23 per cent to 26 per cent).

**Table 2 Resident Working Persons Aged 15 Years and Over  
by Mode of Transport to Work and Type of Dwelling**

Transport Mode	Per Cent									
	HDB 1- or 2-Room		HDB 3-Room		HDB 4-Room		HDB 5-Room & Bigger		Private Housing	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public Bus Only	46.2	44.3	33.8	32.9	26.8	24.3	18.6	16.9	12.2	11.0
MRT Only	6.7	7.9	9.0	10.0	9.2	11.0	9.8	11.2	4.5	6.3
MRT & Public Bus Only	13.9	15.8	15.2	16.6	15.3	16.7	14.4	15.6	6.7	8.7
MRT/Public Bus & Another Mode	2.3	2.1	2.8	2.8	3.4	3.5	3.9	4.2	3.9	3.9
Car Only	3.4	1.7	9.3	7.6	16.0	13.4	32.1	28.3	59.7	53.8
Private Chartered Bus/Van Only	4.1	3.3	7.7	6.4	8.8	6.9	5.7	5.1	1.5	1.8
Motorcycle/Scooter Only	4.9	5.6	6.2	5.8	6.2	6.2	3.6	4.0	0.7	0.8
Other Modes	7.3	6.9	7.6	7.5	8.3	9.9	7.7	8.9	7.7	8.3
No Transport Required	11.2	12.3	8.4	10.3	6.2	8.0	4.1	5.9	3.0	5.5

Differentials in Mode of Transport by Occupation

In 2005, 48 per cent of professional and technical workers and 61 per cent of clerical, sales and services workers commuted to work by public bus, MRT or a combination of both modes (Table 3). However, those in managerial jobs tended to rely on car, with 61 per cent commuting to work by car.

More than one third of the resident working persons in production jobs travelled to work by private chartered bus/van, motorcycle/scooter and car. The high proportion of 15 per cent requiring no transport reflected the large group of transport operators and drivers who were classified in this category.

**Table 3 Resident Working Persons Aged 15 Years and Over  
by Mode of Transport to Work and Occupation**

Transport Mode	Per Cent									
	Senior Officials & Managers		Professional & Technical Workers		Clerical, Service/ Sales Workers		Production & Related Workers		Cleaners/ Labourers	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public Bus Only	7.7	6.0	21.3	17.7	32.8	29.0	23.6	20.5	46.4	46.0
MRT Only	4.9	5.4	11.1	12.5	11.9	13.8	4.1	4.5	6.5	7.4
MRT & Public Bus Only	6.2	6.4	17.5	18.1	17.4	18.6	8.4	9.5	11.8	12.6
MRT/Public Bus & Another Mode	3.0	3.0	4.2	4.8	3.4	3.2	2.8	2.9	2.8	2.6
Car Only	62.3	60.5	28.8	28.3	12.4	12.1	11.0	9.5	4.5	2.1
Private Chartered Bus/Van Only	2.6	2.7	4.3	3.5	4.7	4.4	17.1	13.6	6.4	5.4
Motorcycle/Scooter Only	1.1	0.9	3.1	2.6	4.4	4.3	10.2	11.1	4.7	4.7
Other Modes	9.0	8.9	7.1	8.1	6.8	7.1	10.2	13.8	6.7	8.3
No Transport Required	3.2	6.1	2.6	4.5	6.3	7.6	12.6	14.6	10.2	10.9

### Longer Travelling Time for those using Public Bus and MRT

In 2005, the average journey time for resident working persons who used car, motorcycle/scooter or chartered bus/van was shorter than those who commuted by public bus and/or MRT.

Resident working persons who commuted by motorcycle/scooter only had the shortest average journey time (26 minutes), just slightly less than those who travelled by car only (27 minutes) (Table 4). The average journey time was 38 minutes for workers who travelled by bus only, shorter than those who travelled by MRT & public bus (51 minutes). Some 23 per cent of the resident working persons who travelled by bus only had journey time exceeding 45 minutes compared to 49 per cent of those who commuted by MRT with transfer to/from public bus.

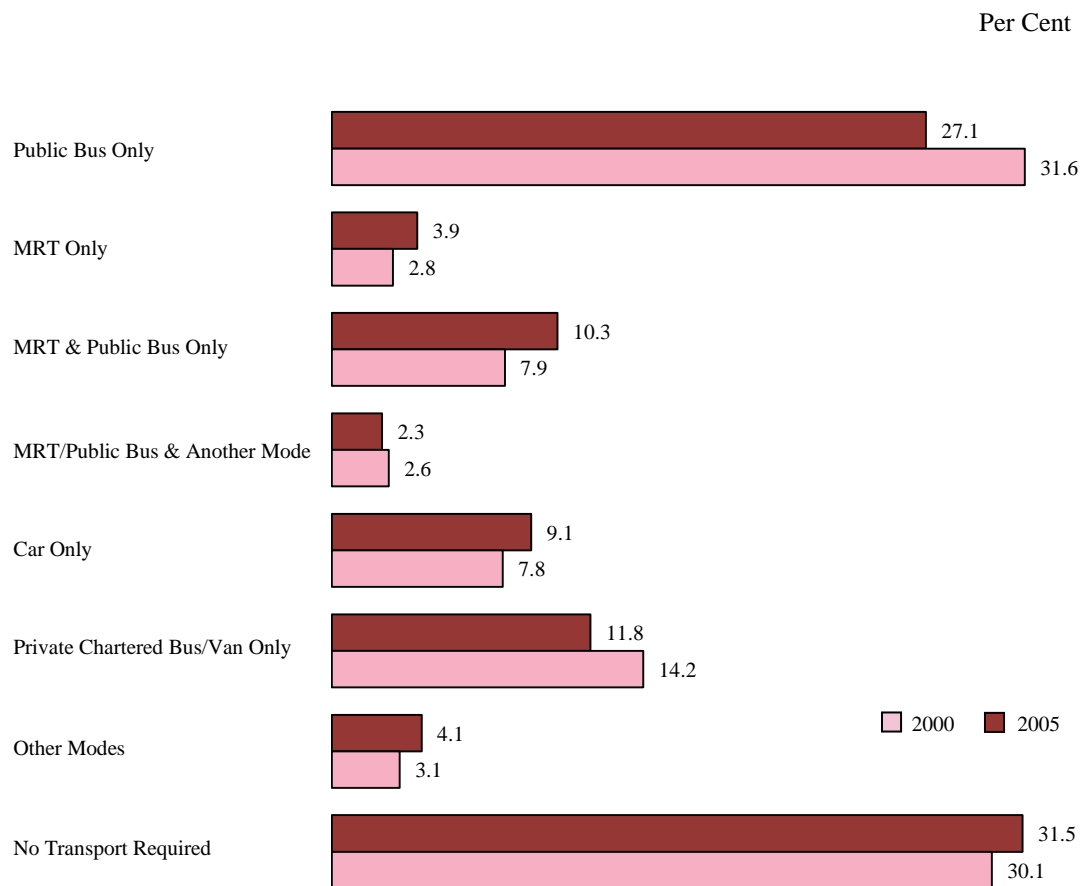
**Table 4 Resident Working Persons Aged 15 Years and Over  
by Travelling Time and Mode of Transport to Work, 2005**

Travelling Time (minutes)	Per Cent					
	Public Bus Only	MRT Only	MRT & Public Bus Only	Car Only	Private Chartered Bus/Van Only	Motor- cycle/ Scooter Only
<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>
15 or less	13.1	6.2	1.9	24.1	18.3	26.4
16 - 30	40.3	34.2	22.0	55.8	48.3	57.1
31 - 45	23.1	31.6	27.6	15.0	19.4	12.7
46 - 60	18.2	22.8	33.4	4.5	11.8	3.4
More than 60	5.2	5.1	15.1	0.6	2.2	0.4
<i>Average (minutes)</i>	<b>38</b>	<b>41</b>	<b>51</b>	<b>27</b>	<b>32</b>	<b>26</b>

### Usual Mode of Transport to School

On the whole, the mode of transport to school remained relatively stable for the student population in the last 5 years. Three in ten students did not require any transport to school due to the close proximity of the schools to their homes (Chart 2).

**Chart 2 Resident Students Aged 5 Years and Over  
by Mode of Transport to School**



In 2005, some 41 per cent of students travelled to school by public bus and/or MRT only. Public bus remained the most important mode of transport to school, although its importance declined in the last five years due to a shift to MRT.

About one in five students used car or chartered bus/van to travel to school. With the increase in the proportion of students who travelled to school by car between 2000 and 2005, fewer took chartered bus/van than before.

### High Proportion of Students in HDB Estates Required No Transport

Reflecting the presence of schools within HDB estates, about 30 - 40 per cent of students living in HDB estates required no transport to school in 2005 (Table 5). For those who needed to travel further to school, the public bus was their usual mode of transport.

Almost half of the students who lived in private housing used car or chartered bus/van to commute to school. In 2005, 27 per cent of them travelled to school by car and another 21 per cent by chartered bus/van.

**Table 5 Resident Students Aged 5 Years and Over by Mode of Transport to School and Type of Dwelling**

Transport Mode	Per Cent									
	HDB 1- or 2-Room		HDB 3-Room		HDB 4-Room		HDB 5-Room & Bigger		Private Housing	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public Bus Only	42.8	45.5	39.3	34.1	33.7	29.7	28.3	24.7	20.6	20.3
MRT only	2.7	5.6	2.8	3.9	3.1	4.0	3.1	4.3	1.3	2.4
MRT & Public Bus Only	7.5	11.0	8.2	10.1	8.0	10.1	8.7	11.3	5.4	8.7
MRT/Public Bus & Another Mode	0.8	1.0	1.1	0.9	1.8	1.5	3.1	2.4	6.1	4.6
Car Only	1.6	0.3	2.2	2.1	3.8	3.4	7.9	8.5	27.2	27.3
Private Chartered Bus/Van Only	7.4	5.5	8.6	8.3	11.7	8.1	16.2	12.3	24.5	21.1
Other Modes	1.5	2.1	2.0	3.7	2.5	4.0	3.5	4.0	5.9	4.9
No Transport Required	35.7	29.0	36.0	37.0	35.4	39.0	29.2	32.6	9.1	10.7

Mode of Transport to School and Level of Education Attending

In 2005, nearly one in two pre-primary and primary school students walked to school because of the close proximity of the schools to their homes (Table 6). Among students attending secondary or higher levels of education, public bus and MRT remained the most important modes of transport to school.

Between 2000 and 2005, there was a decline in the proportion of secondary school students who travelled to school using public bus and/or MRT only, from 68 per cent to 60 per cent. Correspondingly, the proportion who required no transport increased from 17 per cent to 21 per cent.

There was a notable increase in the proportion of upper secondary, polytechnic and university students who used the MRT in the journey to school. This could be partly due to the opening of the Northeast line. With more polytechnics being located in the vicinity of MRT stations, the increase was most significant for polytechnic students.

**Table 6 Resident Students Aged 5 Years and Over by Mode of Transport to School and Level of Education Attending**

Transport Mode	Per Cent									
	Primary & Below		Secondary		Upper Secondary		Polytechnic		University	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public Bus Only	14.2	11.2	54.4	45.4	51.4	42.5	57.3	41.5	37.3	28.0
MRT Only	0.6	0.5	3.8	4.1	8.5	9.1	8.3	16.5	6.8	7.5
MRT & Public Bus Only	1.0	0.9	9.7	10.3	21.8	26.6	24.6	31.9	34.2	39.9
MRT/Public Bus & Another Mode	1.7	1.3	4.3	3.6	3.7	3.4	2.1	2.1	3.1	2.1
Car Only	8.7	10.4	7.7	9.7	7.0	7.9	1.2	1.4	7.3	7.5
Private Chartered Bus/Van Only	25.2	22.9	1.1	1.7	0.4	0.5	0.0	0.2	0.1	0.5
Other Modes	2.9	3.6	2.5	3.9	3.8	5.2	4.0	4.1	7.2	7.7
No Transport Required	45.7	49.3	16.5	21.2	3.4	4.6	2.4	2.3	3.9	6.7



### Longer Travelling Time for those using Public Bus and MRT

In 2005, the average journey time for resident students who used car or chartered bus/van was shorter than those who took public bus and/or MRT. Those who walked to school required the shortest time of 10 minutes on average (Table 7).

The average journey time for students who commuted by car (16 minutes) was shorter than those who commuted by private chartered bus/van (25 minutes) and by public bus only (31 minutes). Students who commuted by MRT or MRT & public bus took a longer time of about 40 - 50 minutes on average.

**Table 7 Resident Students Aged 5 Years and Over by Travelling Time and Mode of Transport to School, 2005**

Travelling Time (minutes)	Per Cent					
	Public Bus Only	MRT Only	MRT & Public Bus Only	Car Only	Private Chartered Bus/Van Only	Walk Only
<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>
15 or less	25.1	11.5	3.1	64.0	39.2	93.3
16 - 30	45.6	36.5	25.3	31.5	42.3	6.6
31 - 45	15.8	25.8	24.6	3.5	10.5	0.1
46 - 60	10.8	20.6	29.2	1.0	7.0	0.0
More than 60	2.7	5.6	17.8	0.0	1.0	0.0
<b>Average (minutes)</b>	<b>31</b>	<b>39</b>	<b>51</b>	<b>16</b>	<b>25</b>	<b>10</b>

### Longer Journey Time for Tertiary Students

On average, polytechnic and university students took 43 minutes and 53 minutes respectively to commute to school (Table 8). The average journey was less than half an hour for secondary and primary school students, reflecting the location of many schools in the neighbourhood of residences.

Among pre-primary and primary school students, 71 per cent had journey time of 15 minutes or less. This reflected parents' preference to enrol their young children in nearby schools. In contrast, with the location of two universities in the west, 51 per cent of university students spent more than 45 minutes commuting to school.

**Table 8 Resident Students Aged 5 Years and Over by Travelling Time to School and Level of Education Attending, 2005**

Travelling Time (minutes)	Per Cent				
	Primary & Below	Secondary	Upper Secondary	Polytechnic	University
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
15 or less	71.2	41.0	13.4	8.7	8.8
16 - 30	21.9	38.3	36.0	32.6	20.8
31 - 45	4.1	11.8	23.6	25.3	19.5
46 - 60	2.4	7.1	21.4	24.8	25.9
More than 60	0.4	1.7	5.6	8.7	25.0
<i>Average (minutes)</i>	<b>16</b>	<b>25</b>	<b>39</b>	<b>43</b>	<b>53</b>