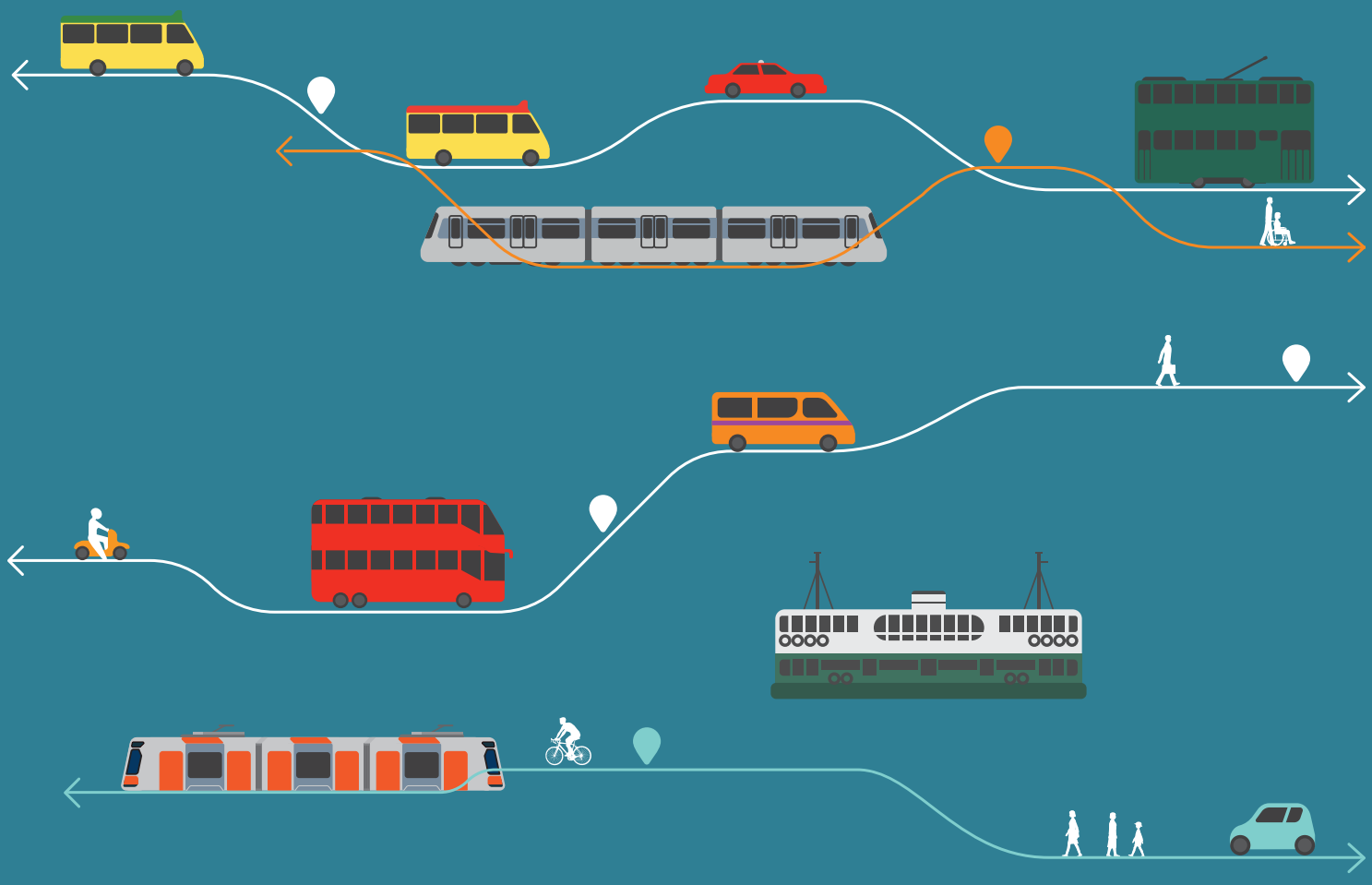
Travel Characteristics Survey 2022
Final Report

2022 交通習慣調查
Travel Characteristics Survey

2025 version



運輸署
Transport Department

ARUP

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS

AS	Attachment Survey
BCP	Boundary Control Point
C&SD	Census & Statistics Department
CAPI	Computer-Assisted Personal Interviewing
CBTS	Cross Boundary Travel Survey
CTS	Comprehensive Transport Study
EB	Employers' Business
EMD	Electric Mobility Device
HBO	Home-Based Others
HBS	Home-Based School
HBW	Home-Based Work
HIS	Household Interview Survey
HKSAR	Hong Kong Special Administrative Region
LRT	Light Rail Transit
MTR	Mass Transit Railway
NHB	Non-Home Based
NT	New Territories
PlanD	Planning Department
PLB	Public Light Bus
RDS	Railway Development Study
SP	Stated Preference
SPB	Special Purpose Bus
TCS 2011	Travel Characteristics Survey 2011
TCS 2022	Travel Characteristics Survey 2022
TS	Tourists Survey
VoT	Value of Time

EXECUTIVE SUMMARY

E.1 Background

E.1.1 To drive Hong Kong's development, the Government has continued investing in transport infrastructure and transport services, enhancing connectivity and accessibility of the transport network, refining service quality and passenger experience of public transport services, improving walking environment as well as strengthening the dissemination of transport information to offer more convenient and diversified travel options to the public. These measures, coupled with rapid social development and continued technological advancement, have gradually changed residents' travel patterns and choices. Through the travel characteristics surveys, the Government has gained an in-depth understanding of the impact of these changes on their travel behaviour, which paves the way for future transport policies and development, such that the measures to be implemented can meet the needs of the public.

E.1.2 The Travel Characteristics Survey 2022 (TCS 2022) aimed to collect residents' travel characteristics data for compilation into a database. The database will be used for subsequent updating and enhancement of the Comprehensive Transport Study (CTS) Model and other government departments' transport models, as well as providing references for future transport planning. The last TCS was conducted in 2011 (TCS 2011).

E.1.3 TCS 2022 comprised 3 main surveys:

- **Household Interview Survey (HIS)** – to obtain comprehensive household, personal and trip data, essential for enhancing the CTS Model and providing important information for transport planning. In addition, HIS also included 6 attachment surveys on: private vehicle usage and expenses; travel propensity and walking; usage of bicycles and electric mobility devices; transport telematics and dissemination of transport information; views of elderly on transport services; and emerging lifestyle patterns.
- **Stated Preference (SP) Survey** – to assess the impact that related parameters have on trip-making characteristics (including transport mode and route choice) with reference to the trip purposes, as well as to derive the behavioural values of time.
- **Tourists Survey (TS)** – to collect the travel characteristics and trip information of visitors who stayed in hotels/guesthouses as well as same-day visitors.

To reflect the travel situation upon resumption of normalcy of social and economic activities, the fieldworks for the HIS and SP surveys were conducted between September 2022 and January 2023. With the progressive recovery of inbound tourism, the fieldwork for TS was conducted between June and September 2023. All fieldwork was suspended during long holidays, such as Christmas and New Year. The data collected in the surveys were then processed, expanded and adjusted based on independent control data.

E.1.4 Some of the major findings of the surveys are summarised in the following paragraphs.

E.2 Demographic Structure, Changes in Transport Facilities and Characteristics of Trips Made by Hong Kong Residents

Demographic Information

E.2.1 The demographic information[1] of Hong Kong residents obtained from TCS 2011 and TCS 2022 are summarised in **Table E.1**.

[1] Population figures as at end-2022 were estimated based on the 2021 Population Census data.

Table E.1 Summary of Demographic Information

Parameter	TCS 2011	TCS 2022
Number of Domestic Households ('000)	2 363	2 695
Population of Domestic Households ('000)	6 882	7 334
Average Domestic Household Size	2.9	2.7

E.2.2 In total, there were approximately 2 695 000 domestic households in Hong Kong and a population of 7 334 000 persons living in these domestic households (hereafter referred to as "household population [2] ") as at end-2022 according to the data of TCS 2022, representing an increase of 14% and 7% respectively as compared to 2011. The average household size decreased from 2.9 persons in 2011 to 2.7 persons in 2022.

E.2.3 With the continuous new town development in the New Territories (NT), population in the region has increased significantly. Between 2011 and 2022, household population in NT grew by about 10% (or 349 000 persons); household population in Kowloon increased by about 7% (or 149 000 persons); while household population on Hong Kong Island decreased by about 4% (or 47 000 persons). The proportion of household population in NT increased from 52% in 2011 to 54% in 2022.

E.2.4 With rapid population growth outside the urban areas, residents would generally face longer travel distance and time for commuting on average. Different age groups would have different views on transport and commuting demands, which creates new considerations for formulating transport policies.

Relation between Transport Development and Changes in Travel Behaviours

Commissioning of Transport Infrastructure and Services

E.2.5 Since 2011, a number of large-scale transport infrastructure projects have been completed, including the East Rail Line Cross-harbour Extension, Tuen Ma Line, South Island Line, Tuen Mun - Chek Lap Kok Tunnel, Central-Wan Chai Bypass, Tseung Kwan O - Lam Tin Tunnel and Tseng Kwan O Cross Bay Bridge. These facilities have significantly expanded the transport network and enhanced the coverage and operation efficiency of public transport services. The public now has more direct route choices and better travelling experience. With a reduced number of interchanges required, travelling has become faster and more efficient. Moreover, better travelling experience on public transport has improved the public's perceptions of journey time and waiting time, leading to a decrease in the behavioural value of time, which reflects the travel cost of the passengers.

Improvement of Transport Ancillary Facilities

E.2.6 According to statistics, the incidence of fatal and serious traffic accidents has continuously declined, which translates into not only greater protection of road users' safety but also assurance of smooth road traffic, a reliable road network and a stable level of vehicle insurance premium.

Improvement of Walking Environment

E.2.7 Apart from mechanised transport, the Government strives to improve walkability and promote walking in order to provide more comfortable and diverse travel options. Over the years since 2011, a host of escalator and elevator systems as well as covered walkways have been completed, significantly improving the walking environment and providing the public with a stronger incentive to walk longer distances. In 2022, about 15% of walk-only trips took more than 15 minutes, a marked increase from 8% in 2011. These findings indicated increased willingness of the public to adopt active transport, probably with some mechanised trips already switched to walking.

[2] This refers to the land-based non-institutional population of the HKSAR living in domestic households and staying in Hong Kong for at least 1 month during the 6 months before or after the time of enumeration. It covers about 98% of the Hong Kong resident population and excludes the population in non-domestic households (collective households residing in ordinary living quarters and mobile households), institutional population, marine population and population in hotels/hostels/holiday camps.

More Transport Information

E.2.8 The Government disseminates transport information through various means, such as the "HKeMobility" mobile application, real-time arrival information system, pedestrian wayfinding signage, etc. Such information allows the public to plan their journeys and choose their modes of transport more efficiently, thus making better use of their time by reducing the waiting time or in-vehicle time. This may affect their decisions on trade-offs among travel time/cost and other factors (such as level of comfort) made by the public.

Mechanised Trips

Table E.2 Summary of Mechanised Trips Made on a Weekday

Item	TCS 2011	TCS 2022
Number of Mechanised Trips ('000)		
Home-Based Work (HBW)	5 022	5 103
Home-Based School (HBS)	1 351	1 162
Home-Based Others (HBO)	4 706	5 139
Non-Home Based (NHB) + Employers' Business (EB)	1 526	959
Total	**12 606**	**12 363**
Mechanised Trip Rate per Person	**1.83**	**1.69**
Average No. of Boardings per Trip	**1.17**	**1.12**
Mean Journey Time (minutes)		
Private Vehicle and Taxi	26	31
Public Transport (excluding Taxi)	43	45

E.2.9 The average total number of mechanised trips made by Hong Kong residents on a weekday was estimated to be 12 363 000 after adjustments to account for trip under-reporting[3]. Some of these trips involved more than one transport mode.

E.2.10 The average mechanised trip rate on a weekday for Hong Kong residents was estimated at 1.69 trips per person, representing a decrease of 8% compared with the 1.83 trips per person recorded in TCS 2011. Such reduction in mechanised trip rate might be attributed to the continuous upgrading and evolution of information technology development and application, with some travel needs gradually replaced by online activities. In addition, the Government's efforts to improve walking environment and connectivity have encouraged the public to adopt walking as a mode of travel, as reflected by a drop in average daily public transport[4] passenger journeys between 2011 and 2022.

E.2.11 As regards to trip purposes, the trip rates of Home-Based Work (HBW) trips (from home to workplace for work or vice versa), and the Home-Based School (HBS) trips (from home to school for attending lectures/lessons or vice versa) have remained relatively stable for the past two decades. These trips in aggregate accounted for about 51% of the total mechanised trips made in 2022. HBS trips dropped by about 14% between 2011 and 2022, which might be attributed to the decrease in the student population and the emergence of online class arrangements.

E.2.12 Home-Based Others (HBO) trips (trips from home to places that are not workplaces (for work) or schools (for attending lectures/lessons) or vice versa) increased by about 9% between 2011 and 2022, slightly higher than the growth in household population over that period. On the other hand, the aggregate number of Non-Home Based (NHB) trips (not originating from or ending at home) and Employers' Business (EB) trips (originating from and ending at workplace) decreased by over 37%. This could be due to changes in people's lifestyles and entertainment habits, as well as in the mode of business operations in society in recent years. For example, emergence of work-from-home arrangements, online meetings, home-based entertainment and food delivery services.

[3] As some of the trips made, typically those irregular or more trivial in nature, would inevitably be forgotten or not reported by the respondents during interview, according to statistical methods, the expanded trip data collected from the survey were compared against independent observed data and transport statistics available and then adjusted accordingly.

[4] Throughout this report, public transport includes taxi unless otherwise stated.

E.2.13 The overall peak hours for mechanised trips were 8:00 – 9:00 a.m. and 6:00 – 7:00 p.m., with the two periods respectively accounting for about 13% and 14% of the daily trips made on a weekday. Similar peak hours were identified in TCS 2011. 42% of the home-to-work trips occurred in the morning peak hour at 8:00 – 9:00 a.m., which was similar to the results in 2011. 40% of the work-to-home trips occurred in the evening peak hour at 6:00 – 7:00 p.m., which was higher than the 34% recorded in 2011.

E.2.14 With the continuous development of new towns in the New Territories (NT), the average travel distance and time for commuting is supposed to increase with the growing population migrating away from urban areas. However, ongoing improvement in transport network and services has played an important role in offsetting the increase in overall journey time in the territory. In 2022, 48% of the mechanised trips were completed within half an hour and 90% were completed within an hour for people to travel from their trip origins to destinations. The mean journey time was 42 minutes, similar to the 40 minutes in 2011. The mean journey time for public transport (excluding taxi) trips was 45 minutes, broadly similar to the 43 minutes recorded in 2011.

E.2.15 There has been modest change in cross-region trip movements. Between 2011 and 2022, only the numbers of trips made between Kowloon and NT and within NT showed a marginal growth at 1% and 2% respectively.

E.2.16 New transport connections and services have made journeys more direct, with the East Rail Line Cross-harbour Extension standing out as an obvious example in recent years. The survey revealed that the majority (89%) of the mechanised trips made did not require an interchange. Thus, the average number of boardings per trip decreased from 1.17 in 2011 to 1.12 in 2022. The more direct public transport trips contributed to a slight drop (from 88% to 86%) in the proportion of boardings by public transport.

E.2.17 As a result of the continuous expansion of the railway network, the proportion of boardings by railway, among various public transport modes, has increased, with rail remaining the most popular transport mode. In 2022, rail (including MTR and LRT, excluding tram) and franchised bus accounted for 35% and 26% respectively of the total number of daily boardings made by Hong Kong residents during weekdays. The corresponding figures in TCS 2011 were 30% and 27% respectively.

E.2.18 Among various modes of transport, boardings by ferry had the highest proportion (69%) of involvement of interchanging with other modes owing to their catchment areas of services being restricted by the coastline and coastal waters. On the other side, private vehicle and taxi had the lowest percentages of boardings involving interchanges (2% and 4% respectively) because of their point-to-point trip nature.

E.2.19 The mean walking time from trip origin to access a mechanised transport mode, or from the alighting point of a mechanised transport mode to trip destination was 5 minutes, with about 70% of Hong Kong residents walking 5 minutes or less. Over 94% of the interchanges from one mode or route service to another involved walking of 5 minutes or less when transferring between modes or service routes, a higher proportion compared with 2011. The mean walking time was 3 minutes, same as the TCS 2011 figure.

Walk-Only Trips

E.2.20 In the absence of independent observed data on walking movements for control, adjustment to account for the under-reporting of walk-only trips could not be made. The information on walk-only trips should therefore be interpreted with caution and considered suitable only for analysing the changes in walking behaviour.

E.2.21 The average journey time for walk-only trips was 12 minutes, representing an increase of 50% compared with 2011. Some short-to-medium distance journeys previously by mechanised transport modes might have been replaced by walking. Among different trip purposes, the average journey time for HBW walk-only trips was the longest (15 minutes).

E.2.22 The peak hours for walk-only trips occurred at 7:00 – 8:00 a.m. and 1:00 – 2:00 p.m., which accounted for 11% and 13% respectively of the daily walk-only trips.

Cycling Trips

E.2.23 In the absence of independent statistics for control, accurate adjustment to account for the under-reporting of cycling trips could not be made. The results below should therefore be interpreted with extra caution and used as indicative reference only.

E.2.24 88% of the cycling trips were cycling-only. In other words, 12% were cycling trips involving interchange with other mechanised transport modes. In general, HBO trips accounted for the largest proportion (56%) of all daily cycling trips, followed by HBW trips (35%).

E.2.25 The majority (86%) of the cycling-only trips took 30 minutes or less from origin to destination. The mean cycling time was 24 minutes, which was similar to the 25 minutes in 2011.

E.2.26 70% of the cycling-only trips and 73% of the cycling trip legs connecting with other mechanised modes were made within the same district. The highest concentrations of cycling trips were found in new towns.

E.3 Usage of Private Vehicles

E.3.1 16.3% of the households in Hong Kong (or 438 000 households) had private cars available for use, with a mean availability of 1.18 cars per household. 12.9% of these households had more than 1 car. Together, they made up a total of 515 000 private cars for local households.

E.3.2 1.3% of the households in Hong Kong (or 35 000 households) had motorcycles available for use, with a mean availability of 1.15 motorcycles per household. Together, they made up a total of 40 000 motorcycles for local households.

E.3.3 Overall, 17.2% of households across the territory had private vehicles (including private cars and motorcycles) available for use ("private vehicle-available households" or "PV-available households"), a higher proportion compared with the 15.1% in 2011. The increase could be attributed to the rising average household income, which enabled more households to consider private vehicles as a transport option.

Table E.3 Comparison of Private Vehicle Availability in 2011 and 2022

Area	Number of Private Vehicle-Available Households		Proportion of Private Vehicle Available Households	
	TCS 2011	TCS 2022	TCS 2011	TCS 2022
Hong Kong Island	79 000	89 000	18.7%	20.7%
Kowloon	82 000	104 000	11.3%	12.4%
New Territories	195 000	269 000	16.1%	18.9%
Total	**356 000**	**463 000**	**15.1%**	**17.2%**

E.3.4 According to data observation, availability of private vehicles ("private vehicle availability") was correlated with the travel distance or journey time between household locations and the urban areas, type of housing (which had implications on the availability of parking spaces), household income and household size.

E.3.5 Despite the increase in proportion of private car-available households, there was a decrease in the use of private cars to meet daily travel needs due to the expansion of the transport network and the increase in various alternative transport options. Among the private cars available for use by households, 42% were mainly for recreational and social purposes, while the proportion for commuting to/from work was 25%. As for motorcycles, the largest proportion was mainly for recreational and social purposes

(49%), followed by that for commuting to/from work (33%).

E.3.6 The average total monthly expenses in operating a private car and a motorcycle were \$6,800 and \$2,200 respectively (at 2022 prices), while the corresponding figures obtained from TCS 2011 were \$5,400 and \$1,600 (at 2011 prices). The increase was consistent with economic development and inflation rate. For the monthly expenses incurred in operating private cars, parking fee (\$2,700) constituted the largest portion (around 40%). The relatively small increase in fuel and insurance expenses might be attributed to the increasing popularity of electric vehicles (EVs) and improvement of road safety respectively. In addition, as the tunnel toll levels remained largely stable between 2011 and 2022, the average toll expenses of motorists were basically unchanged.

E.4 Major Views and Opinions Related to Travelling

E.4.1 As sub-samples of HIS, information was also obtained from respondents who were Hong Kong residents aged 15 or above, with respect to their views and opinions on the transport system and factors affecting their travel behaviour. Key findings are presented below.

Environmentally-friendly Vehicles

E.4.2 Among the sampled households who intended to purchase private cars in the next 12 months after the interview, 56% intended to purchase environmentally-friendly vehicles, including 46% for electric vehicles and 10% for hybrid vehicles. Of those PV-available households intending to purchase electric private cars within 12 months, 80% would apply for the "One-for-One Replacement" (OfO) Scheme.

E.4.3 Slightly more than half (51%) of the EV-available households charged their vehicles with facilities at public car parks.

Factors Affecting the Choice of Public Transport Mode

E.4.4 Topping the list of major factors considered by respondents in choosing among different public transport modes were travel time, convenience of stops and pick-up/drop-off points, and travel distance.

E.4.5 The average time respondents were prepared to wait for different types of public transport services ranged from 8 to 16 minutes. In general, passengers were prepared to wait the longest for ferry services and the shortest for rail (including MTR and LRT) and tram services.

Impact of Changes in Journey Time have on Peak Period Travel Patterns

E.4.6 Respondents were inclined to switch to another transport mode in the case that the journey time of their trips during peak periods (7:00 – 10:00 a.m. and 5:00 – 8:00 p.m.) was lengthened. The survey revealed that 24% of the respondents would consider switching to another transport mode if the journey time increased by 15 minutes, while 59% of respondents would do so when the journey time increased by 45 minutes.

Table E.4 Impact of Assumed Increases in Journey Time have on Travel Behaviour during Peak Periods

Possible changes	Assumed Increase in Journey Time		
	15 min.	30 min.	45 min.
Make changes to trips	38%	75%	81%
Switch to other transport modes	*24%*	*56%*	*59%*
Avoid starting trip during peak hours	*12%*	*15%*	*15%*
Change trip origin / destination	*1%*	*3%*	*4%*
Cancel the trip	*~0%*	*1%*	*3%*
Make no change	62%	25%	19%
Total	**100%**	**100%**	**100%**

Walking, Cycling and Electric Mobility Devices

E.4.7 Respondents were generally more willing to walk than before. In general, people would be willing to walk for a maximum of 12 to 13 minutes to access various public transport facilities and other destinations (e.g. shopping malls and restaurants) under outdoor and sheltered condition. This represented an increase of about 2 minutes compared with the previous survey. Also, respondents would be prepared to

walk about 1 to 2 minutes longer under air-conditioned situation or with the provision of travellators/escalators as compared with walking under outdoor and sheltered condition. The maximum time that respondents were prepared to walk showed a general increase compared with the previous survey, reflecting that they were more willing to consider active transport modes than in the past.

E.4.8 5.1% of the households in Hong Kong (or 139 000 households) had bicycles available for use. As compared with TCS 2011 figures, the decrease in households with bicycles available might be partially due to the introduction of bicycle-sharing services. The percentage of households with bicycles available was higher in the New Territories.

E.4.9 65% of Hong Kong residents aged 15 or above knew how to cycle. Of these respondents who knew how to ride a bicycle and had bicycles available for use, about 38% had used their bicycles on weekdays and about 49% on weekends or public holidays within the 3 months preceding the day of interview.

E.4.10 Among the surveyed Hong Kong residents aged 15 or above who knew how to ride a bicycle (regardless of whether they were bicycle-available households or not), about 1% had rented a bicycle for recreation/leisure purpose on weekdays within the 3 months preceding the day of interview, while about 2% had done so on weekends or public holidays.

E.4.11 Among the respondents who had cycled within the 3 months preceding the day of interview, 83% indicated that they would usually cycle on cycle tracks while 10% stated that they would usually cycle on carriageways.

E.4.12 The use of electric mobility devices (EMDs) on roads was still prohibited at the time of the survey. 56% of respondents had no objection to allowing such devices to be used legally on cycle tracks at least.

E.4.13 Majority (80%) of respondents considered that safety was the most important factor for consideration if the use of EMDs was permitted and regulated in future. The remaining small portion of respondents opined that factors such as "available space on roads", "compatibility among pedestrians, bicycles and EMDs", and "monitoring of users' behaviour" were more worthy of consideration.

Dissemination of Transport Information

E.4.14 Regarding the transport information provided by the public transport operators, users were generally most satisfied with the routing and travel time information and considered that the information on fare/concession and interchange required improvements.

E.4.15 The type of public transport service information considered most useful by respondents for their decision-making in mode choice was service frequency/timetable (33%), whereas motorists saw the information on real-time queue length at major congested locations as the most useful (33%).

E.4.16 The Transport Department's HKeMobility was the third most commonly used digital source of transport information following Google Maps and public transport operators' websites or mobile applications. Overall, users gave positive comments on the various types of information provided by the HKeMobility website or its mobile application. Regular routing (e.g. between home and workplace) was the most accurate and comprehensive information provided by HKeMobility.

Views on Measures to Relieve Traffic Congestion and to Improve Pedestrian Facilities

E.4.17 Assuming that the existing level of congestion was to worsen, the measure most supported by respondents for relieving traffic congestion was to build more roads or railways (30%). This is consistent with the Government's strategy of continuing to develop road and railway infrastructure to alleviate new travel demands.

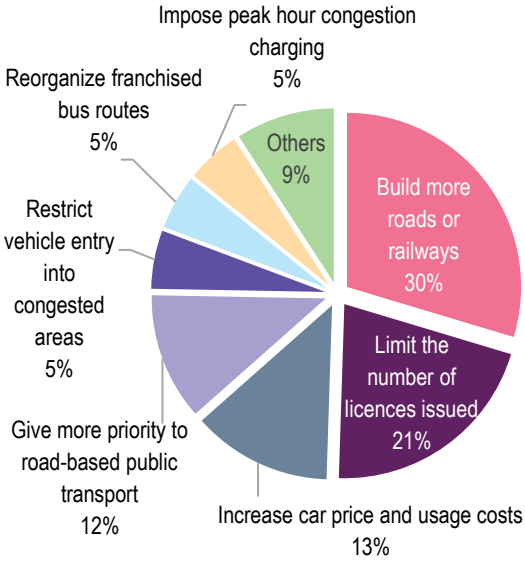


Figure E.1 Most Supported Measures for Relieving Traffic Congestion

E.4.18 The most supported measure for improving pedestrian facilities was the provision of covers for walkways (29%).

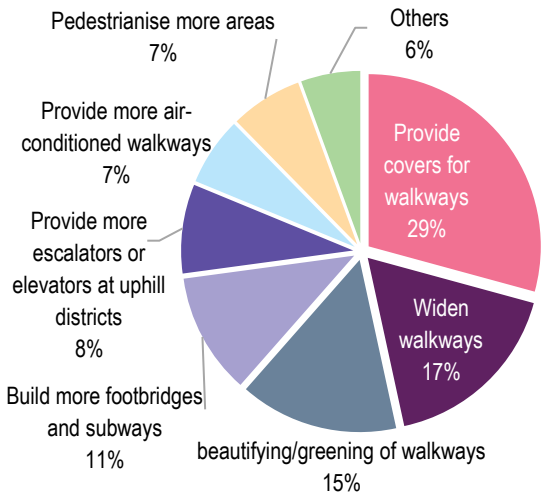


Figure E.2 Most Supported Measures for Improving Pedestrian Facilities

Views of the Elderly on Transport Services

E.4.19 About 30% of the household population in Hong Kong were aged 60 or above. Among them, 66% were retired; 25% were still in the work force; 8% were homemakers; and the remaining 2% were others[5].

E.4.20 97% of the respondents aged 60 or above possessed an Elder Octopus Card or a JoyYou Card[6]. Among them, 50% held Elder Octopus Card only, 37% held JoyYou Card only, while 13% owned both cards.

E.4.21 10% of the respondents who possessed a JoyYou Card said that their average daily number of trips made had increased after becoming eligible for the public transport fare concessions.

Table E.5 Change in Travel Characteristics among JoyYou Card Holders

Change in Travel Characteristics	Proportion of JoyYou Card Holders
Increase in average daily number of trips	10%
Mode choice	4%
Destination choice	9%
Route choice	6%

E.4.22 More than half (61%) of the respondents aged 60 or above were satisfied with the comfort of priority seats. Moreover, 91% of them considered the priority seats easy to locate. 49% expressed that they could often find vacant priority seats, while 14% indicated that those seats were on many occasions taken up by people without a genuine need.

Emerging Lifestyles

E.4.23 With the advancement of information technology, 31% of employed respondents stated that they were able to perform some or all of their job duties at home. Of those employed respondents who were able to perform their job duties remotely, 34% reported that they have already had a work-from-home arrangement in place before the pandemic. During the pandemic period, the proportion of having work-from-home arrangement stood high at 71%. As for post-pandemic, about 61% of respondents stated that they would definitely or probably have work-from-home arrangements.

[5] "Others" include persons of independent means (i.e. those who do not have to work for a living) and other economically inactive persons (e.g. unpaid religious workers and persons who cannot work or do not seek work because of permanent sickness or disablement).

[6] From 25 August 2024 onwards, Hong Kong residents aged 60 or above were required to use the JoyYou Card to enjoy the $2 transport fare concession.

E.4.24 During the pandemic, the respondents engaged in various activities online (including shopping, patronising food delivery service, entertainment, classes/tutorial classes/online sports or interest classes and video conferencing) more often as compared to pre-pandemic. In particular, the frequencies of online video conferencing and patronage of food delivery service increased the most.

E.4.25 Some respondents would continue to conduct the above activities online after the pandemic. Around 10% of respondents expressed that they expected their frequencies of online shopping, patronage of food delivery service and video conferencing to continue to increase, which would impact on their travel characteristics and transport demands.

E.5 Behavioural Values of Time[7]

E.5.1 To assess the preferences of Hong Kong residents for time and monetary cost, respondents were asked to answer multiple-choice questions on transport modes based on various combinations of monetary cost and travel time.

Table E.6 Behavioural Values of Time by Private Vehicle-Available Household and Trip Purpose

Trip Purpose	Behavioural VoT (in Cents/Minute)			
	TCS 2011 (at 2011 Prices)		TCS 2022 (at 2022 Prices)	
Private Vehicle-Available Household Member				
HBW	103		132	
HBS	72	88	103	113
HBO/NHB	83		101	
Non-Private Vehicle-Available Household Member				
HBW	68		87	
HBS	57	67	68	82
HBO/NHB	68		79	
Overall	**72** (1)		**90**	

Note: (1) Based on the Composite Consumer Price Index growth (+33%) between 2011 and 2022, this is equivalent to 95 cents/minute at 2022 price.

E.5.2 Comparison between the 2011 and 2022 results shows an overall increase in the behavioural VoT by about 25% in nominal terms, which fell short of the inflation rate during the same period (about 33%). This implies a 5% decrease in real terms in the behavioural VoT taking into account the real Gross Domestic Product (GDP) growth per capita of 9% between 2011 and 2022. As some international studies found out, this might be attributed to improvements of travel conditions (such as travelling experience) and people's ability to engage in various activities during travel (e.g. work or entertainment through mobile communication devices), which indirectly changed the willingness and preferences of trip-makers to pay extra to shorten the travelling time. More comprehensive traffic information also enhanced commuters' ability to plan trips, which might in turn impact on their decisions in trading off between money and time. Overall, the behavioural VoTs for trips of different purposes and different private vehicle availability categories showed similar trends. The nominal growth of behavioural VoTs was marginally higher for PV-available household members than non-PV-available household members, which was particularly evident for HBS trips.

E.5.3 It should be noted, however, that the behavioural VoTs derived from the SP Survey could be different from the behaviour of trip-makers in reality. The actual values to be adopted for transport planning purpose would be subject to further review in the calibration of transport models under individual research projects in future.

E.6 Characteristics of Trips Made on Weekdays by Visitors Staying in Hotels/Guesthouses and Same-day Visitors

E.6.1 The highest proportion of visitors staying in hotels/guesthouses covered by the TS were from the Chinese Mainland/Macau (over 70%). Over 90% of same-day visitors covered by the TS conducted at the 6 surveyed boundary control points (BCPs) were from the Chinese Mainland/Macau, among which the highest proportion were from Shenzhen, followed by Guangzhou and Dongguan.

[7] The behavioural value of time is a quantitative measure of the amount of money that trip-makers are willing to trade off for unit time saving.

E.6.2 The main purpose of the visitors staying in hotels/guesthouses was sightseeing (39%). Entertainment and leisure came second (20%). For same-day visitors, their main purpose of visit was shopping (25%), followed by sightseeing (20%).

Characteristics of Mechanised Trips Made by Visitors Staying in Hotels/ Guesthouses

E.6.3 The average number of mechanised trips made per visitor staying in hotels/guesthouses (mechanised trip rate) was 2.48 trips/day, slightly higher than the 2.30 trips/day in 2011. This was also higher than the average mechanised trip rate of Hong Kong residents (1.69 trips/day). It should be noted that in the absence of suitable independent data for control, no adjustment to account for under-reporting was made. The results should therefore be interpreted with extra caution.

E.6.4 The peak hours for the mechanised trips made by visitors staying in hotels/guesthouses occurred at 10:00 – 11:00 a.m. and 8:00 – 9:00 p.m. These respectively accounted for about 8% and 10% of the total number of their daily trips. While these periods did not coincide with the Hong Kong residents' commuting peaks, a considerable percentage (8%) of mechanised trips made by the visitors staying in hotels/guesthouses were recorded during the residents' evening commuting peak at 6:00 – 7:00 p.m.

E.6.5 The average journey time for mechanised trips made by visitors staying in hotels/guesthouses was 41 minutes, slightly shorter than the 43 minutes in 2011, and comparable to the average journey time for mechanised trips made by Hong Kong residents (42 minutes).

E.6.6 Frequency of visitors using public transport was higher than that recorded in the previous survey. The most popular transport mode among visitors staying in hotels/guesthouses was MTR (including Airport Express) (47%), followed by franchised bus (14%) and taxi/ hired car (12%).

Most Popular Sightseeing and Shopping Spots for Visitors staying in Hotels/ Guesthouses

E.6.7 The three sightseeing spots most visited (whether by mechanised transport or walking) by tourists staying in hotels/guesthouses were Hong Kong Disneyland, Avenue of Stars and The Peak.

E.6.8 Regarding popular shopping centres/malls visited by visitors staying in hotels/guesthouses, the districts most visited by them was Yau Ma Tei/ Tsim Sha Tsui/ Mong Kok (Yau Tsim Mong), followed by Wan Chai (including Causeway Bay) and Central & Western, where some of the major shopping centres/malls were located.

Characteristics of Mechanised Trips Made by Same-day Visitors

E.6.9 The average number of mechanised trips made by same-day visitors was 2.51 trips per visitor per day. Survey results showed that the rates for sightseeing and shopping trips were significantly higher than those for other purposes.

E.6.10 Over 90% of same-day visitors arrived at their trip destinations in the period between 10:00 a.m. and 7:00 p.m., while the peak periods for their trips occurred during lunchtime (12:00 noon – 3:00 p.m.).

E.6.11 The most popular transport mode among same-day visitors was MTR (including Airport Express) (52%), followed by franchised bus (25%) and taxi/hired car (11%).

E.6.12 Yau Tsim Mong District generated/ attracted the most mechanised trips made by same-day visitors, followed by Islands and Yuen Long Districts.

E.7 Way Forward and Recommendations

E.7.1 One of the key objectives of TCS 2022 is to provide the latest travel characteristics data and information to facilitate future transport planning, and to update the CTS Model for forecasting traffic conditions.

E.7.2 With continuous social and economic development, people's travel characteristics as identified by TCS 2022 will keep evolving. The Government needs to monitor the traffic and transport situation on an ongoing basis and review its transport planning and forecast in the light of the latest statistical data. The Government has observed that as of the first half of 2025, the overall usage of roads and transport modes has slightly increased when compared to the TCS 2022. Taking into account changes in the population and visitor numbers during the same period, the increase and its distribution were generally consistent with expectations, while noting that there has been no significant change on the residents' travel behaviour.

1. INTRODUCTION

1.1 Background

1.1.1 To drive Hong Kong's development, the Government has continued investing in transport infrastructure and transport services, enhancing connectivity and accessibility of the transport network, refining service quality and passenger experience of public transport services, improving walking environment as well as strengthening the dissemination of transport information to offer more convenient and diversified travel options to the public. These measures, coupled with rapid social development and continued technological advancement, have gradually changed residents' travel patterns and choices.

1.1.2 Aiming for an in-depth understanding of the impact that these changes have on residents' travel characteristics to serve as reference for future transport policies and developments, the Government has been conducting a territory-wide travel characteristics survey (TCS) about once every ten years. Such efforts are to ensure that the measures to be implemented can meet the needs of the public. The previous TCS was started in 2011 (TCS 2011) and completed in 2012. It collected comprehensive information on the travel characteristics of Hong Kong residents and provided a basis for updating the Government's Comprehensive Transport Study (CTS) Model, which has been widely applied in various transport and planning studies.

1.1.3 The Transport Department (TD) commissioned Arup (the Consultant) in May 2021 to undertake the "Enhancement of the Comprehensive Transport Study Model – Feasibility Study" (the Consultancy Study) under Agreement No. CE 76/2020 (TT). The Consultancy Study defined the scope and data requirements of the Travel Characteristics Survey 2022 (TCS 2022), underpinning future transport planning and transport modelling enhancement.

1.1.4 The planning, organisation and fieldwork execution of TCS 2022 were then undertaken under service contract TD(T) 5/2021 - "Provision of Services for Conducting the Travel Characteristics Survey 2022" (the Service Contract), which was awarded to MOV Data Collection Centre in February 2022.

1.2 Study Objectives

1.2.1 TCS 2022 formed an integral part of the Consultancy Study. It was primarily a data collection exercise, the ultimate aim of which was to collect relevant up-to-date travel characteristics data and develop them into a database for subsequent updating and enhancement of the CTS Model and other government departments' transport models, such as the Highways Department's Railway Development Study Model. Furthermore, the TCS 2022 database will facilitate the planning of transport facilities and services in future territory-wide and sub-regional transport and planning studies.

1.2.2 The key objectives of TCS 2022 were:

- To collect up-to-date travel characteristics data and information of Hong Kong residents;
- To develop a database for transport planning and forecast;
- To assess changes and trends in travel characteristics; and
- To review and make recommendations on the approach to conduct future survey updates.

1.3 Study Approach and Process

1.3.1 The Consultancy Study consists of four phases of work, covering design, tender, data collection and data analysis/ reporting (see key tasks below):

Design Phase

- Review the parameters of the existing CTS Model
- Identification of data requirements for CTS Model and transport planning
- Outline design of interview surveys

Tender Phase

- Preparation of tender documents for the Service Contract
- Determination of evaluation criteria and marking scheme
- Tender assessment and recommendation

Data Collection Phase

(Primary responsibility of the Service Contractor, under the supervision and management of the Consultant)

- Establishment of questionnaires and fieldwork procedures
- Pilot and main survey fieldwork
- Quality control
- Data processing
- Data checking and verification

Data Analysis / Reporting Phase

- Trip data expansion
- Data analysis and tabulations
- Recommendations on future survey updating strategies
- Development of TCS 2022 database.

1.3.2 Following this introductory section, the remainder of this Report is structured as follows:

- Section 2 summarises the processes of survey design, fieldwork implementation, data processing and database development.
- Section 3 details the characteristics and patterns of the trips made within the Hong Kong Special Administrative Region (HKSAR) by Hong Kong residents on a weekday.
- Section 4 summarises the private vehicle usage patterns of households.
- Section 5 presents the public's views and attitudes related to travelling.
- Section 6 summarises the survey results on the behavioural value of time of the population.
- Section 7 discusses the characteristics and patterns of the trips made within the HKSAR by visitors.
- Section 8 discusses the way forward for the use of survey data.

2. SURVEY DATA COLLECTION AND ASSIMILATION

2.1 Data Requirements

2.1.1 The first step of the survey design process was to establish what data items were to be collected in TCS 2022. The key objectives were to ensure that the data collected will fulfil the purposes of future CTS Model re-calibration and enhancement, and to facilitate transport planning.

2.1.2 A thorough review of the existing CTS Model structure was undertaken, and the possibility of incorporating new features or enhancements was also explored, with a view to determining data items necessary for the derivation of relevant parameters.

2.1.3 Other transport-related topical data items were also reviewed for better understanding the public's views and attitudes towards the transport system and their trip-making behaviour. Having regard to factors such as an affordable number of questions for respondents, time taken for the survey and the budgeted cost, etc., priority for questions in this survey was given to those which could more effectively collect the required data only through TCS 2022.

2.1.4 Given the possible impact of the pandemic and with the aim of facilitating responses by the surveyed households, an online survey platform was established to provide an alternative channel in addition to face-to-face and telephone interviews for the selected households to respond.

2.1.5 Resulting from the above review, the data items to be collected in TCS 2022 were as follows:

- Household and personal characteristics
- Availability of private vehicles among households[1]
- Mechanised trip [2] records on a normal weekday which was not a public holiday (including locations and activities at origin/destination, time, mode, trip purpose, interchange locations, etc.)
- Private vehicle ownership and usage patterns, costs and expenses incurred in operating private vehicles
- Parameters affecting the use of park-and-ride facilities and environmentally-friendly vehicles
- Potential changes in and factors affecting trip-making patterns
- Factors affecting walking and use of escalators, travellators and elevated walkway systems
- Bicycle ownership, parking and usage patterns
- Views on legislation and enforcement measures on cycling
- Views on the use of electric mobility devices
- Views on the dissemination of transport information
- Views of the elderly on transport services
- The changes in trip-making patterns due to the pandemic
- The changes in trip-making patterns due to the emerging lifestyles
- Views on the development of autonomous vehicles
- Behavioural values of time[3] (VoT) in making transport-related choices
- Personal characteristics and trip records of visitors staying in hotels/guesthouses and same-day visitors

[1] Private vehicles include private cars and motorcycles.
[2] Mechanised trips refer to any trips involving mechanised transport excluding trips made by some minor mechanical modes such as goods vehicle for personal use, bicycle, golf cart and cable car.
[3] The behavioural value of time is a measure of the amount of money that trip-makers are willing to trade off with unit time saving.

2.2 Design of Surveys

2.2.1 In accordance with the data requirements defined above, TCS 2022 comprised the following 3 main types of surveys:

- Household Interview Survey (HIS)
- Stated Preference (SP) Survey
- Tourists Survey (TS).

Household Interview Survey (HIS)

2.2.2 This formed the major part of the data collection and would serve as the mainstay of the transport model development. The survey provided essential information on the travel patterns of Hong Kong residents living in domestic households, which account for an important part in the overall travel demand in Hong Kong.

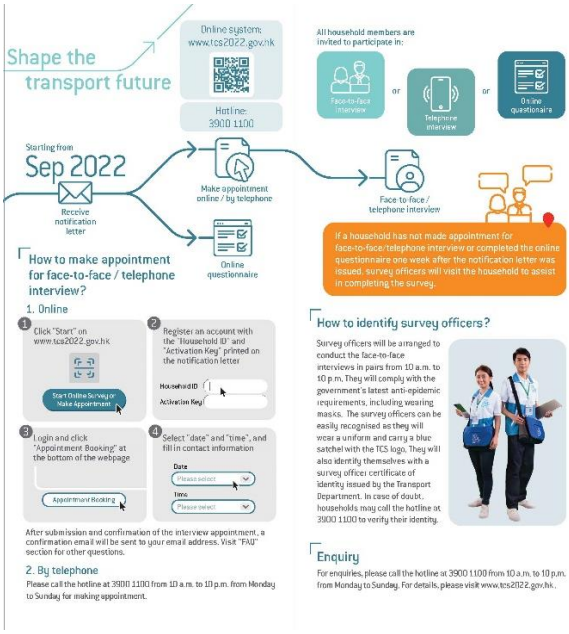
2.2.3 A random sample of quarters or segments was selected from the data maintained by the Census & Statistics Department (C&SD). All households within the sampled quarters or segments were invited to participate in the survey.

2.2.4 General trip information and trip-making characteristics of all household members and live-in visitors aged 2 or above on a reference weekday (defined as the last weekday preceding the day of interview (Mondays to Fridays, excluding public holidays)) were collected as a main part of the HIS. Those members aged below 2 were excluded as the majority of their trips were accompanied by adults and had no purpose of their own. Furthermore, their trips would not normally be reflected in other independent transport statistics.

2.2.5 Apart from the above trip information, household and personal information were also collected in order to establish their relations to the trip-making characteristics.

2.2.6 In addition, attitudinal surveys on one of the following 6 topics were conducted on sub-samples of the HIS in the form of attached supplementary surveys (Attachment Surveys (ASs)):

1. Private vehicle usage and expenses
2. Travel propensity and walking
3. Cycling and usage of electric mobility devices
4. Transport telematics and dissemination of transport information
5. Views of the elderly on transport services
6. Emerging lifestyles



2.2.7 With the exception of AS5, only one eligible member within each sub-sampled household was enumerated in the ASs. For AS1, the target respondent was the household member who was most informed on the household vehicle usage and expenses. For AS2, 3, 4 and 6, the target respondents were randomly selected household members aged 15 or above (excluding domestic helpers) and staying in Hong Kong for at least 1 month during the 6 months before or after the time of enumeration.

2.2.8 In the case of AS5, as the survey focused specifically on the aged population, the target respondents were all members of the sub-sampled households aged 60 or above and staying in Hong Kong for at least 1 month during the 6 months before or after the time of enumeration (excluding domestic helpers).

Stated Preference (SP) Survey

2.2.9 The SP Survey was conducted on selected HIS sampled household members whose travel characteristics matched the SP survey stratifications. It involved the application of SP technique to assess the impact of various parameters affecting the choices of commuters and thus derive the behavioural VoT.

Tourists Survey (TS) with Visitors Staying in Hotels/Guesthouses and Same-day Visitors

2.2.10 The survey was carried out with visitors staying in hotels/guesthouses and with same-day visitors at Boundary Control Points (BCPs), with a view to collecting their trip-making characteristics and trip information on a weekday, so as to provide supplementary information for the tourism model and to better understand the transport needs of these visitors.

2.2.11 Regarding the visitors staying in hotels/guesthouses, 52 hotels and 20 guesthouses out of a list of 287 hotels and 207 guesthouses (with more than 10 rooms) compiled from the information provided by Hong Kong Tourism Board were selected for survey. The sample selection was stratified by geographical location, tariff group and number of rooms, as appropriate.

2.2.12 A random sample of visitors were approached at the lobby of each of the selected hotels/guesthouses for face-to-face interviews with the assistance from the hotel management. The sample size in each hotel/guesthouse depended on the number of rooms therein.

2.2.13 As for same-day visitors, a random sample of same-day visitors were approached for interviews at 6 surveyed BCPs[4] covering a variety of cross-boundary transport modes and catchment areas. 1 800 and 400 visitors were successfully interviewed on weekdays and weekends respectively. The sample size at each BCP depended on its flow of same-day visitors.

2.3 Survey Fieldwork Implementation

2.3.1 The operation, procedures and designed questionnaires of the interview surveys were tested through pilot surveys, with necessary refinements made, before actual application. The interview surveys were suspended during the Christmas/New Year holiday period to avoid the skewed effect of travel patterns during long holidays.

2.3.2 Web-based Computer-Assisted Personal Interviewing (CAPI) technology was employed for data collection in the HIS. During household visits, the enumerators brought with them a tablet PC and conducted interviews using CAPI technology on an online platform, which enabled real-time logic checks of answers provided by the respondents as well as geo-coding of locations through the Digital Map provided by the Lands Department. Respondents could also complete electronic questionnaires online by themselves via the CAPI platform using account information provided in the invitation letters to log in, or complete the interview over the telephone with an enumerator

2.3.3 The fieldwork period and enumeration of the respective surveys are summarised in **Table 2.1**. In particular, the TS was conducted when visitor numbers had largely returned to normal.

Computer-Assisted Personal Interviewing (CAPI) technology was employed in the Household Interview Survey

[4] The 6 BCPs selected for same-day visitors survey were (1) Hong Kong-Zhuhai-Macao Bridge (HKZMB) (2) Hong Kong-Macau Ferry Terminal (3) Express Rail Link West Kowloon (4) Shenzhen Bay (5) Lok Ma Chau (6) Lo Wu.

2.3.4 Strict measures were applied during fieldwork to ensure the quality of data. Quality control was implemented jointly by the Consultant and an independent team of the Service Contractor. Apart from the training and day-to-day supervision of the interviewers, 17% of the completed questionnaires were randomly selected by independent checkers for back-checking to ensure the accuracy of survey data.

Table 2.1 Fieldwork Period and Enumeration

Survey	Enumeration (Household/ Respondent)	Fieldwork Period
Household Interview Survey (HIS) *(Response Rate: 70%)*	35 325 households	Sep 2022 – Jan 2023
Attachment Survey (AS)		
1 – Private Vehicle Usage & Expenses	10 112 respondents	
2 – Travel Propensity and Walking	5 053 respondents	
3 – Cycling and Usage of Electric Mobility Devices	5 104 respondents	
4 – Transport Telematics and Dissemination of Transport Information	5 004 respondents	
5 –Views of the Elderly on Transport Services	5 043 respondents	
6 – Emerging Lifestyles	5 009 respondents	
Stated Preference (SP) Survey	3 100 respondents	
Tourists Survey (TS)		
Visitors Staying in Hotels/Guesthouses *(Response Rate: 83%)*	2 757 visitors	Jun – Sep 2023
Same-day Visitors *(Response Rate: 80%)*	2 200 visitors	

2.4 Data Processing and Expansion

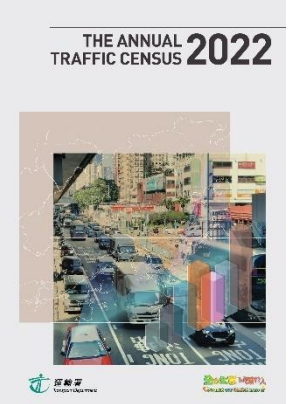
2.4.1 All the data collected in the interview surveys were audited, coded and input in computer format by the Service Contractor. The addresses given for fields involving locations such as trip origin, destination and interchange locations were coded to the Tertiary Planning Unit Street Block level. To ensure the correctness of data entry, all data were entered twice into the computer, each by different staff member, for verification.

2.4.2 The input data went through a series of validity checks with the computer to identify any duplications, omissions, out-of-range values and inconsistencies in the data for further verification.

2.4.3 The data collected from the HIS and from the TS with visitors staying in hotels/guesthouses were expanded to represent the overall local population and the total number of visitors staying in hotels/guesthouses. For the HIS data, two stages of expansion were involved, namely demographical expansion followed by trip expansion.

2.4.4 Demographical expansion was controlled expansion of the data conducted at the household and person levels in order to match the total population during the survey period. As TCS 2022 was carried out about one year after the Population Census, the refined 2021 Population Census data obtained from C&SD and the total population as at end-2022 were adopted as controls for data expansion. Household data was stratified by district, housing type and household income group, while stratification for person data was by district, housing type, gender and age group.

2.4.5 Regarding trip expansion, the trip data records of individuals were expanded according to the demographical expansion factors. As there might be under-reporting of trips by the respondents, these expanded results were compared against independent observed data or transport statistics and then adjusted accordingly. In this second stage of expansion, independent transport statistics available from various sources including traffic counts and occupancy data from the Annual Traffic Census, ridership statistics for individual public transport modes, franchised bus and public light bus passenger boarding/alighting data, and station-to-station rail passenger matrices, were adopted as reference for data adjustment.



Independent transport statistics obtained from various sources including the Annual Traffic Census were adopted for trip data expansion.

2.4.6 The expanded results suggested that overall, in TCS 2022, 40% of mechanised trips had been under-reported, slightly higher than the 36% estimated in TCS 2011. As usual, compared to regular trips between home and work or school places, other more casual or irregular trips were more likely to be forgotten or not reported by the respondents.

2.4.7 It should be noted that the above trip under-reporting adjustments could only be made for mechanised trips with relevant statistics available as controls. The same approach could not be applied to cycling trips or trips made with other auxiliary mechanised modes in the absence of valid basis for adjustments. These, however, constituted only a relatively small proportion of the mechanised trips and therefore had no significant impact on the overall results.

2.4.8 For the TS with visitors staying in hotels/guesthouses, the data collected were first weighted according to the estimated number of visitors staying in the sampled hotels/guesthouses during the survey period. The data were then further expanded to represent the territory-wide total according to the estimated total number of visitors in each sampling stratum, deduced from the sampling fraction of hotel/guesthouse rooms in the corresponding stratum.

2.4.9 For the TS with same-day visitors, the data collected were expanded to represent the BCP total according to the figures of total passenger traffic at each of the 6 selected BCPs obtained from the Immigration Department.

2.5 TCS 2022 Database

2.5.1 The adjusted data of the HIS has been developed into a comprehensive travel characteristics database comprising the following key data items of household, personal and trip information:

Table 2.2 Key Data Items in the TCS 2022 Database

Data Type	Key Data Items
Household	• Type of Housing • Residential Location (in Tertiary Planning Unit Street Block) • Monthly Household Income • Availability of Private Vehicles and Parking Details
Person	• Gender and Age • Economic Activity Status • Education Level (for Students) • Industry Engaged (for Employed Person) • Regular/Mobile Resident Status
All mechanised trips made on a weekday	• Locations of Trip Origins/Destinations (in Tertiary Planning Unit Street Block) • Trip Purpose • Trip Starting and Ending Time, and Journey Time • Transport Modes Taken • Trip Legs and Interchange Locations • Walking Time to Access Mechanised Transport and Interchange • Waiting Time and Fare for Taxis • Occupancy of Private Vehicle/Taxi Journeys • Use of Tolled Roads/Tunnels during Private Vehicle/Taxi Journeys

2.5.2 The TCS 2022 database will be adopted as the basis for the re-calibration and updating of the CTS Model and other government departments' transport models and will provide useful reference for transport planning in future territory-wide and sub-regional studies.

3. CHARACTERISTICS OF TRIPS MADE WITHIN THE HKSAR BY HONG KONG RESIDENTS

3.1 Underlying Household and Demographic Characteristics

3.1.1 Household and person information was collected as part of the TCS 2022 HIS mainly for deriving the relationship between travel and demographic characteristics. The following summarises the main demographic data collected in the HIS for better understanding the respondents' characteristics and their relations to the travel data collected.

3.1.2 According to the 2021 Population Census data provided by C&SD and the total population in the territory as at end-2022, there were approximately 2 695 000 domestic households (households) and a total population of 7 334 000 therein (household population[5]). The average household size was 2.7 persons, a drop from the figure of 2.9 in 2011.

3.1.3 A comparison of the household population and its geographical distribution by main region between 2011 and 2022 is provided in **Table 3.1**. In summary, the household population increased by about 7% between 2011 and 2022. Given the continuous development of new towns, the main population growth during the period occurred in the New Territories (NT), where the household population increased by about 10% (or 349 000 person). Meanwhile, household population in Kowloon grew by about 7% (or 149 000 persons); while that on Hong Kong Island decreased by about 4% (or 47 000 persons). The proportion of household population in NT increased from 52% in 2011 to 54% in 2022, leading to an increased demand for long-distance commuting.

Table 3.1 Comparison of Household Population Distribution in 2011 and 2022

Area	TCS 2011		TCS 2022	
	No. ('000)	%	No. ('000)	%
Hong Kong Island	1 231	18	1 184	16
Kowloon	2 063	30	2 212	30
New Territories	3 588	52	3 937	54
Total	**6 882**	**100**	**7 334**	**100**

Note: Household population distributions were based on data collected in TCS 2011 and TCS 2022.

3.1.4 Of the total household population of 7 334 000 persons in 2022, the size of labour force increased by about 6%, while the population of retirees increased by 45% and that of students decreased by 10%, as compared to 2011.

3.1.5 The key demographic characteristics are summarised in **Table A.1** in the **Appendix** by 26 broad districts commonly adopted for transport planning and modelling analysis (see **Figure A.1** in the Appendix for definition of these districts).

3.1.6 The age distribution of household population is one of the key parameters that would have a major bearing on the trip-making characteristics. The territory-wide age distribution as derived from TCS 2011 and TCS 2022 are compared in **Figure 3.1**, which shows a shift of the peak age group from 45-54 in 2011 to over 64 in 2022.

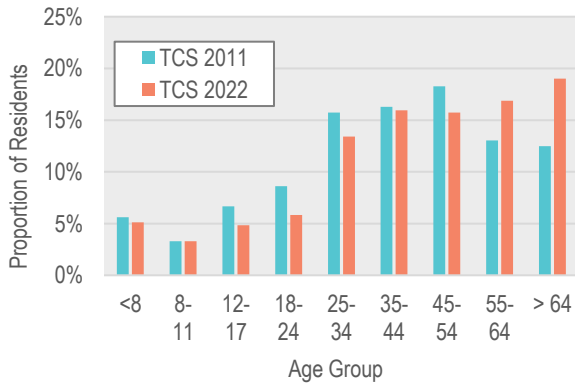


Figure 3.1 Comparison of Age Distribution in 2011 and 2022

[5] This refers to the land-based non-institutional population of the HKSAR living in domestic households and staying in Hong Kong for at least 1 month during the 6 months before or after the time of enumeration. It covers about 98% of the Hong Kong resident population and excludes the population in non-domestic households (collective households residing in ordinary living quarters and mobile households), institutional population, marine population and population in hotels/hostels/holiday camps.

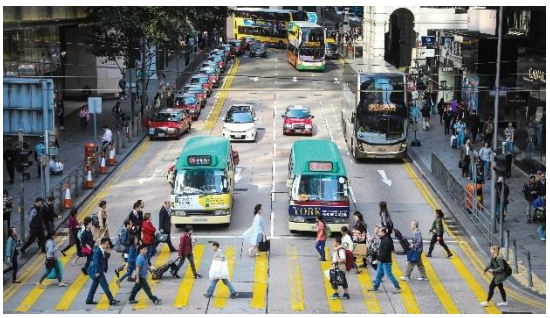
3.1.7 The comparison of household income in TCS 2011 and TCS 2022 is shown in **Table 3.2**. Household incomes generally increased, leading to a higher demand for private vehicles. Meanwhile, different age groups would have different views on travel and commuting demands, raising new concerns in formulating transport policies.

Table 3.2 Comparison of Monthly Household Income Distribution in 2011 and 2022

Item	TCS 2011	TCS 2022
Household Income (HK$/month at current prices)	**% of households**	
Less than $10,000	24%	20%
$10,000 - $19,999	24%	18%
$20,000 - $29,999	18%	15%
$30,000 - $39,999	12%	12%
$40,000 - $49,999	7%	9%
$50,000 or more	16%	27%
Overall	100%	100%

3.2 Average Number of Mechanised Trips Made on a Weekday

3.2.1 The average total number of mechanised trips made by Hong Kong residents on a weekday was estimated to be 12 363 000 [6] after under-reporting adjustments.



On average, 12.363 million mechanised trips were made by Hong Kong residents on a weekday in 2022.

[6] In TCS 2022, as the figures of tourist/visitor trips were extremely low as a result of the temporary service suspension at some boundary control points during the survey period, they were basically excluded from the estimated 12 363 000 mechanised trips.

3.3 Mechanised Trips

Purpose of Trips

3.3.1 Trips are categorised into the following five trip purposes, based on the nature of the place and activity performed at the trip origin/destination:

- Home-Based Work (HBW) – Between home and workplace (usual or others) for work.
- Home-Based School (HBS) – Between home and school for attending lectures/lessons.
- Home-Based Others (HBO) – Between home and places other than those for work or for attending lectures/lessons. For example, trips to/from shopping places, food premises, entertainment/recreational places, trips for social visits, etc.
- Non-Home Based (NHB) – Not starting or ending at home, and not between work places. For example, trips from work place or school to shopping or other social and recreational places.
- Employers' Business (EB) – Between work places, including trips between different offices of the same company; between office and other work-related places for such purposes as meeting, site visit and fieldwork; and between different places to do outdoor work or to meet with clients or perform other duties as required for some occupations.

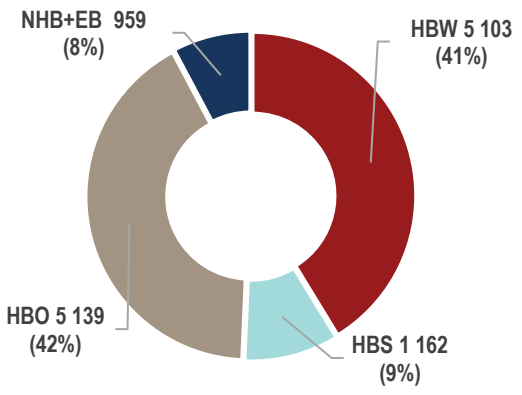


Figure 3.2 Weekday Mechanised Trips (in '000) by Trip Purpose

3.3.2 Among the estimated total of 12 363 000 mechanised trips made on a weekday, HBW and HBO trips accounted for 41% and 42% respectively. Regular trips, including HBW and HBS, formed the largest proportion, with high concentration during peak periods, especially in the morning, imposing significant implication for transport planners. Together, they totalled 6 265 000 trips, accounting for 51% of the weekday mechanised trip total. The mechanised trip productions and attractions by 26 broad districts and by trip purpose are summarised in **Table A.2** in the Appendix.

3.3.3 A comparison of the trip-making characteristics of Hong Kong residents by trip purpose in TCS 2011 and TCS 2022 is shown in **Table 3.3**.

Table 3.3 Comparison of Weekday Mechanised Trips by Trip Purpose in 2011 and 2022

Item	TCS 2011	TCS 2022
Number of Mechanised Trips		
Home-Based Work (HBW)	5 022 000	5 103 000
Home-Based School (HBS)	1 351 000	1 162 000
Home-Based Others (HBO)	4 706 000	5 139 000
Non-Home Based (NHB) + Employers' Business (EB)	1 526 000	959 000
Total	**12 606 000**	**12 363 000**
Mechanised Trip Rates		
HBW Trips per employed person	1.41	1.36
HBS Trips per student	1.10	1.05
HBO Trips per person	0.68	0.70
NHB+EB Trips per person	0.22	0.13
Average Daily Mechanised Trips per person	**1.83**	**1.69**

3.3.4 Numbers of work (HBW) and school (HBS) trips were in line with changes in the working and student populations respectively. In terms of trip rate, figures for HBW and HBS remained relatively stable between 2011 and 2022.

3.3.5 The HBO trip rate per person registered an increase by some 2% between 2011 and 2022. On the other hand, the most notable changes over this period were observed for the NHB and EB trips, with their combined trip rate per person reduced by 40% between 2011 and 2022. This could be due to transformation of economic activities and changes in lifestyles, for example, emergence of work-from-home arrangements, online meeting, home-based entertainment and patronage of food delivery services.

3.3.6 Overall, the total mechanised trip rate on a weekday reduced from 1.83 trips/person in 2011 to 1.69 trips/person in 2022. The average daily public transport[7] passenger journeys also decreased in the same period. The reduction in the mechanised trip rate could be attributed to the continuous upgrading and transformation of development and application of information technology, leading to the gradual replacement of some travel needs by online activities. In addition, the Government's continuous efforts to improve the walking environment and connectivity has encouraged residents to adopt walking more as their mode of transport.

In 2022, Hong Kong residents made an average of 1.69 trips per person on a weekday.

[7] Throughout this report, public transport includes taxi unless otherwise stated.

Trip-making Time[8]

3.3.7 **Figure 3.3** illustrates the profiles of mechanised trips made against different times of a weekday for various trip purposes. The overall peak hours for mechanised trips were found to be 8:00 – 9:00 a.m. and 6:00 – 7:00 p.m., with a large proportion of HBW trips. The two peak hours accounted for about 13% and 14% of the daily trip total respectively. These peak hours remained unchanged as compared with TCS 2011.

3.3.8 Upon further investigation of the trip-making time, it was observed that 42% of the home-to-work trips were made during the morning peak hour (8:00 – 9:00 a.m.) while 40% of the work-to-home trips were made during the evening peak hour (6:00 – 7:00 p.m.), compared to the corresponding figures of 41% and 34% in TCS 2011. While peak spreading for commuters' travel was not evident, the proportion of work-to-home trips in the hours after the evening peak period slightly increased.

3.3.9 The HBS trips showed a different pattern from the HBW trips, with the morning peak hour occurring earlier, namely between 7:00 and 8:00 a.m., and two afternoon peak hours respectively lasting from 1:00 to 2:00 p.m. and from 4:00 to 5:00 p.m. For the home to school direction, 64% of the trips were made during 7:00 – 8:00 a.m. In the opposite direction, 22% and 23% of the school-to-home trips were made during 1:00 – 2:00 p.m. and 4:00 – 5:00 p.m. respectively.

3.3.10 Distribution of the HBO trips was fairly even throughout the day from 7:00 a.m. to 10:00 p.m. As for NHB trips, frequency was relatively high during 5:00 – 7:00 p.m., reflecting the peak period for after-work and after-school activities.

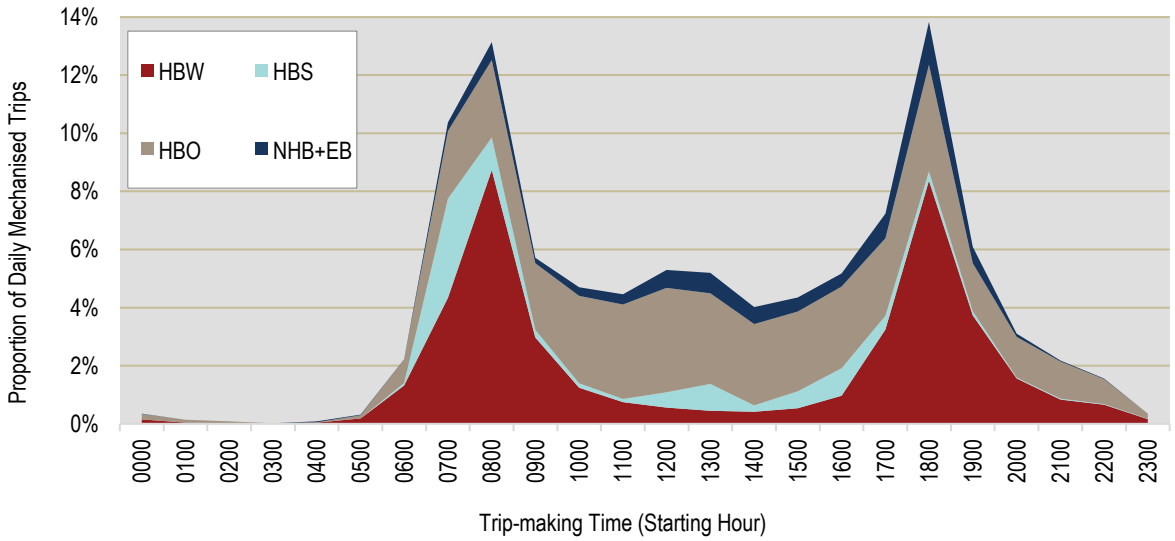


Figure 3.3 Hourly Profiles of Mechanised Trips

[8] Trip-making time is defined as the mid-point between the time of departure at origin and time of arrival at destination, as cited by the respondent.

Journey Time

3.3.11 Survey results revealed that about half (48%) of the mechanised trips were completed within half an hour, 41% took between half an hour and one hour, while the remaining 10% exceeded one hour in duration. The mean journey time was estimated to be 42 minutes, comparable to the 40 minutes in 2011. With the continuously growing population in NT, one would expect the average travel distance and time for commuting to increase accordingly. However, given the Government's commitment to improving the transport network and public transport services, in particular the completion of various railway projects over the past decade or so, including the extension of Island Line to Western District, Kwun Tong Line Extension, South Island Line, Tuen Ma Line and East Rail Line Cross-harbour Extension, accessibility was significantly enhanced in areas along the railway lines, and thus the shortened commuting time. As such, the overall journey time for commuters was generally maintained at the 2011 level.

3.3.12 The journey time distribution categorised by the transport modes of private vehicles/taxis and public transport (excluding taxis) is presented in **Figure 3.4**. The mean journey time for private vehicle/taxi trips was 31 minutes, which was longer than the corresponding figure of 26 minutes in TCS 2011. The mean journey time for public transport (excluding taxi) trips was 45 minutes, comparable to the 43 minutes in 2011.

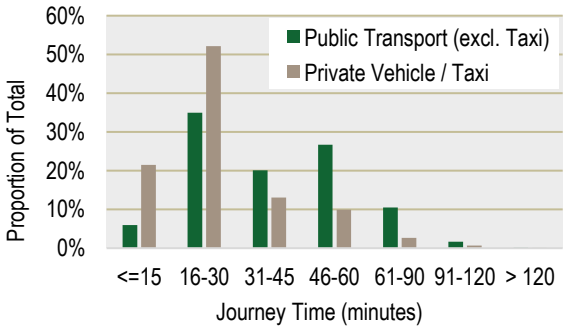


Figure 3.4 Distribution of Journey Time of Mechanised Trips

3.3.13 Subgroup analysis by trip purpose further revealed that HBW trips on average took the longest journey time with a mean of 48 minutes. In second place was HBS trips with a mean journey time of 39 minutes. Trips for other purposes generally had a shorter journey time with a mean of about 36 minutes.

Trip Movements

3.3.14 The daily numbers of trips grouped by main regional movements are depicted in **Table 3.4**.

Table 3.4 Major Trip Movements of Mechanised Trips

Movement	Daily Trips ('000)	% of Total	Growth from 2011
Within Hong Kong Island	1 909	15%	-11%
Between Hong Kong Island and Kowloon (Cross harbour)	1 970	16%	-4%
Within Kowloon	2 393	19%	-1%
Between Kowloon and NT	2 431	20%	1%
Within NT	3 658	30%	2%
Total	**12 363**	**100%**	**-2%**

3.3.15 Between 2011 and 2022, the total numbers of trips made between Kowloon and NT and those within NT showed a growth of 1% (or 16 000 trips) and 2% (or 70 000 trips) respectively. Correspondingly, other regional movements decreased by an average of 5% in the same period, which was consistent with the changes in population distribution. This could be attributed to the continuous development in NT, especially the new towns, coupled with their improved accessibility resulting from the transport system expansion.

3.3.16 From the perspective of transportation, the degree of self-containment refers to the proportion of intra-district movements among all trips to/from a district and serves as an indicator of trip movements. In analysing the degree of self-containment, the boundaries of main areas are defined in the same way as TCS 2011 to facilitate comparison. The TCS 2022 results are presented in **Table 3.5** and compared against the TCS 2011 figures.

Table 3.5 Comparison of the Degree of Self-Containment by Area in 2011 and 2022

Main Areas	2011	2022
Hong Kong Island	51%	49%
Kowloon	41%	41%
Tsuen Wan/Kwai Tsing	29%	28%
Tuen Mun	32%	31%
Yuen Long/Tin Shui Wai	22%	17%
Fanling/Sheung Shui	19%	13%
Tai Po	24%	21%
Sha Tin/Ma On Shan	28%	31%
Tseung Kwan O	15%	19%
North Lantau	10%	12%

3.3.17 Degree of self-containment for Sha Tin/Ma On Shan, North Lantau and Tseung Kwan O stood at a higher level than in 2011, as a result of the increased provision of facilities in these new town developments to support the local population.

3.3.18 In general, HBW trips were likely to involve more cross-district travel with correspondingly lower degree of self-containment as compared with trips for other purposes. HBS trips tended to have considerably higher degree of self-containment as schooling facilities were in most cases provided locally within the district to serve residents.

Transport Modes Taken

3.3.19 Some mechanised trips involved more than one boarding, with the use of more than one transport mode and/or route service. **Table 3.6** illustrates the distribution of boardings by different mechanised transport modes. More detailed breakdown of the number of boardings by transport mode and by trip purpose are given in **Table A.3** of the Appendix.

Table 3.6 Distribution of Boardings by Transport Mode

Mode	All Purposes	HBW	HBS
Rail	35%	40%	32%
MTR	*32%*	*37%*	*26%*
LRT	*3%*	*3%*	*5%*
Franchised Bus	26%	29%	23%
PLB	11%	10%	11%
Private Vehicle	14%	10%	6%
SPB	6%	5%	24%
Taxi	6%	3%	3%
Tram	1%	1%	1%
Ferry	1%	1%	1%
Total	**100%**	**100%**	**100%**

3.3.20 The most popular transport mode was rail, accounting for 35% of the total boardings for all trip purposes. In second place was franchised bus (26%). Compared to 30% (rail) and 27% (franchised bus) respectively in 2011, the 2022 figures indicated a significant increase in mode share of rail as a result of the expansion of the railway network.

3.3.21 Around 40% of boardings for HBW trips were by rail, followed by franchised bus at 29%. For HBS trips, the most popular mode used was also rail (32%), followed by franchised bus (23%) and Special Purpose Bus (SPB)[9] (24%) which included school buses.

Rail patronage increasing considerably over the recent years.

[9] Special Purpose Bus (SPB) includes company bus, school bus, resident bus, tourist bus, shuttle bus, cross-boundary bus, etc., but excludes public light bus (red or green).

3.3.22 Private vehicle boardings accounted for 14% of the overall total boardings. In other words, the remaining 86% pertained to public transport, close to the 88% in 2011. The more direct public transport trips reduced the need for interchanges, resulting in a drop in the proportion of total boardings by public transport modes to some extent. An obvious example in recent years was the East Rail Line – Cross- harbour Extension, which provided more direct cross-harbour public transport services to residents.

Interchanges between Transport Modes

3.3.23 For a mechanised trip involving the use of more than one mode of transport or route service from origin to destination, each mechanised segment of the trip is referred as a "mechanised trip leg"[10]. The survey found that the majority (89%) of mechanised trips made daily involved only one mechanised trip leg. About 11% comprised two mechanised trip legs and less than 1% comprised three or more mechanised trip legs.

3.3.24 The average number of mechanised trip legs per trip (or average number of boardings per trip) is a measure of the actual frequency of interchanges made between modes or different route services of the same mode. These figures as distinguished by trip purpose are presented in **Table 3.7**, with the TCS 2011 figures alongside for comparison.

Table 3.7 Average Number of Boardings per Trip in 2011 and 2022

Trip Purpose	2011	2022
HBW	1.23	1.16
HBS	1.17	1.11
HBO	1.14	1.09
NHB + EB	1.10	1.08
Total	**1.17**	**1.12**

3.3.25 Overall, the average number of boardings per trip was 1.12 in 2022, representing a drop from the value of 1.17 in 2011. With the exclusion of private vehicle and taxi trips, the average number of boardings per public transport trip was 1.15, compared to 1.22 in 2011, indicating that residents could take more direct routes to the destination than before.

3.3.26 Among different trip purposes, HBW trips had the highest average number of 1.16 boardings per trip. This could be attributed to the generally longer distance involved in such trips.

3.3.27 Table 3.8 shows the numbers and proportions of boardings by individual modes that involved transfer/interchanges to other modes or route services. Ferry was found to be the mode having the highest proportion (69%) of boardings involving interchange, followed by LRT (35%) and PLB (35%). The private vehicle and taxi modes, on the other hand, involved the smallest proportion of interchanging trips due to their point-to-point transport nature.

Table 3.8 Proportion of Boardings Involving Interchanges

Mode	Total Boardings ('000)	Boardings Involving Interchanges	
		Number ('000)	Proportion
Rail	4 805	1 228	26%
MTR	*4 375*	*1 077*	*25%*
LRT	*430*	*151*	*35%*
Tram	137	17	13%
Ferry	98	67	69%
PLB	1 575	556	35%
Franchised Bus	3 657	692	19%
Private Vehicle	1 932	38	2%
Taxi	838	37	4%
SPB	780	208	27%

3.3.28 Among the approximately 1 475 000 interchanges made on a weekday, the proportions of different combinations of interchanges varied, as presented in **Table 3.9**. The largest proportion of interchanges were made between MTR and public light bus (PLB) (28%), followed by that between MTR and franchised bus (23%). Interchange between MTR and special purpose bus (SPB) and that between different franchised bus routes accounted for 12% and 7% of the daily total number of interchanges respectively.

[10] A trip leg is a segment of a trip, in which only one mode or route service of transport is involved, including walking. A mechanised trip leg is a trip leg made by means of mechanised transport. It generally involves one boarding and one alighting, except for interchange between MTR lines within the MTR fare zone, where the whole MTR journey is treated as one mechanised trip leg.

Table 3.9 Proportion of Interchanges between Transport Modes

From Mode	To Mode						
	1	2	3	4	5	6	Total
1. MTR	-	5%	14%	11%	6%	3%	**39%**
2. LRT	4%	-	-	-	-	-	**5%**
3. PLB	14%	-	1%	3%	-	-	**19%**
4. Franchised Bus	12%	-	3%	7%	1%	1%	**25%**
5. SPB	6%	-	-	-	-	-	**7%**
6. Others	2%	-	-	1%	-	2%	**6%**
Total	**39%**	**5%**	**19%**	**23%**	**7%**	**7%**	**100%**

Note:
1. "-" denotes percentage less than 0.5% or no interchange record.
2. "Others" include tram, ferry, private vehicle, taxi and other minor modes.
3. Due to rounding, the percentages may not add up to 100%.

Walking time to Access and Interchange between Mechanised Modes

3.3.29 The following summarises the findings on the walking time taken for a trip leg starting at the origin (from trip origin to the location where the first mechanised transport was taken) or ending at the destination (from the location where passengers alighted from the last mechanised transport to trip destination) as well as that taken for interchanging (between different modes or route services, when more than one mechanised trip leg was involved).

3.3.30 The walking time involved in such walking trip legs to access or interchange between mechanised modes of transport is depicted in **Figure 3.5**. In general, walking duration of trip legs starting at the origin was very close to that of trip legs ending at the destination, with about 70% of these walking trip legs taking only 5 minutes or less. The mean walking time was 5 minutes.

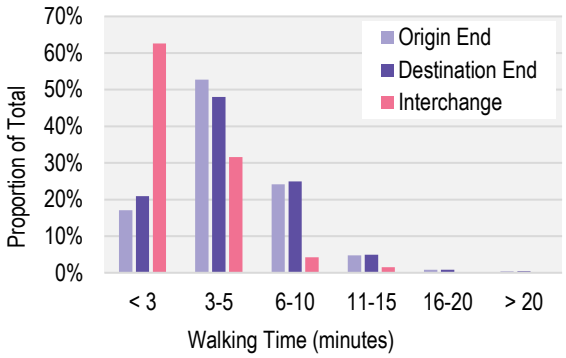


Figure 3.5 Walking Time for Accessing Mechanised Transport Modes

3.3.31 Survey results revealed that the walking trip legs for interchanging between mechanised transport modes had a shorter duration, with over 94% completed within 5 minutes, a higher proportion compared with 2011. The mean walking time for interchanging between mechanised transport services was 3 minutes, unchanged from the 2011 figure.

3.3.32 Among various transport modes, ferry generally involved the longest walking time for access (mean walking time at 8 minutes), followed by MTR (mean walking time at 7 minutes). The shortest walking time involved was for private vehicles and taxis (mean walking time at 3 minutes).

3.3.33 Survey results also showed that interchanges between transport modes were generally convenient, with the average walking time involved well below the range of 12 to 13 minutes, which was the maximum acceptable walking time to access various transport facilities (under outdoor and sheltered condition) as indicated by respondents in AS2 (see Paragraph 5.4.1).

3.4 Walk-Only Trips

3.4.1 Since 2011, the Government has been striving to improve walkability, promoting walking and making travel options more diversified. As a result of the progressive completion of various escalator/elevator systems and covered walkways, the walking environment has been notably improved. In order to have a more comprehensive understanding on the walk-only trip patterns in the territory, relevant data were collected in the HIS main survey during TCS 2022. The data of walk-only trips and mechanised trips with walking trip legs made by respondents within a period of 24 hours were captured in the HIS main survey.

3.4.2 Walk-only trips refer to trips during which respondents travelled from the origin to the destination solely by walking. For the segments of a trip where the trip-maker walked between the origin/destination and other mechanised modes of transport or between mechanised trip legs for interchange, they were considered as walking trip legs (see Paragraph 3.3.29 to 3.3.33) rather than walk-only trips.

Heavy pedestrian movements in Causeway Bay

3.4.3 The walk-only trip records collected from the HIS main survey were expanded based on demographic data only. In the absence of independent observation data for control, no under-reporting adjustments were made. The results presented for the walk-only trips should therefore be used and interpreted with care, recognising that they could be subject to relatively high rate of under-reporting given their nature.

Purpose of Walk-only Trips

3.4.4 It was estimated from the survey results that HBO trips accounted for the largest proportion (54%) of the daily walk-only trips. It was followed by NHB and EB trips combined which accounted for 17% of the daily total, slightly higher than their contribution to mechanised trips. These trips constituted the majority of the walk-only trip total as they were usually short-distance trips, e.g. those for shopping or dining out etc., which were likely to be within walking distance.

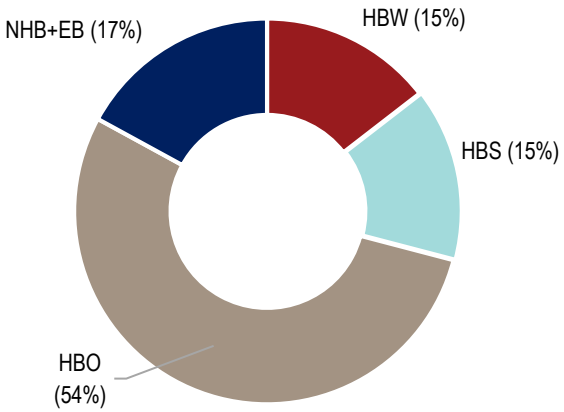


Figure 3.6 Proportions of Walk-Only Trips by Trip Purpose

3.4.5 In contrast, HBW and HBS trips constituted a relatively small proportions of the total walk-only trips (each accounted for 15%).

Trip making Time[11] of Walk-only Trip

3.4.6 The survey collected data on trip-making time and origin/destination locations for all walk-only trips. **Figure 3.7** shows the distribution of trip-making time for walk-only trips by trip purpose.

3.4.7 Unlike mechanised trips, the peak hours for walk-only trips occurred earlier at 7:00 – 8:00 a.m. (11%) and 1:00 – 2:00 p.m. (13%) respectively. A relatively large proportion of walk-only trips (46%) were HBS trips during the morning peak hour.

3.4.8 For the afternoon peak hour, about half of walk-only trips (48%) were NHB and EB trips. This could be due to the heavy pedestrian activities around lunchtime when the working population and students went out for lunch or other activities.

3.4.9 Analysed by trip purpose, peak hours for HBW walk-only trips were the same as that for mechanised trips, i.e. at 8:00 – 9:00 a.m. and 6:00 – 7:00 p.m. The HBS walk-only trips showed two distinct peak hours at 7:00 – 8:00 a.m. and 1:00 – 2:00 p.m., which coincided with the overall peak hours of walk-only trips.

3.4.10 HBO walk-only trips generally spread out evenly throughout the day, with higher concentration observed between 7:00 a.m. and 4:00 p.m.

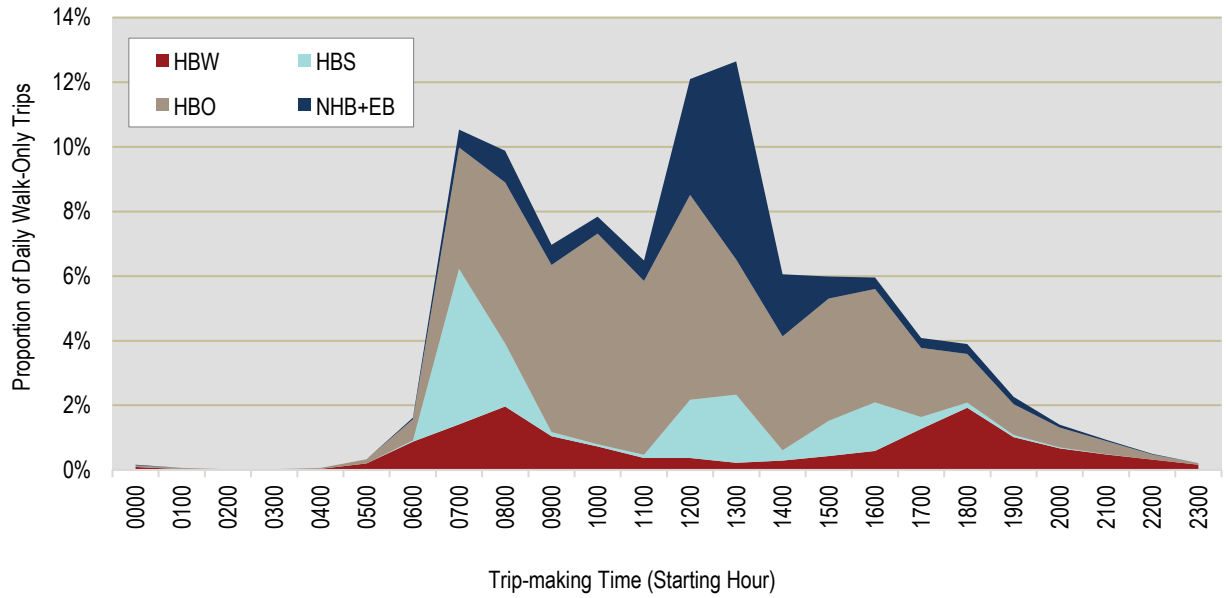


Figure 3.7 Distribution of Trip-making Time for Walk-Only Trips

[11] Trip-making time is defined as the mid-point between the time of departure at origin and time of arrival at destination, as cited by the respondent.

Walk-only Trip Journey Time

3.4.11 About 64% of the walk-only trips took 10 minutes or less, while the remaining 36% took more than 10 minutes. Journey time distribution of walk-only trips is illustrated in **Figure 3.8**. The mean journey time for all walk-only trips was about 12 minutes. About 15% of the trips took more than 15 minutes, showing a significant increase as compared to the 8% in 2011. Such data indicate an increased willingness among the public to adopt walking as the mode of transport, probably with some short-to-medium distance trips already switched from mechanised transport modes to walking.

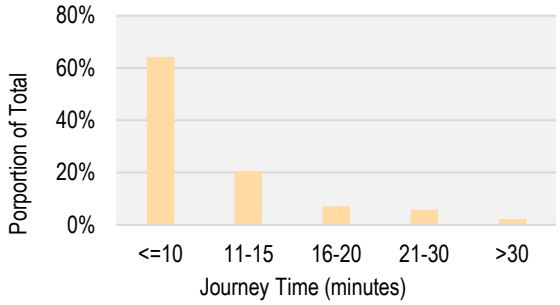


Figure 3.8 Journey Time Distribution of Walk-Only Trips

3.5 Cycling Trips

3.5.1 As with mechanised trips, data on cycling trips made by respondents on a reference weekday were collected in the HIS. These included cycling-only[12] trips and cycling trip legs connecting with other mechanised modes of transport.

3.5.2 It should be noted that in the absence of independent statistics for control, the survey data on cycling trips were expanded assuming the same extent of under-reporting as that for mechanised trips. Such an approach was likely to under-estimate the extent of under-reporting, given the mostly leisurely nature of the cycling trips. Furthermore, the number of daily cycling trips could be subject to significant variation due to such factors as weather conditions. The results presented herein on cycling trips should therefore be used and interpreted with care.

3.5.3 **Table 3.10** shows the proportions of cycling trips by trip purpose and categorised by cycling-only trips and cycling trip legs. 88% of the cycling trips were cycling-only while only 12% were cycling trip legs connecting with other mechanised transport modes. Overall, HBO trips accounted for the largest proportion (56%) of the daily cycling trips, followed by HBW trips (35%).

Table 3.10 Proportions of Cycling Trips by Trip Purpose and categorised by Cycling-only Trips and Cycling Trip Legs Connecting with Other Modes

Type	HBW	HBS	HBO	NHB + EB	Total
Cycling-Only Trips	27%	4%	52%	5%	88%
Cycling Trip Legs	8%	1%	4%	0%	12%
Total	**35%**	**4%**	**56%**	**5%**	**100%**

3.5.4 The journey time distribution of cycling-only trips is shown in **Figure 3.9**. Journey time information for cycling trip legs was not available as the survey did not require respondents to provide breakdown of journey time into individual trip legs. The majority (86%) of the cycling-only trips took 30 minutes or less from origin to destination. The average cycling time was 24 minutes, comparable to the 25 minutes in 2011.

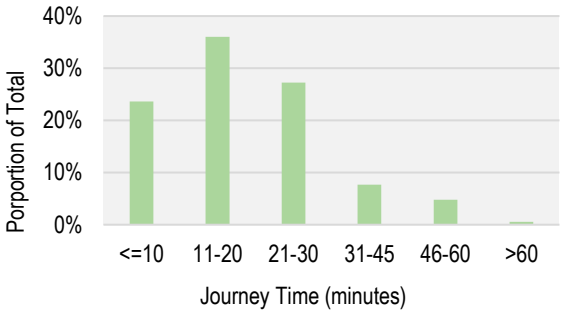


Figure 3.9 Journey Time Distribution of Cycling-Only Trips

3.5.5 Cycling trips were usually short. 70% of the cycling-only trips and 73% of the cycling trip legs connecting with other mechanised modes started and ended within the same district. The highest concentrations of cycling trips were found in new towns like Fanling/Sheung Shui, Tai Po, Tuen Mun, Tseng Kwan O, Southwest NT (other areas), Sha Tin and Yuen Long, given the general availability of more comprehensive cycling facilities there.

[12] A cycling-only trip is one where the respondent travelled from the origin to the destination only by cycling, without involving any other mechanised transport mode.

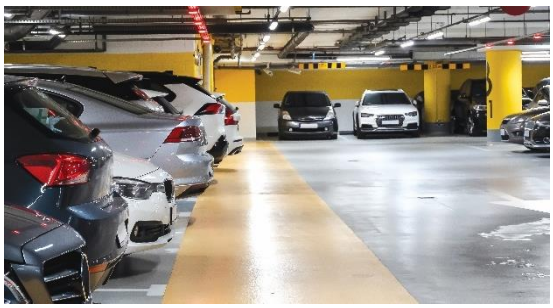
4. AVAILABILITY AND USAGE OF PRIVATE VEHICLES

4.1 Availability of Private Vehicles

4.1.1 Availability of private vehicles [13] (PV availability[14]) for households was one of the key data items collected in the HIS, as it is a major factor affecting the travel characteristics of the household members. The survey recorded the number of private vehicles available for use by the sampled households.

4.1.2 In 2022, 17.2% (or 463 000) of the households in the territory had private vehicles available for use (PV-available households). Among these PV-available households, the majority (85%) had 1 private vehicle and the remaining 15% had 2 or more private vehicles.

4.1.3 Comparison of the results of TCS 2022 against those of TCS 2011 in **Table 4.1** revealed an increase in the number of PV-available households in the territory by 30% (or 106 000 households). Meanwhile, the total number of households increased by about 14% (from 2 363 000 to 2 695 000) over the same period. The proportion of PV-available households increased from 15.1% in 2011 to 17.2% in 2022. This may be due to the increase in average household income, which enabled more households to consider private vehicle as a transport mode option. Among the PV-available households, the proportion of those with more than 1 private vehicle also increased as compared with 2011.



17.2% of households in Hong Kong had private vehicles available for use.

Table 4.1 Comparison of PV Availability in 2011 and 2022

Area	Number of PV-Available Households		Proportion of PV-Available Households in the Total Number of Households	
	2011	2022	2011	2022
Hong Kong Island	79 000	89 000	18.7%	20.7%
Kowloon	82 000	104 000	11.3%	12.4%
New Territories	195 000	269 000	16.1%	18.9%
Total	**356 000**	**463 000**	**15.1%**	**17.2%**
With 1 private vehicle	**315 000**	**396 000**	**13.3%**	**14.7%**
With >1 private vehicles	**42 000**	**67 000**	**1.8%**	**2.5%**

4.1.4 Comparison of PV availability by the three main areas shows that the percentage of PV availability increased across the territory between 2011 and 2022, with the proportion growth in NT being the greatest. PV availability in Kowloon remained the lowest among the 3 areas while that on Hong Kong Island was the highest, probably due to the higher household income there.

4.1.5 Breaking down the figures by vehicle type, the survey found that 16.3% (or 438 000) of the households had private cars available for use, among which the mean availability was 1.18 cars per household. It could therefore be inferred that a total of 515 000 private cars were available for use by households in Hong Kong. This inferred figure was seen to be in close alignment with the number of private cars licensed (about 570 000) as at the fourth quarter of 2022, given that some of the private cars were licensed under company names for business purpose.

[13] Private vehicles include private cars and motorcycles.

[14] PV availability refers to the number of private vehicles available for the use by one or more members of the household most of the time. These vehicles are not necessarily owned by the household or its member(s) and can be privately owned or company- owned. However, company-owned vehicles solely for company use and not for work commute and/or personal purpose by household members are not included.

4.1.6 As for motorcycles, 1.3% (or 35 000) of households had motorcycles available for use, with an average availability of 1.15 motorcycles per household. A total of 40 000 motorcycles were estimated to be available for household use territory-wide. This was lower than the number of motorcycles licensed (about 75 000) but was deemed reasonable, given that a good proportion of the motorcycles were primarily used for commercial purpose and not available for household use.

4.1.7 A summary of PV availability by vehicle type across the 26 broad districts is provided in **Table A.4** of the Appendix. It indicates that private vehicle availability was highest in Southeast NT (Other Area) (52%), Northeast NT (Other Area) (40%), Northwest NT (Other Area) (39%), Wan Chai (including Happy Valley, Jardine's Lookout and Stubbs Road areas) (28%), Ma On Shan (22%), Central and Western District (21%) and Southern District (21%), which could be attributed to the remoteness or the higher household income in these districts.

4.2 Factors Affecting Private Vehicle Availability and Decision to Purchase Private Vehicles

4.2.1 It can be deduced from the above paragraph and the analysis in **Figure 4.1** and **Table 4.2** that PV availability has a strong relationship with the following household characteristics:

- Remoteness of residence from urban areas and the availability of convenient public transport modes (see **Table A.4** of the Appendix)
- Household income
- Housing type
- Household size

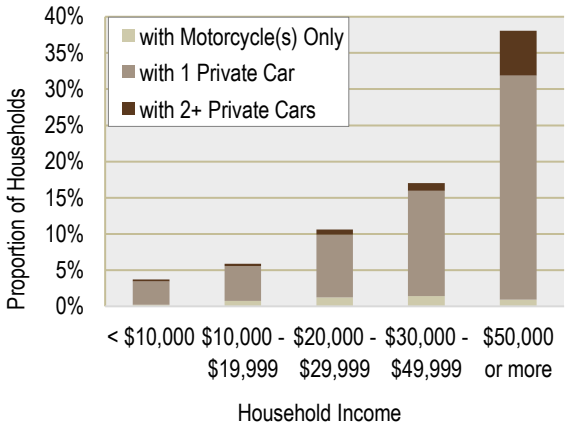


Figure 4.1 PV Availability versus Household Income

Table 4.2 PV Availability by Household Characteristics

Household Characteristics	Private Car	Motor-cycle	Private Vehicle (1)
Housing Type			
Public Rental Housing	4.5%	1.2%	5.5%
Subsidised Sale Housing	10.8%	1.7%	12.1%
Private Housing	24.4%	1.3%	25.1%
Household Size (Persons)			
One	6.4%	0.7%	7.0%
Two	13.1%	1.2%	13.9%
Three	17.1%	1.6%	18.2%
Four	23.9%	1.6%	25.0%
Five or more	33.5%	1.7%	34.7%
Monthly Household Income			
Less than $10,000	3.5%	0.3%	3.7%
$10,000 - $19,999	5.1%	0.8%	5.9%
$20,000 - $29,999	9.4%	1.5%	10.6%
$30,000 - $49,999	15.6%	1.8%	17.0%
$50,000 or more	37.1%	1.9%	38.1%
Overall	**16.3%**	**1.3%**	**17.2%**

Note: (1) Private vehicles include private cars and motorcycles.

4.3 Private Vehicle Usage

4.3.1 The AS1 looked into the main purposes of private vehicle usage by PV-available households. The results by vehicle type are set out in **Figure 4.2**, which indicate that the usage of private vehicles was primarily for recreational and social purposes, and for travelling to and from work.

4.3.2 Despite the increase in proprotion of PV-availabe households, there was a decrease in the use of private cars to meet daily travel needs due to the expansion of the transport network and the increase in various alternative transport options. Between 2011 and 2022, there was a 10% increase in the use of private cars for "recreational and social purposes" (from 32% to 42%), while the use for "commuting to and from work" decreased by 6% (from 31% to 25%). The proportion of usage for other purposes remained relativly stable.

4.3.3 Over 82% of motorcycle were mainly used for "recreational and social purposes" and "commuting to and from work". The main purpose of motorcycle usage in 2011 was "commuting to and from work" (54%). It shifted to "recreational and social purposes" (49%) in 2022.

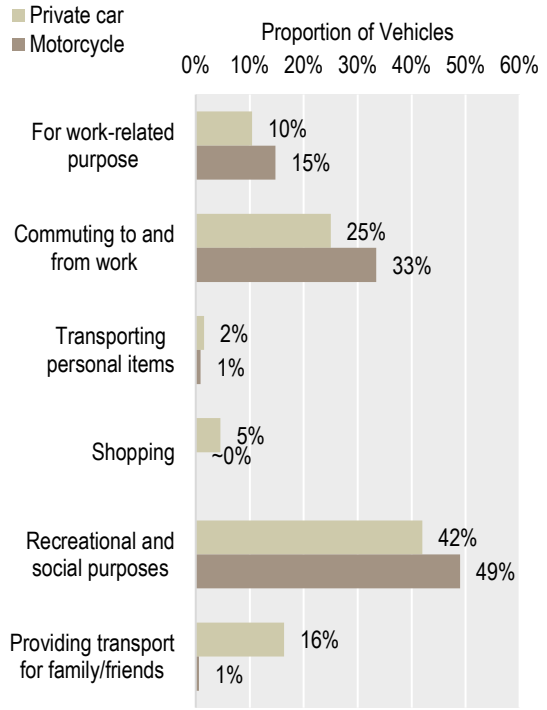


Figure 4.2 Main Purposes for Private Vehicle Usage

4.4 Costs for Operating Private Vehicles

4.4.1 Detailed information was obtained from PV-available households about the average monthly expenses incurred in operating their vehicles. **Table 4.3** summarises the average monthly expenses, categorised by expense item and vehicle type.

Table 4.3 Average Monthly Expenses Incurred in Operating Private Vehicles

Average Monthly Expenses	Private Car	Motorcycle
Parking Fee	$2,700	$700
Fuel Cost	$2,200	$830
Repair/Maintenance Cost	$560	$280
Toll Expenses	$440	$150
Insurance Premium	$320	$130
License Fee	$570	$110
Total Monthly Expenses (2022)	**$6,780**	**$2,180**
Total Monthly Expenses (2011)	**$5,370**	**$1,570**

Note: Monetary values above are expressed in nominal terms (i.e. money-of-the-day). Between 2011 and 2022, the Composite Consumer Price Index increased by 33%.

4.4.2 In 2022, the average total monthly cost incurred by a private car was about $6,780, almost 3 times the $2,180 for a motorcycle. There was an increase by 26% in the private car operating cost between 2011 and 2022, and a 39% increase in the case of motorcycles. Taking into account inflation rate and economic development, such rates of increase were reasonable.

4.4.3 Among the expense items for private cars, parking fee constituted the largest portion (40%) of the total expenses, followed by fuel cost (32%). As for motorcycles, fuel cost constituted the largest portion (38%) of the total expenses, followed by parking fee (32%). In spite of the small proportion of electric vehicle (EV) samples captured in this survey, responses from EV users indicated that their fuel expenses were significantly lower than those for other vehicles.

4.4.4 Compared with the survey results in 2011, parking fee saw the most notable increase, following a trend similar to that of the rental index for the Hong Kong property market. The relatively small increase in fuel and insurance expenses might be attributed to the increasing popularity of EVs and improvement of road safety respectively. In addition, as the tunnel toll levels remained largely stable between 2011 and 2022, the average toll expenses of motorists were basically unchanged.

4.4.5 The survey found that the majority (over 85%) of the vehicles available for household use were not entitled to any company subsidy on the related expenses. Overall, company subsidy covered about 6% of the average total expenses for private cars, and even less (about 2%) for motorcycles.

4.5 Electric Vehicle (EV) Usage

4.5.1 7% (or around 32 000) of the PV-available households had EVs. Nearly half (47%) of the EV-available households stated that the main reason for using EVs was to be environmentally friendly (47%). Other major reasons included lower fuel and licencing costs (18%) and households' aspiration to try new technology (15%). Detailed results are presented in **Figure 4.3**.

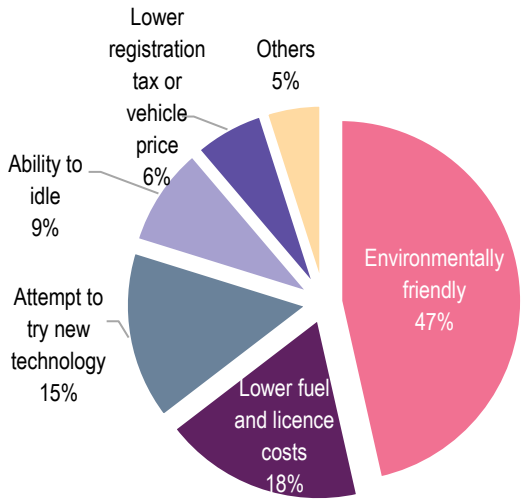


Figure 4.3 Main Reasons for Electric Vehicle Usage

4.5.2 Slightly more than half (51%) of EV-available households charged their vehicles at facilities provided in public car parks. The other half (49%) used the facilities provided in residential car parks, with 39% in car parks of their private residential buildings or housing estates and 10% at self-installed facilities at their village houses. Relevant survey results are illustrated in **Figure 4.4**.

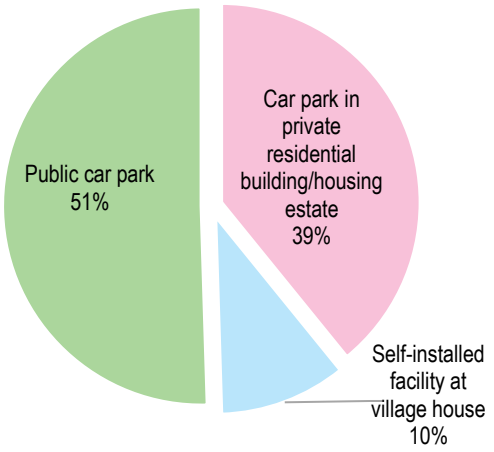


Figure 4.4 Charging Locations for Electric Vehicles

4.5.3 The distribution of average charging time (i.e. average time spent at a charging facility each time, not necessarily the time required for a full charge) is depicted in **Figure 4.5**. About half of the respondents charged their EVs for less than 2 hours each time.

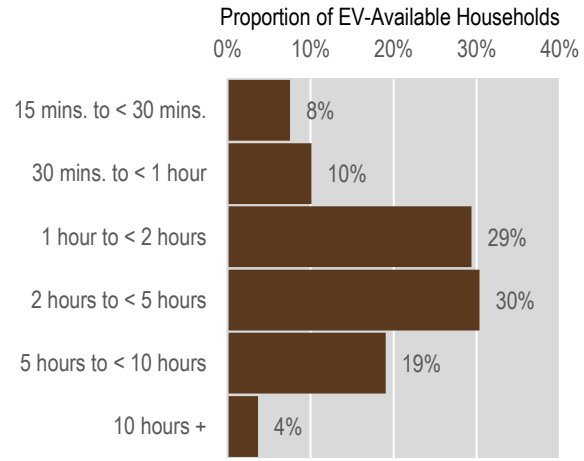


Figure 4.5 Distribution of Electric Vehicles Charging Time

4.5.4 More than half (54%) of EV-available households expressed that they would only be assured to drive when their EVs were sufficiently charged to sustain driving for 100 kilometres or more.

5. MAJOR VIEWS AND OPINIONS RELATING TO TRAVELLING

5.1 Factors Affecting the Use of Environmentally-friendly Vehicles

5.1.1 2% of the households had intention to buy private cars or motorcycles in the next 12 months after the interview. Among the sampled households who intended to purchase private cars, 44% would choose petrol- or diesel-fuelled vehicles, while 56% would go for environmentally-friendly vehicles, including 46% for electric vehicles and 10% for hybrid vehicles. On the other hand, all (100%) of the sampled households who intended to purchase motorcycles would opt for petrol-fuelled ones.

5.1.2 As illustrated in **Figure 5.1**, the major reasons cited for not buying environmentally-friendly vehicles were "inadequate charging stations/facilities" (28%) and "lack of experience/confidence in environmentally-friendly vehicles" (22%).

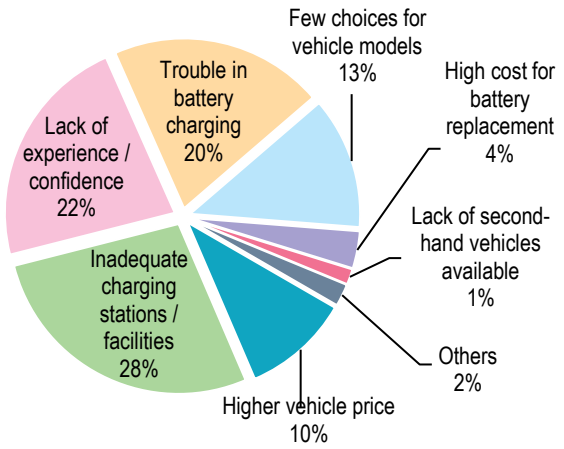


Figure 5.1 Main Reasons for Not Buying Environmentally-friendly Vehicles[15]

5.1.3 Of the PV-available households intending to purchase electric private cars within 12 months, 80% would apply for the "One-for-One Replacement" Scheme (**Figure 5.2**).

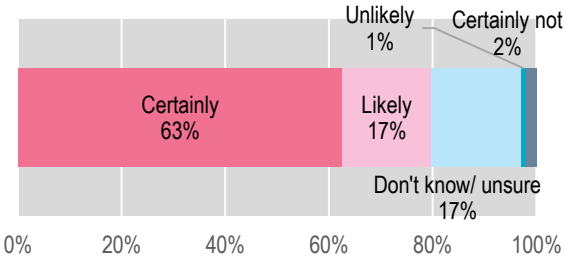


Figure 5.2 Interest in Participation in the "One-for-One Replacement" Scheme for Electric Car Purchases

5.2 Major Factors Affecting the Choice of Public Transport Mode

5.2.1 As indicated in **Figure 5.3**, the major factors considered by respondents aged 15 or above in choosing public transport modes were travel time (29%), convenience of stops and pick-up/drop-off points (28%), and travel distance (20%). These top 3 factors reflect the importance that respondents attached to the efficiency and convenience of public transport service. Relatively small proportions of respondents cited the need for interchanging, fare, or service punctuality as their major factors for consideration.

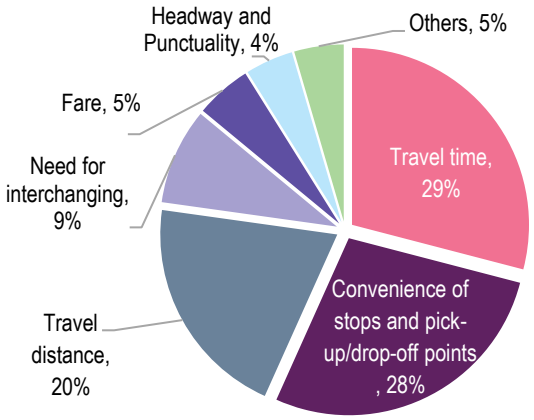


Figure 5.3 Factors Affecting the Choice of Public Transport Mode

[15] Environmentally-friendly vehicles include hybrid (petrol/diesel and electric) and electric vehicles.

5.2.2 The above results were similar to those in TCS 2011, where the most cited factors in descending order were "walking distance to pick-up/drop-off points" (26%), "travel time" (26%), and "travel distance" (16%). However, "fares" became a less significant factor than it was in 2011. 15% of the respondents cited "fares" as the major factor affecting their public transport mode choice in 2011, while only 5% of the respondents held the same view in 2022.

5.2.3 Information was also obtained in the survey on how long respondents were prepared to wait for various public transport services. The results are presented in **Table 5.1**.

Table 5.1 Stated Maximum Acceptable Waiting Time for Public Transport Services

Public Transport Services	Waiting Time (minutes)	
	2011	2022
Taxi	6	9
Public Light Bus	10	11
Franchised Bus	12	12
Rail (MTR/LRT) and Tram	6	8
Ferry	16	16

5.2.4 The time that respondents were prepared to wait for different types of public transport services ranged from 6 to 16 minutes and from 8 to 16 minutes in 2011 and 2022 respectively. In 2022, respondents were willing to wait slightly longer for public transport services than they were in 2011. This could be related to improvements in waiting facilities, better interchanging facilities and arrangements, and adequate transport service information.

5.2.5 In 2022, for 5 modes of public transport services, the average maximum acceptable waiting time as perceived by respondents in ascending order were: rail (MTR / LRT) and tram, taxi, PLB, franchised bus and ferry. In other words, passengers were generally prepared to wait the longest for ferry services and the shortest for taxi and rail/tram services.

5.3 Impact of Changes in Journey Time have on Peak Period Travel Patterns

5.3.1 To understand the effects of journey time on residents' travel behaviour, respondents aged 15 or above were asked how they might change their travel patterns with an assumed increase of 15, 30 and 45 minutes respectively on top of the existing journey time during the weekday peak periods (7:00 – 10:00 a.m. and 5:00 – 8:00 p.m.). The results are summarised in **Table 5.2**.

5.3.2 Results showed that, if the journey time increased by 15 minutes over the usual duration, only around 62% of the respondents would stick to their trip plans, while around 24% would switch to other transport modes. When the extra journey time increased from 15 to 45 minutes, the proportion of respondents who would go ahead with their original trip plans would decrease significantly to 19%, while the proportion of respondents who would switch to other transport modes would jump up to 59%.

5.3.3 However, only around 15% of respondents would avoid making their trips during peak periods if the journey time increased by 45 minutes, reflecting the solid demand for travelling during peak periods.

Table 5.2 Impact of Assumed Increases in Journey Time have on the Choice of Transport Mode during Peak Periods

Possible changes	Assumed Increase in Journey Time		
	15 min.	30 min.	45 min.
Make changes to trips	38%	75%	81%
Switch to other transport modes	*24%*	*56%*	*59%*
Avoid starting trip during peak hours	*12%*	*15%*	*15%*
Change trip origin / destination	*1%*	*3%*	*4%*
Cancel the trip	*~0%*	*1%*	*3%*
No change would be made	62%	25%	19%
Total	**100%**	**100%**	**100%**

5.4 Opinions about Walking and Use of Travellators

5.4.1 As shown in **Figure 5.4**, the overall average of maximum acceptable walking time to access public transport facilities (under outdoor and sheltered condition) as perceived by respondents aged 15 or above ranged from 12 to 13 minutes. People were prepared to walk longer to ferry piers than to rail stations or tram, bus or PLB stops.

5.4.2 Respondents were also asked about their maximum acceptable walking time to places other than public transport facilities. The survey revealed that the maximum acceptable walking time to other destinations via outdoor covered walkways was 13 minutes, comparable to that for accessing public transport facilities.

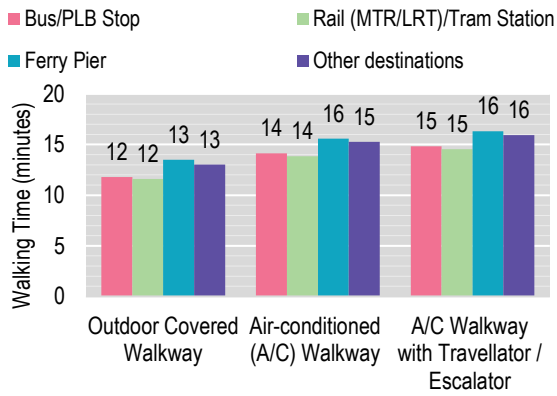


Figure 5.4 Maximum Acceptable Walking Time to Access Various Public Transport Facilities

5.4.3 Comparison of survey results across different prescribed walking conditions showed that respondents would generally be prepared to walk longer to access various public transport facilities or other destinations under better conditions. Relative to walking via outdoor covered walkways, respondents would be willing to walk about 2 minutes longer in air-conditioned areas and an additional minute if travellators/escalators were provided.

5.4.4 Compared to the results of TCS 2011, the maximum walking time that respondents could accept in outdoor covered walkways and air-conditioned walkways increased by 1 to 2 minutes in 2022. The maximum acceptable walking time of respondents generally increased as compared to the previous survey, reflecting that respondents were more willing to consider walking as a transport mode.

5.5 Availability and Usage of Bicycles

5.5.1 The survey estimated that 5.1% (or 139 000) of households had bicycles available for use[16]. The proportions of households with bicycles available, broken down by broad district, are set out in **Table A.5** in the Appendix. As compared with TCS 2011 figures, the decrease in bicycle-available households might be partly due to the introduction of bike-sharing services. The proportion of households with bicycles available was larger in other areas outside the New Towns in NT, and in Fanling/Sheung Shui and Tai Po. This was likely related to the better provision of cycling facilities e.g. cycle tracks and bicycle parking spaces in these districts.

5.5.2 Of all bicycles available for use by households, the majority (97%) were parked near home, with 71% parked at home, 14% at designated bicycle parking spaces within housing court/estate and 8% at the corridor/lobby/rooftop/storage room of the building of residence (see **Table 5.3**).

Designated bicycle parking spaces within housing estate

[16] The results might not be appropriate to be compared directly with those of the previous survey, given the higher rate of under-reporting comparing to 2011.

Table 5.3 Parking Arrangements of Bicycles

Parking Location	Proportion of Bicycles
Near home	97%
At home	*71%*
Other places within the building of residence (e.g. corridor/lobby/rooftop/storage room)	*8%*
Designated bicycle parking spaces within housing court/estate	*14%*
Non-designated bicycle parking spaces within housing court/estate	*2%*
Other bicycle parking spaces near home	*2%*
Not near home	3%
Total	**100%**

5.5.3 The survey results revealed that 65% of Hong Kong residents aged 15 or above knew how to cycle. Among the households with bicycles available for use, 95% knew how to ride a bicycle.

5.5.4 Of the surveyed Hong Kong residents aged 15 or above who knew how to ride a bicycle and had bicycles available for use, 38% had used bicycles in public places on weekdays and 49% on weekends or public holidays within the 3 months preceding the day of interview. These respondents' usage pattern by using their own bicycles are summarised in **Table 5.4**.

Table 5.4 Respondent's Usage Pattern (by Using their own Bicycles) within the 3 months preceding the day of interview

Frequency of Using Bicycles	Proportion of Persons	
	For Business, Commuting, or School Trips	For Other Purposes
On Weekdays		
5 days a week	11%	3%
3-4 days a week	3%	11%
1-2 days a week	1%	36%
Less than once a week	5%	31%
Total	**18%**	**82%**
On Weekends/Public Holidays		
2 days a week	4%	5%
Once a week	2%	42%
Less than once a week	6%	41%
Total	**13%**	**87%**

Note: Due to rounding, the percentages may not add up to the total.

5.5.5 Among the surveyed Hong Kong residents aged 15 or above who knew how to ride a bicycle (regardless of whether they were bicycle-available households or not), about 1% had rented a bicycle for recreation/leisure purpose on weekdays, and 2% on weekends or public holidays, within the 3 months preceding the day of interview. The respondents' usage pattern by renting bicycles are summarised in **Table 5.5**.

Table 5.5 Respondent's Usage Pattern (by Renting Bicycles) within the 3 months preceding the day of interview

Frequency of Renting Bicycles	Proportion of Persons
On Weekdays	
Once or more a week	10%
Once every 1 to 2 weeks	9%
Once every 2 weeks to 1 month	18%
Once every 1 to 3 months	64%
Total	**100%**
On Weekends/Public Holidays	
Once or more a week	8%
Once every 1 to 2 weeks	3%
Once every 2 weeks to 1 month	13%
Once every 1 to 3 months	76%
Total	**100%**

Target respondents: Hong Kong residents aged 15 or above who knew how to ride a bicycle (excluding domestic helpers).

5.5.6 Among all the respondents who had used bicycles, either using household-owned bicycles or rented bicycles, within the 3 months preceding the day of interview 83% indicated that they usually cycled on cycle tracks, 10% usually cycled on carriageways, and the remaining 7% expressed that they did not usually cycle on any road facilities. Comparison of survey results across different districts of residence revealed that a larger proportion (29%) of respondents cycling on carriageways in areas outside the New Towns in NT.

5.6 Opinions about Possible Law and Enforcement Measures on Cycling

5.6.1 As regards law and enforcement relating to cycling, 77% of the respondents aged 15 or above (excluding domestic helpers) were aware that cyclists are to abide by the Road Users' Code. Such awareness was higher among those with bicycles available in their households and those who had cycling experience.

5.6.2 In the survey, respondents were asked whether they supported the following potential measures for enhancing cycling safety:

- Registration of bicycles for use on carriageways or cycle tracks,
- Persons aged 11 or above to apply for "cycling licence" in order to cycle on carriageways or cycle tracks;
- Compulsory wearing of safety helmets when cycling on carriageways or cycle tracks; and
- Taking-out of third-party insurance for cycling in public places.

5.6.3 Survey results are shown in **Figure 5.5**. In general, the most supported measure among the respondents was compulsory wearing of safety helmets (77%), followed by registration of bicycles (35%), compulsory taking out of third-party insurance (30%) and application for "cycling licence" (25%).

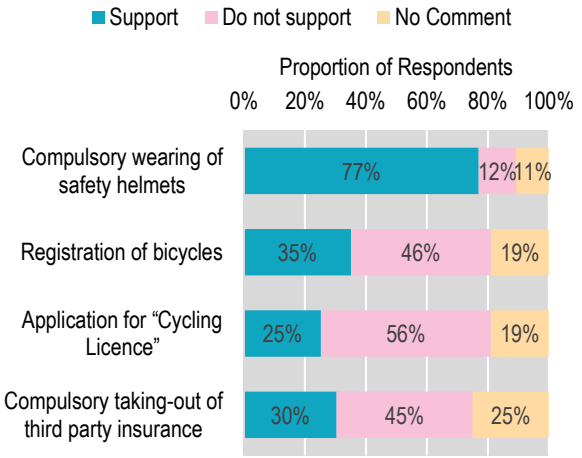


Figure 5.5 Support Rates for Possible Law & Enforcement Measures on Cycling

5.6.4 Support rates for the above possible measures on cycling varied between respondents who did and did not know how to ride a bicycle as shown in **Table 5.6**. Those who knew how to ride a bicycle were less supportive of the measures than those who did not. Nevertheless, their relative proportions of support for various measures were generally comparable.

Table 5.6 Support Rates towards Possible Law & Enforcement Measures on Cycling by Whether Respondents Knew How to Ride a Bicycle

Measure	Support Rate	
	Those Who Knew How to Ride a Bicycle	Those Who Did Not Know How to Ride a Bicycle
Compulsory wearing of safety helmets when cycling on carriageways or cycle tracks	77%	78%
Registration of bicycles	33%	39%
Application for "Cycling Licence" for cyclists aged 11+	22%	31%
Compulsory taking-out of third-party insurance for cycling in public places	29%	33%

5.6.5 Of the respondents who knew how to ride a bicycle, 67% thought that a mandatory requirement for cyclists to wear safety helmets would have no effect on their cycling enthusiasm and frequency, 31% expressed that they would cycle less frequently as a result, while the remaining 2% stated that they would, on the contrary, cycle more frequently.

5.7 Opinions on the Use of Electric Mobility Devices

5.7.1 The use of electric mobility devices (EMDs) on roads was still prohibited at the time of the survey. Regarding the support for use of EMDs legally on carriageways, footpaths or cycle tracks, 56% of respondents had no objection to allowing such use on cycle tracks at least. Meanwhile, respondents were less supportive of legalising the use of EMDs on carriageways (14%) and footpaths (13%).

5.7.2 The survey found that the majority (80%) of respondents agreed that safety was the most important factor for consideration if EMDs were allowed to be used on carriageways, footpaths or cycle tracks. Respondents also mentioned other factors, including "available space on roads" (6%), "compatibility among pedestrians, bicycles, and EMDs (e.g. speed and size)" (5%), and "monitoring of users' behaviour" (4%).

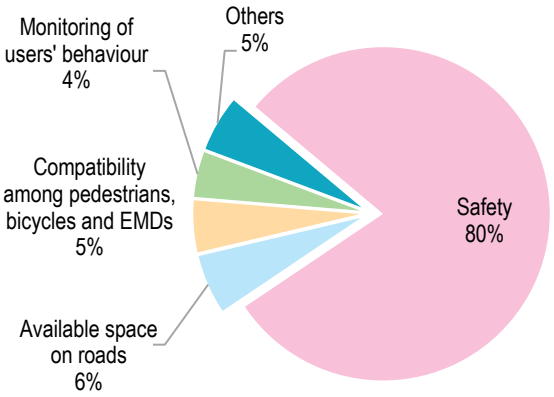


Figure 5.6 Factors for Consideration in the Legalisation of EMDs

5.7.3 When the respondents who had bicycles available for household use were asked whether they thought EMDs would replace bicycles, 53% answered yes, 39% said no, and 9% were uncertain.

5.7.4 Respondents cited that the most essential facilities for using EMDs in descending order of importance were adequate parking space (36%), adequate charging locations (23%), flat roads (17%), and dedicated tracks wider than normal cycle tracks (16%).

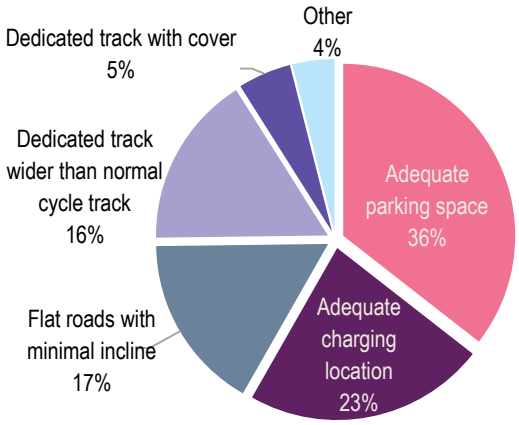


Figure 5.7 Most Essential Facilities Required for Using EMDs

5.7.5 Nevertheless, only 14% of respondents stated that if the use of EMDs was permitted and regulated in future, they would certainly or likely use such devices.

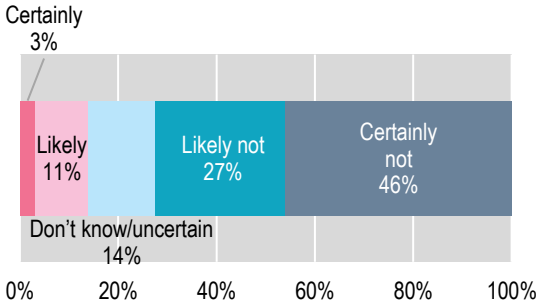


Figure 5.8 Likelihood of Using EMDs upon Legalisation

5.7.6 81% of respondents considered that legislation was necessary to ensure the safety of EMD users and pedestrians while 6% thought otherwise.

5.8 Opinions about Dissemination of Transport Information

5.8.1 The survey collected opinions of respondents aged 15 or above on the adequacy of transport information currently provided by operators of public transport services, including MTR, franchised bus, PLB, LRT, tram/peak tram and ferry. The findings are summarised in **Table 5.7**.

Table 5.7 Opinions of Respondents on the Adequacy of Transport Information Currently Provided by Public Transport Service Operators

Public Transport Mode	Adequacy by Information Type		
	Routing	Headway/ Timetable	Fare/ Discount
MTR	83%	78%	65%
Franchised Bus	81%	75%	68%
PLB	48%	32%	44%
LRT	81%	63%	69%
Tram/Peak Tram	68%	50%	60%
Ferry	78%	80%	72%

Public Transport Mode	Adequacy by Information Type		
	Journey Time	Estimated Time of Arrival	Interchange Info.
MTR	80%	79%	74%
Franchised Bus	75%	77%	63%
PLB	43%	28%	28%
LRT	68%	53%	61%
Tram/Peak Tram	50%	35%	42%
Ferry	83%	80%	71%

Dissemination of transport information on board

5.8.2 Comparison of survey results for 6 public transport modes reflected that users were generally most satisfied with the information provided by ferry operators, with the highest percentage (ranging from 71% to 83%) of users giving them a "satisfactory" rating for all the 6 types of information[17]. Ranked immediately below were MTR (65% to 83%) and franchised bus operators (63% to 81%). Among the 6 public transport modes, the information provided by PLB operators was considered less adequate (28% to 48%).

5.8.3 Regarding the adequacy of various public transport information, users were most satisfied with the routing and journey time information provided by operators of the above 6 public transport services.

5.8.4 Information on "service frequency/ timetable" was considered the most useful for decision-making in mode choice, cited by 33% of all respondents. This was followed by "real-time estimate of arrival time of next train/bus/ ferry" (28%) and "routing and midway stops" (18%). Detailed results are depicted in **Figure 5.9**.

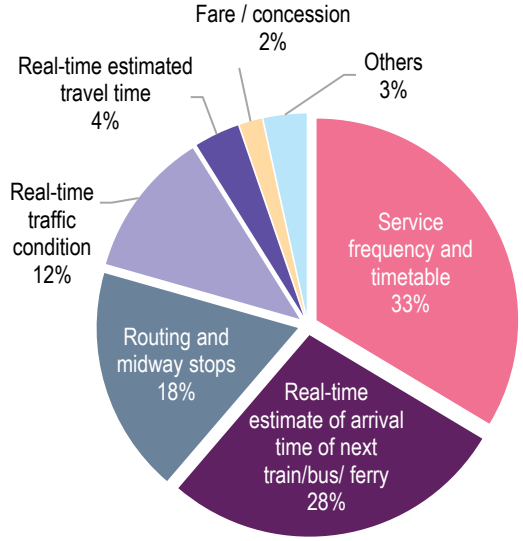


Figure 5.9 Public Transport Information Considered Most Useful by Respondents

5.8.5 As for dissemination of information to motorists, the types of transport information considered most useful by the surveyed motorists are presented in **Figure 5.10**. The largest proportions of motorists (33%) considered the information on "real-time queue length at major congested locations" as the most important, followed by those citing the "choice of route in case of congestion" (27%) and "estimated journey time" (19%).

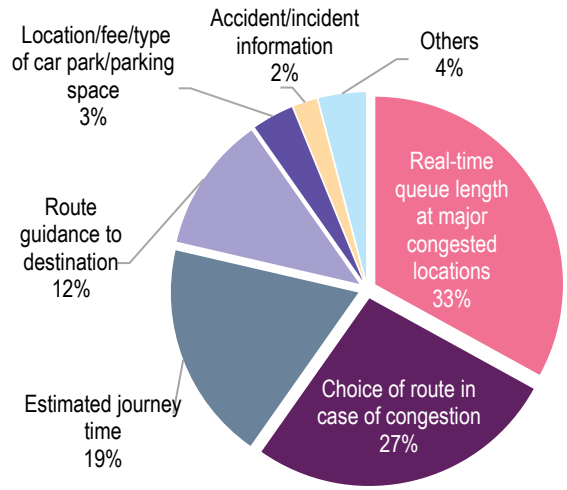


Figure 5.10 Information Considered Most Useful by Motorists

[17] 6 types of information: routing, headway/timetable, fare/ discount, journey time, estimated time of arrival and interchange information.

5.8.6 Respondents aged 15 or above were asked about their experience of using HKeMobility, a website and mobile application launched by the Transport Department to disseminate traffic and transport information. Survey results showed that HKeMobility was the third most commonly used digital source of transport information , following Google Maps and public transport operators' websites or mobile applications.

5.8.7 For those respondents who had used HKeMobility to obtain transport information within the 3 months preceding the day of interview, **Figure 5.11** illustrated their opinions on the usefulness of 4 types of information they obtained in aiding their decision-making: (a) real-time traffic condition, (b) estimated time of arrival of public transport services, (c) remaining parking spaces in car park near the destination and (d) regular routing (e.g. between home and workplace).

5.8.8 Overall, among the respondents who commented on the accuracy and comprehensiveness of information disseminated, at least 85% rated the various types of information provided by HKeMobility as excellent, good or fair.

5.8.9 Comparing the various types of information provided by HKeMobility, users found the information on "regular routing" and "real-time traffic condition" more useful than "estimated time of arrival of public transport services" and "remaining parking spaces in car parks near the destination" for their decision-making.

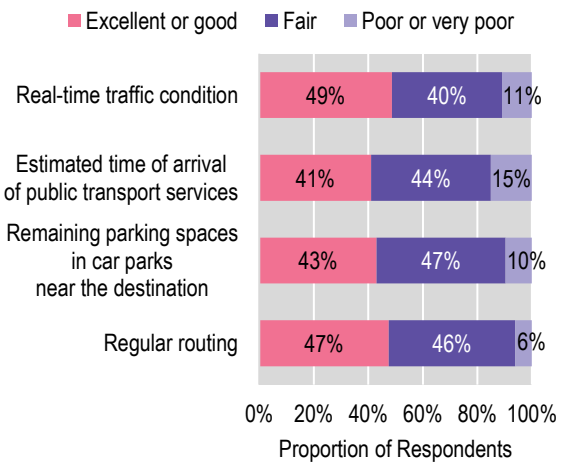


Figure 5.11 Opinions on Information Provided by HKeMobility

"HKeMobility" – an all-in-one traffic and transport mobile application launched by the Transport Department

5.9 Opinions on Measures to Relieve Traffic Congestion and to Improve Pedestrian Facilities

5.9.1 The measure most supported by respondents for relieving traffic congestion was to "build more roads or railways" (30%), which was consistent with the Government's strategy of continuing to develop road and railway infrastructure to help meet new traffic demands. It was followed by "limit the number of licences issued to vehicles" (21%), "increase car price and usage costs" (13%) and "give more priority to public transport" (12%).

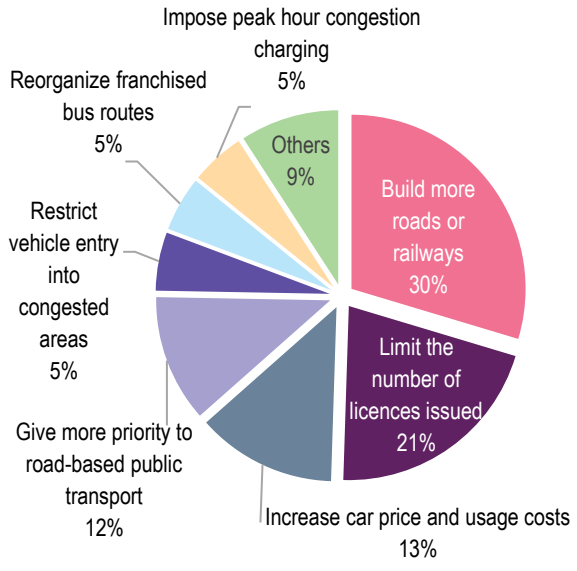


Figure 5.12 Most Supported Measures for Relieving Traffic Congestion

Building more roads or railways was the most supported measure among respondents for relieving traffic congestion

5.9.2 It is worth noting that PV-available households were slightly more supportive of some measures affecting vehicle usage such as "impose peak hour congestion charging" (7%), and "restrict vehicle entry into congested areas" (6%), as compared to non-PV-available households, notwithstanding that the former were likely to be directly affected by such measures.

5.9.3 As for measures to improve pedestrian facilities, survey results are summarised in **Figure 5.13**. Overall, the measure most supported by respondents was "provide covers for walkways" (29%), followed by "widen walkways" (17%), and "beautifying/greening of walkways" (15%).

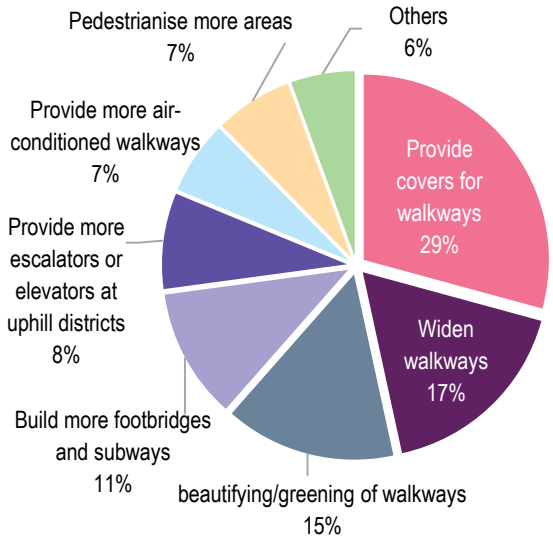


Figure 5.13 Most Supported Measures for Improving Pedestrian Facilities

[18] "Others" include persons of independent means (i.e. those who do not have to work for a living) and other economically inactive persons (e.g. unpaid religious workers and persons who cannot work or do not seek work because of permanent sickness or disablement).

5.10 Views of Elderly on Transport Services

Increasing proportion of elderly population in Hong Kong

5.10.1 The survey estimated that as at 2022, nearly 30% of the household population were aged 60 or above. Among them, 66% were retired, 25% were still in the work force, 8% were homemakers and the remaining 2% were others[18].

5.10.2 97% of the respondents aged 60 or above possessed an Elderly Octopus Card or a JoyYou Card. Among them, 50% held an Elderly Octopus Card only, 37% held a JoyYou Card only, while 13% owned both.

5.10.3 As visualised in **Figure 5.14**, the average monthly public transport expense of the majority of respondents aged 60 and above was $60 or less (58%). 22% of elderly respondents spent between $61 and $100, 15% spent $101 to $200 and only 5% spent $201 or more.

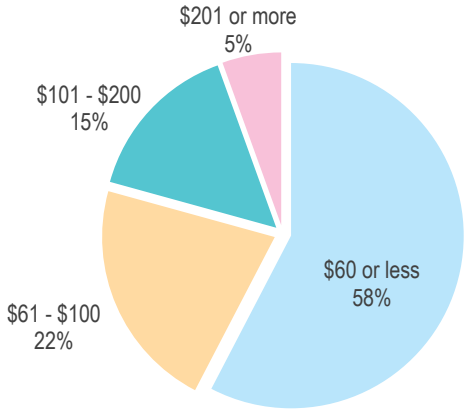


Figure 5.14 Average Monthly Public Transport Expense of the Elderly

5.10.4 In the light of the introduction of JoyYou Card in 2022, respondents aged 60 or above who possessed a JoyYou Card were asked how their eligibility for public transport fare concessions had

impacted their travel characteristics. Among them, 10% had increased their average daily number of trips made, 4% had changed their choice of transport mode, 9% had adjusted their choice of destination, and 6% had changed their choice of route (e.g. among bus routes or rail lines).

Table 5.8 Travel Characteristics among JoyYou Card Holders

Change in Travel Characteristics	Proportion of JoyYou Card Holders
Increase in average daily number of trips	10%
Mode choice	4%
Destination choice	9%
Route choice	6%

5.10.5 A 4% increase in average daily number of trips made was noted among the respondents, including those who did not alter their daily trips after becoming eligible for the public transport fare concessions. Upon acquiring such eligibility, respondents were more inclined to use rail, franchised bus, and PLB frequently. Meanwhile, there was a decrease in the percentage of respondents who used taxi and private car (as driver or passenger) as their most frequent transport mode. Detailed findings are set out in **Figure 5.15**.

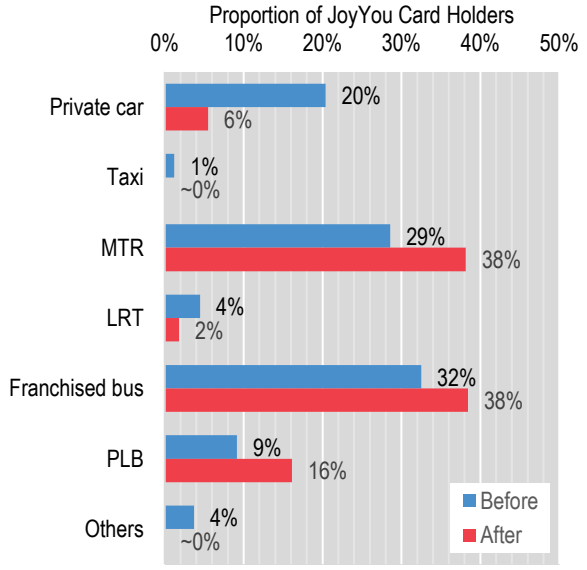


Figure 5.15 Changes in the Most Frequently Used Mode of Transport Before and After Becoming Eligible for the Public Transport Fare Concessions

Note: Other transport modes include residents' bus service and ferry. The percentage of respondents using taxi, residents' bus service and ferry as their most frequent transport mode after becoming eligible for the Public Transport Fare Concessions is less than 0.5%.

5.10.6 The survey collected views from respondents aged 60 or above on the pedestrian facilities they considered most in need of improvement in Hong Kong. Among these respondents, 25% highlighted "inadequate elevators/escalators at pedestrian footbridges/subways", while 21% mentioned "green light/flashing green light time at pedestrian crossings too short". A small proportion of respondents pointed out "insufficient covers for pedestrian facilities" (14%), "unclear road signs or small font size on road signs" (11%) and "road signs inadequate or difficult to find" (10%).

5.10.7 Respondents were asked about their frequency of using priority seats on public transport. The modes of transport with priority seats often used by respondents aged 60 or above were franchised bus (35%) and MTR (31%). A small proportion of respondents had used priority seats on LRT, tram and ferry, while 28% had not used priority seats on these 5 public transport modes.

5.10.8 When asked about their experience of using priority seats on public transport, the majority (91%) of respondents aged 60 or above considered the priority seats easy to locate. 61% of the respondents were satisfied with the comfort of priority seats, commenting that these seats had well met the needs of the elderly.

5.10.9 Although most of the surveyed elderly persons could easily locate the priority seats, only 49% expressed that they could often find vacant seats available, while 14% indicated that those seats were on many occasions taken up by people without a genuine need.

Table 5.9 Experience of Using Priority Seats on Public Transport

Priority Seat Experience	Proportion of Respondents
Usage	
Vacant seats often found	49%
Seats often taken up by those with a genuine need, leaving no vacant ones	37%
Seats often taken up by those without a genuine need, leaving no vacant ones	14%
Seat Location	
Easy to find	91%
Difficult to find	9%
Comfort	
Satisfied	61%
No comment	30%
Not satisfied	8%

Note: Due to rounding, the percentages may not add up to 100%.

5.11 Changes brought about by the pandemic and the popularisation of technology

5.11.1 It was already mentioned in TCS 2011 that with the popularisation of technology, commuting and activity patterns are likely to change, thus influencing transport demands. On another front, isolation and quarantine measures during the pandemic catalysed the replacement of travelling by work-from-home arrangements and online activities. After the pandemic, activities such as remote working, learning, entertainment, shopping, etc. continued to change the residents' travel characteristics fundamentally.

Travelling replaced by work-from-home

5.11.2 Working people aged 15 or above were asked whether they could perform their job duties at home. 31% of the employed respondents stated that they could work from home, with 25% able to perform some of their job duties remotely while 6% managed to do all the tasks in such manner.

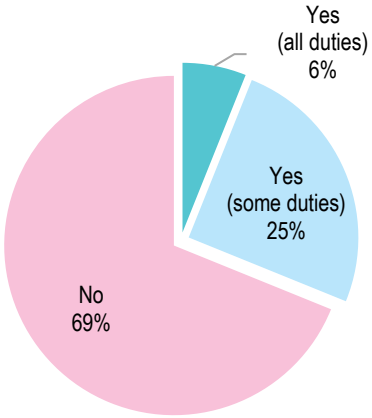


Figure 5.16 Proportion of Respondents Able/Unable to Perform Job Duties at Home

5.11.3 Respondents who were able to work remotely were asked about their work-from-home arrangement before the COVID-19 pandemic (i.e. in 2018), as well as during that period and afterwards. 34% of respondents reported that they had already having a work-from-home arrangement in place prior to the pandemic. The proportion stood high at 71% during the pandemic period. 39% of respondents did not rule out the possibility of work-from-home arrangements in future (i.e. after the pandemic), while 22% mentioned that they could still work remotely after the pandemic. The average number of days that the applicable respondents were permitted to work remotely was 2 days per week before as well as after the pandemic. The figure was up at 3 days per week during the pandemic period.

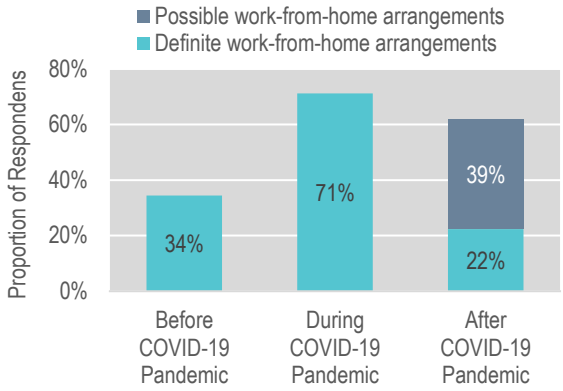


Figure 5.17 Proportion of Working Respondents with Work-from-home Arrangements Before, During and After the COVID-19 Pandemic

Travelling replaced by conducting online activities

5.11.4 Respondents were asked about their frequencies of conducting the following activities online before, during, and after the pandemic: (a) shopping, (b) patronising food delivery service, (c) entertainment, (d) classes/tutorial classes/online sports or interest classes and (e) video conferencing. As shown in **Figure 5.18**, the frequencies of all 5 types of online activities increased during the pandemic, among which the frequencies of video conferencing and patronising food delivery service increased by 7% and 5% respectively.

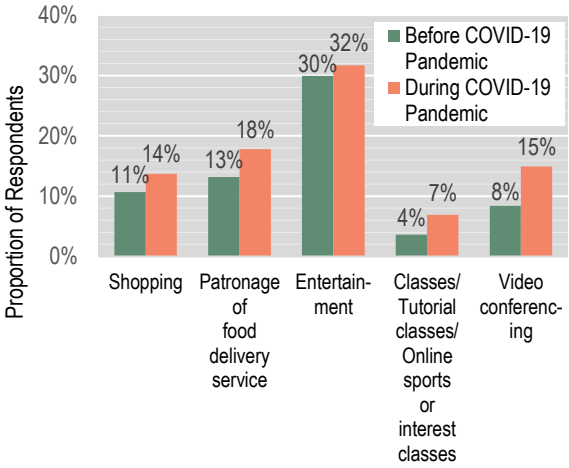


Figure 5.18 Proportion of respondents engaged in activities online at least once a week before and during the COVID-19 pandemic

5.11.5 Some respondents would continue to conduct the above activities online after the pandemic. Around 10% of the respondents expressed that they had increased their frequencies of online activities, except for attending classes/tutorial classes/online sports or interest classes. These would impact on their travel characteristics and transport demands.

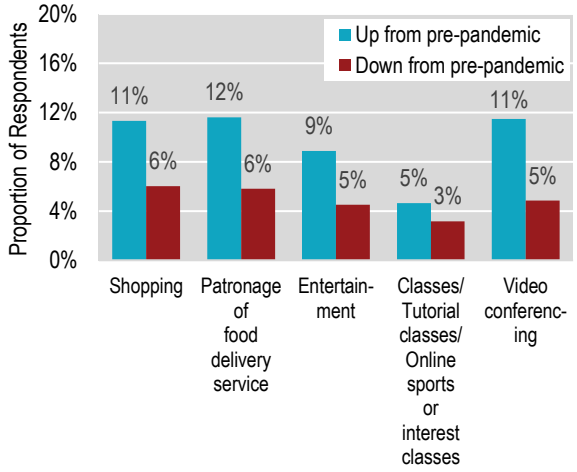


Figure 5.19 Changes in respondents' frequencies of conducting online activities

6. BEHAVIOURAL VALUES OF TIME

6.1 General

6.1.1 The SP Survey of TCS 2022 aimed to look into the behavioural value of time (VoT) of Hong Kong residents, with a view to reflecting the travel characteristics and behaviour of respondents. The behavioural VoT indicates the amount of money that trip-makers are willing to trade off for unit time saving. It serves as a key parameter in the transport model for simulating the behaviour of trip-makers in making choices when they are faced with different transport modes usually characterized by different journey time and cost.

6.2 Behavioural Values of Time

Behavioural VoT indicates the amount of money that trip makers are willing to trade off for unit time saving

6.2.1 VoT varies considerably among individuals because of their different characteristics as well as trip purposes. For that reason, the survey was conducted on various population sectors categorised by PV availability, trip purpose and transport mode taken.

6.2.2 The behavioural VoTs of different population sectors were analysed using logistic regression models based on a logit formulation. The regression model output results were then weighted according to the HIS-derived daily trip totals, categorised by PV availability, trip purpose and transport mode groups, to give the weighted-average behavioural VoTs as presented in **Table 6.1**. Corresponding TCS 2011 values are also provided in the table for comparison.

Table 6.1 Behavioural Values of Time by Private Vehicle Available Household and Trip Purpose

Trip Purpose	Behavioural VoT (in Cents/Minute)			
	TCS 2011 (at 2011 Prices)		TCS 2022 (at 2022 Prices)	
Private Vehicle-Available Household Member				
HBW	103		132	
HBS	72	88	103	113
HBO/NHB	83		101	
Non-Private Vehicle-Available Household Member				
HBW	68		87	
HBS	57	67	68	82
HBO/NHB	68		79	
Overall	**72** [1]		**90**	

Note: [1] Based on the Composite Consumer Price Index growth (+33%) between 2011 and 2022, the value pertaining to 2011 is equivalent to 95 cents/minute at 2022 price.

6.2.3 Comparison between the 2011 and 2022 results showed that the increases in behavioural VoT varied across different trip purposes and PV availability categories. For HBW trips, behavioural VoT increased by 28% among PV-available households as well as non-PV available households. As regards HBS trips, the increase in behavioural VoT was 19% for non-PV-available households and 43% for PV-available households. Regarding HBO/NHB trips, PV-available households and non-PV-available households displayed increases in behavioural VoT by 22% and 16% respectively.

6.2.4 Overall, there was an increase in behavioural VoT by about 25% in nominal terms, which fell short of the inflation rate during the same period (about 33%). However, if calculated based on same 2022 price level, the behavioural VoT decreased by about 5% in real terms from 95 cents/minute in 2011 to 90 cents/minute in 2022. Despite the Gross Domestic Product (GDP) growth per capita between 2011 and 2022, which would usually be expected to increase the VoT among trip-makers, people's willingness to pay extra to shorten their travelling time actually declined. As some international studies have found, this might be attributed to improvements of travel conditions (such as travelling experience) and people's ability to engage in various activities during travel (e.g. work or entertainment through

mobile communication devices), which indirectly changed the willingness and preferences of trip makers to pay extra to shorten the travelling time. More comprehensive traffic information also enhanced commuters' ability to plan trips, which might in turn impact on their decisions in trading off between money and time.

6.2.5 PV-available households continued to show higher behavioural VoTs than non-PV-available households. The behavioural VoTs of PV-available trip-makers were 28%-52% higher than those of the non-PV-available ones in 2022.

6.2.6 It should be noted that the SP Survey results were based on respondents' perception and might be different from the behaviour of trip-makers in reality. As such, the behavioural VoTs derived from the SP Survey of TCS 2022 would be subject to further review and verification against trip-makers' actual trip data before the final values could be adopted for transport planning purpose.

7. CHARACTERISTICS OF TRIPS MADE BY VISITORS STAYING IN HOTELS/GUESTHOUSES AND SAME-DAY VISITORS

7.1 Demographic Characteristics of Inbound Visitors

7.1.1 The major demographic characteristics of visitors, collected through the TS conducted with visitors staying in hotels/guesthouses and with same-day visitors at the 6 surveyed Boundary Control Points (BCPs), are primarily used to gain an understanding of the relationship between visitors' demographic and travel characteristics. Against this background, the following summarises the main demographic data of the surveyed visitors.

7.1.2 The survey revealed that there was a daily average of 118 000 visitors aged 2 or above staying in hotels/guesthouses and a daily average of 31 000 same-day visitors departing Hong Kong through the 6 surveyed BCPs.

7.1.3 Among the visitors staying in hotels/guesthouses, the largest proportion (26%) aged between 30 and 39. Among same-day visitors, the largest proportion (29%) aged between 20 and 29.

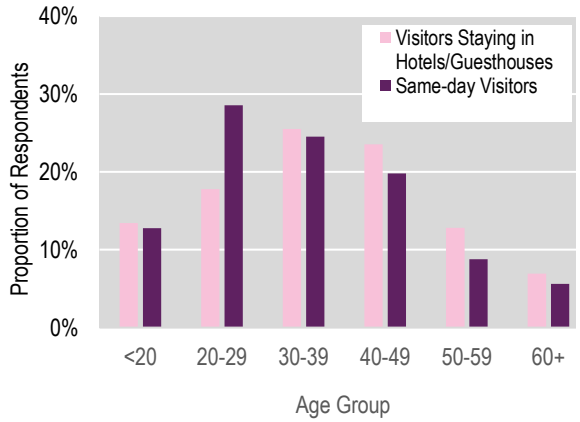


Figure 7.1 Age Distribution of Visitor Respondents

7.1.4 The countries/regions of residence of the surveyed visitors staying in hotels/guesthouses and same-day visitors are summarised in **Table 7.1** and **Table 7.2** respectively.

7.1.5 Among the surveyed visitors staying in hotels/guesthouses, the highest proportion (74%) were from the Chinese Mainland/Macau, which aligned closely with the Hong Kong Tourism Board's visitor arrival statistics by country/region of residence. It is worth noting that the increase in the proportion of Chinese Mainland visitors from 48% in 2011 to 74% in 2023 might be due to the fact that the number of visitors from other countries/regions had not yet stabilised after the resumption of passenger clearance services at BCPs in January 2023.

7.1.6 Over 90% of same-day visitors were from the Chinese Mainland/Macau, among which the highest proportion (44%) was from Shenzhen.

Table 7.1 Proportion of Surveyed Visitors Staying in Hotels/Guesthouses by Country/Region of Primary Residence

Country/region of primary residence	2023 (1)	Hong Kong Tourism Board (2)
The Chinese Mainland/Macau	74.2%	77.9%
Taiwan	3.8%	2.4%
Philippines	3.2%	3.5%
Singapore /Malaysia/Thailand	4.3%	4.1%
Japan/South Korea	3.2%	2.9%
North America	4.1%	2.9%
U.K.	1.7%	0.7%
Australia	1.5%	0.8%
Others Counties/Regions	4.1%	4.8%
Total	**100.0%**	**100.0%**

Note: (1) The survey only included the visitors staying in hotels/guesthouses. The results could be different from the immigration records due to the difference in coverage.
(2) Jun-Sep 2023 figures extracted from the Hong Kong Tourism Board's Overnight Visitor Arrival Statistics.

Table 7.2 Proportion of Surveyed Same-day Visitors by Country/Region of Primary Residence

Country/region of primary residence	2023 (1)	Hong Kong Tourism Board (2)
The Chinese Mainland (Greater Bay Area cities):	70.5%	
- Shenzhen	43.9%	
- Guangzhou	9.6%	
- Dongguan	5.3%	86.5%
- Zhuhai	4.8%	
- Foshan	2.6%	
- Other GBA cities	4.3%	
The Chinese Mainland (Non-Greater Bay Area cities)	9.0%	
Macau	18.2%	
Southeast Asian Countries	1.6%	13.5%
Other Counties/Regions	0.7%	
Total	**100.0%**	**100.0%**

Note (1) This survey only covered same-day visitors at the selected 6 BCPs.
(2) Jun-Sep 2023 figures extracted from the Hong Kong Tourism Board's Same-day Visitor Arrival Statistics

7.1.7 Among the visitors staying in hotels/guesthouses, the largest proportion named sightseeing (39%) as the main purpose of their visits, followed by entertainment & leisure (20%) and work/business (12%). On the other hand, for same-day visitors, the largest proportion cited shopping (25%) as their main purpose, followed by sightseeing (20%) and entertainment & leisure (17%).

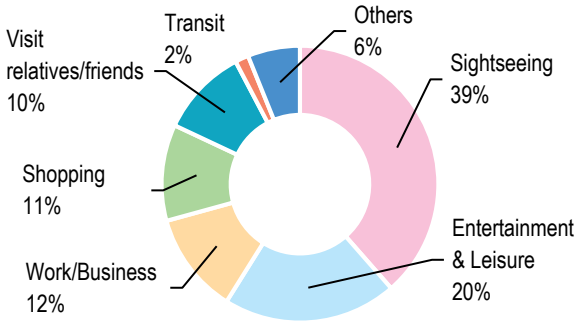


Figure 7.2 Main Purposes of Visit by Hotel/ Guesthouse Visitor Respondents

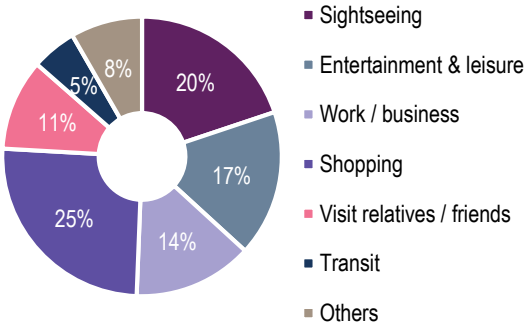


Figure 7.3 Main Purposes of Visit by Same-day Visitor Respondents

7.2 Average Number of Mechanised Trips Made by Visitors

7.2.1 In 2023, the average daily number of mechanised trips made per visitor staying in hotels/guesthouses was 2.48 and the total number of trips was estimated to be 293 000, equivalent to about 2% of the total number of mechanised trips made by Hong Kong residents on a working day. This is higher than the 229 000 mechanised trips estimated in the 2011 survey.

7.2.2 It was estimated that most same-day visitors (78%) made 2 to 3 mechanised trips during their stay in Hong Kong. The total number of mechanised trips made by these visitors was estimated to be 79 000 per day on average. The average number of mechanised trips made per same-day visitor was 2.51.

7.3 Characteristics of Mechanised Trips Made by Visitors Staying in Hotels/Guesthouses

Purpose of Trips

7.3.1 For visitors staying in hotels or guesthouses, their base would be the hotel/guesthouse where they stayed. This is similar to the concept of "home" in the analysis of travel characteristics of Hong Kong residents. On that basis, trips made by visitors were categorised into "hotel-based" and "non-hotel-based", with the "hotel-based" trips further classified by the following 5 trip purposes according to the visitors' major activities at the trip destination:

- Sightseeing
- Shopping
- Work
- Dining
- Others

7.3.2 The proportions of daily trips made by visitors staying in hotels/guesthouses for the 6 trip purposes are illustrated in **Figure 7.4**. Mechanised trip rate of visitors is defined as the average daily number of mechanised trips made per visitor. The number of trips made by visitors categorised by the above 6 trip purposes are summarised in **Table 7.3** and compared against the 2011 survey results.

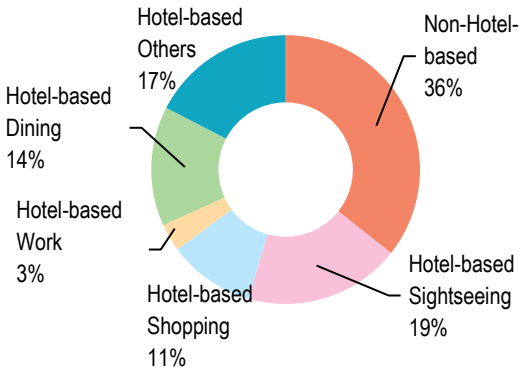


Figure 7.4 Proportions of Visitors' Mechanised Trips by Trip Purpose

Table 7.3 Mechanised Trip Rates of Visitors Staying in Hotels/Guesthouses by Trip Purpose in 2011 and 2023

Trip purpose	Daily Mechanised Trips per visitor	
	2011	2023
Hotel-based		
- Sightseeing	0.54	0.47
- Shopping	0.43	0.26
- Work	0.18	0.08
- Dining	0.13	0.36
- Others	0.40	0.43
Non-hotel-based	0.62	0.88
Total	**2.30**	**2.48**

7.3.3 Overall, the average daily number of mechanised trips per visitor staying in hotels/guesthouses was 2.48, higher than the figure of 2.30 in 2011. This was mainly due to the significant increases in the number of "hotel-based dining" and "non-hotel-based" trips, which went up from 0.13 in 2011 to 0.36 in 2023 and from 0.62 in 2011 to 0.88 in 2023 respectively. These increases outweighed the reduction in the numbers of trips for other purposes (especially shopping and work).

Trip-making Time

7.3.4 **Figure 7.5** illustrates the profiles of mechanised trips made by visitors staying in hotels/guesthouses against different times of day for the 6 trip purposes. Distribution of the mechanised trips made by visitors staying in hotels/guesthouses was fairly even from 9:00 a.m. to 10:00 p.m. The peak periods, although not very distinctive, occurred at 10:00 - 11:00 a.m. and 8:00 - 9:00 p.m. These accounted for about 8% and 10% of the total number of their daily mechanised trips respectively.

7.3.5 The morning peak hour for these visitors' trips occurred later than that for Hong Kong residents (8:00 – 9:00 a.m.). While the evening peak hour for these visitors' trips did not coincide with that of Hong Kong residents at 6:00 – 7:00 p.m., a considerable percentage (about 8%) of mechanised trips made by the visitors staying in hotels/guesthouses were recorded during the residents' evening commuting peak.

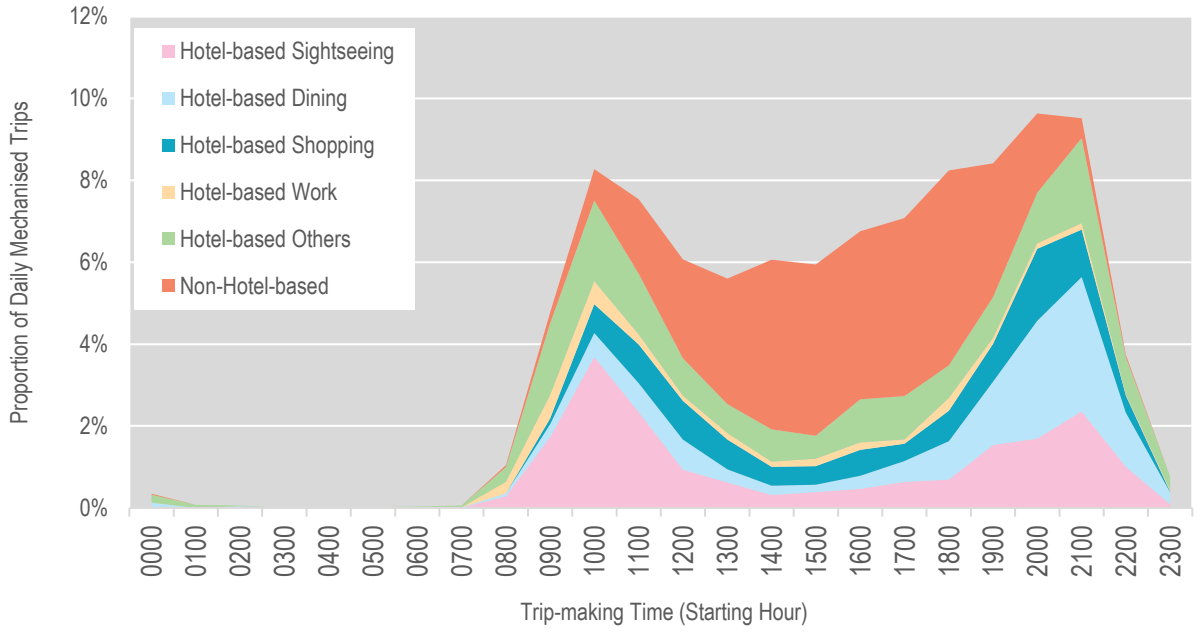


Figure 7.5 Hourly Profiles of Mechanised Trips Made by Visitors Staying in Hotels/Guesthouses

Journey Time

7.3.6 Survey results revealed that 19% of the mechanised trips made by visitors staying in hotels/guesthouses were completed in less than half an hour, 56% took half an hour to less than one hour, while the remaining 25% took one hour or more to complete. The mean journey time was 41 minutes, slightly shorter than the 43 minutes in the 2011 survey and the 42 minutes for Hong Kong residents.

7.3.7 Comparison of mean journey time by trip purpose in **Table 7.4** showed that "hotel-based sightseeing" and "hotel-based others" trips took longer journey time on average. In 2023, the mean journey time of trips for these two purposes were 50 and 47 minutes respectively, while that of trips for other purposes ranged between 31 – 39 minutes.

Table 7.4 Mean Journey Time of Mechanised Trips Made by Visitors Staying in Hotels/Guesthouses by Trip Purpose in 2011 and 2023

Trip Purpose	Mean Journey Time (minutes)	
	2011	2023
Hotel-based		
- Sightseeing	53	50
- Shopping	36	37
- Work	29	31
- Dining	30	35
- Others	51	47
Non-hotel-based	41	39
Overall	**43**	**41**

7.3.8 As indicated in the above table, the mean journey times of "hotel-based sightseeing", "hotel-based others" and "non-hotel-based" trips made by visitors staying in hotels/guesthouses in 2023 were shorter than what they were in 2011. The most notable decrease in journey time was observed among "hotel-based others" trips.

Trip Movements

7.3.9 Around 26% of the mechanised trips made by visitors staying in hotels/guesthouses started and ended within the same district, with 11% made within Yau Ma Tei/Tsim Sha Tsui/Mong Kok (Yau Tsim Mong) District, 5% within Central & Western District (including the Peak), and 4% within Islands District (including North Lantau). For cross-district trips, the most frequent movements were observed between Yau Tsim Mong and Central & Western, and between Yau Tsim Mong and Wan Chai Districts, each accounting for 7% - 11% of the total number of their daily mechanised trips, followed by those between Yau Tsim Mong and Islands (including North Lantau) Districts, which accounted for 7% of the total number of their daily mechanised trips.

7.3.10 Overall, similar to 2011, Yau Tsim Mong District generated/attracted the most mechanised trips made by visitors staying in hotels/guesthouses, followed by Central & Western and Wan Chai Districts. Many hotels/guesthouses were located in these districts, where most of the tourist activities such as shopping and dining also took place.

Yau Ma Tei/Tsim Sha Tsui/Mong Kok District attracted the most trips of visitors staying in hotels/guesthouses in both 2011 and 2023

Mechanised Transport Modes Taken

7.3.11 As shown in **Table 7.5**, the most popular transport mode taken by the visitors staying in hotels/guesthouses was MTR (excluding LRT) (47%), followed by franchised bus (14%) and taxi/hired car (12%).

Table 7.5 Proportions of Mechanised Transport Modes Taken by Visitors Staying in Hotels/Guesthouses in 2011 and 2023

Transport Mode	Distribution of Boardings	
	2011	2023
MTR (excluding LRT)	35%	47%
Tour Coach/Shuttle Bus (including shuttle bus provided by hotel and cross-boundary shuttle bus)	25%	10%
Taxi/Hired car	20%	12%
Franchised Bus	8%	14%
Private Vehicle	4%	3%
Ferry/Other Sea Transport	3%	9%
Others	5%	5%
Total	**100%**	**100%**

7.3.12 As compared with the 2011 survey results, the mode share of MTR increased significantly, which was largely attributed to the continuous expansion of the railway network. Moreover, most new tourist attractions commissioned after 2011 are easily accessible by MTR, thus encouraging more rail use. As for the marked decrease in the use of tour coaches, it might be due to changes in visitor composition. In particular, with the Chinese Mainland visitors already familiar with the transportation system in Hong Kong and having access to abundant travel information, they might prefer to follow their own travel plan rather than to join a tour group.

7.3.13 The majority (88%) of the mechanised trips made by visitors staying in hotels/guesthouses involved only 1 mechanised trip leg; 12% comprised of 2 legs, and only 1% comprised 3 legs. The average number of boardings per trip was 1.13, marginally higher than the 1.12 for Hong Kong residents. Among the 6 trip purposes, "hotel-based sightseeing" and "non-hotel-based" trips involved higher average number of boardings per trip, estimated at 1.27 and 1.12 respectively.

7.4 Characteristics of Mechanised Trips Made by Same-day Visitors

Purpose of Trips

7.4.1 For same-day visitors, their trip purposes were defined according to the nature of the place and their major activities in Hong Kong:

- Sightseeing
- Shopping
- Work
- Dining
- Others
- Departure (from HKSAR)

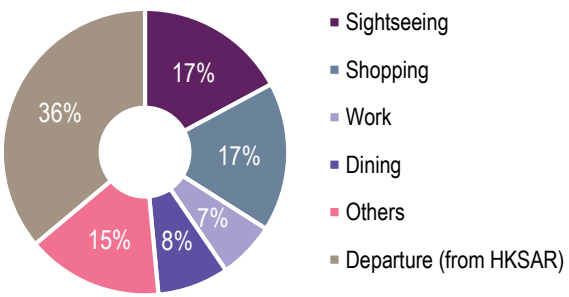


Figure 7.6 Proportions of Same-day Visitors' Mechanised Trips by Trip Purpose

Table 7.6 Same-day Visitors' Mechanised Trip Rates by Trip Purpose in 2023

Trip purpose	Daily Mechanised Trips per visitor
Sightseeing	0.43
Shopping	0.42
Work	0.16
Dining	0.20
Others	0.39
Departure (from HKSAR)	0.91
Total	**2.51**

7.4.2 The average total number of mechanised trips made per same-day visitor was 2.51. The major purposes of their trips during the Hong Kong visit (excluding departure from HKSAR) were sightseeing and shopping.

Trip Arrival Time

7.4.3 Over 90% of same-day visitors arrived at their destinations during the period between 10:00 a.m. and 7:00 p.m. A high proportion of trips were made by visitors around lunchtime, with an even distribution between 12:00 p.m. and 3:00 pm.

7.4.4 It is worth noting that the peak hour of mechanised trips for made by same-day visitors occurred during lunchtime, unlike Hong Kong residents whose commuting peak hours occurred at 8:00– 9:00 a.m. and 6:00– 7:00 p.m.

Trip Movements

7.4.5 Approximately 26% of the mechanised trips made by same-day visitors started and ended within the same district, among which 13% were within Yau Ma Tei/Tsim Sha Tsui/Mong Kok (Yau Tsim Mong) District, 6% within Islands District (including North Lantau), 3% within Yuen Long District, and 2% within North District.

7.4.6 For cross-district trips, the most frequent movements were observed between Yau Tsim Mong and Central & Western Districts (9%) and between Yau Tsim Mong and North Districts (6%), followed by those between Yau Tsim Mong and Yuen Long Districts (6%).

7.4.7 Overall, Yau Tsim Mong District generated/attracted the most mechanised trips made by same-day visitors, followed by Islands and Yuen Long Districts. These districts are where most of the tourist activities such as shopping and dining took place.

Mechanised Transport Modes Taken

7.4.8 As shown in **Table 7.7**, the most popular transport mode among same-day visitors was MTR (excluding LRT) (around 52%), followed by franchised bus (around 25%), taxi/hired car (around 11%) and tour coach/shuttle bus providing local and cross-boundary services (around 7%).

Table 7.7 Proportions of Mechanised Transport Modes Taken by Same-day Visitors in 2023

Transport Mode	Distribution of Boardings
MTR (excluding LRT)	52%
Franchised Bus	25%
Taxi/Hired Car	11%
Coach / Shuttle Bus	7%
Ferry/Other Sea transport	2%
Private Vehicle	1%
Others	2%
Total	**100.0%**

7.5 Most Popular Sightseeing and Shopping Spots for Visitors Staying in Hotels/Guesthouses

7.5.1 Another objective of the Hotel/Guesthouse TS is to find out the most popular sightseeing and shopping spots for visitors to estimate the traffic demand for travelling to and from these spots.

7.5.2 The 3 sightseeing spots most visited (whether by mechanised trips or walking) by visitors staying in hotels/guesthouses were Hong Kong Disneyland, Avenue of Stars and The Peak, accounting for about 11%, 10% and 10% of the total number of trips respectively. They were followed by Tsim Sha Tsui Pier/Tsim Sha Tsui Waterfront (6%), Hong Kong Observation Wheel (5%) and Ladies' Market/Sneakers Street in Mong Kok (5%). See **Table A.6** in the Appendix for details.

Hong Kong Disneyland was the most popular sightseeing spot for visitors staying in hotels/guesthouses.

7.5.3 Survey results also revealed that regarding the shopping centres/malls visited (whether by mechanised trips or walking) by tourists staying in hotels/guesthouses, the most popular shopping district was Yau Tsim Mong, which accounted for 48% of the total number of trips to shopping centres/malls, followed by Wan Chai (including Causeway Bay) (17%) and Central & Western (6%). See **Table A.7** in the Appendix for details.

8. NEXT STEP

8.1 Application of Data for Transport Model Enhancement

8.1.1 One of the key objectives of TCS 2022 is to obtain the latest travel characteristics data and information to continuously update the CTS Model for facilitating future transport planning and forecasting traffic conditions.

8.1.2 With continuous social and economic development, people's travel characteristics as identified by TCS 2022 will keep evolving. The Government will monitor the traffic and transport situation on an ongoing basis and review its transport planning and forecast in the light of the latest statistical data.

The latest travel characteristics data collected by TCS 2022 will be applied in the review of transport planning and forecast.