Introduction

1. Although private cars represent only a small proportion of the overall cross-boundary travel in the past, recent trend shows a considerable growth in the use of this transport mode. With the opening of the Hong Kong-Shenzhen Western Corridor in mid-2007 and the Hong Kong-Zhuhai-Macao Bridge under planning, road-crossing capacities in Hong Kong will increase significantly, providing room for an increase in the number of private cars crossing the boundary.

2. Against this background, the Planning Department has initiated a focused statistical survey — the “Survey on Propensity to Use Private Cars to Cross the Boundary 2005” (the Survey), with a view to exploring the travel characteristics of these cross-boundary private car movements and the underlying factors that affect their usage to facilitate estimation of the latent demand of private car usage.

Survey Methodology and Sample Size

3. The Survey, consisted of household information survey, revealed preference survey, stated intention survey and stated preference survey, has been targeted to cover all the land-based non-institutional household population in the Hong Kong Special Administrative Region (HKSAR), but excluding all islands (except Lantau Island); frontier closed area and country parks.

4. The fieldwork of the Survey was conducted by face-to-face interview between November 2005 and March 2006. A total of 5,377 sampled households were successfully enumerated, with an overall response rate of 74.5%. The number of successfully enumerated private car available households was 1,730, i.e. 32.2% of the overall sample.

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1 Household members enumerated were Hong Kong residents or persons who have lived in the enumerated household for at least 3 months in the past 6 months or will live in the household for at least 3 months in the next 6 months.
Summary of Survey Findings

Characteristics of cross-boundary travel

5. The Survey showed that about 87% of the surveyed households in Hong Kong were non-car owning households, and 47% of this population had made at least one cross-boundary trip (which was defined as a return trip) in the last 12 months before enumeration (the Period). Overall, the average number of cross-boundary trips made per person in the Period was 3.5.

6. The average number of cross-boundary trips made during the Period was higher for the age groups of 45-54 (5.7), 35-44 (5.6) and 55-64 (4.3). The average number of cross-boundary trips made by males (4.8) was just over twice that of females (2.2).

7. When analysed by monthly household income, those with a monthly household income of HK$40,000 and above had made the highest average number of cross-boundary trips, at 5.2 trips, during the Period.

8. For those who had made cross-boundary trips during the Period, the vast majority (97.8%) had never used private cars for their cross-boundary trips. The most commonly used cross-boundary public transport modes were boundary train (56.3%), coach (12.1%), and the short haul coach at Huanggang (6.1%).

9. The top three usual cross-boundary trip purposes were “business” (31.3%), “shopping/dining/leisure” (24.3%) and “visiting relatives/friends” (19.6%). When analysed by usual destination, almost 59% of the cross-boundary trips were to Shenzhen, followed by Dongguan (14.7%) and Guangzhou (7.4%).

10. For the most recent cross-boundary trips made during the Period, about 48% of them involved trip duration of one day or less. The average duration of stay in the Mainland was 3 days.

11. The average journey time from origin to destination surveyed was 165 minutes, and the average time taken for crossing the boundary was found to be around 19 minutes.

12. Overall, the most recent cross-boundary trips were made by on average 2.6 transport modes, of which about 60% involved the use of boundary train.
13. In terms of travelling cost for the last cross-boundary trips, about 60% of them were within HK$100 per a round trip.

Factors influencing choices of cross-boundary modes

14. “Safety” (37.3%), “time” (18.0%) and “cost” (17.1%) were the most important factors that influenced the choice of cross-boundary transport modes.

Intention to use private car for cross-boundary travel

15. When asked for the intention to apply for a cross-boundary private car permit under a hypothetical case involving relaxation of the present quota system regulating the number of cross-boundary private cars, just over 34% of those with HKSAR driving licence had indicated positive response.

16. For those who had made at least one cross-boundary trip by private car during the Period, about 77% of them showed intention of making an application for the cross-boundary permit, which is higher when comparing to those who had no private car cross-boundary trip experience (39.6%).

17. In general, the car available households\(^2\) have a much higher intentions (42.4% - 59.9%) to use private cars to cross the boundary than non-car available households (27.3%) in case of relaxation of private car usage restriction.

18. For those who claimed that they would apply for a private car permit, about 66% expressed that they would make more cross-boundary trips with an average increase of about 11 cross-boundary trips annually. About 58% of them would likely use private cars for their cross-boundary trips.

Survey Limitations

19. The results may be subject to the below limitations which are beyond the reasonable control of the Survey:

- Sampling errors subject to an estimated maximum deviation of plus or minus 1.3 percentage points from their true values at 95% confidence level

\(^2\) defined as where the private car is owned by oneself, company, organization or other person, but available for household members' personal use freely
Some sample sizes were insufficient for conducting individual analysis

Underreporting or misreporting by the respondents

Information perceived by respondents to be personal and sensitive matters which might affect their willingness to fully disclose the exact situation or condition

There was inevitably some degree of subjectivity being exercised by the respondents in the interpretation of questions and/or answer sets, and hence potential variation in responses to a particular subject could result amongst the respondents

Information and data collected were for a specific time period prior to enumeration which could be subject to seasonal effect and may not necessarily reflect the situation over a longer or different time period in future

Some respondents might not be able to fully “visualize“ the importance of all the factors in questions designed to estimate their future behaviour, and the results of such questions may be over- or under-estimated.

Conclusion

20. The Survey has provided updated statistical data and information on the characteristics of cross-boundary travel generated by the Hong Kong resident\(^2\) population. It was the very first survey to throw some light on the likelihood of Hong Kong residents\(^3\) to use private cars to cross the boundary if there was relaxation of any crossing restrictions. However, the Survey only represented by the sampled households with the above limitations, and people’s travel behavior is changing, in particular with the recent increase in road crossing capacity. To facilitate future planning, a more comprehensive survey may be required to identify these changes.

Planning Department
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\(^3\) the definition of Hong Kong residents in this Survey is given in footnote 1 under Paragraph 4.