

# General Household Survey 2005

## Innovations in Fieldwork Operations

By

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### Introduction

The Singapore Department of Statistics launched the General Household Survey (GHS) 2005 in March 2005. The GHS 2005 adopted the tri-modal data collection strategy which was successfully exploited in the Population Census 2000. This comprises Internet enumeration, Computer Assisted Telephone Interview (CATI) and fieldwork.

*The General Household Survey is a mid-decade national survey collecting socio-economic information on the population and households in Singapore. It is conducted once in ten years in between the decennial census of population. The GHS 2005 is the second in the series.*

A total of 90,000 dwelling units throughout the whole island of Singapore were selected for GHS 2005. These dwelling units were divided into 15 batches over a period of 12–15 weeks. From the practical perspective, this helped to even out the load on resources for Internet submission, CATI operations and fieldwork. Households

in each batch had the option to submit their survey returns through the Internet or telephone interviews. Field interviewers visited the households only if they had not completed their survey returns via Internet or telephone interview after the appropriate due date.

### Innovation : PDA

The GHS 2005 adopted a key innovation for fieldwork, involving the use of Personal Digital Assistants (PDAs) during face-to-face interviews of households by field interviewers. A PDA fieldwork enumeration system was developed, which allowed field interviewers to key the information directly into the PDA as the interview was being conducted.

*In previous Population Censuses and the GHS 1995, paper forms were used in fieldwork operations. Singapore is one of the first countries in the world to use the PDA in fieldwork operations in large-scale household surveys.*

With the introduction of PDA as a new data collection instrument, data security was ensured through various IT security measures. For example, to prevent unauthorized access, the correct set of user ID and password had to be entered in order to access the PDA fieldwork enumeration system. Data captured from face-to-face interviews was encrypted when it was stored in the PDA.

### ***Improved Flow of Face-to-Face Interviews***

The use of PDA had helped to facilitate face-to-face interviews with households.

The PDA fieldwork enumeration system ensured that respondents answer only the relevant questions. With automatic branching of questions built in, the system prompted and guided the field interviewer to ask only those questions which are applicable for different categories of household members. For example, only full-time students would be asked for the level of education attending and the usual mode of transport to school while persons who have left school would be asked for their highest qualification attained and economic characteristics.

As on-line completeness checks were carried out with the PDA, respondents were less likely to be called or visited again by the field interviewer to provide information on questions that had been inadvertently

omitted during the previous field interview. The PDA system also performed simple consistency checks and prompted the field interviewer on data entries that appeared inconsistent. With the checks carried out during data collection, the field interviewers could make clarifications with the respondents on the spot.

### ***Improved Logistics for Field Operations***

From the field operations perspective, the use of PDA accorded several benefits. The use of PDA eliminated the need to print voluminous hardcopies of the survey questionnaires and to arrange for the secure transportation of completed forms. Instead of carrying a bagful of paper forms, the field interviewer carried a PDA. For further convenience, the PDA fieldwork enumeration system allowed partially completed survey returns to be saved and retrieved at a later time for completion.

### ***Reduced Back-End Data Processing***

In addition, most of the data entered into the PDA were already electronically coded, thus reducing data entry and coding at the back-end. As the PDA performed on-line checks on the data entered, the quality of information collected during fieldwork was reasonably good, thereby further reducing the time and effort required to process the data in the office.

## Innovation : SMS Alerts

Another innovation in the GHS 2005 was the development of an automated system of mobile phone SMS alerts. SMS alerts would be sent automatically to the field supervisors' mobile phones in instances where incomplete survey returns had been downloaded to the PDA for face-to-face interviews and the households subsequently called the CATI interviewers to complete the survey or provide new information.

Where the survey returns of households had been completed via CATI, the supervisor would inform the field interviewer concerned not to visit the house. Incidents of field interviewers visiting households who had completed the survey were therefore minimised.

Where the household had provided new information but had yet to complete the survey, the supervisor would inform the field interviewer to contact the GHS call centre for the latest updates before visiting the house to complete the survey. As the field interviewers collected only the outstanding items, the time for the face-to-face interviews were shortened.

## Concluding Remarks

The use of PDA and mobile phone SMS alerts in the GHS 2005 has shown that technological advancements can be exploited to benefit survey respondents and improve survey operational efficiency.

The results of the GHS 2005 have been released in two statistical reports, namely :

- The General Household Survey 2005, *Statistical Release 1 : Socio-Demographic and Economic Characteristics*
- The General Household Survey 2005, *Statistical Release 2 : Transport, Overseas Travel, Households and Housing Statistics*

Detailed statistical tables and analyses of broad trends and changes since 2000, where appropriate, are provided in the two reports.

Softcopies of the reports are accessible from the SingStat website at

<http://www.singstat.gov.sg>

Hardcopies of the reports are available for sale at :

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