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# Household Expenditure Survey 2012/2013

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## Introduction

The Singapore Department of Statistics (DOS) will be conducting the Household Expenditure Survey (HES) 2012/13 from October 2012 to September 2013.

The HES collects detailed information on households' expenditure and data on socio-economic characteristics, income and savings, as well as ownership of consumer durables.

Apart from providing information on the latest expenditure patterns of resident households, another objective of conducting the HES is to update the weighting pattern and basket of goods and services used in the compilation of the Consumer Price Index (CPI), an indicator of inflation in Singapore.

Findings from the HES are also published for use by government agencies, private sector organisations and the general public.

## History of HES in Singapore

The first HES was conducted in 1956/57 and covered only 1,200 wage-earner households living in the urban areas of Singapore. The second HES was conducted in 1972/73 and its scope was expanded to include the whole of Singapore.

Since then, the HES has been regularly undertaken at five-year intervals island-wide to obtain relevant data for performing comparative studies over time. Sample sizes have also been gradually increased to enhance the level of detail and depth of coverage of the survey, and meet the growing demand for data.

The upcoming HES 2012/13 will be the tenth HES to be conducted in Singapore.

Various initiatives have been implemented since the inception of the first HES to

reduce respondent burden, increase data accuracy and improve operational efficiency.

Beginning with HES 1992/93, the period during which respondents were required to record their expenditure was reduced from one month to two weeks.

With the advent of technological improvements and computerisation, administrative data were increasingly leveraged upon since HES 1997/98 to reduce the reporting burden of respondents and improve the quality of data compiled.

New technologies were also introduced in recent HES to improve the efficiency of data capture and coding.

In HES 1997/98, the Optical Mark Reader was employed to capture data on the availability of consumer durables in households. In HES 2002/03, the Intelligent Classification and Coding System[1] was developed to facilitate data processing by streamlining the way in which codes were assigned and input.

Hand-held Personal Digital Assistants (PDAs) were used in HES 2007/08 in lieu of hardcopy survey forms to collect information during face-to-face interviews of households by field interviewers. The PDAs featured built-in checks for the completeness of data collected during field interviews, thus helping to enhance data quality at the point of data collection instead of waiting until the data processing stage.

## Approach for HES 2012/13

For the upcoming HES 2012/13, about 11,000 households in Singapore have been selected to participate in the survey. These households will be divided into batches over the period of the year-long survey, with each batch being surveyed for two weeks.

Interviewers from DOS will visit these households to conduct face-to-face interviews.

They will obtain detailed information on households' expenditure and data on socio-economic characteristics. The interviewers will also issue specially designed booklets to these households to record their regular and daily expenditure for a period of two weeks.

Apart from the booklets for recording regular and daily expenditure, other relevant information will be collected with the use of Ultra Mobile Personal Computers (UMPCs) instead of hardcopy survey forms.

Automatic branching of questions, as well as data completeness and consistency checks built into the UMPCs will allow clarifications to be sought on the spot by field interviewers and minimise the number of calls that may be made to respondents for clarifications following the interviews.

1 More information on the Intelligent Classification and Coding System for HES 2002/03 is available from the March 2003 issue of the Statistics Singapore Newsletter (http://www.singstat.gov.sg/pubn/ssn/archive/ssnmar2003.pdf).

Data quality is thereby directly improved during the face-to-face interviews of households, rather than later at the back-end during data processing.

With the elimination of hardcopy questionnaires, the amount of logistical effort in printing and transporting the forms is reduced. Efficiency of data processing is also improved as data are captured directly into the UMPCs without the need for manual input and coding of responses at the back-end.

The use of UMPCs will also lead to a significant reduction in IT software development efforts compared to using PDAs.

Table 1 summarises the key initiatives introduced for the HES since its first launch in 1956/57.

## HES 2012/13 Data Items and Uses

Findings from the HES provide information on how the profile and expenditure patterns of resident households in Singapore have changed over time.

The data collected serve as vital inputs for policy formulation and evaluation by government agencies, as well as business decision-making by private sector organisations.

Table 2 provides an overview of the data items that will be collected in HES 2012/13 and the potential uses of the data.

## Publicity for HES 2012/13

A series of publicity activities for HES 2012/13 will be launched to generate public awareness and encourage participation and cooperation from respondents.

For the first time, the publicity activities for HES 2012/13 will incorporate the use of posters in place of radio announcements that were previously used in the publicity for HES.

These posters will be displayed at selected mass rapid transit (MRT) and light rapid transit (LRT) stations, as well as other strategic locations, including community centres and town councils. The display of posters at specific locations enables the publicity efforts to be targeted at selected locations covered by the survey at any one time.

Apart from posters, monthly press releases will be issued to inform the public of the specific areas surveyed in that particular month. Households selected for the survey will receive a notification package via post.

Respondents and the general public may visit the HES 2012/13 website (http://www.singstat.gov.sg/hes1213) for more information regarding the survey.

A dedicated email feedback channel (singstat_hes@singstat.gov.sg) and a survey hotline (1800-888-1213) will also be in operation during the year-long survey for queries and feedback pertaining to the HES.

TABLE 1 HISTORY OF HES, 1956/57 - 2012/13

| Years | Sample Size | Key Initiatives |
|---|---|---|
| 1956/57 | 1,200 | • First expenditure survey.<br>• Covered urban areas only.<br>• Required respondents to record their expenses over a one-month period. |
| 1972/73 | 3,500 | • Second expenditure survey.<br>• Covered the whole country.<br>• Collected information on the socio-economic characteristics of the general population. |
| 1977/78 | 5,200 | • Third expenditure survey. |
| 1982/83 | 5,900 | • Fourth expenditure survey. |
| 1987/88 | 7,700 | • Fifth expenditure survey. |
| 1992/93 | 8,500 | • Sixth expenditure survey.<br>• Shortened the period for respondents to record their expenditure from one month to two weeks to reduce respondent burden. |
| 1997/98 | 9,000 | • Seventh expenditure survey.<br>• Used the Optical Mark Reader to capture data from the survey of consumer durables in households, leading to savings of time, manpower and costs as compared with the traditional key-punching method, while minimising errors in data capture. |
| 2002/03 | 9,000 | • Eighth expenditure survey.<br>• Included one-person households in the analysis of HES results for the first time.<br>• Developed Intelligent Classification and Coding System to improve the efficiency of data capture and coding. |
| 2007/08 | 10,500 | • Ninth expenditure survey.<br>• Used PDAs to collect information during face-to-face interviews of households by field interviewers, in lieu of hardcopy survey forms.<br>• Adopted the Singapore Standard Classification of Individual Consumption According to Purpose (S-COICOP) for the coding of expenditure items to allow for better international comparability.<br>• Leveraged to a greater extent on administrative data to reduce respondent burden and improve data quality. |
| 2012/13 | 11,000 | • Tenth expenditure survey.<br>• Used UMPCs in place of PDAs, resulting in a significant reduction in IT software development efforts. |

TABLE 2 DATA ITEMS IN THE HES AND USES OF THE DATA

| Data Items | Uses |
|---|---|
| **Demographic and Social Data** | |
| • Name<br>• Date of Birth<br>• Whereabouts<br>• Ethnic Group<br>• Identification Type<br>• Marital Status<br>• Household Grouping<br>• Parent and Spouse Linkage | Data on the basic demographic profile of the population are used in studies on changes in expenditure patterns through the years. Some examples of use include:<br>1. To study the changes in the profile of households over time, such as household size and the impact on household income and expenditure.<br>2. To analyse the nature of living conditions and income and expenditure patterns of specific segments of the population, such as retirees and young families. |
| **Housing Data** | |
| • Dwelling Type<br>• Tenancy<br>• House Purchase and Mortgage<br>• House Insurance<br>• Repairs and Renovations<br>• Rent Paid<br>• Maintenance Cost | Housing data are used to study the profile of home owners and tenants. Data on dwelling type are also studied together with income and expenditure data for the analysis of household consumption expenditure and income across different types of housing. |
| **Data on Availability of Consumer Durables** | |
| • Audio-Visual Products/ Services<br>• Household Appliances<br>• Motor Vehicles<br>• Telecommunication Equipment & Apparatus<br>• Personal Computer & Information Processing Equipment<br>• Others | Data on availability of consumer durables serve as a proxy indicator of households' access to modern day conveniences and standard of living. Such data can be used to assess households' economic well-being over time. |
| **Expenditure Data** | |
| • Durable Goods<br>• Cars<br>• Travel<br>• Wedding<br>• Funeral<br>• Regular Expenditure | Expenditure data are used by government agencies, private sector organisations and academics to analyse household consumption expenditure patterns and changes over time. Such data are also used to update the weighting pattern and basket of goods and services for the compilation of the CPI. |
| **Education and Employment Data** | |
| • Current Activity Status<br>• Highest Qualification Attained<br>• Level of Education Attending<br>• Employment Status<br>• Occupation | Education and employment data may be used to generate distribution patterns of income and consumption expenditure across households based on various profiles, such as:<br>1. Working status or occupation of main income earner<br>2. Number of working persons within household |
| **Income Data** | |
| • Employment Income<br>• Self Employment Income<br>• Other Employment Income<br>• Rental Income<br>• Investment Income<br>• Other Income Sources | Data on income, including income from various non-work sources, may be used for policy analysis on the economic well-being of individuals and households. Some examples of use include:<br>1. To analyse expenditure patterns at different levels of income<br>2. To study the sources of income for various household deciles |

## Concluding Remarks

The HES is an important national survey to collect information on the latest consumption expenditure of Singapore households. Respondents' cooperation is crucial to the success of the HES. The HES is conducted under the Statistics Act (Chapter 317) which ensures that all information supplied by households will be kept in confidence in accordance with the Statistics Act.

## Availability of Consumer Durables in Households, 1972/73 – 2007/08

Among the many varied uses of data from the HES, analysis of the trends in the availability of consumer durables in households over time provides useful insights into the lifestyle changes and quality of life of households.

This section outlines some observations on the evolving trends in the availability of selected consumer durables in households using data collected from the HES conducted in the 1970s to date.

### *Audio-Visual Products*

Availability of televisions among Singapore households had become almost universal, with over 99 per cent of households having at least one television set in 1997/98, compared with a corresponding figure of only 49 per cent in 1972/73 (Chart 1).

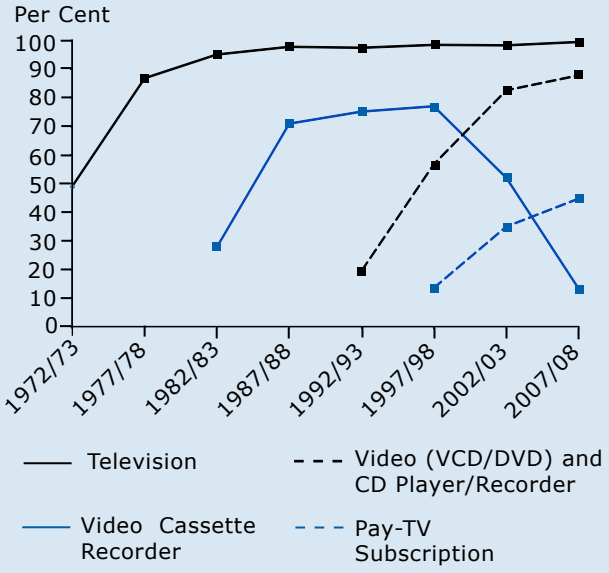
The proportion of households with video (VCD/DVD) and CD players and recorders[2] rose from 20 percent in 1992/93 to 88 per cent in 2007/08.

This increase could be attributed to more consumers switching from audio and video cassette recorders to video (VCD/DCD) and CD players/recorders as the latter became more common and affordable.

In contrast, the number of households with video cassette recorders dropped sharply between 1997/98 and 2007/08 from 77 per cent to 13 per cent.

Between 1997/98 and 2007/08, the proportion of households with pay-television (pay-TV) subscriptions more than tripled from 14 per cent to 45 per cent.

CHART 1 AVAILABILITY OF AUDIO-VISUAL PRODUCTS AND SERVICES IN HOUSEHOLDS, 1972/73 - 2007/08

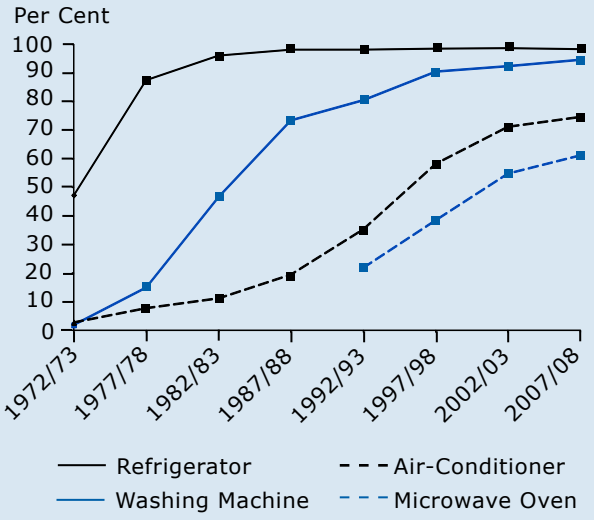



2 'VCD' refers to Video Compact Disc, 'DVD' refers to Digital Versatile Disc and 'CD' refers to Compact Disc. Data on availability of video (VCD/DVD) and CD players/recorders were first collected in HES 1992/93, and include laser disc players for HES 1992/93 and HES 1997/98.

## Household Appliances

Due to increasing affluence and a rising standard of living, the proportion of households with microwave ovens, air-conditioners and washing machines rose steadily over the years to reach 61 per cent, 75 per cent and 95 per cent respectively in 2007/08 (Chart 2).

CHART 2 AVAILABILITY OF HOUSEHOLD APPLIANCES IN HOUSEHOLDS, 1972/73 - 2007/08




## Personal Computer, Telecommunication Equipment and Services

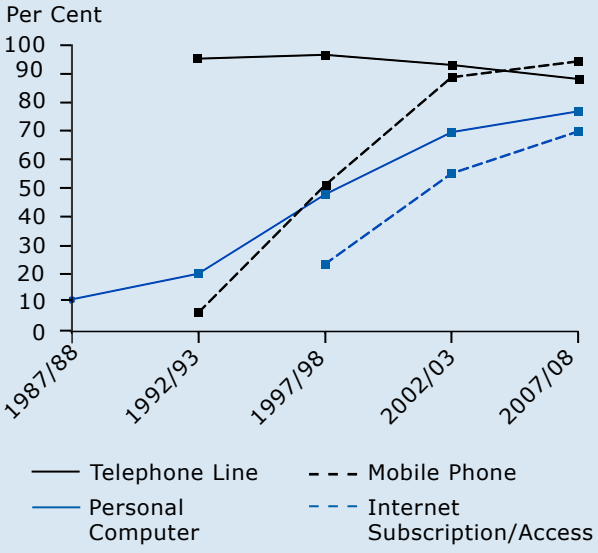
For the first time in 2007/08, the proportion of households with mobile phones (95 per cent) overtook the proportion of households with telephone lines (88 per cent) (Chart 3).

This is in contrast to 1992/93, when 95 per cent of households had at least one telephone line and only 7 per cent of households had at least one mobile phone.

The convenience and mobility of mobile phones with additional value-added services and competitive pricing had boosted the proportion of households with mobile phones.

The rising popularity of mobile phones had also contributed to the fall in the proportion of households with telephone lines as some households substituted their telephone lines with mobile phones.

CHART 3 AVAILABILITY OF PERSONAL COMPUTER, TELECOMMUNICATION EQUIPMENT AND SERVICES IN HOUSEHOLDS, 1987/88 - 2007/08




With rising proficiency in the use of information technology (IT) among the general population and the increased availability of more affordable personal computers (PCs) in the market, the proportion of households with desktop or laptop computers grew steadily from 11 per cent in 1987/88 to 77 per cent in 2007/08.

In tandem with the increase in the number of households with PCs, the proportion of households with Internet subscription/ access rose from 24 per cent in 1997/98 to 70 per cent in 2007/08.