

Household Sector Balance Sheet 2008: Recent Trends and Developments

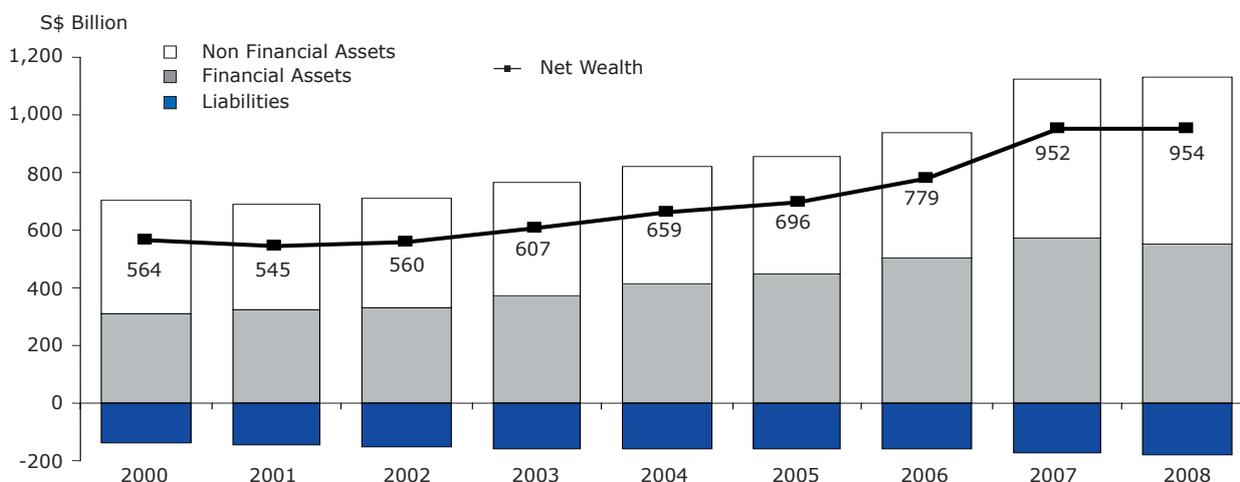
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Introduction

Singapore household net wealth grew marginally by 0.3 per cent from S\$952 billion in 2007 to S\$954 billion in 2008 compared to a double-digit growth of 22 per cent in 2007 (Charts 1 & 2).

This article provides an update of Singapore's aggregate household sector¹ balance sheet to reference year 2008. An analysis of the updated balance sheet revealed that households' accumulation of net wealth increased nearly two-fold, from S\$564 billion in 2000 to S\$954 billion in 2008.

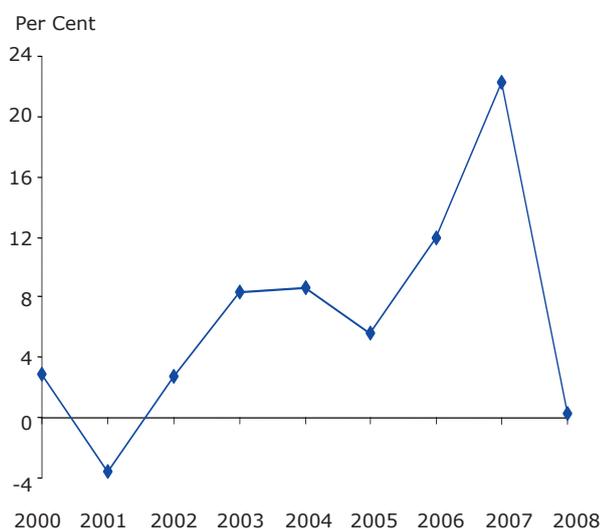
CHART 1 COMPOSITION OF HOUSEHOLD NET WEALTH, 2000-2008 (AS AT YEAR-END)



1 The System of National Accounts defines the household sector to include all households, including foreigners. The household sector also includes unincorporated enterprises such as sole proprietorships.

Financial prudence coupled with a relatively well-balanced asset portfolio had provided households with a substantial buffer in weathering the current economic downturn.

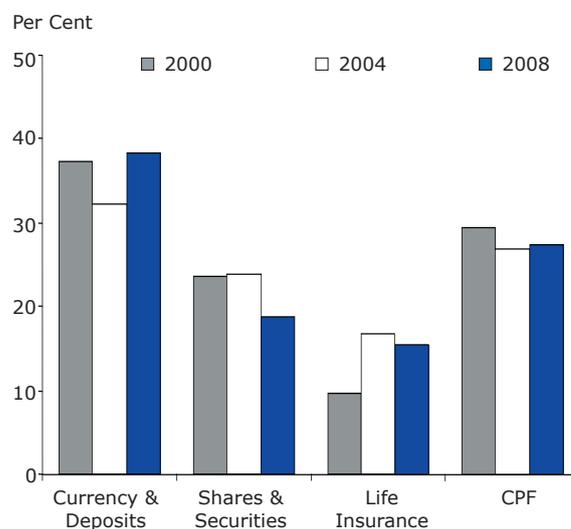
CHART 2 GROWTH IN HOUSEHOLD NET WEALTH, 2000-2008 (AS AT YEAR-END)



Strong Holdings of Financial Assets in Currency & Deposits and Central Provident Fund (CPF)

Households' holdings of currency and deposits and CPF accounted for about two-thirds of total financial assets (Chart 3). The share of life insurance increased from 10 per cent in 2000 to 15 per cent in 2008. Similarly, holdings of currency and deposits and CPF rose to about 38 per cent and 27 per cent respectively in 2008. On the other hand, households' holdings of shares and securities declined to about 19 per cent in 2008, possibly due to weak performances in the financial markets.

CHART 3 SHARE OF FINANCIAL ASSETS BY TYPE, 2000-2008 (AS AT YEAR-END)



It is no surprise that the current global financial crisis had impacted the growth of shares and securities (-29 per cent) and life insurance (-12 per cent) in 2008 (Table 1). Nevertheless, relatively strong growth in holdings of currency and deposits (9.7 per cent) and CPF (11 per cent) had somewhat alleviated the decline in the overall growth of total financial assets in 2008. Financial assets declined by 3.8 per cent in 2008, in contrast with the 15 per cent growth in 2007.

TABLE 1 GROWTH OF FINANCIAL ASSETS BY TYPE, 2005-2008 (AS AT YEAR-END)

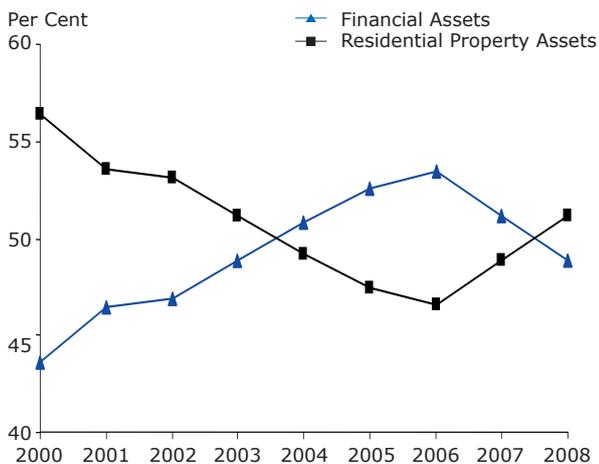
	Per Cent			
	2005	2006	2007	2008
Financial Assets	8.3	11.5	14.6	-3.8
Currency & Deposits	8.9	16.0	14.2	9.7
Shares & Securities	7.9	13.5	21.1	-29.2
Life Insurance	9.6	10.0	14.9	-12.2
CPF	7.1	5.0	8.6	10.5

Moderation of Growth in Residential Property Assets

Increasing Share of Residential Property Assets

The buoyant property market in 2007, coupled with the onset of the global financial crisis in 2008, had resulted in an increasing share of residential property assets. As at end-2008, the shares of financial assets and residential property assets were generally well-balanced at 49 per cent and 51 per cent respectively (Chart 4). This proportionate diversification in asset portfolio reduces the vulnerability of households to extreme fluctuations in either the financial or property market.

CHART 4 SHARE OF FINANCIAL AND RESIDENTIAL PROPERTY ASSETS, 2000-2008 (AS AT YEAR-END)

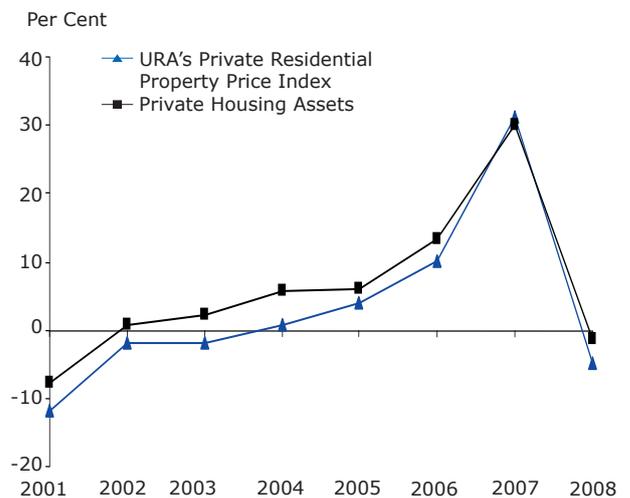


Relatively Resilient Public Residential Property Market

Consistent with the decline of the underlying private residential property price index, private housing assets fell by 1.3 per cent in 2008, in contrast with 30 per cent growth in

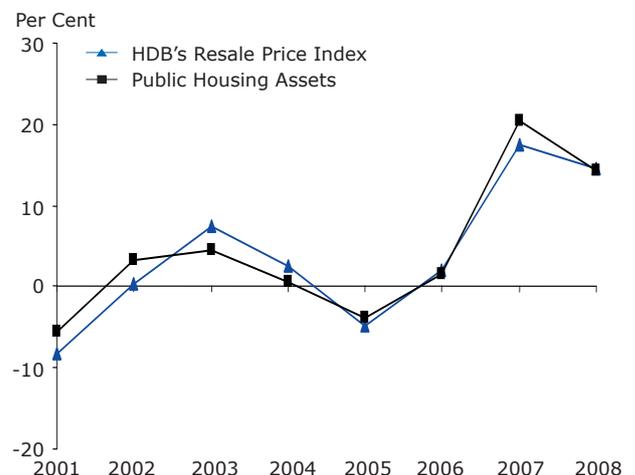
2007 (Chart 5). On the other hand, due to a relatively resilient public residential property market, growth in public housing assets moderated from 20 per cent in 2007 to 14 per cent in 2008 (Chart 6).

CHART 5 GROWTH OF PRIVATE HOUSING ASSETS & URA'S PRIVATE RESIDENTIAL PROPERTY PRICE INDEX, 2001-2008 (AS AT YEAR-END)



Sources: Singapore Department of Statistics (DOS) & Urban Redevelopment Authority (URA)

CHART 6 GROWTH OF PUBLIC HOUSING ASSETS & HDB'S RESALE PRICE INDEX, 2001-2008 (AS AT YEAR-END)



Sources: DOS & Housing Development Board (HDB)

Given that the value of public housing assets accounted for almost half of households' residential property assets, a moderate

growth of 5.6 per cent in the overall residential property assets in 2008 could be attributed to the resilience of the public residential property market (Table 2).

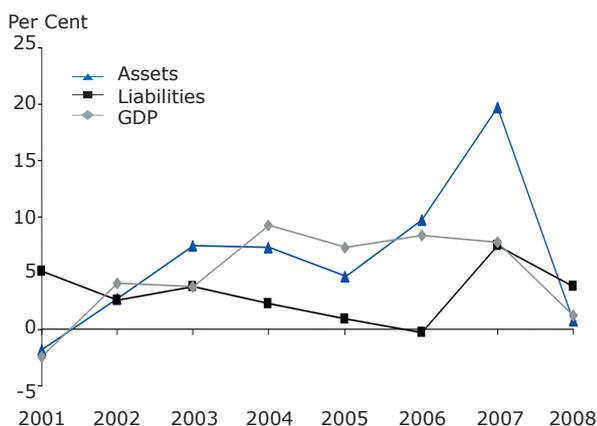
TABLE 2 GROWTH OF RESIDENTIAL PROPERTY ASSETS, 2005-2008 (AS AT YEAR-END)

	Per Cent			
	2005	2006	2007	2008
Residential Property Assets	1.0	7.6	25.6	5.6
Public Housing	-3.8	1.7	20.4	14.2
Private Housing	6.2	13.4	30.1	-1.3

Growth in Liabilities Lagged Behind Assets

Households' liabilities generally grew at a slower pace than household assets, even during years of strong economic growth from 2004 to 2007 (Chart 7). Growth in households' liabilities moderated from 7.4 per cent in 2007 to 3.8 per cent in 2008, possibly due to households being cautious about incurring additional liabilities in the midst of the current economic downturn.

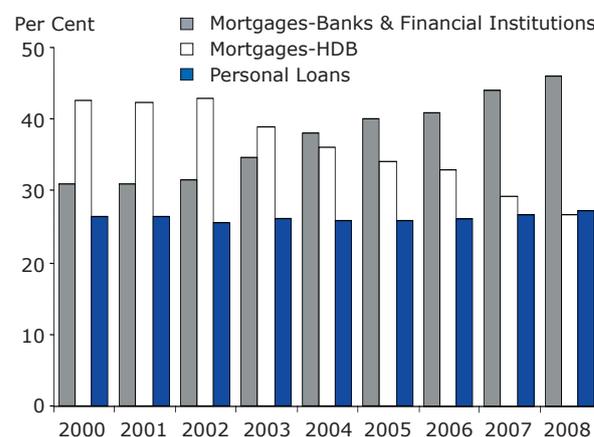
CHART 7 GROWTH IN GDP², HOUSEHOLD ASSETS & LIABILITIES, 2001-2008 (AS AT YEAR-END)



Growth of Mortgages Remained Relatively Restrained

With Singapore's high home ownership rate (90 per cent in 2008), it is no surprise that mortgage loans made up more than 70 per cent of total household liabilities (Chart 8).

CHART 8 COMPOSITION OF HOUSEHOLD LIABILITIES, 2000-2008 (AS AT YEAR-END)

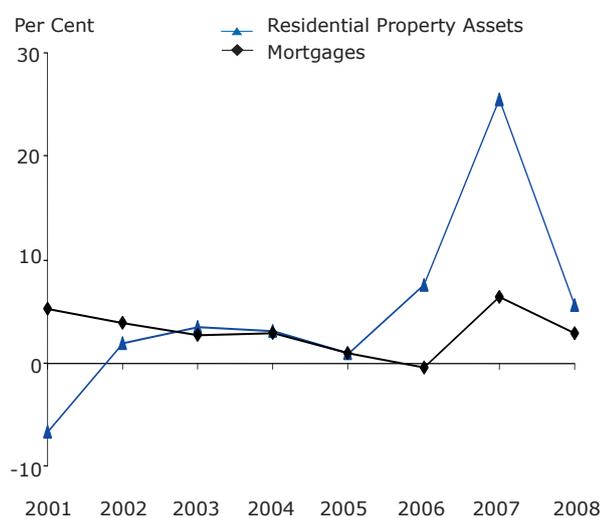


The increase in the share of mortgage loans from banks and financial institutions since 2003 could be attributed to a change in HDB's policy to focus on providing concessionary interest rate mortgage loans to eligible flat buyers and stop granting market rate housing loans in Jan 2003.

Interestingly, growth in mortgages remained relatively restrained during the recent property boom in 2007. Growth in mortgages had further moderated from 6.4 per cent in 2007 to 2.9 per cent in 2008 amid a slowdown in the property market (Chart 9).

2 GDP is valued at current market prices.

CHART 9 GROWTH IN RESIDENTIAL PROPERTY ASSETS & MORTGAGES, 2001-2008 (AS AT YEAR-END)



Rising Credit/Charge Cards Loans

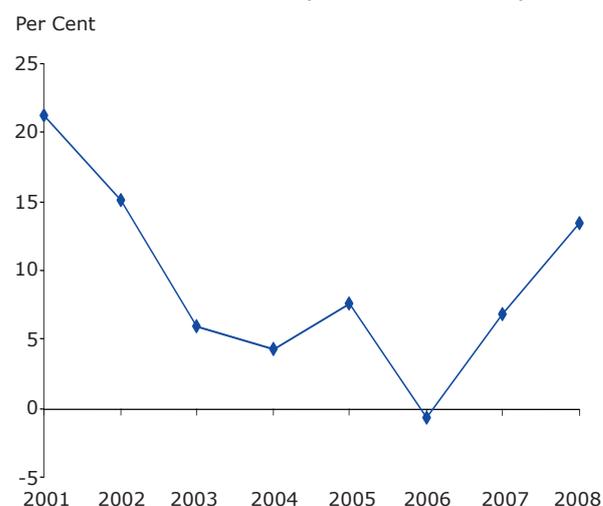
While credit/charge cards loan accounted for an average of about 10 per cent of personal loans during 2005 to 2008, its growth had strengthened steadily from 7.4 per cent in 2005 to 16 per cent in 2008 (Table 3). Credit cards loans amounted to about S\$5.5 billion in 2008 compared with S\$3.8 billion in 2005.

TABLE 3 GROWTH OF PERSONAL LOANS, 2005-2008 (AS AT YEAR-END)

	Per Cent			
	2005	2006	2007	2008
Personal Loans	1.2	0.6	10.1	6.3
Motor Vehicles Loans	3.6	0.2	4.7	2.9
Credit/Charge Cards	7.4	10.0	13.2	16.1
Others	-1.4	-0.7	13.4	6.7

As shown in Chart 10, credit card rollover balance had increased steadily since 2006, following a moderation in growth during the early 2000s.

CHART 10 GROWTH IN ROLLOVER BALANCE, 2001-2008 (AS AT YEAR-END)



Source: Monetary Authority of Singapore (MAS)

Comparison of Household Balance Sheet in Singapore, UK & US³

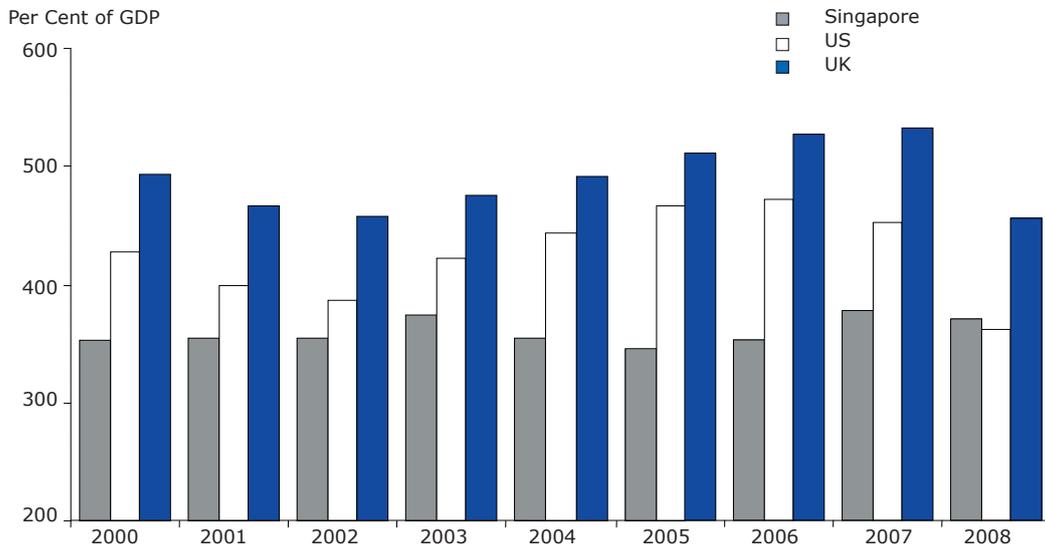
Net Wealth

Singapore's ratio of household net wealth to GDP⁴ had ranged between 350 per cent and 380 per cent since 2000 (Chart 11). UK's household net wealth ratio had generally been higher than that of Singapore's. It is notable, however, that US's net wealth ratio fell significantly from 453 per cent of GDP in 2007 to 362 per cent of GDP in 2008. US's net wealth ratio had also, for the first time, fell slightly below that of Singapore's in 2008.

3 UK and US household sector balance sheets include both households and non-profit organizations whereas Singapore household sector balance sheet excludes non-profit organizations.

4 GDP is valued at current market prices.

CHART 11 NET WEALTH RATIOS AS A SHARE OF GDP, 2000-2008 (AS AT YEAR-END)



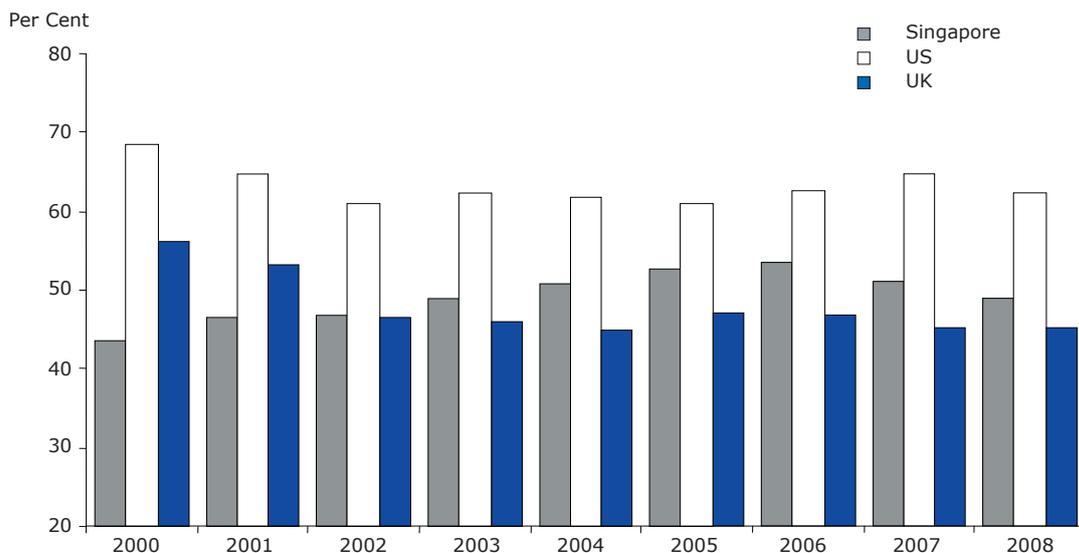
Sources: DOS, UK Office of National Statistics (ONS), US Federal Reserve (FED) & US Bureau of Economic Analysis (BEA)

Financial Assets

A comparison of the share of financial assets between the selected countries revealed that households in US are most heavily skewed towards holdings of financial assets in their

portfolios (62 per cent in 2008) whereas the share of households' holdings of financial assets in Singapore and UK are relatively well-balanced, at about 49 per cent and 45 per cent in 2008 respectively (Chart 12).

CHART 12 SHARE OF FINANCIAL ASSETS BY COUNTRY, 2000-2008 (AS AT YEAR-END)



Sources: DOS, ONS & FED

Assets-to-Liabilities & Household Indebtedness Ratios

It is noteworthy that Singapore’s assets-to-liabilities ratio had risen steadily over the years and in particular, had surpassed US and UK’s assets-to-liabilities ratio since 2007. This suggests that Singapore households had been accumulating their assets at a much faster rate compared to their incurrence of liabilities (Chart 13).

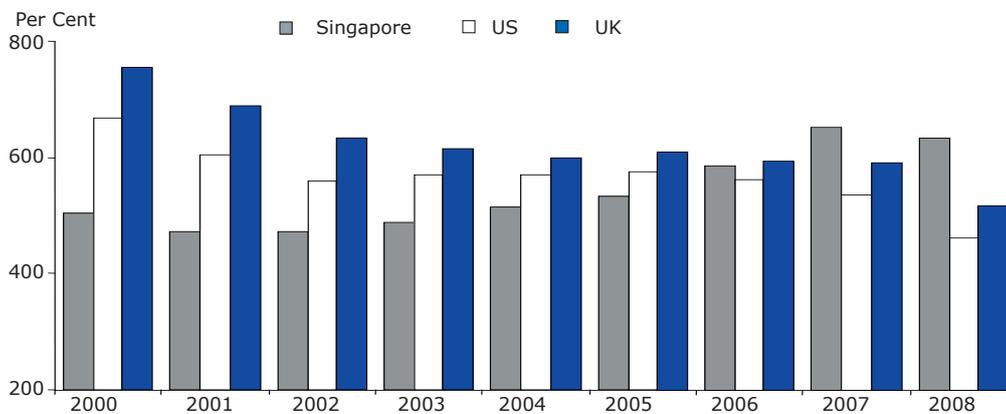
Singapore’s household indebtedness ratio (measured by the ratio of outstanding

liabilities to GDP at current market price) had declined considerably from 87 per cent in 2000 to 70 per cent in 2008 (Chart 14). Singapore’s household indebtedness ratio had remained consistently lower than that of US and UK since 2004.

Conclusion

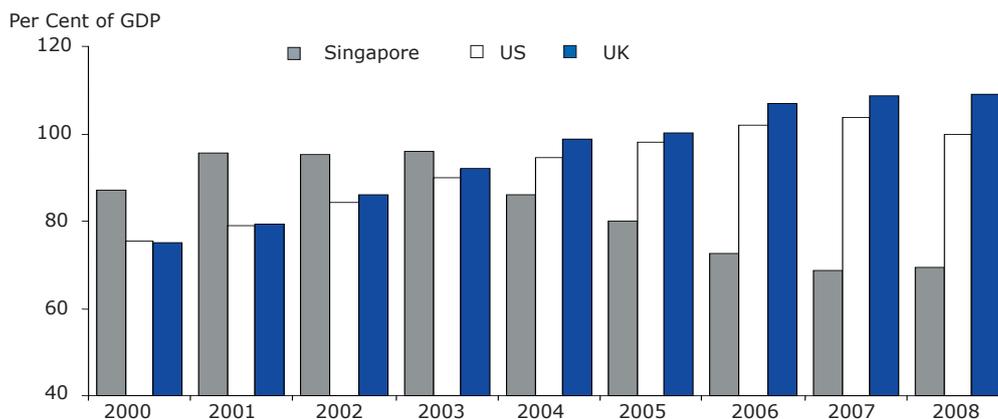
Despite the onset of the global economic downturn, Singapore’s household balance sheet had remained healthy, accumulating an additional S\$954 billion worth of net wealth by end-2008.

CHART 13 ASSETS-TO-LIABILITIES RATIO, 2000-2008 (AS AT YEAR-END)



Sources: DOS, ONS & FED

CHART 14 HOUSEHOLD INDEBTEDNESS RATIO, 2000-2008 (AS AT YEAR-END)



Sources: DOS, ONS, FED & BEA

Download table on the *Household Sector Balance Sheet, 2000 - 2008* (in Excel format) from the SingStat website at <http://www.singstat.gov.sg/stats/themes/economy/hist/hhldbance00-08.xls>

Geographic Distribution of the Singapore Resident Population

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Introduction

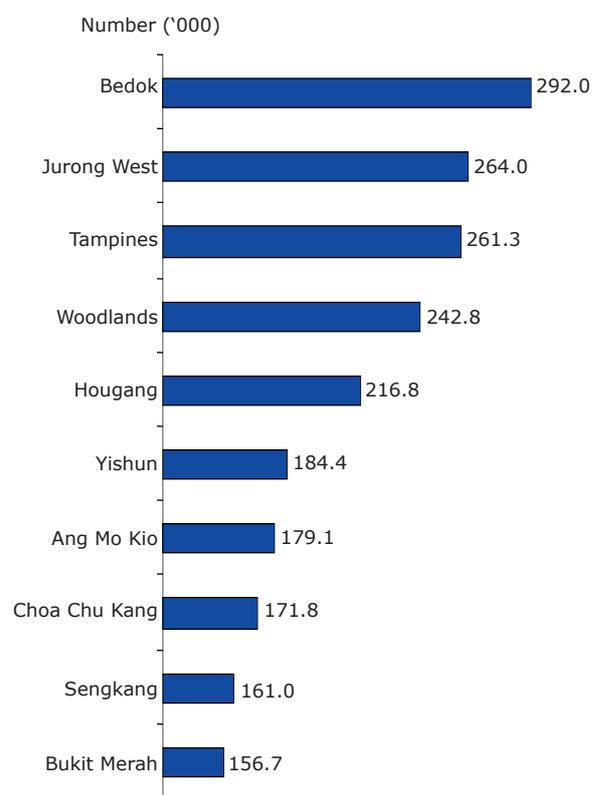
This article describes the distribution of the Singapore resident population by their registered place of address in Singapore as at end-June 2009. The Singapore resident population comprises Singapore citizens and permanent residents.

Data are based on administrative sources. The geographical areas presented in this article refer to the 55 planning areas for the physical development of Singapore as demarcated in the Urban Redevelopment Authority (URA)'s Master Plan 2008¹.

Resident Population

As at end-June 2009, there were an estimated 3.7 million Singapore residents. Some 57 per cent of them were concentrated in ten planning areas. Bedok was the registered place of address for the largest group of around 292,000 Singapore residents in 2009 (Chart 1). Jurong West was next largest, followed by Tampines, Woodlands and Hougang. The remaining five were Yishun, Ang Mo Kio, Choa Chu Kang, Sengkang and Bukit Merah.

CHART 1 TOP 10 PLANNING AREAS RANKED BY SIZE OF RESIDENT POPULATION, JUNE 2009



Between 2008 and 2009, Jurong West had the largest year-on-year increase of 10,900 Singapore residents (Chart 2). There were also relatively large increases in the number of Singapore residents with registered addresses in Woodlands (8,200) and Sengkang (8,000) in 2009.

1 More information on the Master Plan 2008 is available on URA website at <http://www.ura.gov.sg/MP2008>.

CHART 2 TOP 10 PLANNING AREAS WITH LARGEST INCREMENT IN RESIDENT POPULATION, JUNE 2009

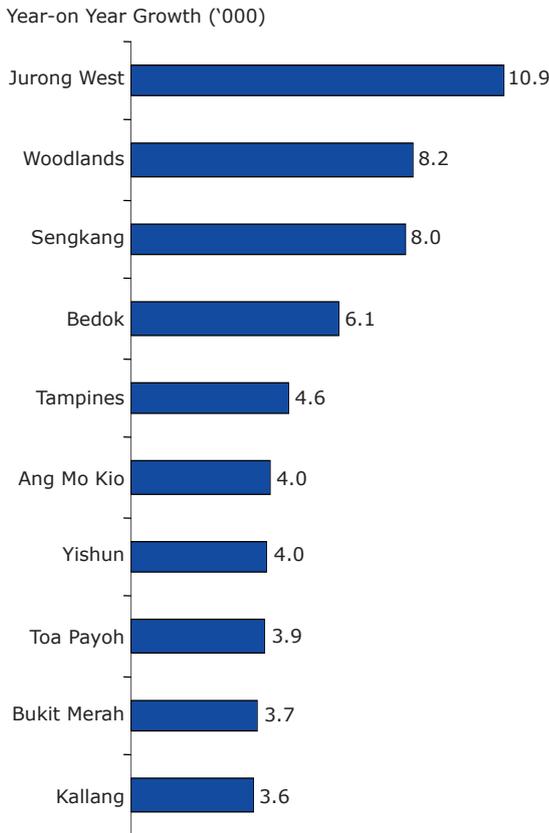
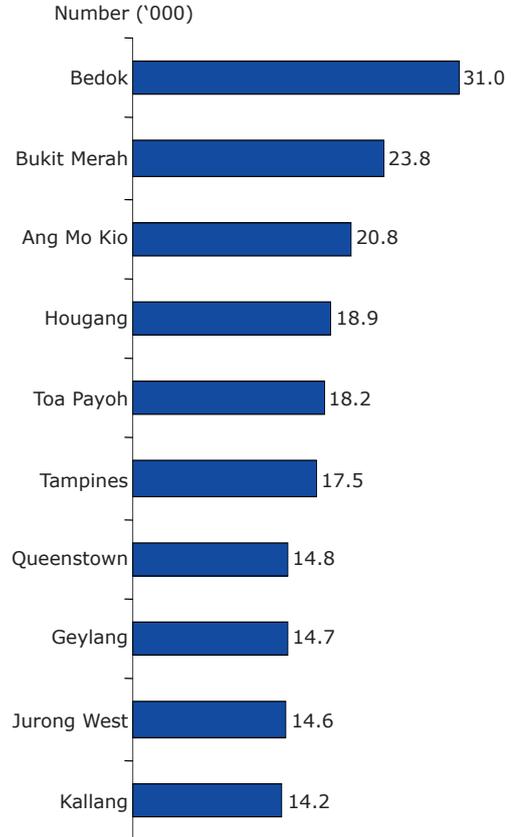


CHART 3 TOP 10 PLANNING AREAS RANKED BY SIZE OF RESIDENT POPULATION AGED 65 YEARS AND OVER, JUNE 2009



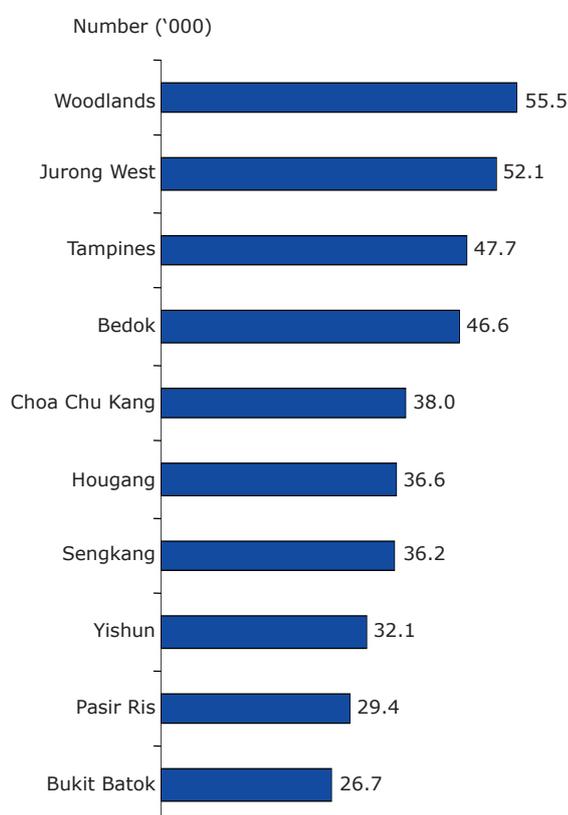
Elderly Resident Population

Some 57 per cent of an estimated 330,100 elderly Singapore residents aged 65 years and over in 2009 were staying in ten planning areas. Bedok had the largest elderly resident population with an estimated number of 31,000 in 2009 (Chart 3). Relatively older housing estates such as Bukit Merah, Ang Mo Kio, Hougang and Toa Payoh also have relatively larger elderly populations.

Children Aged Below 15 Years

In 2009, some 60 per cent of an estimated 667,900 Singapore residents aged below 15 years were concentrated in ten planning areas. Majority of these contained relatively new townships that were developed in the 1980s or 1990s. In 2009, Woodlands had the largest population of children aged below 15 years (55,500), followed by Jurong West (52,100) and Tampines (47,700) (Chart 4).

CHART 4 TOP 10 PLANNING AREAS RANKED BY SIZE OF RESIDENT POPULATION AGED BELOW 15 YEARS, JUNE 2009



HDB² 3-room or Smaller Flats

An estimated 106,100 or 2.8 per cent of Singapore residents lived in HDB 1- and 2-room flats in 2009. About 89 per cent of them were concentrated in ten planning areas comprising mostly the older HDB estates. Bukit Merah had the largest population of HDB 1- and 2-room flat dwellers, followed by Kallang, Ang Mo Kio, Toa Payoh and Bedok (Table 1). The remaining five planning areas with relatively large numbers of HDB 1- and 2-room flat dwellers were Geylang, Queenstown, Outram, Marine Parade and Jurong West.

The relatively older HDB estates also have larger numbers of Singapore residents living in HDB 3-room flats. The largest population of HDB 3-room flat dwellers were located in Ang Mo Kio, followed by Bedok, Bukit Merah, Queenstown and Toa Payoh.

TABLE 1 TOP 10 PLANNING AREAS RANKED BY NUMBER OF SINGAPORE RESIDENTS, JUNE 2009

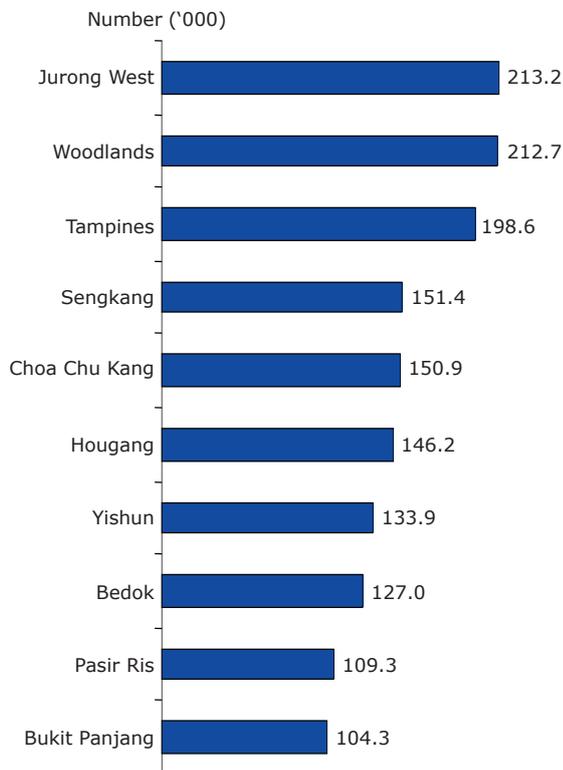
Rank	Thousand			
	HDB 1- and 2- Room Flats		HDB 3-Room Flats	
1	Bukit Merah	22.2	Ang Mo Kio	70.5
2	Kallang	11.9	Bedok	66.8
3	Ang Mo Kio	11.1	Bukit Merah	46.7
4	Toa Payoh	10.2	Queenstown	41.6
5	Bedok	9.1	Toa Payoh	41.4
6	Geylang	9.1	Yishun	39.2
7	Queenstown	8.0	Tampines	36.2
8	Outram	6.1	Geylang	34.5
9	Marine Parade	3.4	Jurong West	33.8
10	Jurong West	3.1	Clementi	33.5

2 HDB refers to Housing Development Board.

HDB 4-room or Larger Flats

An estimated 2.3 million Singapore residents were staying in HDB 4-room or larger flats in 2009, accounting for 63 per cent of Singapore residents. Of these estimated 2.3 million Singapore residents, 66 per cent were concentrated in ten planning areas comprising mostly the relatively newer HDB estates (Chart 5).

CHART 5 TOP 10 PLANNING AREAS RANKED BY NUMBER OF SINGAPORE RESIDENTS IN HDB 4-ROOM OR LARGER FLATS, JUNE 2009



Private Housing

About 78 per cent of Singapore residents who lived in landed properties were concentrated in ten planning areas. In comparison, Singapore residents staying in condominiums and private apartments were more widely spread across Singapore. About 55 per cent of them were concentrated in ten planning areas.

Bedok had the largest population of residents staying in private housing. Other planning areas with relatively large numbers of residents staying in private housing include Bukit Timah, Serangoon and Novena (Table 2).

TABLE 2 TOP 10 PLANNING AREAS RANKED BY NUMBER OF SINGAPORE RESIDENTS, JUNE 2009

Rank	Singapore Residents Staying in	
	Condominiums and Private Flats	Landed Properties
1	Bedok (36.4)	Bedok (46.1)
2	Bukit Timah (27.7)	Serangoon (34.2)
3	Bukit Batok (24.2)	Bukit Timah (32.1)
4	Tampines (19.6)	Hougang (21.9)
5	Hougang (14.9)	Ang Mo Kio (16.0)
6	Pasir Ris (14.7)	Bishan (11.3)
7	Novena (14.1)	Marine Parade (9.6)
8	Geylang (13.8)	Novena (7.5)
9	Kallang (13.4)	Pasir Ris (7.3)
10	Choa Chu Kang (13.3)	Geylang (7.3)

Average Monthly Earnings, Compensation of Employees and Unit Labour Cost: Key Concepts and Data Sources

By
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Introduction

Statistics on employee remuneration and labour costs are produced to meet different user needs. Employee remuneration could take such forms as employee earnings (e.g. average monthly earnings) and returns to labour from production (e.g. compensation of employees). Unit labour cost relates to a broader concept of labour cost to employers and notion of labour productivity. These macroeconomic aggregates are compiled based on administrative records and/or economic surveys.

This article explains the conceptual differences and data sources underlying the compilation of average monthly earnings, compensation of employees and unit labour cost.

Average Monthly Earnings

Average monthly earnings (AME) are compiled based on administrative records of the payroll of Central Provident Fund (CPF) contributors. The data include all full-time and part-time

employees who have contributed to CPF but exclude all identifiable self-employed persons who have made voluntary CPF contributions.

Conceptually, AME consists of all remuneration received before deduction of an employee's CPF contributions and personal income tax. These include basic wage, overtime payments, commissions, allowances and other monetary payments, annual wage supplement (AWS) and variable bonuses.

However, AME excludes employer's CPF contributions. AME also does not take into account certain benefits in kind (e.g. cost of training and medical benefits) and statutory levies on payroll (e.g. foreign worker levy¹, FWL and skill development levy², SDL).

While AME reflects the underlying trends of average employee earnings of Singapore citizens and permanent residents (PRs), it may not reflect the average nominal wage level of the overall economy. The administrative records on AME largely reflect the average nominal wage level of Singapore citizen and PR employees. However, the average nominal

1 Foreign Worker Levy (FWL) is a pricing control mechanism to regulate the demand of relatively unskilled foreign workers in Singapore. Every employer hiring a foreign worker under an S Pass or work permit is required to pay the FWL for each foreign worker hired on either pass.

2 Skills Development Levy (SDL) is paid by employers for all their employees up to the first S\$4,500 of the employees' gross monthly salary. The levy goes into the Skills Development Fund which is used by the Singapore Workforce Development Agency to encourage employers to send their workers for training.

wages of foreign workers holding work passes are not included in the computation of AME as these workers are not required to make CPF contributions³.

Likewise, AME may not be a good proxy of the average labour costs from the employers' perspective as remuneration of foreign workers and statutory levies on payroll are not reflected in the payrolls of CPF contributors.

Compensation of Employees

Compensation of employees (CoE) are estimated using data from administrative records (e.g. AME and employment statistics) and economic surveys (e.g. Census of Manufacturing Activities, Survey of Services and Survey of Financial Institutions) covering goods and services producing industries.

CoE is a national accounting concept measuring the income employers paid to employees for their services rendered. The United Nation's System of National Accounts⁴ (SNA) defines it as total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done in the period.

Similar to AME, CoE estimates comprise wages and salaries (including allowances and bonuses) and exclude incomes received by the self-employed persons. In the SNA, self-employed incomes are treated as mixed incomes⁵ and are classified under gross operating surplus in the Gross Domestic Product (GDP) by the income approach.

However, CoE is a broader concept of employee remuneration than AME, which includes employer's contribution to CPF, pension funds, payments for employee's insurance premiums and benefits in kind (e.g. medical and welfare benefits).

Data on CoE also include remuneration of foreigners working on work passes in Singapore. Hence, CoE reflects the returns to labour from production processes and is recorded as a component of income-based GDP.

CoE is generally considered a reasonably good proxy reflecting the underlying trends of total labour cost (TLC). Conceptually, TLC consists of CoE received by the employee and other labour-related costs (e.g. FWL and SDL) incurred by the employer (Chart 1). Based on the SNA, other labour-related costs are excluded from the compilation of CoE. However, it is generally observed that CoE accounts for most of TLC.

Unit Labour Cost

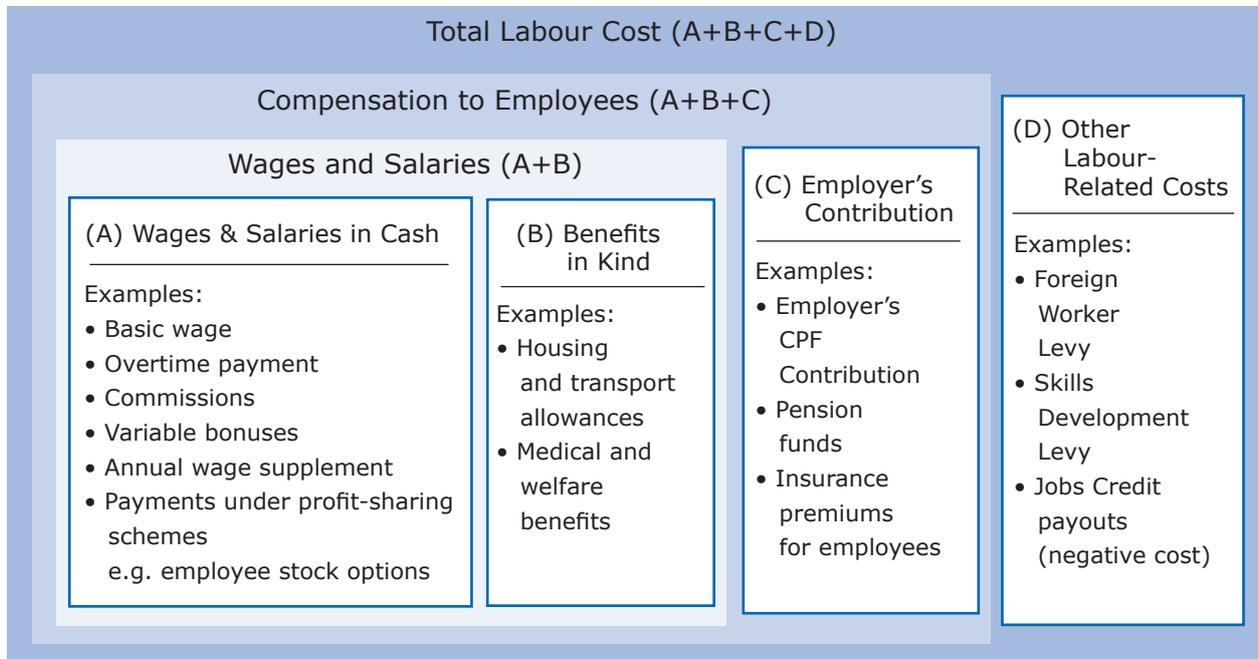
Unit labour cost (ULC) is compiled using both administrative records and economic surveys. It is defined as TLC per unit of real output. As explained, from the employer's perspective, the underlying concept of labour costs is broader than that of CoE (which is viewed more from the employee's perspective). Real value-added at basic prices is generally considered a good proxy of real output necessary for the compilation of ULC.

3 Since 1 August 1995, foreign workers on work passes and their employers are no longer required to make CPF contributions.

4 SNA is an international standard system of national accounts which provides an integrated, complete system accounts, facilitating international comparisons of all significant economic activity. For more information on the UN SNA, please refer to the website: <http://unstats.un.org/unsd/sna1993/introduction.asp>

5 Mixed incomes include remuneration for work done by the self-employed that cannot be separately identified from the returns to the self-employed as entrepreneurs.

CHART 1 CONCEPTUAL FRAMEWORK OF TOTAL LABOUR COST



Mathematically, ULC could be decomposed into average labour cost and real labour productivity as indicated in Equation (1).

From Equation (2), the change in ULC can be approximated as the difference between the change in average labour cost and real labour productivity.

Equation (3) reflects that, ULC, an important indicator of economic competitiveness, will

not rise so long as real labour productivity increases keep pace with labour cost increases.

It is worth noting that the Jobs Credit Scheme was recently introduced in Budget 2009 for one year to encourage businesses to preserve jobs of Singapore citizens and PRs in the current economic downturn. Jobs Credit payouts essentially reduce the costs to employers, and so are netted off from TLC.

$$ULC = \frac{\text{Total Labour Cost}}{\text{Real Value-Added}} \tag{1}$$

$$ULC = \frac{(\text{Total Labour Cost} / \text{No. of Workers})}{(\text{Real Value-Added} / \text{No. of Workers})} \tag{2}$$

$$\Delta ULC \cong \Delta \text{Average Labour Cost} - \Delta \text{Real Labour Productivity} \tag{3}$$

Conclusion

AME comprises of wages and salaries (including bonuses, allowances and commissions) in cash for Singapore citizens and PR employees. It excludes employer's CPF contributions, certain benefits in kind (e.g. cost of training and medical benefits) and statutory levies on payroll.

CoE is a broader measure of employee remuneration than AME. Unlike AME, data on CoE include remuneration of foreigners working on work passes in Singapore. It comprises wages and salaries in cash and benefits in kind, employer's contribution to CPF and insurance schemes for employees but excludes other labour-related costs.

ULC relates to a broader concept of labour cost to employers (i.e. CoE and other labour-related costs) and notion of labour productivity.

Do You Know?

The Singapore Department of Statistics (DOS) publishes the quarterly ULC for the manufacturing industry and the overall economy.

ULC is an indicator of labour cost in Singapore. It also shows the relationship between average labour cost and real labour productivity when total employment is taken into account.

The quarterly ULC series can be obtained from:

- The Economic Survey of Singapore
- Yearbook of Statistics
- SingStat Time Series Online.

Overseas Visitors

The Singapore Department of Statistics (DOS) received the following visitors over the past six months.

Topics discussed included the collection methodology for international trade in services statistics in Singapore, use of technology for data collection and integration of databases, Singapore's statistical system and the conduct of Census of Population in Singapore.

Other topics of interest included methodology, collection, compilation and analysis of business sentiment surveys, estimation of income mobility metrics using longitudinal data and register-based statistical databases on population and dwellings.

Demonstrations on the tabulation of survey data and exploratory data analysis of sample surveys were also provided.

China

- *Shanghai Municipal Commission of Commerce*

- Mr Gu Jia He
Secretary General
- Mr Sun Jia Rong
Director, Department of Trade in Services
- Mr Xue Feng
Department of Trade in Services
- Ms Lillian Chen
Foreign Affairs Department

Indonesia

- *Statistics Indonesia*

- Dr Sihar Lumbantobing
Deputy Director General, Methodology and Information System
- Mr Dudy Saefudin Sulaiman
Director, Statistical Information Infrastructure
- Mr Abdul Rachman
Director, Statistical Dissemination

- *PT SAS Institute, Indonesia*

- Mr Uday Mathkar
Country Manager
- Mr Jongki Sundah
Director, Sales & Alliances
- Mr Kristianus Yulianto
Consulting and Services Manager

Korea

- *Statistics Korea*

- Mr Ha Bong Chae
Deputy Director, Population Census Division
- Ms Cho Sung Do
Statistician, Population Census Division

- Mr Lee Hyun Jeong
Statistician, Statistics Research Institute
- Ms Park Jin Hyun
Statistician, Information System Development

Taiwan

- *Department of Budget, Accounting and Statistics, Kaohsiung City Government*

- Mr Chao-Jung Pang
Senior Executive Officer

Vietnam

- *General Statistics Office*

- Prof Nguyen Bich Lam
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- Mr Pham Dinh Thuy
Director, Department of Industrial and Construction Statistics

- *Asia Competitiveness Institute*

- Mr Do Hong Hanh
Country Representative for Vietnam

United States

- *Population Studies Center, Institute for Social Research, University of Michigan*

- Prof Sheldon H. Danziger
Research Professor

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Professor Emeritus

Infant Mortality in Singapore

Do you know...

that Singapore's infant mortality (i.e. deaths of infants under 1 year of age) has improved significantly since 1980. In 1980, about 8 in 1,000 infants did not survive beyond their first year of life. By 2008, this ratio declined to about 2 in 1,000 infants (Chart 1).

Typically, proportionately more infant girls than boys would survive their first year. In 2008, the female infant mortality rate was 1.7 deaths per thousand live-births vis-a-vis 2.6 deaths per thousand live-births for males.

The improvement in infant mortality between 1980 and 2008 was due to reductions in both neonatal deaths (i.e. deaths of infants under 28 days of age) and post-

neonatal deaths (i.e. deaths of infants from 28 days to under 1 year of age).

There were 379 fewer infant deaths in 2008 (at 104) than in 1980 (at 483) (Chart 2). 304 fewer neonatal deaths were recorded in 2008 than in 1980, accounting for 80 per cent of the decline in the number of infant deaths. The remaining 75 fewer infant deaths, or 20 per cent of the decline, during the period was due to post-neonatal deaths.

Singapore's infant mortality rate compares favorably with those in selected developed countries/regions. Infant mortality rate in Singapore was higher than Hong Kong but lower than Japan, South Korea, Australia, Taiwan, United Kingdom, New Zealand, Canada and USA (Chart 3).

CHART 1 INFANT MORTALITY RATES, 1980-2008

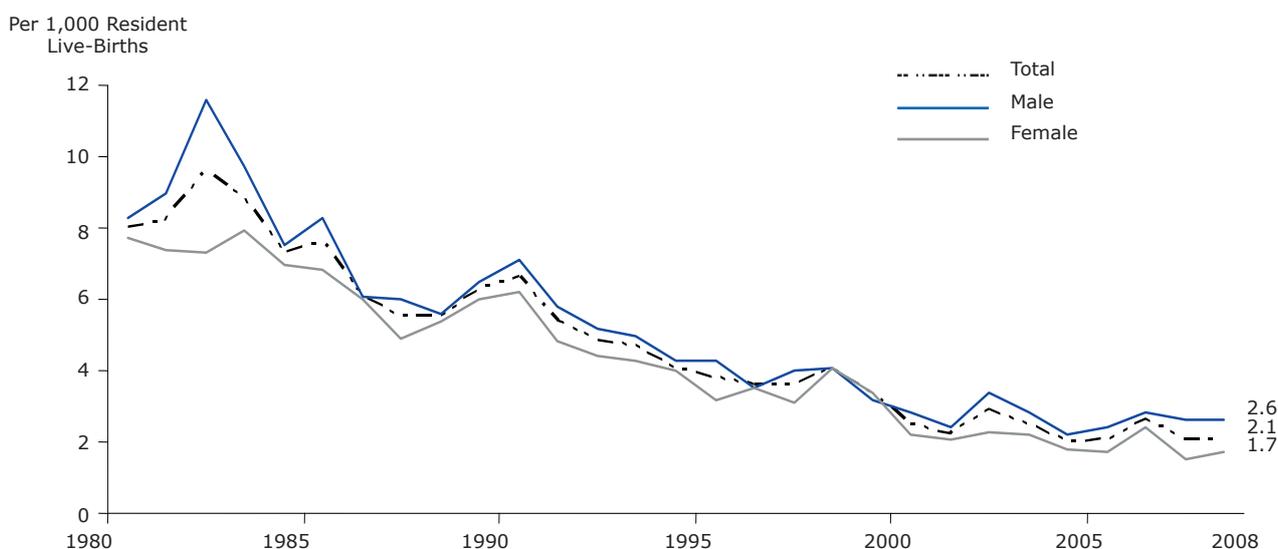


CHART 2 NUMBER OF NEONATAL AND POST-NEONATAL DEATH, 1980-2008

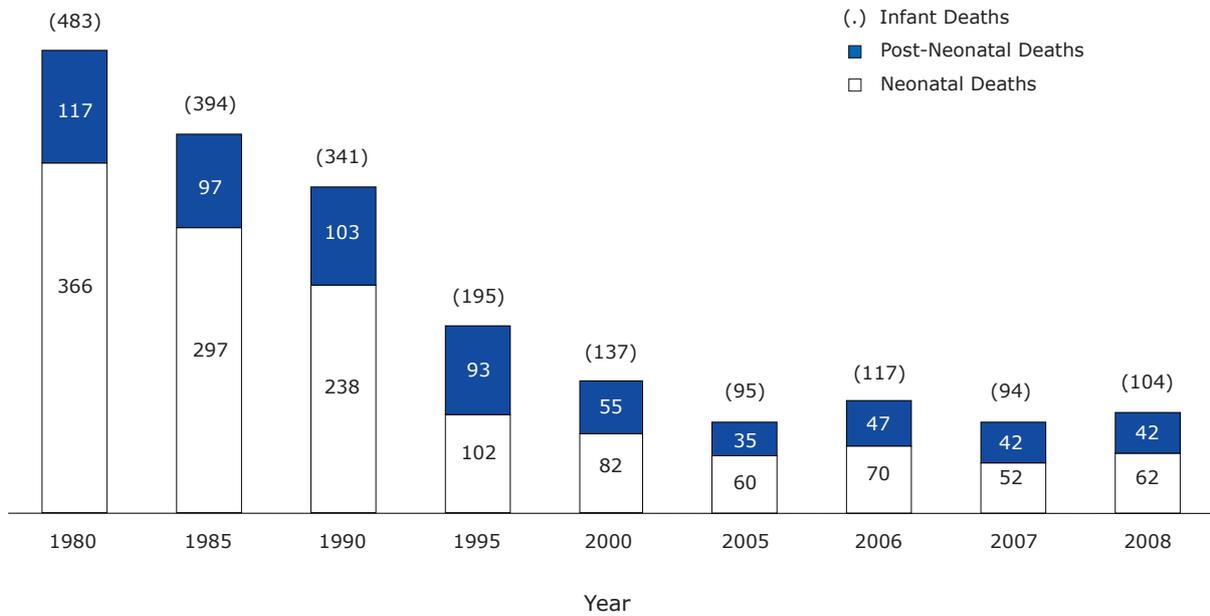
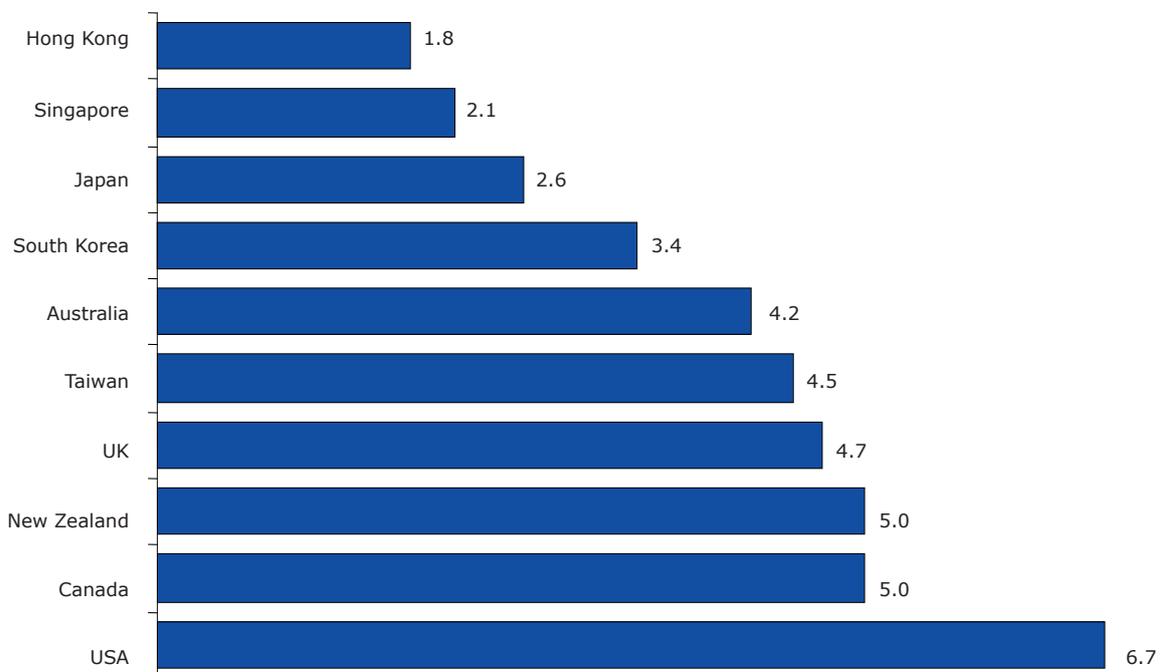


CHART 3 INFANT MORTALITY RATES OF SELECTED COUNTRIES/REGIONS, 2008

Per 1,000 Live-Births



Note: Data for USA and Canada refer to 2006.
 Data for Japan, South Korea and Australia refer to 2007.

Performance of the Services Sector for Reference Year 2007

In 2007, there were 138,400 establishments in the services sector (excludes banks and finance, securities & insurance companies under the purview of the Monetary Authority of Singapore as well as public administration activities), employing a total of 1,197,500 workers.

The services sector comprised mainly firms engaged in wholesale trade, retail trade, real estate & business services, and community, social & personal services. These four main industries accounted for about 80 per cent of total establishments.

The key indicators of the services sector are provided in the table below. More information is available from the series of seven reports on the Annual Survey of Services 2007, which

was conducted to collect a wide range of data for studies and analyses of the services sector. The first six reports focus on several services industries of importance to Singapore's economy, namely:

- *Food and Beverage Services*
- *Health Services*
- *Information and Communications Services*
- *Retail Trade*
- *Transport and Storage Services*
- *Wholesale Trade*

The final consolidated report, ***The Services Sector***, provides a comprehensive performance review of the services sector.

Softcopies of these reports are available for free access via the SingStat website at <http://www.singstat.gov.sg>.

Industry	No. of Establishments	No. of Workers Employed	Operating Receipts	Operating Expenditure	Operating Surplus	Value Added
	('000)			(S\$ Billion)		
Wholesale and Retail Trade	54.4	352.9	1,257.9	1,229.0	30.7	48.2
Transport and Storage Services	8.9	129.7	71.8	61.2	15.3	22.9
Accommodation and Food & Beverage Services	5.5	107.4	8.6	7.4	1.6	3.9
Information and Communications	5.9	68.6	28.5	25.8	4.1	8.8
Financial- and Insurance-Related Services	8.7	28.7	64.0	20.9	43.5	8.7
Real Estate and Business Services	30.9	288.1	69.0	60.0	12.8	27.9
Community, Social and Personal Services	24.1	222.3	19.7	22.5	3.0	12.5
The Services Sector	138.4	1,197.5	1,519.6	1,426.8	111.0	133.0

Source: Economic Surveys Series 2007 - The Services Sector

Note: Figures may not add up to total due to rounding.

Formation and Cessation of Companies and Businesses, January-June 2009

Companies

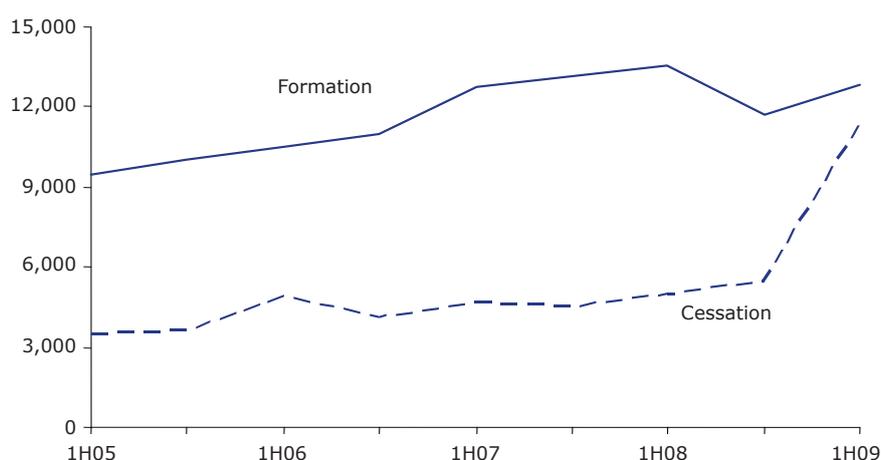
A total of 12,800 companies were formed in 1H09, representing a decline of 5.8 per cent over 1H08 but a growth of 9.0 per cent over 2H08. Compared to 1H08, most major industries recorded declines in the number of companies formed in 1H09.

Double-digit declines were observed in financial & insurance activities (38 per cent), real estate, rental & leasing activities (27 per cent), manufacturing (25 per cent), arts, entertainment, recreation & other service activities (15 per cent) as well as administrative & support service activities (12 per cent) industries.

On the other hand, company formations increased in industries such as education, health & social work activities (14 per cent), professional, scientific & technical activities (8.5 per cent), and wholesale & retail trade (8.3 per cent).

The total number of company cessations stood at 11,280 in 1H09, as compared to 5,010 recorded in 1H08. The significant increase was mainly due to the Accounting and Corporate Regulatory Authority (ACRA) conducting a review of defunct companies on its register of companies and taking action to strike off these companies in batches.

CHART 1 FORMATION AND CESSATION OF COMPANIES



Businesses

The number of businesses formed in 1H09 was 14,360. This was 13 per cent higher than the 12,660 in 1H08. Most major industries reported increases in business formations.

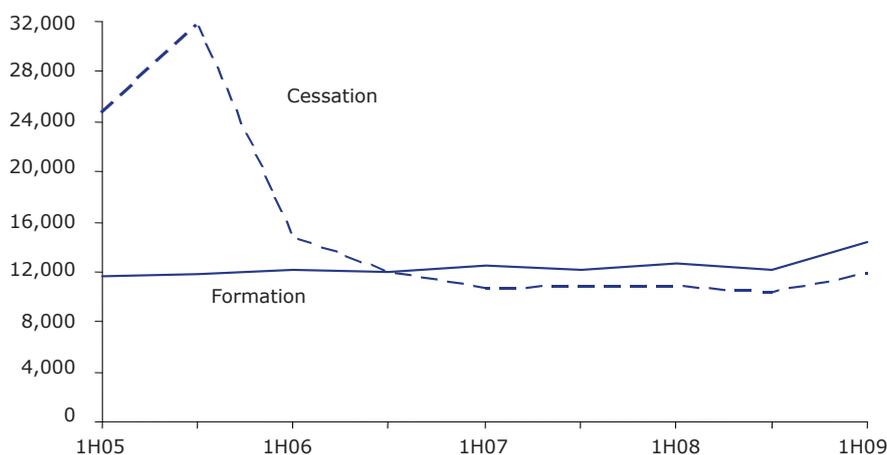
In particular, professional, scientific & technical activities, real estate, rental & leasing activities, financial & insurance activities and information & communications industries reported significant growths of 22 to 57 per cent in the number of businesses formed.

In contrast, declines in business formations were recorded in the transport & storage

(12 per cent), education, health & social work (8.7 per cent), manufacturing (6.2 per cent) and construction (6.0 per cent) industries.

The total number of business cessations in 1H09 increased by 8.4 per cent over 1H08 to reach 11,730. All major industries reported increases in business cessations, except for the transport & storage industry which reported a decline of 2.6 per cent in the number of ceased businesses. Industries like professional, scientific & technical activities, real estate, rental & leasing activities, education, health & social work and construction were among those which registered higher business cessations in 1H09.

CHART 2 FORMATION AND CESSATION OF BUSINESSES



Singapore's Census of Population 2010

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What is a Census?

The United Nations (UN)'s Principles and Recommendations for Population and Housing Censuses (2008) defines a population census as the total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well-delimited part of a country.

In Singapore, the population census is the most comprehensive source of information on population and household. It provides benchmark data for all demographic, social and labour force statistics. Data from the population census are key inputs for policy review and formulation. The large sample size and coverage of the population census also facilitate analyses on different population groups and studies by broad geographical area.

History of Census Taking in Singapore

Singapore's first census was taken in April 1871 as part of the Straits Settlement Census. Since then, regular censuses were undertaken at ten-year intervals up to 1931. The Second World War delayed the next censuses till 1947 and 1957.

In 1970, Singapore conducted its first post-Independence population census. Three other censuses were subsequently conducted in 1980, 1990, and the latest in 2000. The Census 2010 will be the fifth census carried out since Independence and the fourteenth in the series of census-taking in Singapore.

In the early censuses and up to as recent as 1990, census information was collected by field work. Census officers had to make home-to-home visits to each and every household in Singapore to perform face-to-face interviews. Responses to the census questions were then recorded on paper forms and sent back to the census office for processing and compilation.

The Census 2000

Post Census 1990, the Singapore Department of Statistics (DOS) reviewed the entire framework in which social and demographic statistics were collected. Three important trends were identified as having a profound influence on the collection of social and demographic statistics for Census 2000.

Firstly, there was increased demand for comprehensive data on the population on a timely basis. Secondly, advances in Information Technology (IT) including the widespread use of Internet, data warehousing software and integrated call-centre

technologies opened up new possibilities in data collection and capture. Thirdly, the stability and reliability of public databases developed in the 1980s and 1990s meant that a large amount of administrative data could be matched, captured and used for statistical purposes. Data collection methods and procedures for Census 2000 were refined along these lines.

In 2000, Singapore conducted its first register-based census. Basic demographic data were obtained from administrative records. This was supplemented with a 20 per cent sample enumeration which collected detailed data required for in-depth studies. Steering away from the reliance on field work, a tri-modal data collection approach, comprising of Internet enumeration, Computer Assisted Telephone Interviewing (CATI) and field work, was introduced for the sample survey.

The Approach for Census 2010

The Census 2010 will continue to adopt a register-based approach. Basic population count and characteristics such as age, sex and nationality will be compiled from administrative sources. A sample enumeration of some 200,000 households for additional information not available from any administrative data sources would be sufficient.

Leveraging on the success and lessons learned from the Census 2000, a tri-modal data collection strategy comprising Internet enumeration, CATI and field work will be used to facilitate data collection for the households in the census sample.

Internet Enumeration

DOS first introduced the Internet for data collection in Census 2000. High Internet penetration rate and computer literacy in Singapore, coupled with the increasing difficulty of reaching respondents at their homes, are key considerations in the adoption of Internet enumeration for census taking.

Available 24 hours a day, 7 days a week, Internet enumeration provides respondents with the flexibility of responding at any time they desire. It allows respondents to provide their survey returns directly to the system without having to go through a third party (i.e. the interviewer).

The acceptance of Internet enumeration by the public was evident from the growing proportion using this mode in our last two household surveys. The proportion of respondents opting for Internet enumeration increased from 15 per cent in the Census 2000 to almost 25 per cent in the General Household Survey (GHS) 2005.

Several key features were addressed in the implementation of Internet enumeration:

- *Automated branching of questions is used to direct respondents to questions that are only relevant to them based on previous entries/selection. Tips and definitions are also included to aid respondents.*
- *To ensure completeness of returns and data consistency, basic verification rules are built in the system.*

- *As the Internet is open to threats such as computer hacking and viruses, security features are put in place to protect the confidential data that respondents provide.*
- *All electronic transmissions of data through the Internet are also encrypted.*

Computer Assisted Telephone Interviewing (CATI)

CATI is a tried-and-tested data collection strategy, having been deployed thrice in earlier Census and General Household Surveys. Respondents, who are not able to complete their returns via the Internet, have the option to provide their returns over the phone with the assistance of telephone interviewers.

As in the conduct of Census 2000, households who do not complete their returns via Internet by a stipulated date will also be contacted by CATI interviewers for telephone interviews.

CATI was the main mode of collection for the last Census 2000, accounting for more than 60 per cent of all survey returns. To better support the public in their submission, the operating hours of the Census 2010 CATI hotline will be extended from 9pm (during the conduct of Census 2000) to 10.30pm daily.

Field Work

Face-to-face interviews will continue to be offered as a mode of submission for respondents in Census 2010. Households will be scheduled for field work if they do not

respond via Internet and cannot be contacted by CATI after several attempts.

Field workers will visit these households to conduct face-to-face interviews. In the event where they fail to contact the respondents in these households, they will leave appointment slips behind for the respondents to contact them to schedule a convenient time for an interview.

Unlike the traditional paper and pen approach, the Ultra-Mobile Personal Computer (UMPC) will be adopted in the field collection in Census 2010. The use of technology will provide logistic convenience, eliminating the need for printing and transportation of hardcopy survey forms, and transcribing the responses back in office. Automatic branching of questions with consistency checks will also be introduced to reduce back-end processing efforts with electronically coded data captured directly in the field.

Census 2010 Data Topics and Uses

Information from the censuses provides a detailed profile of how Singapore's population is changing over time. The data collected and tabulated from censuses are essential to meet the planning needs of Government Ministries, Departments and private sector organisations. The following table provides an indication of the data items that will be collected in the Census 2010 and their possible usage.

Data Items	Uses
Demographic and Social Data	
<ul style="list-style-type: none"> • Birth Date • Ethnic/Dialect Group • Sex • Identification Type • Country of Birth • Citizenship • Marital Status • Religion • Address 	Basic demographic profile of the population is used to monitor population changes through the years. Some examples: <ol style="list-style-type: none"> 1. The age by ethnic group breakdown would indicate how fast and which group of the population is aging, enabling organizations to provide for appropriate facilities. 2. The use of marital status data by sex and ethnic group would help track the singlehood rates of different cohorts.
<ul style="list-style-type: none"> • No. of Children Born Alive 	Studies on the effects of delayed marriage and childbearing on population growth.
<ul style="list-style-type: none"> • Language/Dialect Most Frequently Spoken at Home • Language Literate In 	Curriculum planning for schools, and for use in private sector media advertisements.
Economic and Employment Data	
<ul style="list-style-type: none"> • Current Activity Status • Industry • Occupation • Nature of Employment (Full-time/ Part-time/Serving National Service) • Usual No. of Hours Worked Per Week • Income and Bonuses • Action Taken to Look for Work • Main Reason for Not Working 	This is used to provide numerous indicators on Singapore's labour force and employment opportunities. Some examples of use: <ol style="list-style-type: none"> 1. A combination of age, education, income, industry and occupation tabulations provide in-depth study of the labour market demand and supply. 2. Profile of full-time and part-time workers. 3. Profile of the unemployed.
Education Data	
<ul style="list-style-type: none"> • Level of Formal Education Attending • Highest Qualification Attained • Major Field of Study • Skills upgrading - Technical/Commercial/ Vocational Qualification 	It is a useful gauge on the type of new entrants to the workforce. Some examples of use: <ol style="list-style-type: none"> 1. To estimate the supply of potential manpower. 2. The education by age and by sex data would provide an indication of how fast Singapore's education profile is improving. Education and skills groupings are also crossed with many different types of data including occupation and income to provide indications of job matching, etc.
Transportation Data	
<ul style="list-style-type: none"> • Usual Mode of Transport to School/Work • Usual Time Taken to Travel to School/Work 	This is used to study the change in transport mode and transportation network for planning transport system for the population.

Data Items	Uses
Data on Elderly Population aged 65 years and over	
<ul style="list-style-type: none"> • Ambulant Status • Main Source of Financial Support 	This is used to gauge the well-being of elderly and to plan for the welfare and services required by this group of the population.
Housing Data	
<ul style="list-style-type: none"> • Type of Present Dwelling • Tenancy of Present Dwelling 	This is used to study profile of house/flat owners and tenants. The data is often crossed tabulated with households and geographical location data fields to provide further analysis by urban planners.

Confidentiality and Security of Information

As the key producer of official statistics in Singapore and the custodian of data provided to our Department, data confidentiality and security are of paramount importance to DOS. The design and approach of the Census 2010 data collection is built based on this underlying principle.

As part of the security measure, all selected respondents will receive a notification letter with a unique, randomly generated House Reference Number (HRN). Respondents who wish to provide their information via Internet may register their Internet accounts using the HRN and selected personal information. Administrative procedures will be put in place to ensure proper authentication before respondents could access the Internet form.

In CATI, interviewers will quote the respondent's unique HRN over the telephone to identify themselves as genuine Census 2010 officers before proceeding with the interview. A Census 2010 hotline will be provided for respondents to verify the identity of the CATI interviewers.

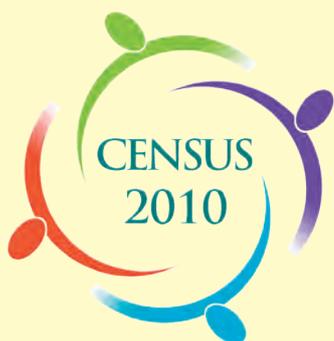
In field work, each Census 2010 field interviewer will carry a Letter of Authorisation and Identification Badge as a form of authentication. Similar to CATI, respondents may also call the Census 2010 hotline to verify the interviewer's identity.

Confidentiality of individual information collected in the Census 2010 will be protected under the legal provisions of the Statistics Act. Data provided are used solely for statistical purposes. All survey officers are required to sign an undertaking to safeguard individual information under the Statistics Act.

Concluding Remarks

A series of publicity programmes will be launched to generate awareness about the Census 2010 among the general public. This includes press releases, radio announcements and publicity posters at public places. Notification letters and information brochures will also be mailed to the selected households before commencement of the survey to notify them of the census. The success of Census 2010 depends critically on the full cooperation and support of the population of Singapore.

The Census 2010 Logo and Tagline Revealed!



**Your Response Matters.
Help Shape the Future Together.**

The Census 2010 logo depicts four stylised drawings of individuals embracing "Census 2010". It represents people from the different ethnic groups coming together to embrace "Census 2010". It symbolises the cooperation and active participation of every individual and household towards the successful conduct of this national statistical project.

Each individual's response to the Census is important. With data from these responses, we can shape the future of Singapore together.

Contents

- 1 Household Sector Balance Sheet 2008: Recent Trends and Developments**
- 8 Geographic Distribution of the Singapore Resident Population**
- 13 Average Monthly Earnings, Compensation of Employees and Unit Labour Cost: Key Concepts and Data Sources**
- 16 Overseas Visitors**
- 18 Infant Mortality in Singapore**
- 20 Performance of the Services Sector for Reference Year 2007**
- 21 Formation and Cessation of Companies and Businesses, January - June 2009**
- 23 Singapore's Census of Population 2010**

The *Statistics Singapore Newsletter* is issued half-yearly by the Singapore Department of Statistics. It aims to provide readers with news of recent research and survey findings. It also serves as a vehicle to inform readers of the latest statistical activities in the Singapore statistical service.

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