

KEY SOCIO-ECONOMIC OUTCOMES ACROSS COHORTS

Ministry of Finance Report

Oct 2019

1 INTRODUCTION

1.1 This report studies the socio-economic characteristics of Singaporeans born in 1940 – 1979, using data from the Department of Statistics, the Ministry of Health, and the Ministry of Manpower.

1.2 We have segmented the population being studied into four ten-year groups:

- Generation-1 (Gen-1): Singaporeans born in 1940 – 1949;¹
- Generation-2 (Gen-2): Singaporeans born in 1950 – 1959;²
- Generation-3 (Gen-3): Singaporeans born in 1960 – 1969; and
- Generation-4 (Gen-4): Singaporeans born in 1970 – 1979.

1.3 The paper looks at a variety of socio-economic indicators which reflect increasing investment in human capital (through education and healthcare), higher labour force participation, better wages and savings for retirement, rising residential property ownership rates, and strong family support. Each group has done better than the previous across most of these different facets of socio-economic progress.

1.4 The rest of the paper is organised as follows:

- Section 2: Educational attainment. This looks at changes in the highest level of formal education attained.
- Section 3: Employment and savings. This analyses changes in the Labour Force Participation Rate (LFPR), real income from work, and Central Provident Fund (CPF) savings.
- Section 4: Residential property ownership. This compares the residential property ownership rate across groups, to study how home ownership has been key to social stability and the Singaporean way of life.
- Section 5: Health. This analyses trends in life expectancy and health-adjusted life expectancy (HALE). Longer, healthier life expectancies enable Singaporeans to lead active and meaningful lives, including in their retirement years.
- Section 6: Family support. This is proxied by the size of the immediate family, which is related to marriage rates and birth rates. This indicator is important as families are a key source of caregiving and financial support.

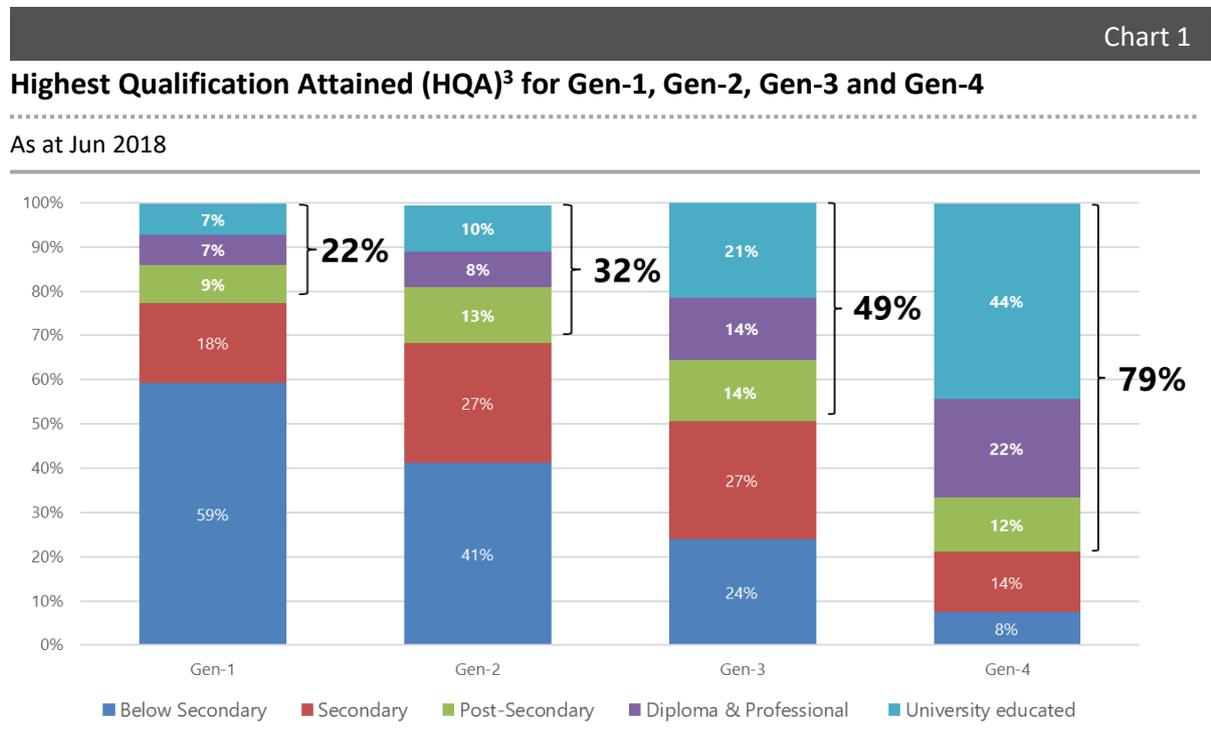
1.5 Section 7 presents our concluding observations.

¹ This corresponds to the youngest 10 cohorts of citizens in the Pioneer Generation (PG).

² This corresponds to the cohorts of citizens in the Merdeka Generation (MG).

2 EDUCATIONAL ATTAINMENT

2.1 Singaporeans have seen improvements in educational attainment. **22%** of Gen-1 went beyond secondary school education, compared to **32%** of Gen-2, **49%** of Gen-3, and **79%** of Gen-4 (see [Chart 1](#)).



Source: Department of Statistics (2018). Figures may not sum up due to rounding.

2.2 These were largely the result of enhanced access, greater affordability, and improvements in the quality of education, which also afforded more pathways and options.

- Gen-1 grew up in an era of a fragmented school landscape organised by different community groups. Schools were uneven in quality.
- Gen-2, especially the younger among them, benefited from the rapid construction of schools, large-scale recruitment of teachers, and the introduction of universal primary education in the post-independence years. Vocational schools were also expanded in the 1960s and 1970s. However, dropout rates were high.⁴

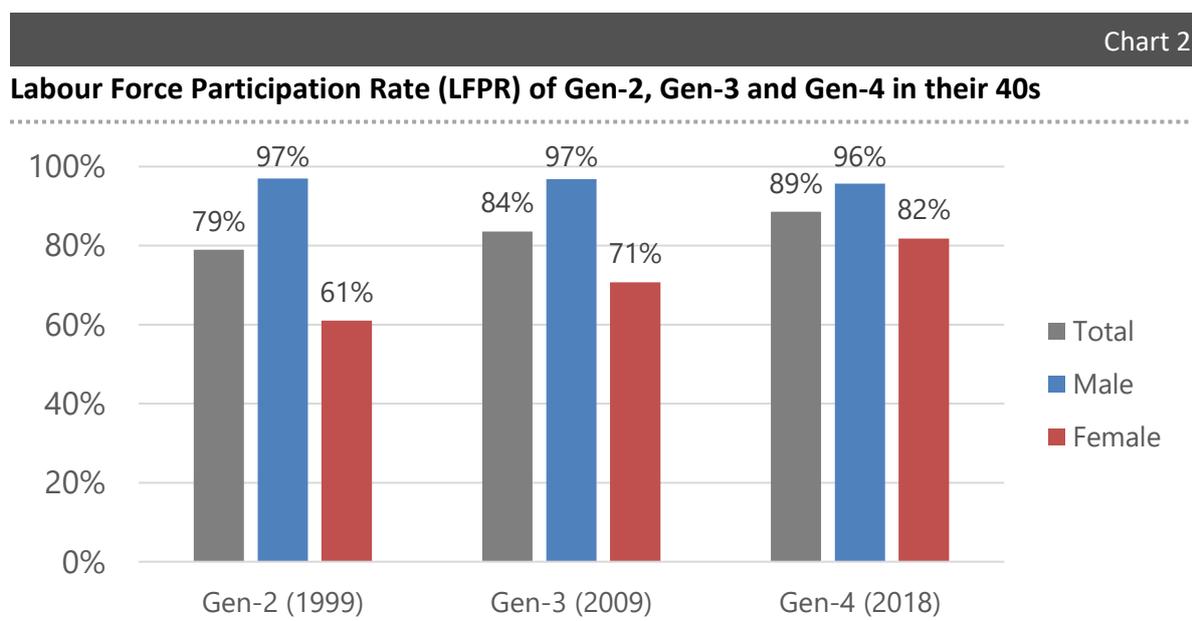
³ Post-secondary education refers to at least 1 GCE 'A'/H2' Level pass or equivalent, International Baccalaureate/High School diploma, National ITE Certificate and WSQ Certificate. This could include those who received post-secondary education later in life, or from private educational institutes, or outside of Singapore. Based on historical snapshots, about 10% of Gen-1 and less than 20% of Gen-2 progressed into post-secondary education. (Source: Ministry of Education, 2018)

⁴ From 1971 to 1974, 29% of the Primary One enrolment failed or did not complete primary school, and a further 36% failed or did not complete secondary school. (Source: Report on the Ministry of Education (1978). By Dr Goh Keng Swee and the Education Study Team.)

- By the 1980s, Singapore had grown to become a newly-industrialising economy. Gen-3 had access to a robust national curriculum with an emphasis on science, mathematics and technical education, and clear pathways of progression to the universities, polytechnics, and vocational institutes.
- As Singapore transitioned from an industrialised economy to a knowledge-based economy, Gen-4 benefited from major shifts in the education system to focus on technological literacy, continuing skills development, innovation, and enterprise. Access continued to grow with the expansion of capacity in post-secondary educational institutions.

3 EMPLOYMENT AND CPF SAVINGS

3.1 As educational attainment levels improved, more people found good jobs, earned higher wages, and saved more for retirement. Comparing each group when they were in their 40s, the Labour Force Participation Rate (LFPR) has risen from **79%** for Gen-2, to **84%** for Gen-3, and **89%** for Gen-4⁵ (see [Chart 2](#)). This was driven by an increase in female LFPR.



Source: Ministry of Manpower

3.2 Each successive group also experienced broad-based growth in real income from work.

- The median real gross monthly income from work (including employer CPF contributions) of a full-time Gen-4 worker was **twice** that of a full-time worker in Gen-2 when they were in their 40s. A similar trend was observed for individuals at the 20th percentile (P20) (see [Table 1](#)).

⁵ Data on Gen-1 LFPR and annual income from work when they were in their 40s is not available.

Table 1

P20 and Median Real Gross Monthly Income from Work (including employer CPF contributions) of Full-Time Gen-2, Gen-3, Gen-4 in their 40s

2018 dollars

	Gen-2 (as at Jun 1999)	Gen-3 (as at Jun 2009)	Gen-4 (as at Jun 2018)
P20 real monthly income from work in their 40s	\$1,500	\$1,900	\$3,000
Median real monthly income from work in their 40s	\$2,800	\$3,500	\$5,900

Source: Ministry of Manpower

3.3 Generally, each group was able to accumulate more real CPF savings than the previous group for their retirement (see [Table 2](#)).

- The median real CPF balance in the Ordinary Account (OA) and Special Account (SA) of Gen-4 Singaporeans in their 40s was **three times** that of Gen-2 Singaporeans at the same age. The P20 real CPF balances of Gen-4 Singaporeans in their 40s was more than **seven times** that of Gen-2 Singaporeans at the same age (See [Table 2](#)).

Table 2

P20 and Median Real CPF OA and SA balances for Gen-2, Gen-3, Gen-4 in their 40s

2018 dollars

Among those with non-zero balances in the OA and SA	Gen-2 (as at Jun 1999)	Gen-3 (as at Jun 2009)	Gen-4 (as at Jun 2018)
P20 real OA and SA balance in their 40s	\$5,200	\$9,700	\$37,800
Median real OA and SA balance in their 40s	\$36,300	\$41,400	\$110,100

Source: Estimates from the Department of Statistics

4 RESIDENTIAL PROPERTY OWNERSHIP

4.1 Residential property ownership rates⁶ were high for all Singaporeans, improving from **76%** for Gen-1 to around **85%** for the younger groups.

Table 3

Residential Property Ownership Rates⁶ for Gen-1, Gen-2, Gen-3 and Gen-4

As at Jun 2018

	Gen-1	Gen-2	Gen-3	Gen-4
Residential Property Ownership Rates	76%	85%	87%	82%

Source: Department of Statistics (2018)

4.2 A vast majority of HDB flat owners also have long enough leases to cover their lifetimes, and can tap on various monetisation options, such as the Lease Buyback Scheme, to supplement their retirement income.

5 HEALTH

5.1 In line with the improvements in the quality of life, educational attainment, wages and homeownership rates, Singaporeans are living longer and in good health.

- The life expectancy at age 45 of Gen-2 was **35** years, compared to **39** years for Gen-3, and **41** years for Gen-4.
- The Health-Adjusted Life Expectancy (HALE)⁷ adjusts life expectancy by the amount of time lived in less than perfect health. HALE at age 45 of Gen-2 was **29** years, compared to **32** years for Gen-3, and **33** years for Gen-4 (see [Table 4](#)). In other words, from Gen-2 to Gen-4, each group can expect to live for 1 to 3 more years in good health compared with the older group.

⁶ Refers to the proportion of *individual* citizens who own at least one residential property. Individuals who live in properties owned by their parents would not be considered property owners. DOS' published data on "home ownership rate", which was 91% in 2018, looks at the proportion of all resident *households* who live in a property owned by a member(s) of that household (i.e. they are not tenants).

⁷ The Health Adjusted Life Expectancy (HALE) refers to the number of years a person at age 45 can expect to live in good health, taking into account mortality and disability.

Life Expectancy and Health-Adjusted Life Expectancy (HALE) at age 45

	In 1999 (corresponds to Gen-2)	In 2009 (corresponds to Gen-3)	In 2017 (corresponds to Gen-4)
Life Expectancy at age 45	35	39	41
HALE at age 45	29	32	33

Source: Epidemiology & Disease Control Division, Ministry of Health, Singapore (2019); Institute for Health Metrics and Evaluation. The Burden of Disease in Singapore, 1990-2017: An overview of the Global Burden of Disease Study 2017 results. Seattle, WA: IHME (2019).

6 FAMILY SUPPORT

6.1 We observed lower marriage rates and smaller family sizes for the younger groups.⁸

- Ever-married rates among females have fallen from **92%** among Gen-1, **89%** among Gen-2, **87%** among Gen-3, to **82%** among Gen-4 in 2018.
- The number of children per ever-married female has also declined from an average of **2.5** among Gen-1, **2.1** among Gen-2, **2.0** among Gen-3, to **1.8** among Gen-4 in 2018.

7 CONCLUDING REMARKS

7.1 Each successive generation in our study has seen improvements in their lives, in tandem with Singapore's economic growth over the past 54 years. The younger groups have had more access to educational and career opportunities, and have enjoyed stronger income growth. They are also more retirement-ready, and live longer, healthier lives compared to previous generations. As our economy and society change and mature, and as family sizes decline, we will need to continue to review and adapt our policies in line with the evolving needs of Singaporeans.

⁸ The figures in this section are a snapshot as at Jun 2018, and may therefore slightly under-estimate the ever-married rates and number of children among ever-married females, as the younger cohorts may still get married, or may have more children.