

Fertility and Population Policy: the Singapore Experience

Mui Teng Yap

Introduction

Singapore has long been known for its use of social policies to influence fertility/reproductive behaviour. This began in the late 1960s/early 1970s and continues to the present, although the demographic objective has changed from anti-natalist to selectively pro-natalist. The turning point came in the mid-1980s after about a decade of below-replacement level fertility. The impetus must have been the results of the 1980 census, which showed that the better-educated women were not replacing themselves while the lower educated “over-reproduced”. The better-educated women were, moreover, more likely to remain single. The then Prime Minister, Mr Lee Kuan Yew, was as concerned about the quality of the population as the quantity¹. Incentives were introduced to encourage the better-educated mothers to have at least three children. On 1 March 1987, the then First Deputy Prime Minister (and current Prime Minister) Mr Goh Chok Tong announced the replacement of the two-child policy which had been in effect since 1972 with the “three, or more if you can afford it” policy, together with a package of procreation incentives. These incentives have been modified and added on to over the years, most recently with the government giving out “baby bonuses” for second and third births and picking up the tab for paid maternity leave for third births. As in the past, the government feels that while marriage and family sizes are private matters, there are important larger societal consequences that concern the survival of Singapore which justify intervention – even as it also recognises the dismal record of procreation incentives elsewhere (see Lien 2002)².

The section that follows provides a backgrounder on Singapore’s demographic landscape and its transition from extremely high fertility (exceeding six children per woman) to well below replacement level. This is followed by a presentation of the measures introduced to date to address the problem of persistent low fertility, and finally, an impact assessment and prognosis for the future.

Demographic Trends and Patterns

Singapore is a small island city-state with a land area of about 682 sq km. The total population of about 4.16 million (as at mid-2002) comprises about 3.38

1 Lee Kuan Yew (1983), “Talent for the Future”. Prepared text delivered at the National Day Rally on 14 August 1983. Reproduced as Appendix A, pp 39-46, in Saw Swee Hock (1990), *Changes in the Fertility Policy of Singapore*, IPS Occasional Paper No. 2, Singapore: Times Academic Press for the Institute of Policy Studies.

2 Laurence Lien (2002), *Marriage and Procreation: To Intervene or Not – A Policy-making Perspective*. Paper presented at the International Workshop on Fertility Decline, Below Replacement Fertility and the Family in Asia: Prospects, Consequences and Policies, organised by the Asian MetaCentre for Sustainable Development Analysis and the Family Studies Research Programme, National University of Singapore, Singapore, 10-12 April 2002.

million citizens and permanent residents, and 785,400 foreigners. Reflecting the history of in-migration, the population is multi-racial in composition, with 77% Chinese, 14% Malays, 8% Indians and about 1% Others (see Leow 2001 for ethnic classification)³. The three major ethnic groups differ significantly in terms of their demographic and other socioeconomic characteristics. For example, the Malays have the highest fertility rate and the largest family sizes and the Chinese the lowest, with the Indians occupying an intermediate position. On the other hand, the Chinese as a group has the highest level of socioeconomic attainment, followed by the Indians and the Malays, in rank order. This diversity makes population planning more much complex, and perhaps more interesting.

There were reportedly 150 people (120 Malays and the rest Chinese) on the island when it was founded by Thomas Stamford Raffles in 1819⁴. Immigration from China, India and the countries surrounding Singapore was the main factor contributing to population growth until the 1940s. Singapore experienced an extended post-war baby boom that lasted until the mid-1960s. At its peak in 1957, the Total Fertility Rate reached more than six children per woman. The TFR fell to nearly five children per woman in 1965 when Singapore became a fully independent nation, after two years as a state of Malaysia. Rapid economic and social development and the implementation of a highly successful national family planning programme brought the TFR down to replacement level in 1975/76 and fertility has remained below replacement level since 1977. The TFR reached an unprecedented low of 1.4 children per woman in 1986, the phenomenon commonly attributed to economic recession (the first since independence) and the inauspicious year of the Tiger. The TFR as well as total births rose sharply in the late 1980s following the introduction of the new, selectively pro-natalist population policy in 1987. The TFR reached a high of 1.96 children per woman in 1988 and remained above the pre-1987 level of about 1.6 children per woman for about a decade until the late 1990s. It fluctuated, falling to 1.5 in 1998/99 and then rising to 1.6 in 2000 before falling to a new low of 1.41 in 2001. The peak in 1988 is most likely due to a confluence of several factors, besides the reversal of the anti-natalist policy. These factors include the favourable zodiac, the Dragon year, and the fact that the figure “88” is homonymic with double prosperity in

³ The definition of ethnicity as given in the census of population is as follows: “Ethnic group refers to a person’s race. Those of mixed parentage are classified under the ethnic group of their fathers. The population is classified into the following four categories:

Chinese: this refers to persons of Chinese origin such as Hokkiense, Teochews, Cantonese, Hakkas, Hainanese, Hockchias, Foochows, Henghuas, Shanghainese, etc.

Malays: this refers to persons of Malay or Indonesian origin, such as Javanese, Boyanese, Bugis, etc.

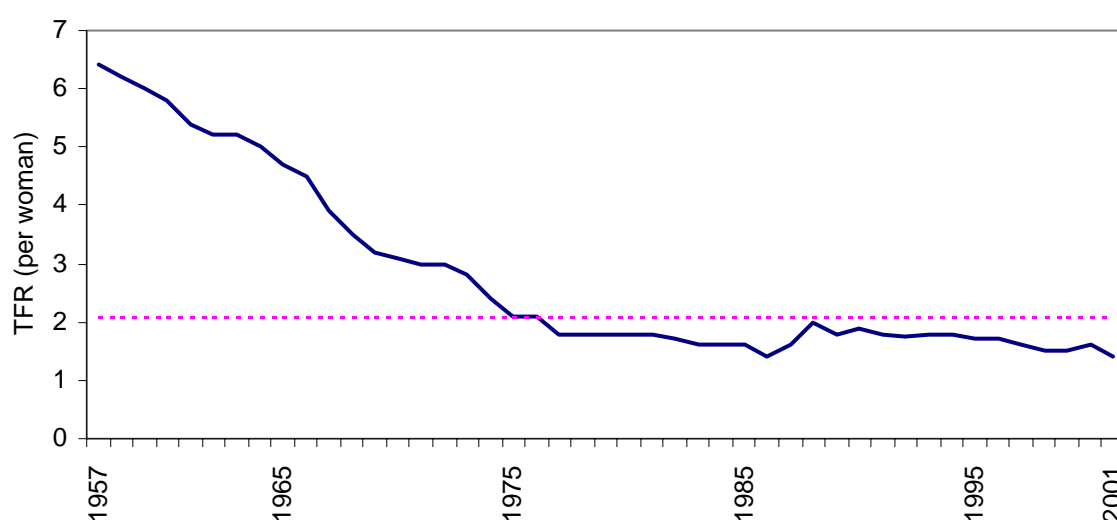
Indians: This refers to persons of Indian, Pakistani, Bangladeshi or Sri Lankan origin such as Tamils, Malayalis, Punjabis, Bengalis, Singhalese, etc.

Other Ethnic Groups: This comprises all persons other than Chinese, Malays and Indians. They include Eurasians, Europeans, Arabs, Japanese, etc.” (Leow Bee Geok [2001], Census of Population 2000 Advance Data Release, Singapore: Department of Statistics.

⁴ This section on Singapore’s demographic history draws heavily on Saw Swee Hock (1991), “Population Growth and Control”, Chapter 10 in A History of Singapore, edited by Ernest CT Chew and Edwin Lee, Singapore: Oxford U Press.

some Chinese dialects. It is also a year of economic recovery after the mid-1980s recession. The last two years of the 1990s as well as the beginning of the 2000s saw the Singapore economy swing between recession and 10 per cent growth, first as a result of the Asian Financial Crisis and then the global economic slowdown. It may be noted that while 2000 was a Dragon year, the TFR of 1.6 remained below the level reached twelve years earlier in 1988. The recession in 2001, when real GDP dipped by over 2 per cent, is Singapore's worst since independence.

Total Fertility Rate 1957-2001



Singapore has been experiencing the effect of smaller cohorts of new labour force entrants over the last two decades. The situation has probably been made worse by extended education⁵. Since the 1980s, Singapore has been relaxing its immigration policy to facilitate the entry of a growing number of qualified foreigners to work and live in the country to make up for the shortfall in births and

⁵ Census 2000 results show that 57 per cent of non-student resident population had secondary and higher qualifications, 15 percentage points higher than in 1990. The share of university graduates also increased from 4.5 per cent to 12 per cent over the same period. Among citizens, the proportion with university qualifications increased from 1 in 25 to 1 in 10 while the share with upper secondary or polytechnic qualifications increased from 11 to 21 per cent. Also, more people upgraded post-school, with the increase being most marked for the prime working ages 25-39 years. This could have important fertility implications. See Leow Bee Geok (2001), *Census of Population 2000 Advance Data Release*, Singapore Department of Statistics, for more information on the changing educational attainment of the population over the last decade.

to meet labour force needs⁶. They are encouraged to take up permanent residency and even citizenship in the country. In addition, a growing number of unskilled and semi-skilled workers have also to be brought in to fill jobs where it has been particularly difficult to recruit local workers, typically the dirty, difficult and dangerous jobs in the marine, construction, services and domestic service industries. These are, however, granted only short-term permits lasting two-three years and not eligible for long term residency in the country. According to the results of Census 2000, about 19 per cent of the total population were non-resident foreigners living, working or studying in Singapore, another 7 per cent were permanent residents and only 74 per cent were citizens. Currently, non-citizens make up a considerably larger proportion of the population compared even to 1990 when foreigners made up only 10 per cent of the total population, permanent residents about four per cent and 86 per cent were citizens. Immigration has helped to raise the level of educational attainment of the resident population. According to Leow (2001 p 20), “Among the non-student permanent residents, 33 per cent were university graduates and another 24 per cent had post-secondary qualifications. The education profile of the permanent residents had improved markedly since 1990 when only 14 per cent were graduates”.

Population and Annual Growth

| | Number (thousands) | | | Average Annual Growth Rate (%) | | |
|------|-----------------------|----------|--------------|-----------------------------------|----------|--------------|
| | Total | Resident | Non-Resident | Total | Resident | Non-Resident |
| 1970 | 2,074.5 | 2,013.6 | 60.9 | 2.8 | NA | NA |
| 1980 | 2,413.9 | 2,282.1 | 131.8 | 1.5 | 1.3 | 8.0 |
| 1990 | 3,047.1 | 2,735.9 | 311.3 | 2.4 | 1.8 | 9.0 |
| 2000 | 4,017.7 | 3,263.2 | 754.5 | 2.8 | 1.8 | 9.3 |
| 2001 | 4,131.2 | 3,319.1 | 812.1 | 2.8 | 1.7 | 7.6 |
| 2002 | 4,163.7 | 3,378.3 | 785.4 | 0.8 | 1.8 | -3.3 |

Source: Tan Yeow Lip, “Singapore’s Current Population Trends”, Statistics Singapore Newsletter September 2002, p 2, Table 1, and Latest Indicators (www.singstat.gov.sg/keystats/annual/indicators.html).

Notes:

Non-residents refer to foreigners staying or working in Singapore for one year or more. Growth rates refer to growth during the previous decade. For 1970, total population growth refers to growth during 1957-1970. For 2001 and 2002, GR refers to growth over the previous year.

⁶ Foreigners may work in Singapore on two main types of work passes: the Employment Pass for those with tertiary degrees, professional qualifications or track record as entrepreneurs/investors and Work Permit for those who do not have the necessary qualifications and who command monthly salaries of not more than \$2500. Different conditions apply, for example, as to whether they can bring their family members. Employers of WP holders also have to pay a levy, the amount depending on the level of skills of the workers.

Total Population by Residential Status

| Residential Status | Number (thousands) | | Per Cent | | Ave Ann. Growth (%) |
|--------------------|--------------------|---------|----------|-------|---------------------|
| | 1990 | 2000 | 1990 | 2000 | |
| Total | 3,047.1 | 4,017.7 | 100.0 | 100.0 | 2.8 |
| Residents | 2,735.9 | 3,263.2 | 89.8 | 81.2 | 1.8 |
| <i>Citizens</i> | 2,623.7 | 2,973.1 | 86.1 | 74.0 | 1.3 |
| <i>PRs</i> | 112.1 | 290.1 | 3.7 | 7.2 | 10.0 |
| Non-Residents | 311.3 | 754.5 | 10.2 | 18.8 | 9.3 |

Source: Leow Bee Geok (2001), *Census of Population 2000 Advance Data Release*, Singapore: Dept of Statistics, p 4, Table 1.

Ethnic differential in fertility

As mentioned, Singapore's three main ethnic community communities vary significantly in their reproductive behaviour with the Malays having the highest fertility rates and the largest family sizes, followed by the Indians and lastly, the Chinese. Fertility for all three ethnic groups fell to replacement level in the mid-1970s; however, while the Malay TFR rose to replacement level and beyond, the Chinese and Indian TFRs continued on a downward trend. The Chinese TFR reached 1.2 children per woman in 2001.

Total Fertility Rate by Ethnic Group (per woman)

| | Total | Chinese | Malays | Indians |
|------|-------|---------|--------|---------|
| 1980 | 1.82 | 1.73 | 2.19 | 2.03 |
| 1990 | 1.83 | 1.65 | 2.69 | 1.89 |
| 2000 | 1.60 | 1.43 | 2.54 | 1.58 |
| 2001 | 1.41 | 1.21 | 2.45 | 1.50 |

Source: Tan (2002), p 5, Table 4, except for 1980 which is drawn from Population Report 1998 (Singapore Ministry of Health, Population Planning Section).

Average Number of Children Born by Resident Ever-Married Women Aged 40-49, 1990 and 2000

| | 1990 | 2000 |
|-------------------|------|------|
| All Ethnic Groups | 2.8 | 2.2 |
| Chinese | 2.6 | 2.1 |
| Malays | 3.5 | 2.8 |
| Indians | 2.9 | 2.2 |
| Others | 2.2 | 1.9 |

Source: Leow Bee Geok (2001), *Census of Population 2000 Advance Data Release*, Singapore Department of Statistics, Tables 6 and 7.

Educational differential in fertility

As mentioned in the introduction, it was the educational differential in fertility that provoked the initial change in procreation policy in the mid-1980s. There has been some convergence in family sizes among the various educational groups, with the exception of those with below secondary education. However, the proportions childless or with only one child tend to increase with better education, rising from about 21 per cent among women with below secondary education to 28 per cent among university graduates.

Average No of Children Born and Percent Childless or with only One Child among Ever-Married Women Aged 40-49, 1990 and 2000

| | Number (Average) | | Childless (%) | | One child (%) | |
|-----------------|---------------------|------|------------------|------|------------------|------|
| | 1990 | 2000 | 1990 | 2000 | 1990 | 2000 |
| Below secondary | 3.0 | 2.4 | 4.1 | 5.4 | 8.7 | 12.6 |
| Secondary | 2.1 | 2.1 | 6.4 | 6.6 | 15.9 | 17.2 |
| Post-secondary | 2.1 | 2.0 | 6.1 | 8.0 | 15.2 | 18.4 |
| University | 2.0 | 1.9 | 7.8 | 9.4 | 15.9 | 18.6 |
| Total | 2.8 | 2.2 | 4.7 | 6.4 | 10.5 | 15.1 |

Source: Leow Bee Geok (2001), Census of Population 2000 Advance Data Release, Singapore Department of Statistics, Tables 6, 8 and 9.

Singlehood rates

As elsewhere (including Japan), the singlehood rates among men and women have been rising in Singapore. At ages 30-34, about one third of resident males and 20 per cent of resident females remained single in 2001. The proportion who are likely to remain single permanently have risen to about 15% for both sexes, up from 8 and 6 per cent in 1980. The rising singlehood rates have a depressing effect on fertility as childbearing in Singapore typically takes place within the context of marriage and there are strong negative social sanctions against out-of-wedlock births. According to Leow (2001), the rising singlehood trends have been moderated by immigration as new permanent residents tended to be married.

Proportion Single (%)

| | Males | | | Females | | |
|------|-------|-------|-------|---------|-------|-------|
| | 30-34 | 35-39 | 40-44 | 30-34 | 35-39 | 40-44 |
| 1980 | 21.3 | 10.5 | 8.1 | 16.6 | 8.5 | 5.9 |
| 1990 | 33.5 | 17.0 | 9.0 | 20.2 | 13.4 | 9.4 |
| 2000 | 31.3 | 20.4 | 14.7 | 19.4 | 15.0 | 13.7 |
| 2001 | 31.1 | 18.9 | 15.0 | 19.8 | 14.9 | 14.0 |

Source: Twenty-Five Years of Below Replacement Fertility: Implications for Singapore, Singapore Department of Statistics, 1 April 2002, Table 2 (www.singstat.gov.sg/papers/seminar/fertility.pdf).

As with fertility rates and family sizes, there are ethnic and educational differentials in singlehood rates. Singlehood rates are highest among the Chinese and lowest among Malays. With little exception, men with below secondary education and women with university degrees are more likely to remain single than other educational groups.

Proportion Single among Male and Female Citizens aged 35-44, 2000

| | Chinese | Malays | Indians |
|----------------|---------|--------|---------|
| <u>Males</u> | | | |
| Below Sec | 28.2 | 13.7 | 15.2 |
| Secondary | 18.4 | 9.0 | 10.9 |
| Post-Sec | 13.9 | 7.7 | 10.6 |
| University | 13.5 | 9.1 | 15.7 |
| <u>Females</u> | | | |
| Below Sec | 10.8 | 7.4 | 8.3 |
| Secondary | 16.5 | 8.2 | 9.9 |
| Post-sec | 22.1 | 13.8 | 14.9 |
| University | 29.2 | 25.4 | 14.1 |

Source: Leow Bee Geok (2001), Census of Population 2000 Advance Data Release, Singapore Department of Statistics, Table 4, p 64.

Later marriages and childbearing

The age at first marriage has risen for women of all ethnic and educational groups. Malay and Indian women showed the sharpest increase in age at marriage, rising by nearly five years between the 1961-70 marriage cohort and those who married thirty years later. There is a convergence in age at marriage among the differential educational groups, at around 26 years among those who married in the 1990s as the lower educated women increasingly delayed their marriage.

Average Age at First Marriage among Resident Ever-Married Female

| | Marriage Cohort | | | |
|------------|-----------------|---------|---------|-----------|
| | 1961-70 | 1971-80 | 1981-90 | 1991-2000 |
| Chinese | 23.3 | 24.3 | 26.1 | 26.9 |
| Malays | 19.9 | 21.7 | 23.5 | 24.8 |
| Indians | 20.3 | 22.1 | 24.0 | 25.3 |
| Others | 23.2 | 23.8 | 25.7 | 27.0 |
| | | | | |
| Below Sec | 22.4 | 23.6 | 25.3 | 26.9 |
| Secondary | 23.2 | 23.8 | 25.3 | 26.3 |
| Post-Sec | 24.6 | 24.6 | 25.9 | 26.3 |
| University | 25.3 | 25.2 | 26.3 | 26.9 |

Source: Leow Bee Geok (2001), Census of Population 2000 Advance Data Release, Singapore Department of Statistics, Table 5, p 66.

In line with the high age at marriage, Singaporean women also begin childbearing at a relatively older ages. The median age of mothers at first birth has been over 28 years over the last decade. Mothers were over thirty at second birth.

Median Age of Mother at First, Second and Third Births (years)

| | All | First | Second | Third |
|------|------|-------|--------|-------|
| 1990 | 29.3 | 27.5 | 29.8 | 32.1 |
| 2000 | 30.6 | 28.4 | 31.3 | 33.1 |
| 2001 | 30.7 | 28.6 | 31.3 | 33.2 |

Source: Tan Yeow Lip (2002), "Singapore's Current Population Trends", Statistics Singapore Newsletter September 2002, p 5 Table 5.

Ideational/Values Change

Studies have found that Singaporean men and women continue to value marriage and having children. The latest study on social attitudes towards the family, carried out in January-June 2001, found that 84 per cent of Singaporeans aged 15 and above agreed that *it is better to be married than to remain single* while 89 per cent agreed that *married couples should have children*. However, single females over age 30 were less positive about marriage than single males while the opposite was true for the younger age groups. The strong correlation found between attitude towards marriage and responses on whether marriage was a priority for the respondent suggest, however, that the responses to the former question was likely a reflection of the respondent's life cycle stage rather than acceptance or rejection of marriage per se. A plausible explanation, put forward by the author of the study, was that Singaporean males placed a high priority on building a career and achieving a certain level of financial security before they decide to seriously consider marriage and start a family while Singaporean females face increasing opportunity costs to get married and have children as they progress in their careers⁷. The younger married respondents were also less likely than older married respondents to agree that married couples should have children. Again, there is a high correlation between this item and whether having children was a priority for the respondent. This again suggests that the responses to the former question were likely to be a reflection of their personal situation rather than a rejection of children per se.

Per cent agreeing married couples should have children

| | Single | Married |
|--------------|--------|---------|
| Below age 30 | 74 | 88 |
| 30 and older | 75 | 95 |

Source: David Chan (2002), Attitudes on Family, Singapore Ministry of Community Development and Sports.

⁷ David Chan (2002), Attitudes on Family, Singapore: Ministry of Community Development and Sports. The study was commissioned by the Ministry.

Desired Family Size

The desired family size among married women in Singapore has fallen by more than one child since 1973. The decline was particularly substantial, amounting to two and more children, among the older women aged 35 and over. Among those in the prime childbearing age, 30-34 years, desired family size has fallen by nearly one child. It should be noted, however, that the desired family size in 1997 remained at more than two children, with significant convergence among all the age groups. Moreover, the desired family size among women in their twenties has remained fairly stable over the past two decades or so.

Average Number of Children Preferred by Married Women

| | 1973 | 1992 | 1997 |
|-------|------|------|------|
| Total | 3.7 | 2.9 | 2.6 |
| 15-19 | 2.6 | 3.0 | 2.2 |
| 20-24 | 2.6 | 2.8 | 2.5 |
| 25-29 | 2.9 | 2.9 | 2.5 |
| 30-34 | 3.6 | 2.8 | 2.7 |
| 35-39 | 4.7 | 2.9 | 2.7 |
| 40-44 | 5.0 | 3.0 | 2.7 |

Source: Twenty-Five Years of Below Replacement Fertility: Implications for Singapore, Singapore Department of Statistics (1 April 2002), Table 5 (www.singstat.gov.sg/papers/seminar/fertility.pdf).

Pro-natalist Incentives

It should be mentioned that the Singapore government, which has been formed by one political party, the People's Action Party (PAP), since 1959 has always seen population policy as part of its overall development strategy. For this reason, it has not shied away from influencing procreation decisions, either in the anti-natalist or pro-natalist direction. Its long history and dominant position in Parliament and its track record in delivering the goods ensured that it could implement even controversial policies with little or less resistance than elsewhere. In the anti-natalist phase, the Singapore family planning and population programme was well known for its success and the inclusion of a comprehensive package of population social policies as incentives for small families/disincentives for large families. These included lower priority in primary school registration for children from large families and lower priority in allocation of public housing flats for large families⁸. The government recognises that it would be an uphill task to encourage Singaporeans to have larger families but reckons that it still has to try (Lien 2002).

⁸ The significance of these measures is better understood when one realises that the government is the main provider of housing (currently accounting for 80% of the population) and education is highly valued by the population.

Policy Changes 1984

The first change to the anti-natalist policy came in 1984, following former Prime Minister Lee Kuan Yew's 1983 National Day Rally speech about the "lop-sided" pattern of procreation and marriage. According to Mr Lee, "we must amend our policies, and try to reshape our demographic configuration so that our better-educated women will have more children to be adequately represented in the next generation ... In some way or other, we must ensure that the next generation will not be too depleted of the talented. Government policies have improved the part of nurture in performance. Government policies cannot improve the part of nature. This only our young men and women can decide upon. All the government can do is to help them and lighten their responsibilities in various ways"⁹.

- (1) "Graduate mother scheme". Priority in primary school registration is given to children from families where the mother has acceptable university degree or approved professional qualifications. This measure was, however, abandoned after only one year because of its unpopularity among both graduates and non-graduates and in view of the small number that benefited from it. The majority of children that registered to enter school in 1985 could go to schools of their choice and only 157 children were given priority under the scheme. In the view of the then Education Minister Tony Tan who announced the change, the measure was unlikely to produce the desired effect¹⁰.
- (2) Increased enhanced child relief for better-educated women for up to three children, subject to maximum of \$10 thousand total relief for each child. The enhanced child relief (on top of normal child relief that can be claimed for income tax purposes) was introduced earlier to encourage highly qualified married women to continue working. As an incentive for married women to continue working and have larger families, the amount of enhanced child relief was increased from 5 per cent of the woman's earned income for the first three births to 10 per cent for the second birth and 15 per cent for the third birth. The measure came into effect in Year of Assessment 1985 based on 1984 incomes. Eligibility was also extended to mothers with at least five GCE O Level passes. According to Saw, this measure was probably less effective in inducing the better-educated working women to produce more children because of the conflicting demands on time and effort of the women at home and at work.
- (3) Sterilisation cash incentive to discourage the poor and lowly-educated from having more children. Low-income, lowly-educated women and their husbands earning combined incomes of not more than S\$1500 (S\$750 each) could be given a S\$10 thousand cash grant if she underwent sterilisation before age 30 after just one or two children. Paid into the woman's Central Provident Fund account, the money could be used for the purchase of a public housing flat or withdrawn at age 55.

⁹ See fn 1, pp 44-45.

¹⁰ Saw (1990), p 8.

- (4) Government hospital accouchement fees. The accouchement fees for third and higher order deliveries were raised with effect from 1 March 1985 such that all class wards paid the same fees for fifth and higher order deliveries. The effect is to make delivery charges more expensive for the lower income so that they would be discouraged from having more children.
- (5) Graduate marriage matchmaking. The Social Development Unit was set up in 1984 to create more opportunities for single male and female government officials who are graduates to meet and hopefully find a life partner. Activities included outings, talks and forums, and computer matchmaking.

Policy Changes 1987-2000

On 1 March 1987, the government announced the “Have three, or more if you can afford it” policy to replace the “Stop at two” policy in effect since 1972. As before, a package of incentives was introduced. These can be classified as (a) relaxation of old policies; (b) policies to help women combined work and family roles; and (c) policies to reduce the financial burden of childbearing. Procreation incentives introduced and implemented over the period 1987-2000 are list below.

(1) Personal Income Tax

- Third child relief increased to \$750 on par with first two children
- Enhanced child relief amounting to 15% of earned income (subject to a maximum of \$10 thousand) for fourth child born on or after 1 January 1988
- Eligibility lowered to three or four GCE “O” Levels credits passes (from five or more credits);
- Special S\$20 thousand tax rebate for couples who produce their third child on or after 1 January 1987, to be offset against either husband’s or wife’s income tax liabilities and may be claimed over five years;
- Delivery and hospital expenses incurred in connection with the fourth birth (subject to a maximum of S\$3000) can be offset against parents’ earned income with effect from 1 January 1988;
- Effective Year of Assessment 1990, normal child relief of \$1500 for each of first three children, and for the fourth child born on or after 1 January 1988; at the same time, the enhanced child relief is increased:

| Birth Order | For children aged 12 & above | For children aged below 12 |
|---|--|--|
| 1 st | \$1500 + 5% of mother's earned income | \$1500 + 5% of mother's earned income |
| 2 nd | \$1500 + 10% of mother's earned income | \$1500 + 15% of mother's earned income |
| 3 rd | \$1500 + 15% of mother's earned income | \$1500 + 20% of mother's earned income |
| 4 th (born on or after 1.1.88) | \$1500 + 15% of mother's earned income | \$1500 + 25% of mother's earned income |
| | Maximum relief for each child limited to \$10 thousand | Maximum relief for each child limited to \$15 thousand |

Source: Social Policies Related to Family Formation, Family Life Education Unit, Ministry of Health (c 1995)

- Effective Year of Assessment 1994, parents who have a 2nd, 3rd or 4th birth qualify for special tax rebates which can be used to offset against both of the parents' income tax liabilities within 9 years of the birth (the cumulative maximum period over which the rebates can be claimed is 27 years)
 - The special tax rebate for 2nd child born on or after 1.1.90 is granted on a sliding scale, from S\$20 thousand if the mother is below age 28, to \$15 thousand if she is below age 29, \$10 thousand if she is below age 30, and \$5000 if she is below age 31;
- (2) Primary school registration. Priority in primary school registration to children from 3 child family in Phase 2C (previously only for child from 1 or 2 child family) in 1987 registration exercise for school year commencing 1988.
 - (3) Unpaid childcare leave. With effect from 1 April 1987, mothers in the civil service and statutory board may apply for up to 4 years unpaid leave to look after their children (up from 1 year), subject to exigencies of service – the leave will not be considered as a break in service but it will not count as service in the award of annual salary increments.
 - (4) Childcare subsidy. With effect from 1 April 1987, the government provides a \$100 childcare subsidy to working mothers for each of their first three pre-school children under age 6 placed in approved childcare centres (the amount is halved if the child is in a half-day programme); the subsidy was raised to S\$150 and extended to the fourth child with effect from 1 April 1995 (the amount is halved if the child is in a half-day programme).
 - (5) Part-time work in the public sector. With effect from 1 April 1987, women officers in the civil service with children under age 6 years can work part time for up to 3 years (21 hrs a week, spread over at least 5 days from Monday to Friday);
 - (6) Full pay unrecorded leave. With effect from 1 April 1987, working mothers can get full-pay unrecorded leave to attend to their sick children – 5 days for each child under age 6, subject to a maximum of 15 days per year.

- (7) **Medisave.** With effect from 1 March 1987, funds in the medical saving account administered by the Central Provident Fund, Medisave, can be used to pay for delivery and hospital charges for the third child.
- (8) **Public Housing.** Rules were relaxed to make it easier for couples with a third child born on or after 1 January 1987 to sell their 3 room or larger apartments and buy larger one. From 1994, in response to complaints about rising housing costs, young couples buying re-sale public housing flats for the first time are eligible for a housing grant to help them buy their home. As a measure to promote “intimacy at a distance” between the generations (recognising that co-residence is not desired), the quantum is increased if the home is near to their parents’. Young couples may also rent public housing flats if their own purchase units are not ready. This is so that young couples need not delay their marriage on account of not having their own home.
- (9) **Sterilisation and Abortion.** With effect from 1 April 1987, the one-week sterilisation leave previously granted to civil servants as incentive for sterilisation was withdrawn for those with at least one O level pass regardless of the number of children they have. At the same time, women warded in B2 and C class wards could only have accouchement fees waived if they underwent sterilisation after the third or higher order birth. The sterilisation incentive for school registration in phase 2D was changed from third to fourth birth. From 1987, compulsory pre-sterilisation counselling for men and women with only one or two children was introduced. With effect from 1 October 1987, women with fewer than 3 children seeking abortion must undergo pre-abortion counselling. Low-income, lowly-educated need only accept family planning (not necessarily sterilisation) in order to qualify for the cash grant. Their children may also receive education bursaries.

New Incentives in 2001

In August 2000, Prime Minister Goh Chok Tong expressed concern that the TFR had fallen below the 1987 level and that many more couples were either childless or had only one child. He said: “I have no authority to order you to get married, or to decide how many children you should have ... But as PM, I have to be concerned about the impact of low fertility rates on the future of our society”¹¹. The PM went on to cite projections which showed that Singapore’s population would decline from 3.2 million to 2.7 million by 2050, and the resident workforce reduced by more than one quarter, if TFR remained at 1.48 and there was no immigration. He also acknowledged that while Singapore could import more migrants, immigrants could not replace Singaporeans. Therefore, the government sought to create a “total environment conducive to raising a family” by removing obstacles such as the financial costs of raising children and childcare arrangements.

In April 2001, the government implemented the Children Development Co-Savings Scheme (more popularly known as the Baby Bonus scheme) to

¹¹ Prime Minister’s National Day Rally Speech 2000, Singapore: Ministry of Information and the Arts, p 34.

“lighten the financial burden of raising children” (www.babybonus.gov.sg/bbss/menu/bbai.html). The Baby Bonus is a two-tier scheme, comprising a cash gift of S\$500 per year for six years for a second live birth and S\$1000 a year for six years for the third live birth born on or after 1 April 2001. In addition, there is a co-saving scheme whereby the government will match dollar for dollar the amount parents put into a Child Development Account, subject to a maximum of \$1000 per annum for the second birth and \$2000 per annum for the third birth. Thus the maximum amount given will be \$9000 for a second child and \$18 thousand for a third child. The money in the CDA may be used to pay fees at approved childcare centres under the Ministry of Community Development and Sports and at registered kindergartens and special schools under the Ministry of Education. It can be used for all children, and not just the second and third children. Payment is automatic for children born in the country, parents may apply for payment if the child is born abroad. The babies must be Singapore citizens, born on or after 1 April 2001 and children must be live born issue of the mother (adopted children and step-children not counted in the reckoning of birth order).

In addition, the government also pays for the third child maternity leave of working mothers. From 1 April 2001, the government will provide 8 weeks of paid maternity leave for working mothers who give birth to their third child. Instead of having employers bear the expense, the government will pay the cost of the maternity leave for the third child, subject to a cap of S\$20 thousand. Previously, employers are required to give paid maternity leave for the birth of the first two children only. Under the new scheme, the government will reimburse employers for the salary paid to eligible employees during the maternity leave period. The employee must have worked with the employer for at least 180 days. The self-employed can claim for loss of income, with the reimbursement based on net income earned in the 180 days before maternity leave.

In addition, the government has also set up a Work-Life Unit under the MCDS to promote family-friendly practices among employers. As before, the Civil Service took the lead in this direction, by according marriage and paternity leaves and allowing its agencies to adopt flexi-work practices. The childcare subsidy is also extended to non-working mothers who place their children in such care although it is capped at the half-day programme rate of \$75 per month. Half of the 20 per cent down payment required for the purchase of public housing flats can be deferred, making it easier for young couples to buy their own homes. A public education committee was also set up to spearhead the public education on promoting positive values towards marriage and procreation. The Ministry of Education is building more hostels and encouraging hostel stay among undergraduates as a means to promote socialising among the young who otherwise find that they have little time when they enter the workforce.

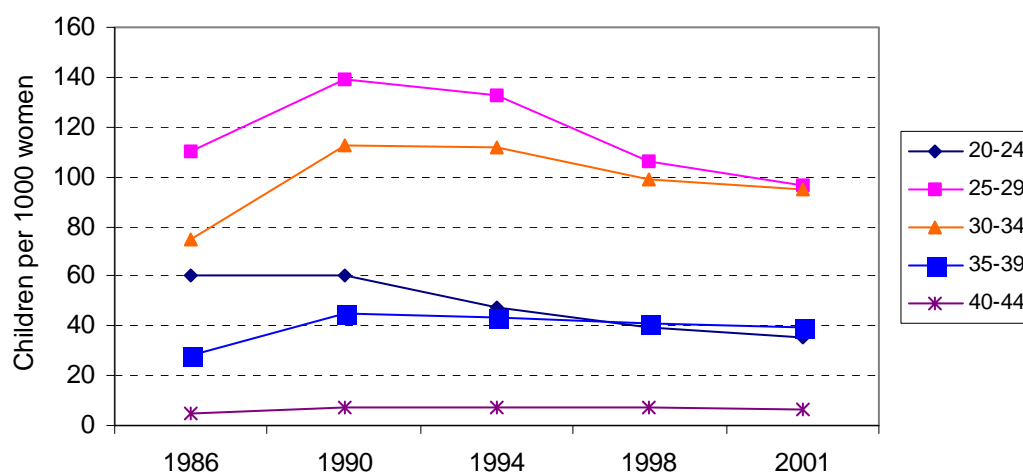
Impact Assessment and Prognosis

As noted earlier, the TFR rose from about 1.6 children per woman prior to the introduction of the new population policy in 1987 to nearly 2 children per woman in 1988. The sharp rise in the TFR in 1988 has already been explained

earlier. The stated goal of returning fertility to replacement has not been achieved, and it looks unlikely to be achieved at least in the near future with the current economic downturn. The government is likely to downgrade its earlier economic forecast of 3 per cent growth this year and it has been recently announced that the unemployment rate will likely be the worst in fifteen years.

Data on fertility trends by age group show that after an initial rise immediately following the new population policy, fertility rates among the younger, below 30, age groups have fallen below the 1986 level, as a result of the further postponement of marriage and childbearing. On the other hand, fertility rates among the 30 and older age groups, while lower than in 1990, have risen in 2001 as compared to 1986. The age-pattern of fertility has changed from an unimodal peak centring on age 25-29 to a plateau at age 25-34 years. However, while the older women were having more children, the median birth order of their births have declined somewhat, a further indication of continued delay in childbearing. The only exception was the Malay ethnic group where the median birth order has risen in 2001 compared to 1986. Kanan (2002) predicts that it is unlikely that the fertility deficits at the younger ages among the recent cohorts will be compensated at the older ages. He predicts that the TFR will hover around 1.5 children per woman over the next decade.

Fertility Trends by Age, 1986-2001



An examination of the birth-order-specific Total Fertility Rates shows that fertility rates have declined for nearly all birth orders in 2001 compared to 1986. There were more third and fourth order births overall, and more third and fourth order births among Malay women (by more than 50 per cent).

Total Fertility Rates by Birth Order, 1986 and 2001

| | All EGs | Chinese | Malays | Indians |
|--------------------------|---------|---------|--------|---------|
| <u>1986</u> | | | | |
| 1 st | 638.7 | 597.0 | 761.2 | 699.8 |
| 2 nd | 497.2 | 437.6 | 723.9 | 602.0 |
| 3 rd | 208.6 | 162.0 | 421.3 | 296.2 |
| 4 th | 53.3 | 31.6 | 168.6 | 83.2 |
| 5 th & higher | 35.5 | 17.8 | 140.5 | 50.4 |
| <u>2001</u> | | | | |
| 1 st | 621.2 | 579.1 | 783.3 | 635.6 |
| 2 nd | 482.6 | 435.4 | 698.7 | 559.8 |
| 3 rd | 214.7 | 156.8 | 645.3 | 223.4 |
| 4 th | 61.6 | 28.8 | 259.6 | 59.9 |
| 5 th & higher | 25.5 | 6.0 | 143.5 | 22.3 |

Several reasons may be adduced for the relatively higher fertility among the Malays. One is the cultural-religious dimension whereby children are seen as gifts from God and never a burden. Another reason is the support available (Malay parents tend to be younger and able to provide childcare support). On the other hand, the cost of children appears to be upper-most on the minds of Chinese Singaporeans.

Summary

Singapore's procreation incentives appear to have had some effect in the early days of its introduction. However, fertility begun to slide and has returned to the level of the pre-policy period except in selected instances. First, while fertility rates among the 30 and older age groups have risen, this is due to some extent to delayed childbearing – the birth order of babies born to these mothers have not risen. Second, while third and fourth order births have risen, this occurred only among one community, the Malays. It is as yet too early to say what the impact of the most recent procreation incentives introduced in 2001 will be. Uncertainty about the economy and employment is unlikely to help in the near future.

Mui Teng Yap
 (Institute of Policy Studies, Singapore)
 yap_mui_teng@ips.org.sg