

# Fertility and the Family: An Overview of Pro-natalist Population Policies in Singapore

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## **Abstract**

**T**his paper explores population- and family-oriented policies in Singapore, focusing on the pro-natalist initiatives of the past 15 years. Characterised by a strong interventionist state with regard to social policy, Singapore has undergone various phases in its population growth since independence in 1965 – including a post-war baby boom followed by a period of economic restructuring and fertility declines that have seen rates continuing to fall after reaching replacement-level in 1975. The paper briefly describes the government policies that have attempted to address these trends wrought by the changing social, political and economic context. It then focuses on some of the policies of the recent decade, especially in the light of the comprehensive initiatives drawn up, and the changing role of women at work and at home. The paper also discusses the implications of these policies, examining the social effects of both discursive and practical strategies towards the promotion of higher fertility, ‘family values’ and social control.

## Introduction

Widespread population changes are sweeping the world, prompting governments to give consideration to the implications of changing demographic profiles. Population changes involve adjustments in size, composition, geographic distribution in mobility (Lentzner and Pamuk, 2002:1), with concomitant shifts in social and economic conditions. In Asia, while the total population is expected to grow, the socio-economic contexts of these changes vary widely across populations, giving rise to myriad concerns over health outcomes and environmental pressures exerted by population growth. Together with historical and geographic factors, differentials in healthcare provision, accessibility of education, as well as the status of women in society and political governance, all serve to complicate the picture. While countries like Cambodia, Laos and Pakistan continue to see high infant mortality and fertility rates, with relatively low life expectancies, other states such as Japan, Singapore and Thailand have achieved high life expectancy levels, but at the same time must grapple with the emerging problem of ageing populations and declining fertility rates, and their consequences on economic competitiveness and social sustainability.

This paper focuses on a particular 'slice' of population change – fertility decline - linking it to policies seeking to 'reverse' the downward trend leading to below-replacement fertility levels. While national population policies have been said to be effective in reducing fertility in many countries (Bloom *et al*, 2002), they have not been as successful in reversing fertility declines. Singapore is one such country; as an interventionist state which has prided itself in leading the country through changes ranging from massive economic restructuring to social leaps in literacy and standard of living, its numerous initiatives to boost fertility levels have been largely regarded as unsuccessful. This paper looks at how population policies have influenced fertility behaviour and the family in the past, exploring the new problems faced by the state in influencing present fertility decisions. It will first introduce the discussion by sketching out the political and historical context of Singapore, framing the discussion of recent family policies within the broad sweep of changes in population and family policy in the post-war period, showing how they lead on to the anti-natalist stance of the government in the last decade. It then traces the evolving concern of the government over workforce quality and then of the sense of a national crisis evoked by current and future predicted labour shortages and an ageing population as fertility levels dropped well below replacement. As a close, it examines some of the implications and effects of these anti-natalist policies in three main areas: social effects relating to gender and the workplace; the interlinkages of family policy with housing schemes, and the outcomes of policies attempting to boost fertility levels.

## Regional Context of Below-Replacement Fertility

Just as a wide range of demographic situations exist in the world today (Jones and Douglas, 1997), so are there large variations within Asia – declines in some countries, high growth rates in others. Fertility declines and its associated trends in many parts of the world constitute a major area of concern with respect to the sustainability of working populations in affected countries, prompting governments to consider the implementation of policies encouraging family formation and procreation. In East and Southeast Asia, fertility declines were led by Japan in the 1930s, and followed by China, Singapore, Hong Kong and Taiwan from the 1960s (Chan and Yeoh, 2002). Today, the same countries are saddled with below-replacement fertility levels. Another dimension of the concern over fertility levels hinges on the fact that these countries saw fertility and mortality rates decline over a much shorter time period than in Western countries. Between 1950 and 2000 alone, total fertility rates more than halved, dropping from 5.89 to 2.49 (Westley, 2002; Chan and Yeoh, 2002). In Southeast Asia, while the total fertility rate is 2.7, there are wide spatial variations in fertility, infant mortality and life expectancy (See **Table 1**).

Countries	Total Fertility Rate (per woman)	Infant Mortality Rate (per 1000)	Life Expectancy	
			Males	Females
Brunei Darussalam	2.7	6.0	74	76
Cambodia	4.9	74.0	54	59
Indonesia	2.5	40.0	65	69
Lao PDR	5.6	82.0	57	61
Malaysia	3.1	8.0	70	75
Myanmar	2.7	88.0	54	59
Philippines	3.5	30.0	68	72
<b>Singapore</b>	<b>1.7</b>	<b>3.0</b>	<b>76</b>	<b>80</b>
Thailand	2.0	21.0	70	75
Viet Nam	2.5	34.0	67	71
<b>SOUTH-EAST ASIA</b>	<b>2.7</b>	<b>41</b>	<b>65</b>	<b>70</b>

Source: ESCAP, 2002

Table 1: Fertility Rates in Southeast Asia (1996 Figures)

As the nation with the lowest fertility rate in the Southeast Asian region, Singapore's experience with population changes has been unique in some senses – notably in the way that political governance has from an early stage of national and economic development attempted to turn certain population trends around. It has been largely recognized that the Singapore government is interventionist, even paternalistic (Soin, 1996), often calling on policies and rhetoric to achieve goals which it deems desirable for the population. At times, these strategies aimed at the public good also attempt to govern the private sphere. Such policies are arguably contextualized within the rhetoric of “communitarianism”, an ideology that is purportedly underlain by a ‘Confucian’ ethic espoused by the government (Chua, 1995). Population change is one such driver of particular policy initiatives that are said to impinge on individual behaviour in Singapore.

# Fertility Policy in Singapore

## Historical context

Before its official ‘founding’ as a British colony and a trading port in the region in 1819, Singapore’s population was believed to have comprised small fishing communities originating from the Malay peninsula and parts of the Indonesian archipelago. The century that followed its founding saw large numbers of immigrants from China and India coming to Singapore to make up a much-needed labour force for the booming entrepôt trade. While some of the South Asian immigrants were drawn here in part through their links with the British, also their colonial ‘masters’ at that time, many people arrived from poverty- and famine-stricken villages on the south-east coast of mainland China in search of better livelihoods. Together with the populations of Malay, Javanese, Indonesians and Eurasians<sup>1</sup>, these early labourers and settlers laid the foundations of the ethnic make-up of Singapore’s population today.

After World War II, during which Singapore was occupied and placed under Japanese rule for more than four years, there was a post-war baby boom that also characterized the demographic profiles of other countries. With the demise of British imperial aspirations, the last British troops pulled out of Singapore in 1959, paving the way for Singapore to attain independence. After a crisis that involved a failed merger with the Malaysian Federation, Singapore gained independence in 1965, with the establishment of the People’s Action Party (PAP) as the ruling party.

## Post-war population and family policy changes

Population expansion has characterized the post-war demographic profile in Singapore. Looking at the population profile for Singapore citizens and Permanent Residents (PRs) (**Table 2**), population almost doubled in each of the intercensal periods from 1947 to 1970, with increases of 84.7% between 1947 and 1957, and 90.8% between 1957 and 1970. From the 1970s onward, however, the trend of population expansion was far more muted, with increases of only 13.3% from 1970 to 1980. The increases in the ensuing twenty years saw relatively slow growth of 18.5% between 1980 and 1990, and 20.6% in the following decade.

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<sup>1</sup> Eurasians originated from marriages between settlers of European descent, and those of Indian, Malay or Chinese parentage. The hybridity over time resulted in a particular community with practices that resulted from the mixing of European and local cultural traditions and artifacts.

	1947 <sup>†</sup>	1957	1970	1980	1990	2000
<b>Total</b>	<b>940,824</b>	<b>1,445,929</b>	<b>2,074,507</b>	<b>2,413,945</b>	<b>3,016,379</b>	<b>4,017,733</b>
Number of citizens & Permanent Residents (PRs)	571,331	1,055,184	2,013,563	2,282,125	2,705,115	3,263,209
Percentage (%) of citizens and PRs	60.7	73.0	97.1	94.5	89.7	81.2

<sup>†</sup>Singapore attained independence in 1965, the year when the term ‘citizenship’ first began to be invoked. Prior to independence, the census classified the resident population according to place of birth. Therefore the figures in the census years 1947 and 1957, reflecting the people born in Singapore and Malaysia, will be used as a proxy for ‘citizens’ here.

Table 2: Population Changes in Singapore, 1947 to Present

*Compiled from: del Tufo, 1949; Arumainathan, 1970; Singapore Department of Statistics, various issues*

The composition of the resident population in Singapore also varies over the years. There is a distinctive period of convergence in citizen numbers and total population, indicated by the lowest number of foreigners in proportion to Singapore citizens and PRs in the 1970s. During this time, the number of Singapore citizens closely matched the population total. This convergence in citizen numbers can be explained by the then-recent institution of controls governing citizenship registration, which saw large numbers of residents becoming official Singapore citizens after independence. From the 1980s, however, the proportion of citizens began to decline, with increasing numbers of foreigners beginning to appear with the moving-in of multinational firms, and then in the late 1980s and 1990s, in response to specific policy initiatives to encourage both low-skilled and high-skilled foreigners in various sectors of the economy. Currently, foreigners dominate the construction and domestic work sectors, and are conspicuous in professional areas of work such information technology, engineering, banking, biotechnology and other industries. While policies targeting the employment of foreigners are not explicitly tied to family policies in Singapore, they both have in common the aim of boosting Singapore’s labour pool and enhancing Singapore’s ‘global competitiveness’.

Apart from the issue of recruiting foreign labour, the trends in domestic population growth bring in different sets of ‘problems’. Population policies came into force with the newly-independent government in the mid-1960s, seeking to redress these issues in the context of the concerns of the time. As such, population policies have been categorized into three main phases: the anti-natalist phase (1966-1982); the ‘eugenics’ period (1983-1987); and the pro-natalist period (1987 to present). The next few sections will introduce the main population policies that gave definition to each of these periods.

### *Anti-natalist phase, 1966-1982*

The post-independence period of the late sixties and the seventies saw the government embarking on an “ambitious programme” of urban renewal, socioeconomic planning and extensive industrialization (Kuo and Wong, 1987). At that time, the country was beset with an urban housing shortage, large-scale unemployment, and a net population increase as death rates fell and birth rates remained high. Incentives for foreign investment were put into place, with heavy investments in the public sector and the creation of economic opportunities. Education was also a major focus. The main aim of these programmes was to improve standards of living. However, the government felt that the achievements on the economic front would be swallowed up by an unsustainably large population, and began a ‘family

planning' programme in an attempt to slow the trend of population expansion. In view of these attempts, the Singapore Family Planning and Population Board (SFPPB) was instituted in 1966; its role was to reduce Singapore's birth rate and net reproduction rate, with zero population growth as its eventual goal (Phua, 2001). As campaign posters show, 'family planning' was viewed as a strategy for population change. By appealing to the individuals' pragmatism and common sense ("Take Your Time to Say Yes"), the slogans hoped to bring home the message of firstly delaying marriage, and then, of having just two children (See Figure 1).



Sources: Singapore Family Planning and Promotion Board (1986); Family Planning/Sterilisation Information Service (1978)

Figure 1: Campaign Posters (a) Urging Couples to “take [...] time to say yes” [in small print] ...to marriage, having your first child, and your second child”; (b) Discouraging the Practice of Son-Preference that is a Possible Reason for High Fertility.

Couched as a ‘survival’ strategy, the government encouraged families to “Stop at Two (children)” by offering practical incentives and disincentives. Abortion was liberalized and allowed to be carried out in both government and private clinics. Voluntary sterilization was legalized – and with it came a cache of benefits for sterilized parents, including priority in primary school registration (where competition to be enrolled in certain schools is fierce) and the reimbursement of delivery fees. Disincentives penalized married couples for having more than two children. These measures included delivery fee increases and no paid maternity leave for women on the birth of their third or subsequent child.

### *Eugenics phase (1983-1986)*

The decades following the start of the anti-natalist policies – notably the 1970s and 80s, saw a dramatic dip in fertility rates. In 1975, replacement-level fertility was reached. This watershed in Singapore’s demographic history has been attributed to the combination of a number of factors rather than just the Old Population Policy alone; these including socioeconomic changes which were to set the blueprint for Singapore’s economic growth in the decades to come.

One of these sets of factors was the rise in the female labour-force participation rate and changes in family structures. Even extended family arrangements, which had been common a decade before, began to break down as families were relocated from larger communal living arrangements to public housing units. Kuo and Wong (1979) believe that besides being a ‘natural’ consequence of a new economic order and focus on industrialization, the nuclearisation of Singapore families was deliberately encouraged in the belief that dependence on extended family relations was antithetical to economic progress, innovation and diligence (see also Hill and Lian, 1995).

With a successful phase of economic restructuring under its belt, marred somewhat by the global recession of the early 1980s, the emphasis of a new set of population policies shifted to the quality of the workforce (Drakakis-Smith *et al*, 1993). The stage had been set by the successes of the old population policy for what seemed to be an irreversible trend of smaller families and rising age at first marriage. Such changes were so great that the then-Prime Minister Lee Kuan Yew lamented that giving “equal opportunities” to women has resulted in a “lopsided” pattern of procreation, in which educated women have fewer children. The ambivalence towards women’s roles is expressed in his speech:

“When we adopted these policies they were manifestly right, enlightened and the way forward to the future. With the advantage of blinding hindsight, educating everybody, yes, absolutely right. Equal employment opportunities, yes, but we shouldn't get our women into jobs where they cannot, at the same time, be mothers.... You just can't be doing a full-time, heavy job like that of a doctor or engineer and run a home and bring up children ... we must think deep and long on the profound changes we have unwittingly set off.”

...Our most valuable asset is in the ability of our people, yet we are frittering away this asset through the unintended consequences of changes in our education policy and equal career opportunities for women. This has affected their traditional role as mothers.

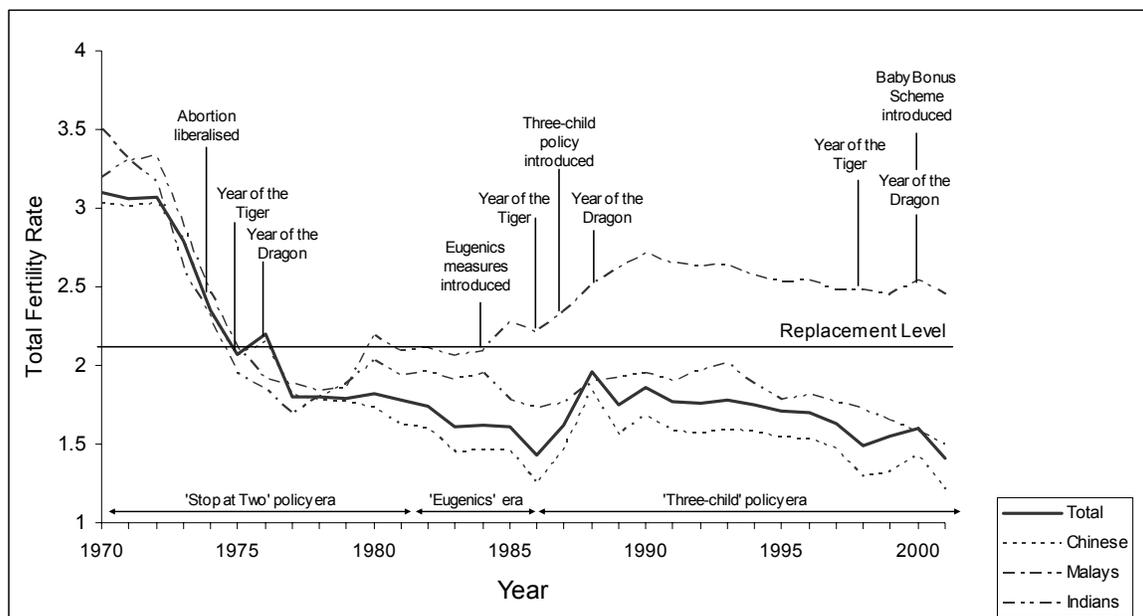
It is too late for us to reverse our policies and have our women go back to their primary role as mothers, the creators and protectors of the next generation. Our women will not stand for it. And anyway, they have already become too important a factor in the economy.”

- then-Prime Minister Lee Kuan Yew, in his speech  
‘Talent for the future’, delivered on 14 August 1983

The main worry was over a growing group of graduate females choosing to marry later or not at all, thereby reducing the number of babies born to the higher-educated. The problem characterizing this new and worrying trend, according to the government, was a gradual lowering of the quality of workforce, a consequence of the imbalance that saw the more intelligent produce fewer babies, and the less intelligent continuing to produce large families. Premised on the assumption that intelligence is genetically inherited, the then-Prime Minister Lee Kuan Yew believed that such a trend would threaten Singapore’s ability in the long-term to compete economically on the global stage.

‘The Great Marriage Debate’, as it was coined, extended beyond mere rhetoric to the implementation of measures aimed at redressing this perceived problem. For highly-educated women who gave birth to three or more children, an enhanced tax relief and priority for primary school admission were introduced. The Social Development Unit was set up in 1984 to encourage love matches among graduates. To discourage lesser-educated women to have children, a sterilization incentive of \$10,000 was given to women with no ‘O’ levels below the age of 30 to stop having children after their first or second child, with a penalty of the repayment of the same amount plus interest should they give birth to a third child.

The separation of less and more educated members of society for policy purposes has been attributed by some as reflecting a worry that the ethnic composition of the population will change so that the Chinese majority would decrease in proportion to the Indians and the Malays. The Chinese were in general the most highly-educated sub-group, and who were at the same time were postponing marriage and having fewer children than the other groups (See **Figure 1** and **Table 3**).



Sources: Population Report, 1992; 1998; Graham, 1995; Singapore Census of Population 2000; Saw, 1989; 1990

Figure 1: Population Policies and Fertility Trends by Ethnic Group

	1960 or earlier	1961-1970	1971-1980	1981-1990	1991-2000
<b>By Ethnicity</b>					
Chinese	20.7	23.3	24.3	26.1	26.9
Malays	17.7	19.9	21.7	23.5	24.8
Indians	18	20.3	22.1	24	25.3
'Others'	21.1	23.2	23.8	25.7	27
<b>By Educational Attainment</b>					
Below secondary	20	22.4	23.6	25.3	26.9
Secondary	22	23.2	23.8	25.3	26.3
Post-secondary	23.7	24.6	24.6	25.9	26.3
Tertiary	24.5	25.3	25.2	26.3	26.9

Source: Singapore Census of Population 2000

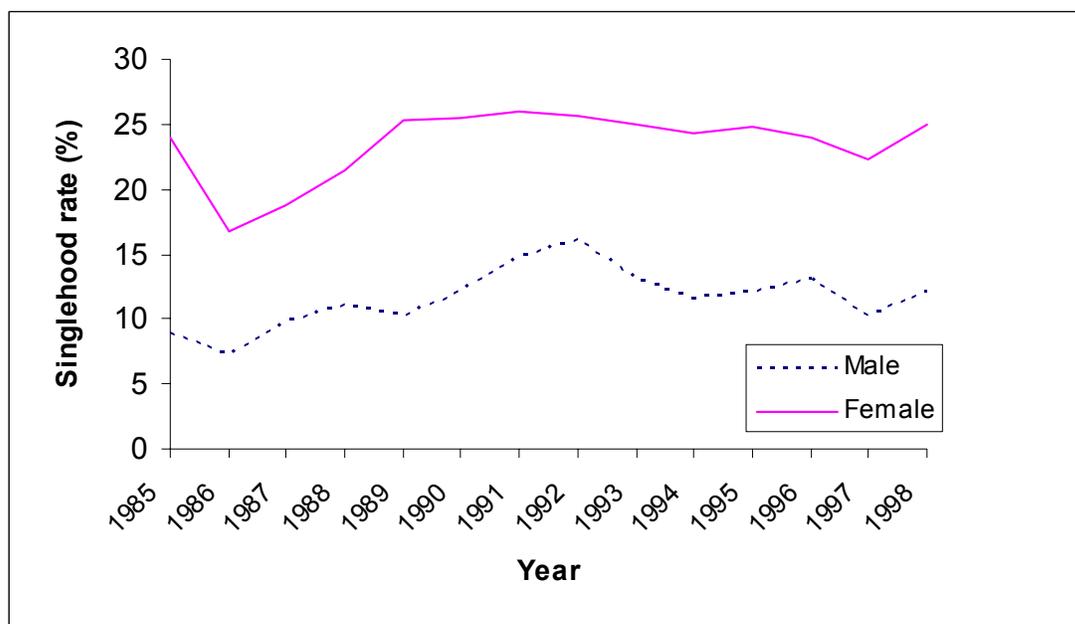
Table 3: Average Age at First Marriage by Year of Marriage of Resident, Ever-Married Females

The implication therefore was that the Chinese should produce more children, being primarily responsible for below-replacement fertility in Singapore (Tremewan, 1994; Graham, 1995). The categorization of benefits according to the educational status of women served to promote the idea that ethnic balance was a major factor for the implementation of the policy, as the Chinese were on average more highly educated than the other two groups.

Not surprisingly, the eugenics, racial and discriminatory overtones of the policy made it highly unpopular. The policy era quickly came to pass with a significant loss of votes for the PAP government at the General Election of 1984 (Soin, 1996), a rare demonstration of vehemence in Singaporeans' objections to a policy initiative. Some of the policies were dropped but others were repackaged to reflect some of the concerns while de-emphasising them (See **Appendix**). An example was the maintenance of the educational requirement for mothers to claim 'enhanced' tax relief for their newborn children – the educational limit was lowered to include more mothers in the fold.

## Pro-Natalist Policies and the Family

The stage had been set by the successes of the old anti-natalist policies for what seemed to be an irreversible trend of smaller families and rising age at first marriage. Besides the concerns over labour shortage and workforce quality, the issue of a rapidly ageing population also came to the fore, with projections of Singapore's elderly comprising 25% of the population by 2025, almost matching the working age population which is predicted to stand at 30% (Navaneetham, 2002:15). The new policy initiative announced in 1987 was also marked by the failure of the social eugenics programme, as the number of higher-educated females preferring to remain single or to have fewer or no children became a trend that continues today (see **Figure 2**).



Source: Population Report 1999

Figure 2: Singlehood Rates for Tertiary-Educated (with University and Polytechnic Education) Males and Females at Age 35-39 Years

The new population package that emerged was “cautiously pro-natalist” (Graham, 1995), yet tinged with the sense of urgency accorded to the equivalent of a national crisis (Phua, 1998):

The constraint of physical resources is not as difficult to overcome as the human resource problem. This type of problem requires us to change attitudes and tread on sensitivities...I think the most serious challenge we are going to face is how to cope with the changing demographic profile – its size, composition and age distribution.

...I know this is a longer-term problem, but if we do not address it now, it can only become more serious.

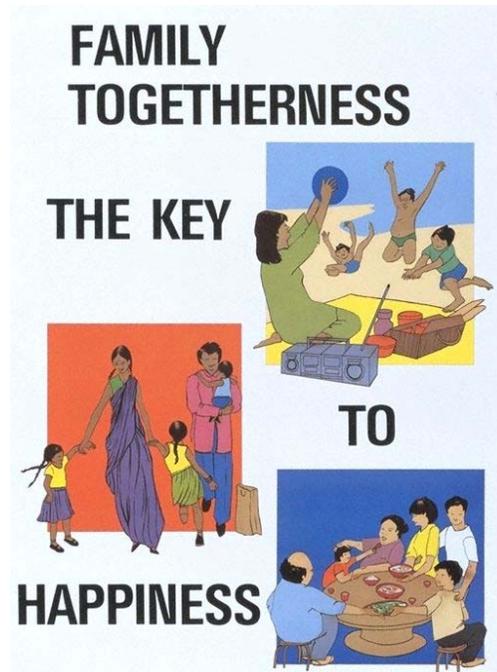
...Put simply, there will not be enough young men to defend the country...What I am talking about is our ability to defend ourselves in the future.

- then-Prime Minister Goh Chok Tong in his National Day Rally speech, delivered on 4 August 1986

In response to this new set of conditions, a new population policy (NPP) was launched in March 1987, for which the primary slogan was 'Have Three Or More Children If You Can Afford It'. The new policy approach attempted to avoid the elitist tone of the eugenics era by setting a new 'criterion' of 'affordability', which overrode the emphasis on educational qualifications (Perry *et al*, 1997). It was based on the idea that people without secondary education could make up for their lack of education with "diligence, hard work, special talents, skills", and "may be earning very much more than those with O levels or even those who have been to university" and therefore "can support their children" (then-First Deputy Prime Minister Goh Chok Tong, quoted in *The Straits Times*, 2 March 1987).

Therefore, far from being a complete reversal of the OPP, the NPP continued giving benefits to higher-educated mothers (See **Appendix**), although its primary goal was to provide incentives to married couples to produce a third (or fourth) child (Saw, 1990). The launch of the new policy came with a comprehensive package of benefits and policy changes, accompanied by an extensive media campaign in hope of influencing the general public to appreciate the immaterial advantages of having more children. The campaign targeted two primary groups – married couples and unmarried singles. Slogans such as 'Children – Life would be empty without them'; 'Life's fun when you're a dad and mum', 'The most precious gift you can give your child is a brother or sister' were accompanied with images of happy multi-racial families in pursuit of the idealized middle-class family life (See **Figure 3a**). At the same time, a poster deeming abortion an unsuitable method for family planning appeared, bucking the abortion liberalization policies of the 1970s (**Figure 3b**). Unmarried singles were bombarded with reminders not to leave out building a family while climbing the career ladder ('Why Build Your Career Alone? Family Life Helps'), to 'Make Room for Love in Your Life', and that 'Life Would Be Lonely Without A Family'. These images and phrases pervaded the daily lives of Singaporeans through their television screens, radio broadcasts, newspapers, posters and bus panels, even entering into the common parlance of citizens (Phua, 1998; Lim, 1995).

(a) 'Family Togetherness is the Key to Happiness', 1986, Ministry of Communications and Information



(b) 'Abortion is not a method of family planning', 1986, Ministry of Health. Training & Health Education Department

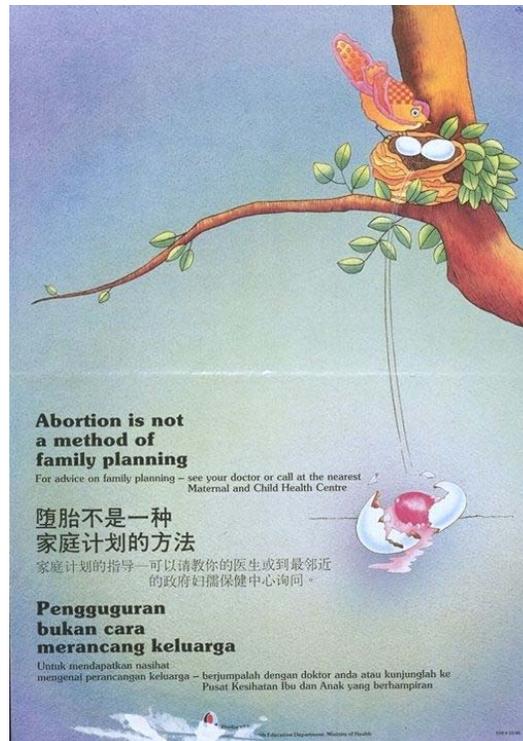


Figure 3: Population Campaign Posters of the Pro-Natalist Era

The publicity campaigns were accompanied by a slew of new initiatives to boost interest in having more than two children among married couples. These stipulations infiltrated numerous policy areas, including childcare, primary school registration, housing allocation, and taxation (See **Appendix**). For example, no-pay leave for childcare was extended from one to four years for women in the civil service, and the SGD\$10,000 cash handout for less-educated mothers who underwent sterilization was removed. The attitude towards family planning methods also turned around, with programs set up to discourage both sterilization and abortion, where sterilization had been so readily promoted among certain groups during the eugenics phase, and even open to all under the Old Population Policy. Campaigns gradually shifted in focus from the ‘economic burden’ of having children to the emphasis on the immaterial joys that children bring<sup>2</sup>. More than that, the rhetoric of having ‘children’ was being gradually replaced by having a ‘family’, perhaps an indication of rising singlehood and non-marriage. Primary school registration, often seen as highly competitive among middle-class parents hoping to place their children in the best schools, continued to be used as a tool to encourage having children, although it has arguably less impact in its current form. Only previous disincentives against the enrolment of the third child were removed, whereas in the previous policy, the privileging of children of university-educated mothers resounded more powerfully through the different levels of society.

## **Baby bonus scheme**

The passing of the 1990s saw little improvement in the fertility situation in Singapore. On the contrary, Singapore’s total fertility rate (TFR) had dropped from 1.96 in 1988 to 1.42 in 2001. In 2000, the Prime Minister announced a new scheme to drive up fertility levels. This time, the more ‘romantic’ tone of campaigns pronouncing the advantages of having families gave way to more specific measures to “to reduce the obstacles faced by couples in starting a family, and to create a total environment conducive to raising a family” (MCDS, 2002a). In spite of the purported emphasis on the ‘environment’ of caring for the family, the new package continued the old fashion of disbursing monetary incentives to couples.

Two initiatives were announced - the ‘Children Development Co-Savings Scheme’ (in short, the ‘Baby Bonus Scheme’) and the ‘Third Child Paid Maternity Leave Scheme’ (called ‘3CML’) – but it was the Baby Bonus Scheme that attracted much attention. Introduced on 1 April 2001, the Baby Bonus Scheme gave out a first tier of payments of S\$9,000 for the second child and \$18,000 for the third child, paid over six years to “help [...] defray the costs of raising children” (MCDS, 2002b). Another tier of payments was to be found in the Children Development Account (CDA), where the government would match dollar-for-dollar the amount saved into the child's account, up to a maximum of \$6,000 for the second child and \$12,000 for the third child. The money in the CDA could be used to offset some fees at institutions under the Scheme, and could be used for all children in the family (MCDS, 2002b).

Perhaps with the growing awareness that monetary incentives alone could not persuade individuals to change their fertility behaviour, the government also emphasized the role of public education campaigns. A committee called *Family Matters! Singapore*, was set up, aiming to “reinforce the family as an institution in Singapore by positioning family wellness and unity as important life goals”, as well as to “facilitate family formation (including procreation) and to build a family-friendly environment” (MCDS, 2002c). *Family Matters! Singapore* was accompanied by the *Committee on the Family*, whose primary role was to “complement the *Family Matters!* Singapore's role in championing family issues and

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<sup>2</sup> Some point out that the encouragement to ‘Have Three or More, if You can Afford it’, sought to subtly retain the eugenics edge.

assist in promoting messages, policies and programmes that strengthen families” (MCDS, 2002d).

By 2002, S\$11 million had been disbursed under the Baby Bonus Scheme, and another S\$9 million under the Third Child Paid Maternity Scheme (*The Straits Times*, 6 April 2002). Given the monetary generosity of the scheme, it is not surprising that when the TFR fell further, hitting a historic low of 1.42 at the end of 2001, such news was met with disappointment, frustration and a renewed sense of being saddled with a national problem that had “grave” implications for the economy and the future of Singapore (*The Straits Times*, 6 April 2002). The Prime Minister lamented that the Baby Bonus had not yielded much of a “bonus” for him in terms of the total fertility rate, and ironically, found himself appealing *against* the “pragmatism” of Singaporeans:

To the *pragmatic* Singaporeans who have postponed their marriage plans, I advise them to act fast. The timing is good now to get a choice flat to start a family.

- Prime Minister Goh Chok Tong, in *The Straits Times*, 6 April 2002

There are signs that the government is beginning to recognize the ineffectiveness of a purely monetary approach to increasing birth rates. Moving away from focusing its full attention on family structure and function, MCDS announced a “new operating philosophy” (*The Straits Times*, 12 April 2002) to promote family-friendly workplaces, hoping that instead of feeling the pressure to choose between a career and having children, “viable options should be created for mothers who choose not to work, or who prefer to work part-time, to stay at home to have more children” (Lien, cited in *ibid.*). The *Work-Life Unit*, the *Family-Friendly Firm Award* and the *Employer Alliance on Work-Life* were initiated to promote the long-term goal of enhancing the working environment. Formed in the year 2000, the *Employer Alliance on Work-Life* is a group of companies which “endorse and support work-life practices in Singapore”, urging firms to see that it makes a “business case” for making working environments family-friendly (MCDS, 2002e).

Amidst a barrage of news articles bemoaning the low fertility rates and speculation on the Singaporean of today who refuses to be tied down to family and marriage, a ‘Romancing Singapore’ campaign was launched in 2003 with the aim of “help[ing] Singaporeans recognise the importance of family life and, hopefully, tie the knot” (*The Straits Times*, 7 October 2002). The endorsement of the campaign also sees a new stance of the government towards the promotion of its population policies. Believing that “people get turned off when the Government gets involved in personal matters like marriage” (Minister of State for Community Development and Sports Mr Chan Soo Sen, cited in *The Straits Times*, 7 October 2002), the government appears to have avoided directly linking the campaign to pro-children and pro-family initiatives. The softer approach appears to be reflected in campaign publicity material and its activities, which advocate individuals to express love and romance in various ways, and to participate in fun activities together. These activities attempted to be seen as interesting and attuned to the lifestyle preferences of the young, educated and upwardly mobile, the group seen to be dispensing with marriage. Activities organized included free dance lessons and open-air movie screenings in the park, with the website providing an avenue for people to send each other ‘e-cards’ to express their love. But even while encouraging people to “lighten up” about the campaign’s aims (*The Straits Times*, 11 January 2003; 28 January, 2003), it remains to be seen if authorities are willing to “lighten up” on some of their policies, which, going by letters to the Forum pages of the local dailies, are believed by some to be ineffective at best and detrimental at worst. Letters such as ‘Campaign on romance will hurt rather than help’ (by Elaine Ong, letter to *The Straits Times*, 7 October 2002) and ‘Society must change for love to grow’ (by Augustine Quek, letter to *The Straits Times*, March 7, 2003) reflect some Singaporeans’ views that “love should not be engineered”

and denounce the “obsessive need to solve every problem” and the Romancing Singapore campaign’s tendency to “trivialize emotional expression”.

# Effects and Implications of Pro-Natalist Family Policies

In Singapore, the difficulty in evaluating people's responses to population policies is demonstrated by not only the difficulty of measuring attitudinal changes, but also in the short-term fluctuations of fertility rates that provide a confusing foil to long-term population trends. In 1988, the year the NPP was implemented, there was a 13.6% rise in fertility rates. This rise is now recognized to have largely been attributed to its coinciding with the traditionally auspicious Year of the Dragon, which is believed to be the most auspicious animal in the Chinese twelve-animal zodiac cycle (Saw, 1990). In the same vein, the year 1986 saw an 11.1% dip in fertility rates, explained by the fact that it was the Year of the Tiger, believed to be particularly inauspicious for births. According to **Figure 1**, each time the twelve-year zodiac signs of the Tiger (1974; 1998) and Dragon (1976; 2000) came by, fertility either plunged or peaked suddenly, particularly among the Chinese. There is an indication therefore that Chinese couples, which make up a 77% majority of the population, might have put off having babies until 1987. The task of evaluating policy influences on fertility behaviour therefore appears to be a capricious one (Saw, 1990).

While there is evidence that shifts in fertility towards desired directions have occurred in the past, it is difficult to separate the causes of these shifts – whether they are actual policy successes or consequences of changing socio-economic circumstances, or both, and in what proportion. Various studies (Chen *et al*, 1977; Teo and Yeoh, 1999; Drakakis-Smith *et al*, 1993; Graham *et al*, 2002) have attempted to study the responses to the recent pro-natalist policies. The conclusions are mixed; Drakakis-Smith *et al* (1993), conducting surveys in 1992 during the first few years of the NPP, found a low level of agreement among a sample population on the positive impacts of the policy on their family sizes. Graham *et al* (2002) also found that the financial payouts offered to graduate women did not feature in decision-making about the fertility and the family. There is evidence that many Singaporeans see fertility decisions as private decisions that should be left to individuals, although Teo and Yeoh (1999) acknowledge a certain degree of interpenetration of private and public spheres, where decisions are arrived at by taking into account the conjunction and compatibility of policy initiatives as well as personal aspirations.

## Raising fertility within the 'normal' family

It is clear that certain sets of relations are to be maintained as a context for procreation. One such mode privileged by the state is the 'ideal' conjugal relationship of the dual-parent family, preferably situated within an extended multigenerational household. Seen perhaps as an extension of the earlier arguments over nature and nurture and how they determine the 'success' of the child in later life, the ideology of the 'normal' family is said to ensure, among other things, the preservation of 'Asian values' (as opposed to 'Western values' which are responsible for broken families), and the subordination of women in pursuit of the ideal family and what it represents (PuruShotam, 1998, see also Thompson, 2001; Heng and Devan, 1995).

An area that has long shaped the definition of the normal family as the context for fertility is housing policy. The provision of public housing is skewed overwhelmingly in favour of married couples, the basis of which is an unequivocal stand on the 'normal family' as the setting where reproduction takes place. The support of living in normal family

arrangements is also exemplified in the Housing and Development Board's (HDB)<sup>3</sup> 1995 policy of allowing first-time HDB flat-buyers to rent flats while waiting for their own flats to be built, in order to encourage young couples to start their families earlier, rather than delaying their marriages to meet the completion of the building of their flats (Kong and Chan, 2000).

Housing policies have also made it easier for the married couple and the older generation to procure HDB flats close to one another. Although instituted in the name of encouraging 'good' 'Asian' values such as respect and 'filial piety' from older generations to younger people, such arrangements have two implicit benefits to the state: that of alleviating the burden of the state in having to feed and care for the aged, and as a means of a childcare solution for working mothers that might allow them to consider the option of having more children since the grandparent generation is available as a care-givers. Policies encouraging closer living between generations have been established since 1978 (see Huang and Yeoh, 1997), and were successful to varying degrees. One of these was the building of 'granny' flats where separate extensions for grandparents were constructed adjacent to the normal apartment units, and screened off from the apartment proper to provide privacy to married couples and their children, but yet offered close proximity to the grandparents. This scheme was discontinued in 1992 just a year after its implementation; the reason given was that many of these flats were being converted to art studios and music rooms (Kong and Chan, 2000) rather than to house multigenerational households. Later policies giving priority to extended family members getting apartment units close together, for example, in the same estate, drew more positive responses (*ibid.*).

Just as housing policies help to promote certain family forms, at the same time, they also serve to discourage others. Households that do not conform to the type of 'normal family' ideals coherent with national goals fall into this category. One of these 'types' includes single, unmarried persons who wish to own their own flats. It was only in 1972 that there was a first sign of a relaxation in rules for unmarried persons to purchase HDB flats – the condition was that an unmarried woman must purchase the flat together with two or more women, with one over 40 years old at least (*ibid.*). Further down the road, more regulations were introduced to privilege married home-buyers. Married applicants could use their Central Provident Fund savings to pay for their flats as well as to purchase an apartment at highly subsidized rates. In 1991, singles above the age of 35 years old could jointly purchase a flat, but only the substantially more expensive resale units, and only in certain "outlying areas" (Kong and Chan: 2000: 513). These included divorced individuals and unmarried mothers. Prime Minister Goh Chok Tong claimed that the acceptance of unmarried motherhood as a "respectable part of society" is "wrong", and "by removing the stigma, we may encourage more women to have children without getting married" (quoted in *The Straits Times*, 22 August 1994). It is also an indication that in spite of the below-replacement fertility situation being constructed as a national crisis, there is no room for challenging the state's prescribed 'Asian' values norm (Heng and Devan, 1997).

Taxation policies attempt to mirror the way housing policies encourage certain household forms. To encourage more births, tax rebates were introduced for parents with two to four children. These included a tax rebate for the third and fourth child for employed mothers with at least 3 or 4 O levels. If the mother is below 31 years of age when she gives birth to her second child, she is also entitled to tax rebates. Priority in housing allocation, ease of upgrade to larger flats for larger families, and facilitated primary school registration were also offered. Compulsory counseling was implemented for couples with only one or two children who wanted to get sterilized or undergo abortions.

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<sup>3</sup> The use of housing policies as a form of family policy is contingent on the fact that 86% of the population lives in public housing. Public housing is undertaken by the Housing and Development Board (HDB), which was established in 1961.

These rebates automatically cease with the dissolution of marriage, meaning that divorcees no longer qualified for these substantial rebates. Only recently (for the tax year of assessment 2003) has the government allowed divorcees to reinstate their claims for these rebates (IRAS, 2002); this move might have been attributed to public pressure, such as that of a published letter written by a young divorcee with three young children which exhorted the government not to “punish divorced couples and their children”, because it is after all “more taxing financially for a single parent to raise three children” (*The Straits Times*, 22 January 2002).

## **Gendering of family policies**

Government rhetoric and policies strongly implicate the woman by linking her to the “arena of reproduction”, i.e. the household (Huang and Yeoh, 1997:193). As Cheung (1990:39) points out, “changes in the family size and the timing of births are linked to rapid increases in female labour force participation rates”, in that “the delay in marriage and child-bearing [...] has helped to increase the participation rate of women in the age group 25-29 years”. The household embodies ideals about gender roles and responsibilities, which in turn “exacerbate or mitigate wider prescriptions of the sexual division of labour” (Bryant and Chant, 1989, cited in Huang and Yeoh, 1997:193). The implications of ‘ideal family-oriented’ policies therefore leave their mark on not just fertility but also issues of gender. Writings about the focus on women in family policies point towards the underlying patriarchy perpetuated by the state (Kong and Chan, 2000; Soin, 1996; Heng and Devan, 1997). This patriarchy – the reinforcement of traditional perceptions of gender roles in society – is subverted somewhat by the state’s “capitalistic developmental considerations”, an emphasis on economically-centred pragmatism (Kong and Chan, 2000:501).

In state discourses on childcare, for example, women are assumed to be ‘nurturers’ and the primary caregivers of their children. Policies that exemplify this idea often leave the man out of the childcare equation, or view the man as the (financial) provider of the family. Examples include the granting of maternity leave to women without equivalent initiatives for men (paternity leave). The assumption of the woman’s ‘primary’ role as caregiver also extends to other discriminatory practices, including the cap on the number of women who can train as doctors in Singapore to one-third of the cohort. This quota was placed with the belief that it is a ‘waste’ to train women doctors who must eventually leave the medical service to fulfill their roles as wives and mothers or who cannot and will not be expected to take on the same amount of duties as males, and are prone to dropping out of the medical profession altogether. This 23-year old discriminatory practice has just been abolished as recently as December 2002, owing in part to persistent lobbying by women doctors, and by the government’s own admission, the acute shortage of doctors in the country.

While these impacts on women are experienced in practical terms, there is silence over the expectation of the man’s childcare role in the family. While women are constructed as willfully subverting the “norm” (Heng and Devan, 1992), and refusing to heed the call to procreate, not much has been said about the “need to address men’s attitudes towards marriage and participation in their children’s upbringing” (Kong and Chan, 2000:519). Even recent campaigns, while perceived to be targeting both males and females alike, carry notions of women being choosy and unbending to the state’s will. As the Minister of State for Community Development and Sports Mr Chan Soo Sen urged, “women in their 30s [should] not to give up hope of getting married, [but] to take the initiative and express their feelings to the men they fancy” (*The Straits Times*, 6 October 2002).

The 1990s have seen a turn to the construction of a woman’s childbearing role as her “national duty” (Graham *et al*, 2002). The emphasis on women’s reproductive duty is also taken up by the general public, as seen from recent letters to the forum page of the largest circulating English-language daily in Singapore addressing the possibility of “national

service” for women. As mandatory National Service (a form of military service for males) celebrates its thirty-fifth year of institutionalization (*The Straits Times*, March 7, 2002), there is talk of making women have babies as a form of national service, equated to defending Singapore from the onslaught of a population crisis. Although such talk is light-hearted, these comments reflect the assumption that the burden of responsibility falls on women to procreate and ensure the survival of the Singapore population.

## Conclusion

The population policies of Singapore's interventionist state have been contextualized in the various national socioeconomic goals at different points during its 38-year history as an independent state. Intertwined with the goals of nation-building and industrialization, its earlier policies, particularly in the anti-natalist period, were successful in bringing population growth rates down. Today, more than thirty years since the implementation of the first fertility control measures, the government is faced with challenges that can apparently no longer be curbed by approaches centred on meting out cash incentives and tax reliefs. More importantly, there is a growing realization that top-down processes cannot work alone to turn trends around, but must instead engage an even greater proportion of civil society agents and processes. The result has been some recent attempts to decentre the locus of control, with government bodies dealing with the 'population problem' no longer focused on drawing up policies. The role of government groups such as *Family Matters! Singapore* and initiatives like the *Employers Alliance on Work-Life* are instead charged with organising small units of Singaporeans, such as those in corporations and grassroots organizations, to give emphasis to more stress-free, child- and family-friendly work conditions that would enhance the desire and opportunity for marriage and procreation. It remains to be seen if the government has indeed given the old style of public campaigns a wide berth, with the recent 'Romancing Singapore Campaign' being criticised as merely another example of attempting to 'educate' individuals on how they should live their lives.

Beneath the layer of public campaigns, there lies a deep-rooted conservatism underlying the policies. This conservatism remains centred on an overarching framework of the safeguarding of 'Asian values' in a globalising world, reinvented as a communitarian ethic rooting citizens in a 'cosmopolitanising' Singapore. In this framework, the normal family must remain the symbol and context for procreation; in order for the status quo to be upheld, patriarchal relations between men and women must be sustained, especially in the pursuit of a middle-class life (PuruShotam, 1998). The embodiment of these ideals in restrictions on public housing and the disbursement of childcare and maternity benefits attempt to reinforce the normal family ideal, discouraging the formation of single parent families and alternative family types. In this sense, 'disincentives' continue to be utilized as a population policy strategy.

The continued emphasis on a particular set of relations for the context of reproduction contradicts the pronounced opening of a space for individual choice and expression, creating tensions that could affect the effectiveness of the policies. Cheung (1990:46) believes that the "success of the new population policy would [...] depend to a large extent on the willingness of women to accommodate their career with a large family size", but perhaps it is time to turn to the other sex, and to alternative contexts for raising families.

## Appendix

### The evolution of population policies

Policy Area	Under the Old Population Policy (1966)	Under the Eugenics Period (1984)	Under the New Population Policy (1987)	New initiatives (2000)
<b>Public Campaign Focus / Rhetoric</b>	‘Stop at Two’ ‘Boy or Girl, Two is Enough’	‘The Great Marriage Debate’	‘Have Three Or More, If You Can Afford it’	Promoting work-life harmony; Family-friendly work practices; <i>Romancing Singapore</i> Campaign (2003)
<b>Government Bodies</b>	<i>Singapore Family Planning and Population Board</i> (to reduce Singapore’s crude birth rate and net reproduction rate, and later to achieve zero population growth)	<i>Social Development Unit</i> (to promote marriage among university graduates)	<i>Family Life Education Coordination Unit</i> (coordinating body for pronatalist programs, and in charge of mass media programs)	<i>Family Matters! Singapore Work-Life Unit</i> <i>Committee on the Family</i>
<b>Approaches to Family Planning</b>	Liberalisation of abortion, made legal in all government clinics; sterilization encouraged for parents with more than 2 or 3 children	Sterilisation encouraged for lower-educated, lower-income parents	Compulsory pre-sterilisation counseling instituted for couples with less than 3 children; Pre- and post-abortion counseling instituted for married women with less than 3 children.	No changes
<b>Cash Benefits, Hospital Accouchement Fees and Childcare Subsidies</b>	Progressively higher hospital accouchement rates for higher birth orders; For female civil servants who underwent sterilization after the birth of their 3 <sup>rd</sup> (or more) child: Paid maternity leave 7 days unrecorded full-pay leave	\$10,000 for under-30 mothers who sterilise after their 1 <sup>st</sup> or 2 <sup>nd</sup> child (both parents should not have O Level qualifications and should have a combined family income of less than \$1,500)	No pay leave for childcare was extended to 4 years from one year for women in the civil service;  Families of children below the age of six years qualify for a monthly S\$100 subsidy to offset the fees of approved childcare centers used.	8 weeks of paid maternity leave for working mothers who give birth to their third child, subject to a maximum of S\$20,000; Baby Bonus Scheme

<b>Policy Area</b>	<b>Under the Old Population Policy (1966)</b>	<b>Under the Eugenics Period (1984)</b>	<b>Under the New Population Policy (1987)</b>	<b>New initiatives (2000)</b>
<b>Income Tax Rebates</b>	Restriction of normal child relief in income tax returns to the first 3 children born on or after 1 August 1973.	Enhanced Child Relief: highly educated married mothers can now claim an additional 5% of their annual income for the firstborn, 10% for the second child, and 15% for their 3 <sup>rd</sup> , subject to a maximum of \$10,000. Eligibility of this scheme extended to mothers with at least 5 O Levels.	Enhanced Child Relief: Married women with more than 3 O level passes are entitled to reliefs amounting to varying proportions of their income according to the order of birth of each child;  Special Tax Rebate: Tax rebate up to a maximum of S\$20,000 per couple for parents of a new third child; Husband or wife may claim up to S\$3,000 relief for delivery and hospitalization expenses for the 4 <sup>th</sup> child born in the previous year.	No changes
<b>Housing allocation</b>	No explicit population policy-influenced housing policy. Reside-Near-Parent Scheme (1979) encouraged the fostering of strong intergenerational ties	Multi-tier family housing scheme (1982): priority allocation and lower downpayments for children moving near parents	Priority for housing choice given to families wanting to move to bigger flats after the birth of their third child; permission for bigger families to sell their HDB flat in the open market before 5 years of occupancy has been reached; multigenerational flat	Revised Transitional Rental Housing Scheme (1995) allows young couples access to interim housing while waiting for their flats, in hope that they will not postpone marriage or delay having children in the wait.
<b>Primary School Registration</b>	Phase I registration open for 2 <sup>nd</sup> child who has a sibling in the same school; Priority for primary school registration for three children or less for mother who has undergone sterilisation	Phase I registration open to child if mother has at least 3 children, a university degree, and if the child has a sibling in the same school	Previous disincentives for the enrolment of a third child in schools removed. Where there is competition for admission, priority will be given to children from three-child families	No changes

Sources: IRAS, 2002; MCDS, 2002a,b,d; Perry *et al*, 1997, Saw, 1990

## References

- Arumainathan, P. (1970) *Census of Population, 1970, Singapore*, Singapore: Department of Statistics.
- Chan, A. and Yeoh, B.S.A. (2002) 'Gender, family and fertility in Asia: An introduction', *Asia-Pacific Population Journal*, 17 (2), 5-10.
- Cheung, P. (1990) 'Micro-consequences of low fertility in Singapore', *Asia-Pacific Population Journal*, 5 (4), 35-46.
- Chua, B.H. (1995) *Communitarian Ideology and Democracy in Singapore*, Routledge: London, New York.
- Del Tufo, M.V. (1949) *Malaya, Comprising the Federation of Malaya and the Colony of Singapore: A Report on the 1947 Census of Population*, London: Crown Agents for the Colonies.
- Drakakis-Smith, D., Graham, E.F., Teo, P. and Ooi, G.L. (1993) 'Singapore: reversing the demographic transition to meet labour needs', *Scottish Geographical Magazine* 109: 152-163.
- Department of Statistics (2000) *Census of Population 2000: A Quick Count*, Singapore: Department of Statistics.
- ESCAP (2002) *2002 ESCAP Population Data Sheet*, Bangkok: Population and Rural and Urban Development Division, United Nations Economic and Social Commission for Asia and the Pacific.
- Government Print Office (1957) *1957 Census of Population, Singapore*, Singapore: Government Print Office.
- Graham, E. (1995) 'Singapore in the 1990s: Can population policies reverse the demographic transition?', in *Applied Geography*, 15, 219-232.
- Graham, E., Teo, P., Yeoh, B.S.A. and Levy, S. (2002) 'Reproducing the Asian family across the generations: "tradition", gender and expectations in Singapore', *Asia-Pacific Population Journal*, 17 (2), 61-86.
- Heng, G. and Devan, J. (1995) 'State fatherhood: the politics of nationalism, sexuality and race in Singapore', in A.H. Ong and M.G. Peletz (eds.) *Bewitching Women, Pious Men: Gender and Body Politics in Southeast Asia*, Berkeley: University of California Press, 195-205.
- Hill, M. and Lian, K.F. (1995) *The Politics of Nation Building and Citizenship in Singapore*, London: Routledge.
- Huang, S. and Yeoh, B.S.A. (1998) 'Beyond the household: strategizing child care in Singapore', *Asian Profile*, 25 (3), 193-209.
- IRAS (2002) *Tax Rebates/Tax Reliefs*. <http://www.iras.gov.sg/TaxInfo/Income/iitrebate1.htm> [2002] Singapore: Inland Revenue Authority of Singapore.
- Khoo, C.K. (1981) *Census of Population 1980, Singapore: Release*, Singapore: Department of Statistics.
- Kong, L.L. and Chan, J.S. (2001) 'Patriarchy and pragmatism: Ideological contradictions in state policies', *Asian Studies Review*, 24 (4), 501-531.
- Kuo, E.C.Y. and Wong, A.K. (1979) 'Some observations on the study of family change in Singapore', in J.H. Ong, C.K. Tong and E.S. Tan (eds.), *Understanding Singapore Society*, Singapore: Times Academic Press, 231-238.
- Lentzner, H. and Pamuk, E. (2002) *Health Consequences of Population Changes in Asia: What are the Issues?*, Asian MetaCentre Research Paper Series, No. 6, Singapore: Asian MetaCentre for Population and Sustainable Development Analysis.
- Lim, Y.P. (1995) *National Campaigns as Persuasive Communications in Singapore: A Critical Analysis*, Unpublished academic exercise, Department of Mass Communications Programme, Faculty of Arts & Social Sciences, National University of Singapore.
- MCDS (2002a) Baby Bonus Scheme, <http://www.babybonus.gov.sg>, Singapore: Ministry for Community Development and Sports.
- MCDS (2002b) MCDS Families – Supporting Families – Baby Bonus, [http://www.mcds.gov.sg/web/faml\\_supfaml\\_babybonus.asp](http://www.mcds.gov.sg/web/faml_supfaml_babybonus.asp), Singapore: Ministry for Community Development and Sports.
- MCDS (2002c) MCDS Families – Supporting Families – Public Education Committee on Family, [http://www.mcds.gov.sg/web/faml\\_supfaml\\_publicedu.asp](http://www.mcds.gov.sg/web/faml_supfaml_publicedu.asp), Singapore: Ministry for Community Development and Sports.

- MCDS (2002d) MCDS Families – Supporting Families, [http://www.mcds.gov.sg/web/faml\\_supfaml.asp](http://www.mcds.gov.sg/web/faml_supfaml.asp), Singapore: Ministry for Community Development and Sports.
- MCDS (2002e) MCDS Families – Promoting Work-Life Harmony – Employer Alliance on Work-Life, [http://www.mcds.gov.sg/web/faml\\_workharmony\\_employeralliance.asp](http://www.mcds.gov.sg/web/faml_workharmony_employeralliance.asp), Singapore: Ministry for Community Development and Sports.
- Navaneetham, K. (2002) *Age Structural Transition and Economic Growth: Evidence from South and Southeast Asia*, Asian MetaCentre Research Paper Series No. 7, Singapore: Asian MetaCentre for Population and Sustainable Development Analysis.
- Perry, M., Kong, L.L. and Yeoh, B.S.A. (1997) *Singapore: A Developmental City-State*, Singapore: John Wiley.
- Phua, L. (1998) *Negotiating Power Relations in Everyday Spaces: The Politics of the Pregnant Body in Singapore*, Unpublished Masters Thesis, Department of Geography, National University of Singapore.
- PuruShotam, N. (1998) 'Between compliance and resistance: Women and the middle-class way of life in Singapore', in K. Sen and M. Stivens (eds.), *Gender and Power in Affluent Asia*, London: Routledge, 127-166.
- Saw, S.H. (1989) 'Muslim fertility transition: the case of the Singapore Malays', *Asia-Pacific Population Journal*, 4 (3), 31-40.
- Saw, S.H. (1990) *Changes in the Fertility Policy of Singapore*, Singapore: Institute of Policy Studies and Times Academic Press.
- Seow, J. (1995) *Our Family, Our Values*, Singapore: Singapore Family Values Promotion Committee.
- Singapore Department of Statistics (1991) *Census of Population 1990: Advance Data Release*, Singapore: SNP Publishers.
- Soin, K. (1996) 'National policies – their impact on women and the family', in AWARE (ed.) *The Ties that Bind: In Search of the Modern Singapore Family*, Singapore: Association of Women for Action and Research.
- Teo, P. and Yeoh, B.S.A. (1999) 'Interweaving the public and the private: Women's responses to population policy shifts in Singapore', *International Journal of Population Geography*, 5, 79-96.
- Thompson, M.R. (2001) 'Whatever happened to "Asian values"?', *Journal of Democracy*, 12 (4), 154-165.
- The Straits Times*, various issues.
- Tremewan, C. (1994) *The Political Economy of Social Control in Singapore*, New York: St. Martin's Press.
- Westley, S.B. (2002) 'A "snapshot" of populations in Asia', *Asia-Pacific Population and Policy Report Number 59*, Honolulu: East West Center.

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