Singapore's population conundrum

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Singapore's resident total fertility rate (TFR), or the average number of births a hypothetical woman can expect to have by the end of her childbearing years if she experiences the age-specific rates in a given year, has been well below the replacement level (generally considered to be 2.1) since 1976. Singapore has one of the lowest fertility rates in the world, together with Hong Kong, China; Japan; Republic of Korea; and Taipei, China (United Nations 2009). Our projections (Institute of Policy Studies May 2012) show that if the TFR remains constant at 1.24 births per woman from 2005, Singapore's citizen and permanent resident population (known collectively as the "resident population") will decline from 2020. Moreover, the population will age rapidly with the median age rising to 55 in 2050 from the current 39 years. There will be 1.7 working age persons per elderly person in 2050, down from about 8 currently.

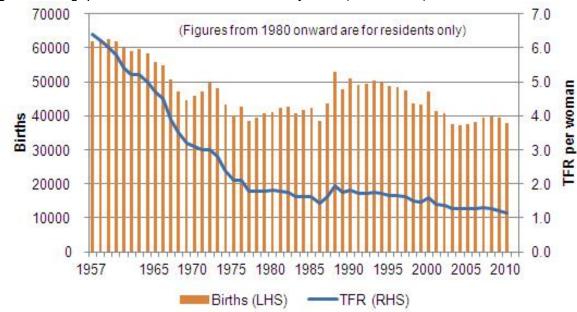


Figure 1: Singapore Live Births and Total Fertility Rate (1957–2010)

Source: Department of Statistics, Singapore

The Singapore TFR has remained ultra-low despite a pro-natalist policy stance and measures to make Singapore family friendly. Financial incentives such as "baby bonuses" and parenthood tax rebates have been introduced, while support for parents to balance work commitments with their family has also been enhanced, notably in the government's Marriage and Parenthood Package.

Raising the TFR is a challenge, not just for Singapore but for many developed countries, and may in any case be insufficient to affect the aging of the population in the next 30 years. Our projections show that, even if the TFR is raised to 1.85 in the next five years, the population's

aging trend over the next two decades can only be slowed and not reversed. This is because of population momentum—the age structure will take at least a generation to adjust itself in the most optimistic scenario.

Indeed, a rising old-age dependency ratio (the number of persons age 65 or older per one hundred persons in the age group 15 to 64) may lead households to make a seemingly rational decision not to have children so as to maintain a "financially optimal" ratio of dependents and workers in the household, thus creating a vicious downward spiral for the society at large.

The inexorable rise in the elderly resident population can potentially create divisions between the young and the old, with declining numbers of working age persons having to care and provide for the increasing numbers of elderly in the community.

Therefore replacement migration may be needed to offset the effects of a below-replacementrate TFR in the short to medium term. In-migration may be required to sustain the workforce to generate sufficient economic prosperity to pay for the needs of an aging population.

In-migration has, however, become an emotive topic, with high levels of foreigner intake since 2005 potentially creating stress-points, for example in competing with locals for jobs, education, housing, and other resources. Fears of the loss of national identity may intensify, especially if the intake of foreigners is not well calibrated, or if their integration into the community is not achieved.

Table 1: Select demographic data (2002–2011)

Year	As at end June		Annual Growth Rate				
	Total Population	Resident Population	Total Population	Resident Population	Population Density (per sq. km)	Median Age ⁴ (years)	Old-Age Support Ratio
	('000)		(%)				
2002	4,176.0	3,382.9	0.9	1.7	6,078	34.7	9.6
2003	4,114.8	3,366.9	0.2	1.6	5,934	35.0	9.7
2004	4,166.7	3,413.3	1.3	1.4	5,985	35.4	9.2
2005	4,265.8	3,467.8	2.4	1.6	6,112	35.8	8.9
2006	4,401.4	3,525.9	3.2	1.7	6,292	36.1	8.6
2007	4,588.6	3,583.1	4.3	1.6	6,508	36.4	8.5
2008	4,839.4	3,642.7	5.5	1.7	6,814	36.7	8.4
2009	4,987.6	3,733.9	3.1	2.5	7,022	36.9	8.3
2010	5,076.7	3,771.7	1.8	1.0	7,126	37.4	8.2
2011	5,183.7	3,789.3	2.1	0.5	n.a.	38.0	7.9
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Sources: Singapore Department of Statistics, Population Trends 2011 and Singapore Census of Population 2010.

Singapore's demographic challenges are common to many developed countries, but there are unique aspects to the country's issues, such as being an island nation with a small, open economy and global city aspirations. The authorities in New York, London or Tokyo do not have to consider the threat of an aging population in quite the same way, since the city-state has no natural hinterland to allow the population to choose whether to move out of the city for a less intense urbanized lifestyle and lower cost of living. The population densities and living intensity of a global city loosens cultural support for traditional family values, and creates additional social and economic barriers to lifting the TFR (high opportunity costs of maternity, rising childcare costs, growing norms of singlehood, the search for perfection in potential spouses, higher expectations of parenthood, among others).

A society that is not comfortable replenishing itself (whether naturally or via in-migration) will not be sustainable. There is a pressing need to take advantage of the present economic prosperity to address these demographic issues and formulate well-crafted policies and plans to cope with the needs of an aging resident population. In particular, the focus of policy attention may need to shift toward broad social changes that support children and parenting, for example on universal access to affordable childcare, on measures to facilitate reinstatement of women into the workforce after childbirth, and more flexible labor policies.

The government's stated intention to publish a White Paper on population before the end of 2012 shows high-level concern over these demographic issues. The Institute of Policy Studies in Singapore is working on a holistic, multi-disciplinary review of the economic, social, and political implications of the projected demographic scenarios for Singapore over the next 40 years. The goal of this review is to help formulate balanced policies to ensure that Singapore's future generations of both young and old can live, work, and play in a sustainable manner.