

Why the fertility rate doesn't capture socio-economic or cultural trends

Theresa Tan

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SINGAPORE - A recent analysis that drew criticism for pinpointing single women for Singapore's falling total fertility rate (TFR) did not look at other factors beyond its statistical scope, such as those leading to rising singlehood among both men and women, said the Department of Statistics (DOS).

A DOS spokeswoman told The Straits Times that the department's analysis focused only on the statistical breakdown of the TFR.

The TFR estimates the average number of babies that a woman would have over her reproductive years, based on the birth trends in a given year.

The spokeswoman said of its analysis: "It does not analyse the socio-economic, cultural or biological determinants of fertility trends."

Such determinants include factors that cause rising singlehood among both men and women, and changes in marital fertility, which may be influenced by both the husband and the wife.

She added: "These topics would require more extensive studies beyond the statistical scope of the article."

The DOS was responding to questions from The Straits Times on how the TFR is calculated, and criticisms from individuals online and groups such as the Association of Women for Action and Research (Aware) that its analysis of the factors for Singapore's falling TFR appears to pin the blame on single women.

The analysis, published in the DOS newsletter in May and reported by ST, found that the growing proportion of women remaining single was one major reason for the drop in the TFR between 2005 and 2023.

The analysis came after Singapore's resident TFR fell below 1 for the first time in its history, to 0.97 in 2023.

The DOS analysis examined two time periods.

Between 1990 and 2005, the decline in the fertility rate of married women contributed more to the drop in the TFR than the fall in the proportion of married women.

But between 2005 and 2023, the drop in the TFR was due to the fall in the proportion of married women, which offset slight increases in the fertility rate of married women.

Aware's director of advocacy, research and communications Sugidha Nithiananthan said the DOS analysis ignores the underlying factors for why couples are not having children.

“While DOS’ study was statistically correct, based on their formula, in linking the falling TFR to a declining marriage rate, blaming it on an increasing number of women ‘choosing’ to remain single ignores men’s role in this and reflects a sexist blind spot.

“Furthermore, it’s worth noting that instead of counting the number of babies born to all women of child-bearing age, the DOS chose to count the number of babies born only to married women. In making this choice, they also had to then factor in the percentage of women getting married into their equation, to calculate the TFR. Given their choice of equation, their analysis applied a sexist lens to the results, blaming the falling TFR on the falling percentage of women getting married,” she said.

Institute of Policy Studies (IPS) senior research fellow Kalpana Vignehsa noted that it takes both a man and a woman to conceive a baby, and any analysis of the TFR has to fairly acknowledge the role played by both genders.

Dr Vignehsa added: “So if people are staying single, we need to ask about the state of gender relations in Singapore, instead of seeming to suggest that women are responsible for this trend.”

The DOS spokeswoman explained that the TFR is a standard demographic indicator used internationally by countries and international organisations, such as the United Nations Population Division and the Organisation for Economic Cooperation and Development, to measure fertility within a population.

“It is calculated similarly across countries, using female population,” she said.

She noted that by definition, the components that the TFR can be broken down into, such as the proportion of married women, pertain only to women.

Mathematically, the TFR is five times the sum of the average number of babies born per woman across five-year age groups of women, she added.

Professor Jean Yeung of the National University of Singapore’s Yong Loo Lin School of Medicine, who is also director of social sciences at the Agency for Science, Technology and Research’s Singapore Institute for Clinical Sciences, said the TFR is purely a biological-based measure built around women’s reproductive years.

It does not take into account the social factors that contribute to fertility rates of a population, Prof Yeung said.

“Of course, when considering the trends and determinants of the fertility rates of a population beyond statistical reports, important social factors should be taken into consideration, such as the changing socio-economic environment, gender ideologies and public policies,” she added

Dr Tan Poh Lin, another IPS senior research fellow, said the formulation of TFR and other statistical metrics like marital fertility were developed to be compatible with administrative data collected all over the world, including in countries with a high incidence of single motherhood, where the father’s details may be missing from the birth certificate.

Dr Tan said: "Research has therefore tended to focus on female parents due to much more complete data, rather than any view that women are more responsible than fathers for childbearing."