

Total Fertility Rate in India - Report and Reality

Mains: *GS I - Indian society*

Why in News?

Recently, there is a large gap between real and calculated Total Fertility Rate (TFR) is particularly relevant in a developing country such as India

What is the recent UN report?

- **UN report** - The recent United Nations Population Fund's State of World Population 2025 report shows that India's current Total Fertility Rate (TFR) has fallen to 1.9.
- **Shift of focus** - This sub-replacement fertility has shifted the focus of discourse from the belief that rapid population growth is the root of economic backwardness to new concerns about ageing populations.
- **Questions raised by UN report** - The report brings urgent questions to the forefront.
 - Does the methodology used to calculate TFR accurately reflect public perception?
 - Could the decline in TFR pose risks to India's economic trajectory, thereby creating the need to raise the TFR?

What is the perceived meaning of TFR?

- **TFR** - Total fertility rate (TFR) is the average number of children a woman would have in her lifetime, based on the current age-specific fertility rates.
- However, it is a statistical measure which calculates the average number of children a woman would have in her lifetime if she experienced the current birth rate trends at each age cohorts *from 15 to 49 years throughout her reproductive life.*

*A **cohort** is a group of people who share a common characteristic, like age or birth year.*

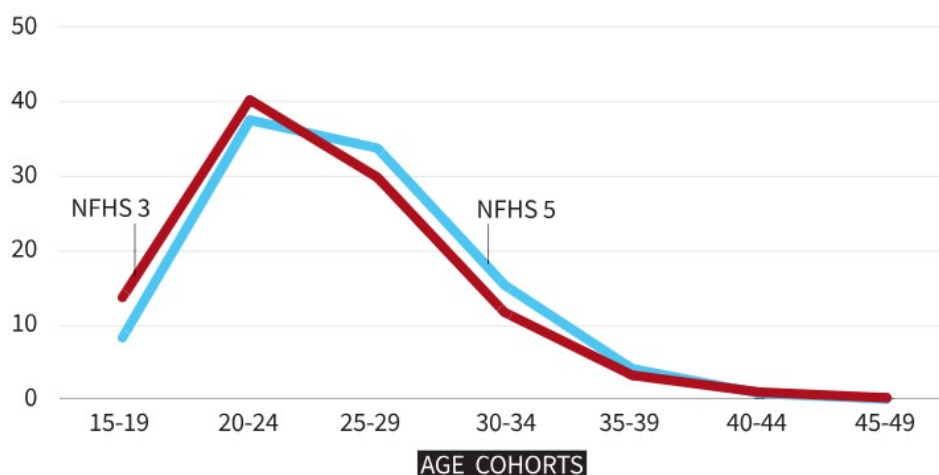
- **Division of reproductive age** - The reproductive age is divided into seven five-year age cohorts of, *15-19, 20-24, 25-29, 30-34, 35-39, 40-44, and 45-49.*
- **Age specific fertility rate** - For each age cohort, the number of live births per 1,000 women in a given year is calculated, this is known as *age-specific fertility rate (ASFR).*
- These ASFRs are then converted into per-woman figures by multiplying each rate by five (since each cohort covers five years) and dividing by 1,000. Adding up the figures for all seven cohorts gives us the TFR.

- **Synthetic cohort assumption** - This calculation assumes that that today's 15-19 age cohort will show fertility patterns similar to today's 45-49 cohort (or other older cohorts) once they themselves reach that age, and vice versa.

What are the limitations of TFR calculation?

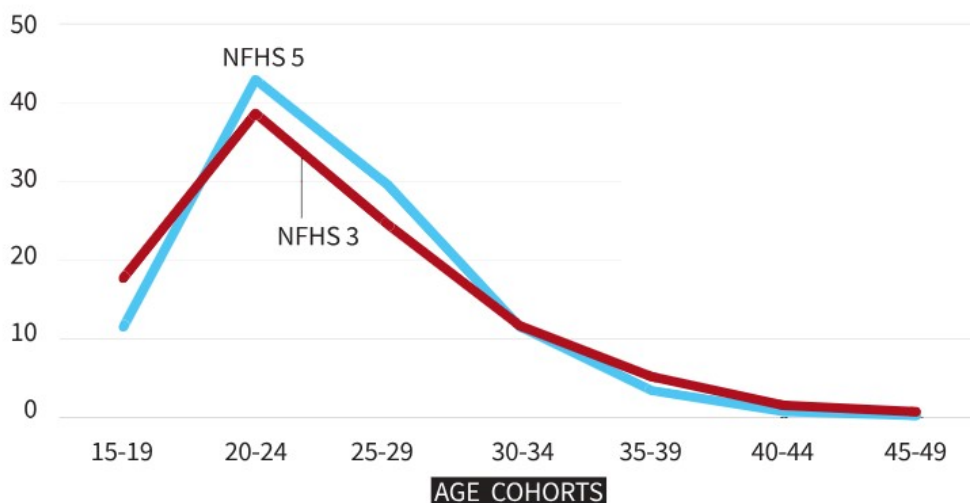
- **Assumption vs Reality** - Real fertility preferences do not follow the synthetic cohort assumption.
- They often evolve differently, as future younger cohorts are likely to exhibit preferences that differ from those of today's older women.
- **Tempo effect** - TFR is a point-in-time measure, which is highly sensitive to a phenomenon known as the tempo effect.
- This refers to changes in the timing of childbearing, not necessarily reduction in the number of births.
- **Skipping the postponed births** - Since TFR is calculated from the ASFRs of women in a given cohort, births postponed are not captured in that year's data.
- So the fertility of women who delay childbirth is effectively 'missed' even though they may have the same number of children later.
- Thus, tempo effect artificially reduces the TFR and gives a false impression of lower fertility.
- The phenomena exacerbates when birth postponement takes place in the majority of the younger age cohorts.
- Interestingly, today's postponement will overestimate future TFR calculation.
- This large gap between real and calculated TFR is particularly relevant in India, which is simultaneously undergoing economic, social, and cultural transitions.
- These include rising female literacy and a more career-oriented outlook among women that creates a stronger incentive to delay childbirth.
- **Exclusion** - TFR excludes births to women below 15 and above 49, based on the assumption that such cases are negligible.
- This assumption is less valid in developing and Islamic countries where early marriages are common.
- Owing to legal and social sensitivities, births to underage girls are often concealed.
- **Skipped questions** - Moreover, survey enumerators may also avoid uncomfortable questions, as noted in the 2020 DHS Methodological Report.

The chart below shows urban age-specific fertility rate contribution to the total fertility rate



- The ASFR trends presented reflect a shift in childbirth patterns, with fertility being postponed from younger to older cohorts.
- **Urban areas** - In urban areas, the decline in the share of ASFR among the youngest two cohorts (15-19 and 20-24) and the corresponding increase across the older cohorts (25-29 to 45-49) strongly indicates a postponement of fertility preferences rather than an overall decline in fertility.

The chart below shows rural age-specific fertility rate contribution to the total fertility rate



- **Rural areas** - In rural areas, a decline in the share of ASFR is observed in the 15-19 age cohorts, along with an increase in the 20-24 to 30-34 age cohorts.
- This also suggests a postponement of fertility preferences.
- However, unlike in urban areas, this shift is largely confined to the middle age cohorts.
- The declining share of older cohorts (35-39 and above) points to a reduction in fertility preference in these age cohorts.

What lies ahead?

- Given these problems, and amid growing calls to raise the TFR due to concerns over

ageing population, it is important to recognise that historically, sub-replacement fertility has not constrained economic progress, as evidenced in Europe, the U.S., and several newly industrialised economies.

- Moreover, India has missed the opportunity to fully harness its demographic dividend, constrained by persistent youth unemployment, a challenge likely to intensify with automation and AI.
- More importantly, the current size of the elderly population remains largely independent of present fertility trends.
- While caring for the ageing population is a moral responsibility of the state, its urgency does not automatically increase simply because of a reported decline in TFR.

Reference

[The Hindu| Total Fertility Rate of India](#)

