## Fertility Declines and Shifts in Gender Equality in India: A Comparative Analysis of Punjab and Tamil Nadu

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## **Extended abstract**

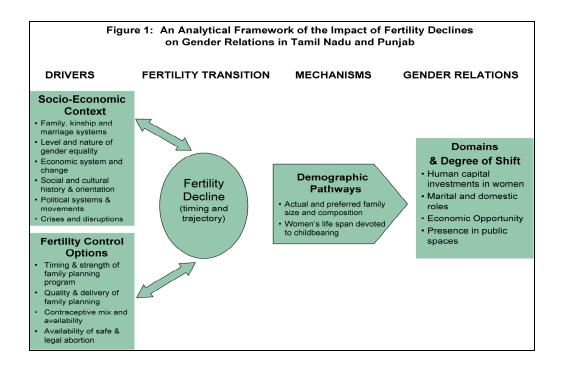
**Background and rationale:** Fertility levels have sharply declined in many developing countries over the last four decades. The resulting change in demographic regimes has widespread implications for growth rates, dependency burdens, consumer markets, and societal relations. Gender relations are certain to be notably influenced as well. For example, Malhotra (2009) argues that shifting fertility regimes may lead to a reduction in the economic value of children that eventually undermines the motivation to control women's sexuality and reproduction. Dyson (2011) suggest that recent demographic transitions have played a "democratizing" role, not only in terms of schooling and human capital investments, but also by advancing personal agency and women's autonomy. However, to date, few empirical studies have explored this relationship at the macro level and over time.

In this paper, we attempt to address this gap by undertaking a comparative, historical analysis of the situation in the India states of Punjab and Tamil Nadu. We employ a macro-historical perspective, focusing on the period from 1970 to the present and examine a fundamental question: what has been the nature and scope of shifts in gender relations, and to what extent, and through what mechanisms, have fertility declines contributed to these shifts?

India is an important arena to study these dynamics: fertility has declined rapidly in some states, the gender system is complex and changing, and social and economic development has sped up in the last few decades. Within India, Punjab and Tamil Nadu provide an appropriate opportunity for our study as they were among the first Indian states to experience declining fertility rates. Yet, the dynamics of fertility decline in the two states have differed greatly as have the nature of patriarchy and the trajectories of socio-economic development. Thus, a comparison allows us to better understand how contextual differences might shape the relationship between a decline in fertility and shifts in gender relations.

Analytical framework and key questions: Our conceptual framework (Figure 1) proposes that the social-economic context—including the existing gender system—in combination with fertility control options are likely to determine the extent to which fertility declines transform gender relations in any given society. In line with this conceptualization, we examine *societal level shifts over time* rather than cross-sectional or longitudinal impacts of individual women's fertility on their subsequent life outcomes. We focus on two of the four mechanism specified by Malhotra (2009) that can be considered as being demographically the "proximate" outcomes of fertility declines: 1) changes in the actual and preferred family size and composition, which reshape aspirations for and investments in children of both sexes; and 2) shrinkage in women's life span devoted to childbearing, which reshapes their domestic and public roles These two mechanisms, or pathways, are likely to have important implications for expectations and roles of women both within the family and in the public sphere. For this reason, we examine gender relations in terms of shifts in four key domains: human capital investments in women, marital and domestic roles, economic opportunity, and presence in public spaces.

We expect that significant changes in gender relations are unlikely to have materialized or be observable in less than a decade after lower fertility levels started becoming commonplace. Thus, we focus on the 1970-2010 period for our analysis, with the expectation that marked fertility declines in both Tamil Nadu and Punjab from 1970-1995 would begin to manifest any observable changes in gender relations by 1995-2005.



**Data and methodology:** We rely on four types of data sources: 1) Quantitative data to map state level trends on indicators of interest. Our sources include the Indian Sample Registration System (SRS); the Indian Census; the National Family Health Surveys (NFHS); the National Sample Surveys (NSS), and several additional data collected by the Indian government. 2) Qualitative and quantitative information, analyses, and insights from the published literature from multiple fields, including population, gender, development, political science, anthropology, economics and history. 3) Information and insights from unpublished or otherwise not widely circulated documents, including state- and national-level policy and program documents. 4) Primary qualitative data collected from key informant interviews with population, gender, and development experts, especially at the state level.

Our analysis comprised several steps: Initially we undertook a trend analysis for each state. Relying largely on quantitative data from 1970-2010, we mapped changes in fertility levels, fertility control, demographic mechanisms, and 28 indicators corresponding to our four domains. We used this mapping to examine the timing, speed, and overall trends in each, as well as the overlap and lags between indicators. Our final indicators reflect those for which the most complete and reliable information is available, and which represent, in our view, the most notable patterns over this time period. Our second step was to catalogue, read and synthesize published and unpublished articles or reports. Thirdly we conducted interviews with 32 experts knowledgeable about our key issues of interest in either state or in India overall. Finally, we synthesized the information from all the above steps, repeating steps and modifying analyses as needed or as new information came to light. This multi-method, non-linear approach allowed us to provide a more contextualized reading of the relationships between fertility change, gender dynamics and development in Punjab and Tamil Nadu over the last 40 years.

**Findings:** We argue that there have been significant, though somewhat differing, positive changes in women's lives and in gender relations in both Tamil Nadu and Punjab, resulting from a combination of socio-economic development and fertility declines in the two states. At the same time, fundamental aspects of patriarchy remain in both societies, and observed changes have yet to be transformational in overcoming gender inequalities. Below are key highlights from our findings:

Trends and drivers of fertility decline: The fertility transitions in Punjab and Tamil Nadu over the last 40 years have resulted in below replacement fertility regimes in both states (1.7 in Tamil Nadu and 1.9 in Punjab), though levels and pace of fertility decline have varied between the two. Economically driven demand, and, to a lesser extent, the early supply of family planning were paramount in Punjab's transition (Das Gupta 1999). In contrast, a strong family planning program, social readiness and aspirations in the context of poverty were more important in Tamil Nadu (Visaria 2009). Thus, as hypothesized in our analytical framework, the policy, economic and social contexts determined the speed and pattern of fertility decline. Patriarchal constraints in both states were strong, such that women's position was not a major factor in driving the fertility decline in either Punjab or Tamil Nadu.

Demographic mechanisms: We find that the fertility transition in these states did lead to changes in preferred and actual family size and composition, and in the length of women's lifespan spent in childbearing, the two demographic mechanisms in our framework. A key change in preferences is a decline in reported son preference, coinciding with an increase in the desire for a balanced sex composition of children; moreover, preferences suggest that a small family size is currently more important than the presence of a son. Actual family size and composition increasingly reflect these changing attitudes. Concurrently this has implications for shrinkage in kin group size and obligations. In both Punjab and Tamil Nadu, the proportion of women's lives devoted to bearing children has also been steadily shrinking due to a number of factors related to the fertility decline experienced by these states. These include a rising age at marriage, declining age-specific fertility rates at young and older ages, and declining maternal mortality rates.

Women's lives and gender relations: The changes in these "proximate" mechanisms have served to increase the value of girls within households, and have provided motivations for a shift in women's roles, affecting the four key domains examined in our paper, but to different degrees in each state.

Human capital investment in girls: Survey data show that in both states, between 1983-2004, girls' schooling at the post secondary level has increased tremendously, and the gender gap has narrowed as well. Tamil Nadu has lower overall proportions of girls in post-primary schooling than does Punjab, yet conversely Tamil Nadu has a higher proportion of girls and young women in technical, "non-feminine" fields of study, such as engineering, than Punjab. The implications for changes in gender relations are mixed. On the one hand, respondents in some qualitative studies show that education is primarily viewed as improving girls' marriageability and fears about girls' sexual safety in schooling post-puberty linger in both states (Ravindran 1999). Other research, however, presents a change in these traditional views: respondents say they want their daughters to be educated so they can be financially independent and thus less subservient to a husband (Chanana 1993).

Economic opportunities for women: Historically Tamil Nadu has had much higher rates of female labor force participation than Punjab. According to NSS data there is, more recently, an overall shift towards wage and salaried employment among younger cohorts in both states, compatible with a context of declining fertility and economic development. Also, as young women increasingly have a gap between completing their education and marriage, working for wages is considered an acceptable, even desirable option and may even increase a woman's marriageability. In Punjab nonagricultural job options for women continue to be more limited, with teaching as the socially most desirable profession. In Tamil Nadu, on the other hand, higher levels of training in technical fields as well as the growth of the IT and business sectors have opened a broader range of options for women. While generally positive, however, changes in this domain are less dramatic than other domains and have both positive and negative implications for women. For example, as employment opportunities have increased for young women more than for young men, particularly in Tamil Nadu, there is increasing tension and violence against women (Anandhi et al., 2002).

Marital structure and domestic relations: In both states, the search for upward social and economic mobility has contributed to a loosening of traditional norms of marriage, and a "new" marriage structure has emerged wherein economic suitability trumps rules of caste, class, or religion, and educated

daughters attract more suitable grooms. These trends coincide with the increasing prominence of nuclear households, and with the increased desire among couples to invest their earnings into their own children rather than into an extended household. Thus, in their marital and domestic roles, women are experiencing greater independence from broader kin constraints and greater shared participation with their husband in decision-making on household issues. At the same time, it appears that women's roles and responsibilities haven't decreased; rather, they have merely shifted in focus. Thus, women's primary role is still that of mothers; however, the focus is now not on quantity but quality of children, and as educated mothers, it is now their first priority to ensure the education, wellbeing and prospects of their children.

Presence in public spaces: The combination of changing economic and social conditions with reduced childbearing is also resulting in women becoming more prominent in public spaces, and more aware and articulate about their aspirations and rights. In Tamil Nadu, this has been aided by government policies that supported women's Self Help Groups (SHG) in the last two decades. SHGs have allowed women to gain experience of public spaces and of leadership roles, and to connect with other women, all of which has also facilitated Tamilian women's ready participation in local governance (Panchayats). In Punjab, while these patterns have not been as prominent, education, prosperity, and consumer aspirations are giving young women exposure to public spaces. Young women are more frequently living away from home and seeking to experience independence. A youth culture, with young women's aspirations for modern living, friends, consumer goods, etc. is also emerging in Tamil Nadu.

Limitations of Change: Although women's lives and gender relations have moved in positive directions in both states on the four dimensions considered above, many negative aspects remain, and some have worsened over time. For example, sex ratios at birth are still significantly distorted in Punjab. Similarly, Tamil Nadu has a continued history of very high levels of domestic violence which may have worsened in recent years as working women's earning further threaten male masculinity. Moreover, while positive, it is not clear that changes in education, economic participation, domestic roles and public spaces for women have fundamentally shifted the gender system in these two states. As one Tamilian woman noted in a study by Ravindran (1999), "The circle in which women are enclosed has gotten bigger—but it is still men who draw it and decide how big it should be."

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