Draft Paper

Childlessness and its Effect on Fertility in India: A North-South Dichotomy

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Introduction

Every couple want to have at least one child and most people assume that they can be parents when they are ready. The experience of infertility is an unwelcome interruption to those who expect parenthood to be a key identity and adult activity. Greil (1991) found that the vast majority of husbands and wives were taken by total surprise when they realize that they are actually infertile. For women especially, parenthood may be considered a master status in the sense that motherhood casts its shadows over other status and fills the performance of a wide range of social roles. Thus, failure to motherhood leads to a loss of social status and further distress particularly in the stigmatized cultural and social set up (Hughes, 1995).

Pregnancy and birth both are looked as natural phenomenon which is widely associated with rituals that transform women from childlessness to motherhood, from being a young wife to matured mother enhancing her social status and prestige (Homans, 1982). It rather puts emphasize on the socio-cultural status of women in the scenario where the society is stigmatized with myths, rituals and traditional believes. It is a well established fact that it is typically the women who bear the pain and burden of infertility (Inhorn and Van Balen, 2001; Inhorn 1999; Abbey et. al., 1991; Greil et. al. 1988).

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Infertility is defined as primarily the biological inability of a man/woman to contribute to conception irrespective of unprotected cohabitation. It may also refer to the state of a woman who is unable to carry out a pregnancy to full term. Infertility and childlessness is two different terms where infertility is related to the biological inefficiency/incapacity of women to reproduce where as childlessness can be voluntary or involuntary. Involuntary childlessness can be referred to as infertility. There are two types of infertility namely primary and secondary. Primary infertility, when a woman has never conceived despite cohabitation and exposure to pregnancy and Secondary infertility, when the woman has previously conceived, but is subsequently unable to conceive despite of cohabitation and exposure to pregnancy. Further, differences lie in the concept of infertility and sterility. Sterility is often taken as a synonym to infertility, though they both mean disability to bear a child yet they have a very basic difference. Infertility mostly point at the inability to conceive, which may be because of various internal or external factors (e.g. stress, emotional shocks or side effect of any treatment). Sterility means when the person is unable to reproduce sexually, this mostly is because of problem in the reproductive system (e.g. damage in ovaries or varicose veins in the testicles).

Motherhood is a word that interprets not only the joys, status and prestige of a women but it has a definite bearing with the cultural traits in Indian hierarchical society. It is true that all who witness the bliss of a woman listening to a much desired child giving his first cry, laughing in joy with her, for women still do laugh with the joy to hear children cry, while other still weep silently alone at night for the yet unfulfilled hope of having a baby (Philipp, 1962).

The world is advancing towards the scientific renaissance where species generation is being possible yet there are millions of couples who are confronting with infertility. There is no corresponding shift in the research agenda yet. One issue that emerges significant is the prevention and treatment of infertility, which is frequently listed as a reproductive health indicator for program monitoring and evaluation (UNFPA, 1997; WHO, 1997 and 2001). Infertility is recognized as an intrinsic part of family planning care in World Health Organization special program of research development and research training. Now concept of reproductive health envisages the provision of a package of health care to women that include family planning and safe motherhood, treatment for reproductive tract infection as well as for helping infertile couples to have children (Pachauri, 1991).

The number of infertile persons remains significant, particularly in the Indian social and cultural context, and the impact on women's lives is considerable (UN, 1994). The International Conference on Population and Development (ICPD) Program of Action, held in Cairo though states that reproductive health services should include the prevention and appropriate treatment of infertility (United Nations, 1994). Still there is inadequate focus on infertility in India's reproductive health program.

Choices of care seeking are too few to be approached and services available in the public sector are inadequate. Hence, there is a failure to undertake infertility as a priority for research topic and health issue particularly in the countries with low resource potentials and over populated scenario. Other than India in many developing countries, the magnitude of the problem has significant impact on the health care services because infertile couples often need detailed and costly treatment, laboratory examinations and therapy over long periods of time which are beyond accessibility as well as affordability.

In general, preventive action has lagged far behind and some of the new developments in curative medicine are especially out of reach for the common folk. Yet hopes evolve since simple strategies to prevent a sizable portion of infertility do exists and can be implemented by primary health care (PHC) workers supported by adequate referral system (WHO, 1991). Infertility is now one of the most important and emerging issue almost undertaking a global scenario where between 8 to 12 percent of the couples face difficulty in conceiving, thus affecting the estimate of infertility to nearly 50–80 million people in the world (WHO, 1991).

The world irrespective of developed and underdeveloped nations are confronting with the problem of infertility where though the developed part have secured a better position in terms of treatment seeking and utilizing the ultimate technological benefits in transplanting new seeds in mother's womb yet the counterpart lack the necessary medical support and infrastructure. In some countries of Sub-Saharan Africa the infertility rate is almost as high as 5 percent affecting one third of the population (Reproductive Health Outlook, 1994).

There is little evidence on the levels and patterns of infertility in India. According to studies conducted by WHO, the estimated rate of infertility prevailing in India is around 3 percent and 8 percent for primary and secondary infertility respectively. Primary infertility for women with age at marriage below 24 years is estimated around 2 to 4 percent (Pathak and Unisa, 1993). According to WHO multi-centric studies of infertility in India, 40 percent of women and 73 percent of men had no demonstrable cause of infertility.

Estimation of rate of childlessness as a proxy indicator of infertility from NFHS -2 data set, (1998-1999), is nearly 3.8 percent for currently married women aged 40-49 years. Further, it

is found that on average, general marital childlessness rate adjusted for ever married Indian women aged 15-49 years were 17 percent, 19 percent and 16 percent respectively for Census 1981, 1991 and 2001 (Ram, 2006). Based on 1981 Census data, childlessness rate among ever married women in India is estimated around 6.2 percent (Vemuri, 1986). There are similar estimates of childlessness rate across India from different community based surveys (Bang et al., 1989; Kanani et al., 1994; Mulgaonkar 2001; Unisa, 1999).

A study by the American Society of Reproductive Medicine gives approximate estimate that infertility affects approximately 10 percent of people of reproductive age, 15 percent of couples and roughly 40 percent of cases involve a male contribution or factor. Further, study by American Society of Reproductive Medicine lists out that in America female infertility accounts for one third of infertility cases, male infertility for another third, combined male and female infertility for another 15 percent, and the remainders of cases are "unexplained".

Several studies have revealed that not all women who want children have them (Poston and Trent, 1982; Veevers, 1971). Children are important in a societal framework for a number of social reasons such as insurance against old age or infirmity, a source to increase family wealth, a financial support to the family, means of entertainment, security and strength for the family. Children are viewed as providing core life meaning, social support, and social integration and in latter life instrumental and social assistance (Burton, 1998).

In Hindu traditions, children are often considered very important in the socio-cultural set up where they are supposed to strengthen the bonds of marriages and in many auspicious traditional rituals including the cremation ceremony. Virtually it is universally accepted that child is a pillar to build through the next generations. Hence to have a child is not only the

biological desire of the couple but also it is a social desirability of the family or group. India is not exceptional in its emphasis on child bearing–making babies the primary way to build families (Greil, 1991).

Moreover, parenthood is a fundamental human need and within a specific period, if the person does not become parent, it leads to anxiety and loss of self esteem. The problem of infertility has its roots in the fundamental human need and desire for parenthood (Anand, 1997). Matthews & Matthews (1986) suggests that parenthood is so central to most people that the infertile experience a real stressful transition to non parenthood. When married couples fail to have child, it is usually a great blow to them personally often resulting in divorce and polygamy (Rosenblatt and Hillabrant, 1972). High rates of marital instability and remarriages on the ground of infertility and childlessness have been mentioned in other studies as well (Unisa, 1999; Okonofua et. al., 1997; Gibson 1980; Bumpass and Sweet, 1972 and Monahan, 1955). Infertile couples are stigmatized and are likely to be discriminated in the society (Nene et. al., 2002; Runganga et. al., 2001). Often infertile women are expulsed from their husband's house with or without divorce (Okonofua et. al., 1997).

Further gendered expectations that motherhood should be an essential aspect of femininity (Rothman, 1989) make this part more salient. Infertility is of interest since childless women in pro-natalist societies as India often encounter social opprobrium (Inhorn, 1991; Vemuri and Manohar, 1986). Thus, women are forced in the dark sorrows of blame, emotional distress, anxiety and depression, isolation, neglect and frustration leading to suicide as well as torture and violence against them. There are even evidences that childless or infertile women are victimized as witch or evil being in rural India. Even more sociologist observed that in different cultural settings infertility and childlessness is often linked to a curse, adultery or

witchcraft (Greil, 1991). This social isolation and rejection of childless women are probably influenced by specific kinship systems and family ties, and also by normal rules and religious customs.

The importance of infertility as a public health problem and a social problem can be judged from the perspective of biological variation of human population with respect to chromosomal, congenital and endocrinal abnormalities which may occur in either male or female or both counterparts. General outlook of the society refers infertility as typical women's problem where as literature clearly indicates that any of the couple can be responsible (Wood, 1994; Inhorn, 1994 and McConnell, 1993). Where the women's body bears the proof of infertility through their reproductive failure in achieving pregnancy, the male body hides the evidences of reproductive defects (Inhorn, 2003).

One of the few studies in India of women who visit an infertility clinic reveals considerable self-blame: "There is something wrong with me" is a common statement (Jindal and Gupta, 1989). Thus available literature on childlessness suggests that regardless of the medical cause of infertility, the society puts their abusing finger towards the women making her feel in all grounds that she is the only responsible person. The studies from various literatures confirm how weak and insecure a woman is and how she is exploited and abused by the rigid thorny wires of the social barriers, when she is a barren soil.

It is still a wonder that though the world has advanced in all technical spears yet traditional and folk believes about causes of childlessness still persists which have no scientific explanations. Even more, there prevails a common practice to choose traditional therapies than preferring modern allopathic treatment. A study conducted on childlessness of women in

Andhra Pradesh by (Unisa, 2000) found that without seeking allopathic treatment about 14 percent of the husbands of childless women have undergone second marriage. Finally referring that its she who produces the egg which is her seed and the man produces the sperms which are his seeds and equally important in production of baby, thus a couple, therefore must be spoken of having infertility together if it takes several years of normal intercourse for the wife to be pregnant (Philipp, 1962).

Except for the developed world childless couples are not that way by choice (Bell, 1971; Whelpton et. al., 1966; Freedman et. al., 1959). Analysis have suggested that the social and economic development processes in a country influences the voluntary and involuntary childlessness (Poston et. al., 1985; Poston and Trent, 1984) where in developing countries involuntary childlessness tends to decline with increasing modernization (Romaniuk, 1980) and in fully developed countries voluntary childlessness tends to increase with modernization (Poston and Gotard, 1977).

There are evidences of association of infertility with age of women where it is noticed that infertility increases with age in case of both male and female (Dunson et. al., 2004). Again, the cost of a child, the time necessary to raise children, the potential disruption of career patterns and the loss of possible alternate forms of life style due to physical presence of a baby in household point out towards the magnitude of difference between having no children and possessing child (Veevers, 1980). Thus, there are clear evidences that differential societal status with reference to standard of living, education, income, occupation do have definite impact on the issues of childlessness.

Although infertility or involuntary childlessness may occur due to repeated pregnancy loss, stillbirth and infant death yet sexually transmitted diseases, infections parasitic diseases and exposure to toxic substances can also cause childlessness. Studies suggest that sexually transmitted diseases (STDs) and human immunodeficiency virus (HIV) infection constitute important health obstacle in pregnancy (Burstein et. al., 2003). Pelvic inflammatory diseases (PIDs) in women, due to sexually transmitted infections and other infections, account for more than half of all female infertility in many regions (Population Reports, 1983). Studies also highlight that infertility and genitourinary abnormalities such as may also represent a risk factor for the development of germ cell cancer and testicular cancer may cause reduced fertility (Giwercman et. al., 1993).

The level and pattern of childlessness vary widely and differ from regions to regions (Belsey, 1978; WHO, 1975) where it can be mentioned that geographical factors like climate intern determining the spread of infectious diseases, environmental pollution of water sources, chemical contamination may play a major role in determining the acquired infertility. Diseases like malaria and anemia are more deadly among pregnant mothers than non pregnant women leading to inter uterine fatal death, pregnancy loss and premature births (Singh, 1999). It thus draws attention to examine infertility and childlessness with different socio-demographic and environmental characteristics associated with this demographic pattern.

The existing literatures reveals that pro-natalist norms and social values including universal marriage are given significant importance. In such cultural setting socialization is sufficiently effective that a cultural press towards childbearing prevails and most couples accept the values of having children without question (Kammeyer, 1971). However, the review

substantiates that a significant proportion of the women in their reproductive ages are incapable to produce a child. Such issues of childlessness do have significant importance in the cultural setting in a country like India.

Now, the question arises that if infertility has certain association with the fertility pattern of a region influencing the level of fertility other than the socio-economic and cultural determinants. In general, socio-demographic factors which are correlated with low parity are also correlated with a high incidence of childlessness (Bogue, 1969; Grabill and Glick, 1959). There are various factors that operate at individual level as well as in societal level which have certain association with childlessness or infertility.

Though in India the issue of high fertility still occupies the centre place in the study of demography yet it is the issue of infertility that actually precedes the issues of fertility and is often neglected. Further, the issue of infertility cut across behind the limits of isolated group, ethnicity, religion and geographic boundaries. Thus, it can be said that the issue pertaining to infertility is for a considerable extent mediated by socio-cultural factor (Frank, 1983).

There had been continuous stress on fertility reduction in the National Population Policy, 2000 yet matters like childlessness/infertility has typically been ignored both in the policies and programs level. It is noticed that the general thrust of both programs and research has been explaining correlates of high fertility where as negligible efforts are seen in inculcating further research on infertility, its causes and consequences (Jejeebhoy, 1998). Various studies have given evidences that a number of social, cultural and demographic variables which operate at community, household and individual levels bestow impact on the issue of fertility behavior through factors like the life style, behavioral aspect, traditions and norms, decision

making, economic status, health of individuals etc. However, environment can also influence the fertility status in a given region.

Further, studies have found that there is rather strong evidence indicating that some of these agents, including ionizing radiation, carbon disulfide and lead have an adverse effect on fertility behavior (Giwercman et. al., 1993). It is important to undertake research on issues of childlessness including assessment of levels and differentials. In the present chapter an attempt is made to study the levels and differentials of permanent childlessness for India by selected socioeconomic characteristics. In addition to the levels, differentials and determinants of childlessness in India, the present study make an attempt to examine the role of childlessness in explaining the fertility differentials in India.

Data and Methods

The analysis has been done using third round of National Family Health Survey (NFHS-3). NFHS provides information on children ever born to ever married women. The information on women's socioeconomic status is also available in NFHS data set. This provides an opportunity to study the pattern of childlessness by background characteristics of the women. Childlessness in this study has been defined as the ever married woman who has never given a live birth. Childlessness rate is calculated by two indices, one is for the women of age 35-39 years and another the women of age 35 years and above. A childlessness rate for the age group 35-39 years is defined as the proportion of ever married women of age group 35-39, who are childless (zero parity) to the total number of ever married women in the same age group. Similarly, A childlessness rate for the age 35-49 years is defined as the proportion of ever married women of age group 35-49, who are childless (zero parity) to the total number of ever married women in the same age group. In general, childlessness rate for a specific age

group 'x' is defined as the proportion of childlessness women in age group ‘x’ to the total number of ever married women in that age group.

$$\text{Childlessness Rate (X)} = \frac{\text{Ever Married Zero Parity Women in Age Group 'X'}}{\text{Total Ever Married Women in Age Group 'X'}} * 100$$

Specifically,

$$\text{Childlessness Rate (35-39)} = \frac{\text{Ever Married Zero Parity Women in Age Group 35-39}}{\text{Total Ever Married Women in Age Group 35-39}} * 100$$

$$\text{Childlessness Rate (35-49)} = \frac{\text{Ever Married Zero Parity Women in Age Group 35-49}}{\text{Total Ever Married Women in Age Group 35-49}} * 100$$

In order to understand the differentials in childlessness, ratios of the levels of childlessness among women of various selected socioeconomic groups to that of the women of reference category are computed. A ratio value of less than unity would mean that the levels of permanent childlessness are relatively higher for women in the reference group compared to other women while a value greater than one would indicate that the levels are relatively lower for the women in the reference group. A value of unity would indicate no difference in the levels of permanent childlessness among the women in the reference group and those in other groups (Ram, 2010).

The contribution of childlessness in determining the prevailing fertility of the India is further analyzed by computing average number of children ever born separately for all women and only women with at least child. Percentage differences are also calculated and discussed.

Dependent Variables

Percentage of childless women: In the study childlessness is defined as the proportion of zero parity ever married women (who have never given a live birth) to the total ever married women of specific age group.

Independent Variables

The association between the socio-economic variables with pattern of childlessness is studied at individual level and household level. The socio-economic variables considered in the analysis are: Place of residence (Rural/Urban), Religion (Hindu/Non-Hindu), Education of women (Not Educated/Educated But Below Secondary/Secondary And Above), Economic status of households (Non-Rich/Rich), Caste of women (Scheduled Tribes/Scheduled Castes/Other Backward Castes/Others) and Regions of India (North, Central, East, Northeast, West and South).

To identify the differentials in the childlessness rates among the states, the states are grouped into six divisions according to their geographical locations. The divisions are as follow: **Northern states:** Jammu & Kashmir, Himachal Pradesh, Punjab, Uttaranchal, Haryana, Delhi and Rajasthan; **North eastern states:** Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, Assam; **Eastern states:** Bihar, Jharkhand, Orissa and West Bengal; **Western states:** Gujarat, Maharashtra and Goa; **Central states:** Uttar Pradesh, Madhya Pradesh, Chhattisgarh; **Southern states:** Andhra Pradesh, Tamil Nadu, Kerala, Karnataka.

Results and Discussion

Table 1 presents the weighted percentage of ever married women of age 35-39 years by different selected socio-economic characteristics at all India level. The distribution of sample by place of residence shows that majority of women belonging to rural areas. A higher proportion of 35-39 years women (65.7 percent) are from rural areas as compared to urban areas (34.3 percent). Out of total women of 35-39 years, 56.9 percent women belong to the non-rich households and rest of the 43.1 percent women are from rich households. Majority of women (81.2 percent) belong to Hindu religion and rest 18.8 percent belong to non-Hindus group. More than half of the women (53.6 percent) of age group 35-39 years are not educated, 37.4 percent are educated but below the secondary level and nine percent of them

are educated up to the level of secondary and above. Highest percentage of the women (41.2 percent) of age group 35-39 years in India belong to the Other Backward Classes (OBCs) followed by others caste (32.0 percent), Scheduled Castes (18.8 percent) and Scheduled Tribes (7.9 percent). About one-fourth (23.8 percent) of the total women are from Southern India followed by Central (22.4 percent), Eastern (20.8 percent) and Western (15.5 percent) India. Only 4.0 percent women are from Northeastern part of India.

Table 2 gives the levels and ratios of childlessness in India among ever married women of age group 35-39 years by place of residence, Religion, Education of women, Economic status of household, Caste of women and Regions of India. The NFHS-3 data indicates that in India there are three percent of the ever married women aged 35-39 years who are childless. It is evident from the table that the levels of childlessness varies across various subgroups of the women. Level of childlessness is higher in urban women compared to the women belonging to the rural areas; over three percent of the ever married urban women aged 35-39 years are childless, compared to 2.6 percent of rural women. Little difference is observed in level of childlessness among Non-Hindu women (3.1 percent) and Hindu (2.9) women. The uneducated women (2.7 percent) and women educated but below secondary level (3.0 percent) reported relatively lower level of childlessness compared to women having secondary and higher level of education (4.0 percent). The non-rich women reported relatively lower (2.7 percent) level of childlessness compared to rich (3.2) women. The Scheduled Tribes women reported relatively higher level of childlessness (3.7 percent) compared to Scheduled Castes women (2.1 percent) and women belonging to Other Backward Classes (2.7 percent).

When the state scenario is considered, it is noticed that there is a diverse pattern of childlessness prevailing among the various regions of India. Considering the geographical boundaries, it is noted that the Northeastern (4.1 percent) and Southern (4.1 percent) region have the highest childlessness rates followed by the Eastern (3.2 percent) and Western (3.0 percent) India. Coming down to the Central part of India that is across the states of Uttar Pradesh, Madhya Pradesh and Chhattisgarh, the rate of childlessness is moderate and observed 2.1 percent. The rate of childlessness is observed lowest (1.2 percent) in Northern India, which consists of the state of Jammu & Kashmir, Himachal Pradesh, Punjab, Uttaranchal, Haryana, Delhi and Rajasthan.

Childlessness is not determined by a single factor. Assemblages of different circumstances do bestow its effect in the differential rates of childlessness. Thus, there prevails variation in the childlessness rate with differential co-variants, including various socioeconomic characteristics. These socioeconomic characteristics are confine governed by the household and individual level indicators including the difference in place of residence, religion, caste, wealth index, and education of the women. Childlessness is of two types, it may be voluntary or involuntary. Involuntary childlessness may be attributed to the infertility. It is hard fact that though infertility treatment is theoretically available at government facilities, effective treatment is often difficult to access as there is little coordination between gynecologists, infertility specialists, surgeons and laboratory technicians. Services are available in the private sector but are of varying quality and costly. Thus these couples are left with the only option of visiting temples, observing *tantric* rites, wearing charms, participating in rituals and visiting astrologers (Desai et. al 1992; Patel 1994; Unisa 1999).

In addition to the above discussion in the previous section on the differentials in childlessness levels by various socioeconomic characteristics, it may also be useful to understand whether childlessness influences prevailing demographic outcomes of the area. The analysis of data from the World Fertility Survey for developing countries revealed that most part of the childlessness in the developing country is involuntary childlessness (Poston et. al 1982), thus reflecting the fact that childlessness in these countries is mainly involuntary. The study on childlessness by Ram (2003) for Jharkhand points out that there exists some relationship between extent of childlessness and fertility levels of the area both at the state and district level.

The preceding section very clearly brings out that the levels of childlessness are significantly higher in the South India than the Northern India. The North-South dichotomy in the differentials of fertility pattern creates interest to associate the prevailing fertility levels with childlessness pattern. The differential pattern of childlessness levels both in the Northern and the Southern states of India further generate interest whether childlessness do have any impact in lowering the fertility levels in the Southern region of India. It is well justified in the literatures that there are several socioeconomic determinants of fertility. Bongaarts in his proximate determinants of fertility have clearly mentioned about infertility, stillbirths and miscarriages as a determinant of fertility. Thus, an effort has been made to assess the impact of childlessness on prevailing fertility patterns.

Table 3 presents the level of fertility in terms of mean number of children ever born (CEB) among all women and women excluding the zero parity women. Average CEB with standard deviations (S.D.) are presented by selected background characteristics. Percentage differences in fertility is also presented. When the average CEB is computed for all women as a whole

and only women with at least one child (separating out the women who have never given a live birth), there is a certain percentage gap between the two estimates. At all India level this gap is found 3.05 percent. Existing literatures support the view that there can be at least two percent affect of childlessness on reduction of prevailing fertility (Ram, 2003). Rural urban differentials exist in terms of percent change in level of fertility among the all women and only women with at least one child. Considerable changes are observed in case of educational level of women and economic status of household. Differences in average CEB for all women and only women with at least one child are 2.01 percent, 3.92 percent, 2.68 percent and 3.85 percent for Scheduled Castes, Scheduled Tribes, Other Backward Classes and Others respectively. Regional level differences in average CEB for all women and only women with at least one child are also calculated. These differences are 1.36 percent, 2.16 percent, 3.32 percent and 4.57 percent, 3.17 percent and 4.46 percent for Northern, Central, Eastern, Northeastern, Western and Southern India respectively. In general, the estimates throw light on the fact that regions with low fertility level are having higher levels of childlessness and vice-versa, particularly the fact is identified in Northern and Southern region of India. Northern region has high level of fertility where as the childlessness level is comparatively low and Southern region has a reverse situation.

Table 4 presents the weighted percentage of ever married women of age 35 years and above by different background characteristics at all India level. It is found that out of total ever married women of aged 35 years and above, 40.9 percent belong to the 35-39 years age group followed by 40-44 years age group (33.7 percent) and 45-49 years age group (25.4 percent). The distribution of women aged 35-49 years by Place of residence, Religion, Education of women, Economic status of household, Caste and Regions of India are more unless similar to the distribution of women aged 35-39 years with slight differences. Table shows that majority

of women belonging to rural areas (65.8 percent) as compared to urban areas (34.2 percent). Fifty five percent women of age group 35-49 years are uneducated, the same percentage belong to the non-rich households and remaining 45 percent belong to rich households. Majority of the women (81.9 percent) are from Hindu religions again. Highest percentage of the women (40.4 percent) of age group 35-49 years in India belong to the Other Backward Classes (OBCs) followed by others caste (33.3 percent), Scheduled Castes (18.6 percent) and Scheduled Tribes (7.7 percent). About one-fourth (24.7 percent) of the total women are from Southern India followed by Central (21.9 percent), Eastern (21.3 percent) and Western (15.0 percent) India. Only 3.7 percent women are from Northeastern part of India.

Table 5 gives the levels and ratios of childlessness in India among ever married women of aged 35 years and above by Age, Place of residence, Religion, Education of women, Economic status of household, Caste of women and Regions of India. It is found that in India 2.7 percent women are childless among total ever married women of age 35-49 years. It is clear from the table that the levels of childlessness varies across various subgroups of the women. Childlessness rate is observed highest among the women of age group of 35-39 years (2.9 percent) followed by the women of age 45-49 years (2.7 percent) and 40-44 years (2.6 percent). Again, the rate of childlessness among the women of age 35-49 years by Place of residence, Religion, Education of women, Economic status of household, Caste and Regions of India are more unless similar to the childlessness rates among women of age 35-39 years with slight differences. Over three percent of the ever married urban women aged 35-49 years are childless, compared to 2.6 percent of rural women. Childlessness rate is found more among the Non-Hindus women (2.9 percent), women having secondary and higher level of education (3.7 percent), women belong to rich households (2.8 percent) women and women belong to Other Castes (3.2 percent). It is noted that the childlessness rate among the women

of age 35-49 years is found highest in Southern region (3.7 percent). This rate is observed lowest (1.7 percent) in Northern India, which consists of the state of Jammu & Kashmir, Himachal Pradesh, Punjab, Uttaranchal, Haryana, Delhi and Rajasthan.

Table 6 presents the level of fertility in terms of mean number of children ever born (CEB) among all women and women excluding the zero parity women for the ever married women of age 35-49 years. Again, here also mean CEB and standard deviations (S.D.) are presented by selected background characteristics. Likewise 35-39 years women, when the average CEB is computed for all women as a whole and only women with at least one child (separating out the women who have never given a live birth) for women of age 35-49, a gap of 2.85 percent is observed between the two estimates. Ram, 2003 found that there can be at least two percent affect of childlessness on reduction of prevailing fertility. Considerable changes are observed in case of place of residence, educational level of women, caste and economic status of household. Regional level differences in average CEB for all women and only women with at least one child are 1.77 percent, 2.02 percent, 2.88 percent and 3.64 percent, 3.02 percent and 3.78 percent for Northern, Central, Eastern, Northeastern, Western and Southern India respectively. Regions with low fertility level are having higher levels of childlessness and vice-versa, particularly the fact is identified in Northern and Southern region of India.

The most noteworthy fact that is followed in both the estimates is that Southern region have a higher difference in mean CEB between the women with at least one child and all women as a whole than the Northern region. From the estimated figures, it can be concluded that higher levels of childlessness in the Southern region is virtually influencing the prevailing fertility levels. Thus, there is North–South dichotomy in the prevailing fertility levels because of the

differential level of childlessness rates. Nevertheless, other socioeconomic factors also have a dominant influence in determining the fertility patterns.

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Table 1: Profile of Ever Married Women of Age 35-39 Years, National Family Health Survey, 2005-06, India.

Background Characteristics	Percentage	Total Number of Women
Place of Residence		
Rural	65.7	10299
Urban	34.3	5387
Religion of Women		
Hindu	81.2	12729
Non-Hindu	18.8	2954
Education of Women		
Not Educated	53.6	8413
Educated But Below Secondary	37.4	5866
Secondary And Above	9.0	1408
Economic Status of Household		
Non-Rich	56.9	8929
Rich	43.1	6756
Caste of Women		
Scheduled Castes	18.8	2862
Scheduled Tribes	7.9	1205
Other Backward Classes	41.2	6280
Others	32.0	4878
Regions of India		
North	13.4	2109
Central	22.4	3518
East	20.8	3260
Northeast	4.0	630
West	15.5	2432
South	23.8	3736
Total	**100.0**	**15686**

Table 2: Childlessness among Ever Married Women in Age Group 35-39 Years by Selected Background Characteristics, National Family Health Survey, 2005-06, India.

Background Characteristics	**Childless Women (%)**	**Ratio**	**Total Number of Women**
Place of Residence			
Rural®	2.6	1.0	10299
Urban	3.4	1.3	5387
Religion of Women			
Hindu®	2.9	1.0	12729
Non-Hindu	3.1	1.1	2954
Education of Women			
Not Educated®	2.7	1.0	8413
Educated But Below Secondary	3.0	1.1	5866
Secondary And Above	4.0	1.5	1408
Economic Status of Household			
Non-Rich®	2.7	1.0	8929
Rich	3.2	1.2	6756
Caste of Women			
Scheduled Castes®	2.1	1.0	2862
Scheduled Tribes	3.7	1.8	1205
Other Backward Classes	2.7	1.3	6280
Others	3.5	1.7	4878
Regions of India			
North®	1.2	1.0	2109
Central	2.1	1.7	3518
East	3.2	2.6	3260
Northeast	4.1	3.3	630
West	3.0	2.4	2432
South	4.1	3.3	3736
Total	**2.9**	**--**	**15686**

® *Reference Category*

Table 3: Average Number of Children Ever Born among Ever Married Women of Age 35-39 Years by Background Characteristics, National Family Health Survey, 2005-06, India.

Background Characteristics	All Women		Excluding Childless Women		% Difference in Mean
	Mean	S. D.	Mean	S. D.	
Place of Residence					
Rural	3.03	1.74	3.14	1.67	3.63
Urban	3.92	2.06	4.03	1.98	2.81
Religion of Women					
Hindu	3.50	1.92	3.61	1.85	3.14
Non-Hindu	4.09	2.26	4.22	2.17	3.18
Education of Women					
Not Educated	4.31	2.12	4.43	2.03	2.78
Educated But Below Secondary	3.00	1.53	3.09	1.46	3.00
Secondary And Above	2.02	0.92	2.11	0.84	4.46
Economic Status of Household					
Non-Rich	4.16	2.14	4.28	2.05	2.88
Rich	2.89	1.52	2.99	1.45	3.46
Caste of Women					
Scheduled Castes	3.98	2.01	4.06	1.94	2.01
Scheduled Tribes	4.08	2.12	4.24	2.00	3.92
Other Backward Classes	3.73	2.01	3.83	1.94	2.68
Others	3.12	1.84	3.24	1.77	3.85
Regions of India					
North	3.67	1.81	3.72	1.77	1.36
Central	4.62	2.21	4.72	2.12	2.16
East	3.92	2.21	4.05	2.12	3.32
Northeast	3.50	2.02	3.66	1.92	4.57
West	3.15	1.57	3.25	1.49	3.17
South	2.69	1.34	2.81	1.24	4.46
Total	**3.61**	**2.00**	**3.72**	**1.93**	**3.05**

Table 4: Profile of Ever Married Women of Age 35 Years and above, National Family Health Survey, 2005-06, India.

Background Characteristics	Percentage	Total Number of Women
Age of Women		
35-39	40.9	15686
40-44	33.7	12940
45-49	25.4	9746
Place of Residence		
Rural	65.8	25249
Urban	34.2	13122
Religion of Women		
Hindu	81.9	31434
Non-Hindu	18.1	6939
Education of Women		
Not Educated	55.1	21134
Educated But Below Secondary	37.1	14232
Secondary And Above	7.8	3005
Economic Status of Household		
Non-Rich	54.7	20993
Rich	45.3	17380
Caste of Women		
Scheduled Castes	18.6	6938
Scheduled Tribes	7.7	2856
Other Backward Classes	40.4	15037
Others	33.3	12396
Regions of India		
North	13.6	5227
Central	21.9	8385
East	21.3	8155
Northeast	3.7	1403
West	15.0	5738
South	24.7	9465
Total	**100.0**	**38372**

Table 5: Childlessness among Ever Married Women of Age 35 Years and above by Selected Background Characteristics, National Family Health Survey, 2005-06, India.

Background Characteristics	**Childless Women (%)**	**Ratio**	**Total Number of Women**
Age of Women			
35-39®	2.9	1.0	15686
40-44	2.6	0.9	12940
45-49	2.7	0.9	9746
Place of Residence			
Rural®	2.6	1.0	25249
Urban	3.1	1.2	13122
Religion of Women			
Hindu®	2.7	1.0	31434
Non-Hindu	2.9	1.1	6939
Education of Women			
Not Educated®	2.4	1.0	21134
Educated But Below Secondary	3.0	1.3	14232
Secondary And Above	3.7	1.5	3005
Economic Status of Household			
Non-Rich®	2.7	1.0	20993
Rich	2.8	1.0	17380
Caste of Women			
Scheduled Castes®	2.3	1.0	6938
Scheduled Tribes	2.7	1.2	2856
Other Backward Classes	2.5	1.1	15037
Others	3.2	1.4	12396
Regions of India			
North®	1.7	1.0	5227
Central	1.9	1.1	8385
East	2.9	1.8	8155
Northeast	3.4	2.1	1403
West	2.9	1.7	5738
South	3.7	2.2	9465
Total	**2.7**	**--**	**38372**

® *Reference Category*

Table 6: Average Number of Children Ever Born among Ever Married Women of Age 35 Years and above by Background Characteristics, National Family Health Survey, 2005-06, India.

Background Characteristics	All Women		Excluding Childless Women		% Difference in Mean
	Mean	S. D.	Mean	S. D.	
Age of Women					
35-39	3.61	2.00	3.72	1.93	2.99
40-44	3.93	2.17	4.03	2.10	2.66
45-49	4.16	2.27	4.28	2.19	2.74
Place of Residence					
Rural	3.25	1.86	3.35	1.80	3.08
Urban	4.18	2.205	4.29	2.13	2.63
Religion of Women					
Hindu	3.76	2.062	3.87	1.99	2.93
Non-Hindu	4.3	2.413	4.43	2.33	3.02
Education of Women					
Not Educated	4.56	2.264	4.68	2.17	2.63
Educated But Below Secondary	3.18	1.633	3.28	1.56	3.14
Secondary And Above	2.12	1.031	2.2	0.96	3.77
Economic Status of Household					
Non-Rich	4.45	2.3	4.57	2.21	2.70
Rich	3.15	1.675	3.24	1.61	2.86
Caste of Women					
Scheduled Castes	4.27	2.197	4.37	2.12	2.34
Scheduled Tribes	4.41	2.217	4.53	2.12	2.72
Other Backward Classes	3.97	2.151	4.07	2.08	2.52
Others	3.36	1.96	3.47	1.89	3.27
Regions of India					
North	3.96	2.001	4.03	1.95	1.77
Central	4.96	2.347	5.06	2.26	2.02
East	4.16	2.31	4.28	2.23	2.88
Northeast	3.85	2.169	3.99	2.08	3.64
West	3.31	1.652	3.41	1.57	3.02
South	2.91	1.51	3.02	1.42	3.78
Total	**3.86**	**2.14**	**3.97**	**2.07**	**2.85**