

Fertility Behaviour among Migrants and Non-Migrants:  
A Case Study of NCT of Delhi

Thesis submitted to Jawaharlal Nehru University  
for the Award of the Degree of  
**Doctor of Philosophy**

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DECLARATION

I, G Thavasi Murugan, hereby declare that the thesis entitled "Fertility Behaviour among Migrants and Non-Migrants: A Case Study of NCT of Delhi" submitted by me for the award of the degree of Doctor of Philosophy (Ph.D) is my bona fide work. The thesis has not been submitted so far in part or in full, for any degree or diploma of this university or any other university.

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CERTIFICATE

It is hereby recommended that this thesis be placed before the examiners for evaluation.

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*List of Tables*

*List of Figures and Maps*

## **Content**

---

	<b>Page No.</b>
<b>Chapter I: Introduction</b>	<b>1 - 25</b>
1.1 Introduction	1
1.2 Need of the Study	2
1.3 Study Area	4
1.4 Review of Literature	7
1.4.1 Impact of Migration on Fertility	8
1.4.1.1 Selection Hypothesis	8
1.4.1.2 Disruption Hypothesis	9
1.4.1.3 Socialization Hypothesis	10
1.4.1.4 Adaptation Hypothesis	11
1.4.2 Impact of Socio-economic Factors	13
1.4.2.1 Impact of Education on Fertility	13
1.4.2.2 Impact of Age at Marriage on fertility	16
1.4.2.3 Women's Empowerment	17
1.4.2.4 Standard of Living and Infrastructure Availability	17
1.4.2.5 Impact of Caste on Fertility	18
1.4.2.6 Impact of Religion on Fertility	18
1.4.2.7 Impact of Desire for Children and Son Preference on Fertility	20
1.4.2.8 Impact of Contraception on Fertility	20
1.4.2.9 Exposure to Mass Media on Fertility	23

1.4.2.10	Research Gaps	23
1.5	Objectives	24
1.6	Research Questions	24
1.7	Chapterisation	25
	<b>Chapter II: Conceptual Framework and Methodology</b>	<b>26 - 41</b>
2.1	Conceptual Framework	26
2.2	Other Socio-Economic Factors	28
2.2.1	Place of Residence	28
2.2.2	Age at Marriage	28
2.2.3	Education	29
2.2.4	Religion	29
2.2.5	Caste	29
2.2.6	Work Status of Women	30
2.2.7	Wealth Possession	30
2.2.8	Contraceptive use	30
2.2.9	Mass Media Exposure	30
2.2.10	Single/Couple Migration	31
2.2.11	Duration of Migration	31
2.3	Data Sources	31
2.3.1	Secondary Data Sources	31
2.3.2	Primary Data Source	32
2.3.3	Sampling Design for field survey	32
2.3.4	Area for Field Survey	33
2.4.5	Data Collection: Tools Used in the Survey	34
2.4.1	Analytical Methods	35
2.4.2	Trends in Fertility	35

2.4.3	Binary Logistic Regression	35
2.4.4	Multiple Classification Analysis (MCA)	37
2.5	Measurement of Variables	39
2.5.1	Response Variable	39
2.5.2	Predictor Variables	39
	<b>Chapter III: Trend and Pattern of fertility and Migration in NCT of Delhi</b>	<b>42 - 54</b>
3.1	Introduction	42
3.2	Section-I: Fertility Scenario in NCT of Delhi	42
3.2.1	Crude Birth Rate in NCT of Delhi	42
3.2.2	Crude Birth Rate in NCT of Delhi by Place of Residence	43
3.2.3	Trend in Total Fertility Rate (TFR) in NCT of Delhi	44
3.2.4	Mean Children Ever Born of Migrants and Non-Migrants	45
3.3	Section II-Migration in NCT of Delhi: Magnitude and Characteristics	47
3.3.1	Arrival and Growth in NCT of Delhi	48
3.3.2	Magnitude of Migrants in NCT of Delhi	48
3.3.3	Characteristics of Migrants in NCT of Delhi	49
3.3.3.1	Demographic and social Characteristics of Migrants in NCT of Delhi	50
3.3.3.2	Economic Characteristics of Migrants in NCT of Delhi	52
3.4	Summary	53
	<b>Chapter IV: Determinants of Fertility Behaviour among Migrants and Non-Migrants in NCT of Delhi</b>	<b>55 - 76</b>
4.1	Fertility differentials	55
4.1.1	Differentials in Fertility among Migrants and Non-Migrants by Demographic and Socio-Economic Characteristics	55
4.1.2	Differentials in Fertility among Migrants and Non-Migrants by Demographic and Socio-Economic Characteristics	60

4.2	Determinants of Children Ever Born (CEB)	64
4.2.1	Multiple Classification Analysis of Children Ever Born to Migrants and Non-Migrants in NCT of Delhi	64
4.2.2	Multiple Classification Analysis of Children Ever Born to Migrants in NCT of Delhi.	68
4.2.3	Multiple Classification Analysis of Children Ever Born to Non-Migrants in NCT of Delhi.	72
4.4	Summary	75
	<b>Chapter V: Contraceptive Use among Migrants and Non-Migrants in NCT of Delhi</b>	<b>77 - 102</b>
5.1	Contraception Prevalence	77
5.1.1	Contraceptive Use in India	78
5.1.2	Contraceptive Use in NCT of Delhi	79
5.2	Knowledge about Contraception	80
5.3	Contraceptive Use by Background Characteristics	82
5.3.1	Contraceptive use among Migrants and Non-Migrants by Demographic and Socio-Economic Backgrounds	83
5.3.2	Contraceptive use among Migrants and Non-Migrants by Demographic and Socio-Economic Backgrounds	86
5.3.3	Socio-economic basis of use of Contraception among Migrants and Non-Migrants	89
5.4	Determinants of Contraceptive use	92
5.5	Determinants of Contraceptive use in NCT of Delhi (Primary survey)	96
5.6	Summary	100
	<b>Chapter VI: Migration, Fertility Behaviour and Contraceptive Use</b>	<b>103 - 127</b>
6.1	Introduction	103
6.2	Fertility Behaviour of Migrants with Reference to Region, Stream and Duration of Migration	104

6.3	Determinants of Migrants Fertility in NCT of Delhi	110
6.3.1	Regional Difference and CEB	110
6.3.2	Stream of Migration and CEB	112
6.3.3	Duration of Migration and CEB	114
6.4	Contraceptive Use of Migrants with Reference to Region, Stream and Duration of Migration	117
6.5	Determinants of Contraception	121
6.5.1	Regional Difference	121
6.5.2	Stream of Migration and Contraceptive use	124
6.5.3	Duration of Migration and Contraceptive Use	125
6.6	Summary	126
	<b>Chapter VII: Conclusion</b>	<b>128 - 135</b>
7.1	Introduction	128
7.2	Fertility and Migration from the Past	128
7.3	Fertility after Migration: Creating Differences	131
7.4	Determinants of Contraceptive Use among Migrants and Non-Migrants	132
7.5	Determinants of Fertility Behaviour among Migrants and Non-Migrants	132
7.6	Effect of Migration on Fertility and Contraceptive Behaviour	133
7.7	Policy Implication	134
	<b>Bibliography</b>	<b>136 - 143</b>
	<b>Appendix</b>	<b>144</b>



<b>List of Tables, Figures, Graphs and Maps</b>		<b>Page No.</b>
<b>Chapter I</b>	<b>Introduction</b>	
Table 1.1	Mean Children Ever Born to currently married migrant and non-migrant in India and NCT Delhi	3
Table 1.2	Contraceptive use among currently married migrant and non-migrant females in India and NCT Delhi	4
Table 1.3	State Wise Migration in NCT of Delhi 2001 and TFR	7
Figure 1.1	State Wise Migration in NCT of Delhi 2001	6
Map 1	Study Area: National Capital Territory of Delhi	5
<b>Chapter II</b>	<b>Conceptual Framework and Methodology</b>	
Figure 2.1	Diagram outlining the probable impact of migration on fertility	26
Figure 2.2	Diagram outlining the impact of socio-economic, demographic and migration factors on migrant and non-migrant fertility	27
Table 2.1	The Five Slums Survey in NCT of Delhi	34
<b>Chapter III</b>	<b>Trend and Pattern of Fertility and Migration in NCT of Delhi</b>	
Figure 3.1	SRS Estimates of Crude Birth Rate in NCT of Delhi and India Since 1981	43
Figure 3.2	SRS Estimates of Crude Birth Rate with Place of Residence in NCT of Delhi Since 1981	44
Figure 4.3	SRS Estimates of TFR in NCT of Delhi and India Since 2004	45
Figure 3.4	SRS Estimates of TFR with Place of Residence in NCT of Delhi Since 2004	45
Figure 3.5	Mean Children Ever Born in India	46
Figure 3.6	Mean Children Ever Born in NCT of Delhi	46
Figure 3.7	Percentage of Migrants in India and NCT of Delhi, 2007-08	49

Table 3.1	Demographic and Social Characteristics of Migrants in Delhi, 2007-08	51
Table 3.2	Economic Characteristics of Migrants of Delhi, 2007-08	52
<b>Chapter IV</b>	<b>Determinants of Fertility Behaviour among Migrants and Non-Migrants in NCT of Delhi</b>	
Table 4.1	Children Ever Born to Migrants and Non-Migrants in NCT of Delhi by Demographic and Socioeconomic Background	54
Table 4.2	Children Ever Born to Migrants and Non-Migrants in NCT of Delhi by Demographic and Socioeconomic Background	61
Table 4.3	Multiple Classification Analysis of CEB to Migrants and Non-Migrants in NCT of Delhi	66
Table 4.4	Multiple Classification Analysis of Children Ever Born to Migrants in NCT of Delhi	70
Table 4.5	Multiple Classification Analysis of Children Ever Born to Non-Migrants in NCT of Delhi	73
<b>Chapter V</b>	<b>Contraceptive Use among Migrants and Non-Migrants in NCT of Delhi</b>	
Figure 5.1	Contraceptive Use in India	78
Figure 5.2	Contraceptive Use in NCT of Delhi	79
Table 5.1	Knowledge of Contraception among Migrants and Non-Migrants in NCT of Delhi	81
Table 5.2	Percentage of currently using different methods of contraception by migrants and non-migrants in NCT of Delhi	82
Table 5.3	Contraceptive use among Migrants and Non-Migrants by Demographic and Socioeconomic Characteristics in India and NCT of Delhi, NFHS III	84
Table 5.4	Contraceptive use among Migrants and Non-Migrants by Demographic and Socioeconomic Characteristics in NCT of Delhi	87
Table 5.5	Contraceptive Use of Migrants and Non-Migrants with Background Variables in NCT of Delhi Primary	90
Table 5.6	Odd Ratios of Contraceptive Use by Currently Married Migrant and	94

	Non-Migrant Women by Background Characteristics in NCT of Delhi, NFHS III	
Table 5.7	Odd Ratios of Contraceptive Use by Currently Married Migrant and Non-Migrant Women by Background Characteristics in NCT of Delhi Slums, based on Binary Logistic Analysis	97
<b>Chapter VI</b>	<b>Migration, Fertility Behaviour and Contraceptive Use</b>	
Table 6.1	Regions of Migration and Children Ever Born to Migrants in NCT of Delhi by Demographic and Socio-Economic Background.	105
Table 6.2	Duration of Migration and Children Ever Born to Migrants in NCT of Delhi by Demographic and Socio-Economic Background.	107
Table 6.3	Stream of Migration and Children Ever Born to Migrants in NCT of Delhi by Demographic and Socio-Economic Background.	109
Table 6.4	Multiple Classification Analysis of Children Ever Born to Migrants from Northern and Southern Region in NCT of Delhi.	111
Table 6.5	Multiple Classification Analysis of Children Ever Born to Migrants and Stream of Migration in NCT of Delhi.	113
Table 6.6	Multiple Classification Analysis of Children Ever Born to Migrants and Duration of Migration in NCT of Delhi.	115
Table 6.7	Distribution of Migrant Women Using Contraception by Background Characteristics	118
Table 6.8	Influence of Factors Related to Migration in Contraceptive Use in NCT of Delhi	120
Table 6.9	Determinants of Contraceptive Use among Migrant Women by Region, Stream and Duration of Migration.	122

## **List of Abbreviations**

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CBR	: Crude Birth Rate
CEB	: Children Ever Born
IIPS	: International Institute for Population Sciences
JJ	: Jhuggi Jhopri
MCA	: Multiple Classification Analysis
NCT of Delhi	: National Capital Territory of Delhi
NFHS	: National Family Health Survey
NSS	: National Sample Survey
SCs & STs	: Scheduled Caste & Scheduled Tribe
SRS	: Sample Registration System
TFR	: Total Fertility Rate

# Chapter I

## Introduction

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### 1.1 Introduction

Migration is one of the major components of population distribution along with fertility and mortality. The moving of people from one place to another is an important life event, accompanied by both short and long term changes in an individual's life. Processes, which underlie the fertility, are also fundamentally linked to migration. While the effect of migration on different life domains of an individual seems rather self-evident, different views exist concerning the impact of a new social environment on childbearing preferences and behaviour of migrants. Cultural diffusion and assimilation, economic development and income growth, and the transformation of family roles and relationships are important processes in reducing fertility (Lindstrom and Giorguli, 2007). These same processes have been recognized as outcomes of both rural-to-urban migrations.

The previous researchers have studied the relation between various streams of migration and fertility on several occasions. Three alternative hypotheses have been suggested to explain lower fertility among rural to urban migrants than those who remain in rural areas. Firstly, many authors supported the selection hypothesis. This hypothesis suggests that the lower fertility among rural to urban migrants can be accounted for primarily by the selectivity of the migration process; that those who migrate are a select group with different socio-economic and demographic characteristics such as education, occupational experience, age, sex and marital status from that of the rural population as a whole and that their preferred family sizes may also be different.

Secondly, the disruption hypothesis proposed by Goldstein (1973), Goldstein and Tirasawat (1977), suggests that lower fertility among recent migrants to urban areas in Thailand compared with that of urban natives of similar ages reflects lower fertility of migrants in the years immediately following settlement at the place of destination. They attribute this to disruptive factors associated with the process of migration and to the lower probability of migration for women who are pregnant or have small children.

Finally, the adaptation hypothesis suggests that even when selection effects are controlled, age specific fertility rates of rural to urban migrants after migration will remain lower than those of rural residents, differences in cumulative fertility between rural to urban migrants and rural residents will increase as the length of urban residence increases. Possibly all three basic hypothesis are valid in the study of migrants fertility behaviour.

## **1.2 Need of the Study**

Moving from one place to another is an important life event, accompanied by both short and long term changes in an individual's life, mainly the fertility of migrants. The early literatures and the third round of National Family Health Survey (NFHS-3) data revealed in table 1.1, also shows that fertility of migrants is different from the non-migrants of the native population of that areas. The study of migrant's fertility behaviour is one of the important in the present context of India, where with the growth of urbanisation the migration from rural to urban area is increased. This study see rural and urban as two different spheres, the rural areas fertility is higher than the urban areas, whereas in urban areas a large number of people are migrants from rural areas, but the fertility of urban areas are lower than that of rural areas. This highlights that fertility of migrants is lower than that non-migrants of rural and urban areas; this point is conformed from the earlier literatures and NFHS-3 data analysis. This study is important one in the context that the fertility behaviour of migrants and non-migrant in the urban areas is not much studied in India or NCT of Delhi context. This study identifies the factors which are influencing the fertility behaviour of migrants and non-migrants in NCT of Delhi.

The prevalence of fertility differentials between migrants and non-migrants in India and NCT Delhi is well seen from the NFHS-3 data. The currently married migrant women have 3 (mean) children ever born, whereas the non-migrant women are having only 2.5 (mean) children ever born in India. In NCT Delhi currently married non-migrant women are having less number of children ever born than the migrant women, i.e. 2.6 (mean) children ever born to migrant women and 2.4 (mean) children ever born for non-migrant women (see Table 1.1). This proves that fertility differential among the migrants and non-migrants are clearly prevailing in India and as well as in NCT of Delhi.

**Table 1.1: Mean Children Ever Born to Currently Married Migrant and Non-Migrant in India and NCT of Delhi**

Streams of Migration	Children Ever Born	
	India	NCT of Delhi
Rural To Urban	2.8	2.5
Rural To Rural	3.2	2.9
Urban To Urban	2.4	3.3
Urban To Rural	2.7	2.3
Urban Non-Migrants	2.3	2.8
Rural Non-Migrants	2.7	2.4
<b>Total CEB</b>	<b>2.9</b>	<b>2.6</b>
<b>Overall Migrants CEB</b>	<b>3.0</b>	<b>2.6</b>
<b>Overall Non-migrants CEB</b>	<b>2.5</b>	<b>2.4</b>

*Source: Computed from NFHS-3 (2005-06), women file.*

According to NFHS-3 data, in India the rural to urban currently married migrants are having 2.8 children ever born and the urban non-migrants are having 2.3 children ever born. Whereas, in NCT of Delhi, the currently married rural to urban migrant women are having 2.5 children ever born and the urban non-migrant women are having 2.8 children ever born. By these data it is clearly visible that the rural to urban migrant's fertility in India is higher than the urban non-migrants, but in the case of NCT of Delhi the fertility of urban non-migrants is higher than the rural to urban migrants (see Table 1.1).

The contraceptive use among currently married migrant and non-migrant women of India is showing no difference as both of them using same level of contraception (57 percent). In NCT of Delhi also the currently married migrants are using same level of contraception as the non-migrants are using i.e. around 67 percent (see Table 1.2).

In India the rural to urban migrant and urban non-migrant currently married women are using same level of contraception i.e. 63 percent. The prevalence of contraceptive use is different in NCT of Delhi, that is, the currently married urban non-migrant women are using 68 percent and only 62 percent of currently married rural to urban migrant women are using contraception. From the Table 1.2 it is clearly visible that the prevalence of contraceptive use among rural to urban migrants and urban non-migrants in India as well as in NCT of Delhi differs among currently married migrant and non-migrant women.

**Table 1.2: Contraceptive Use among Currently Married Migrant and Non-Migrant Women in India and NCT of Delhi**

Streams of Migration	Using Contraception	
	India	NCT of Delhi
Rural To Urban	62.9	62.4
Rural To Rural	53.0	72.5
Urban To Urban	66.8	69.5
Urban To Rural	58.6	56.0
Urban Non-Migrants	62.3	67.5
Rural Non-Migrants	54.2	64.3
<b>Overall Population</b>	<b>57.1</b>	<b>67.1</b>
<b>Overall Migrants</b>	<b>57.1</b>	<b>67.1</b>
<b>Overall Non-migrants</b>	<b>57.2</b>	<b>67.4</b>

*Source: Computed from NFHS-3 (2005-06), women file.*

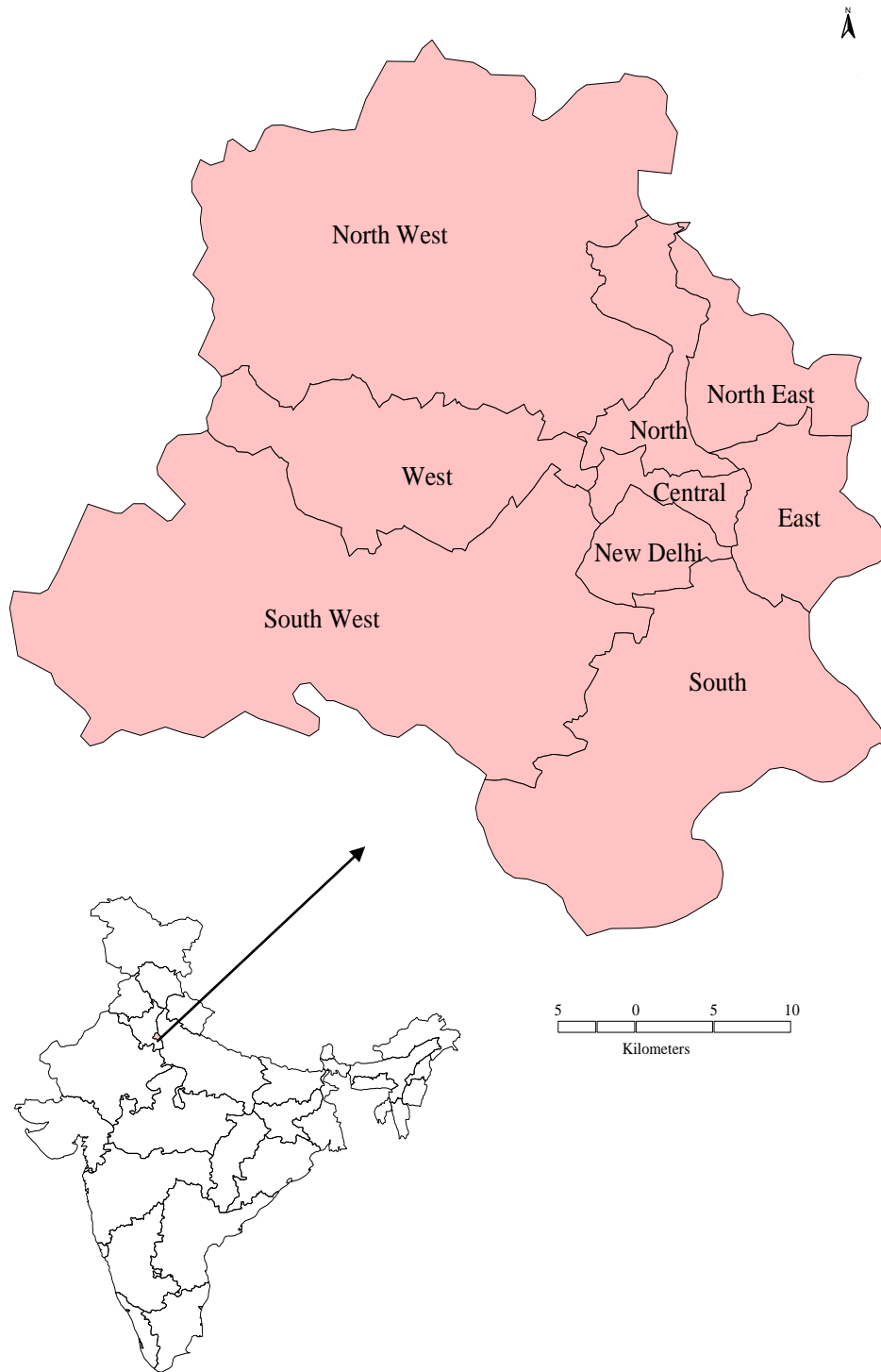
Country like India, witnessed increasing population, spatial mobility and its concentration in its major urban centers. The peak of rural to urban migration in developing countries just started few decades earlier, but this scenario is passed a long time ago in the developed countries. While migration seems to have important implications for fertility, relatively little work examines directly the effects of migration on fertility. This study explores fertility behaviour among migrants and non-migrants in NCT of Delhi.

### **1.3 Study Area**

National Capital Territory of Delhi, the capital of India, sprawls over the West Bank of River Yamuna and is one of the fastest growing cities in India. It is surrounded on three sides by the states of Haryana and to the East across to the River Yamuna, by the state of Uttar Pradesh. Total area of NCT of Delhi is 1483 square kilometre. With the rapid pace of urbanisation and growth of urban population, the rural population and rural area is continuously decreasing. NCT of Delhi ranks second among metropolitan cities in terms of population. According to 2011 census NCT of Delhi had more than 97 percent of the population in urban areas as compare to 53 percent in 1901. This clearly indicates fast growth of urbanization in the national capital.



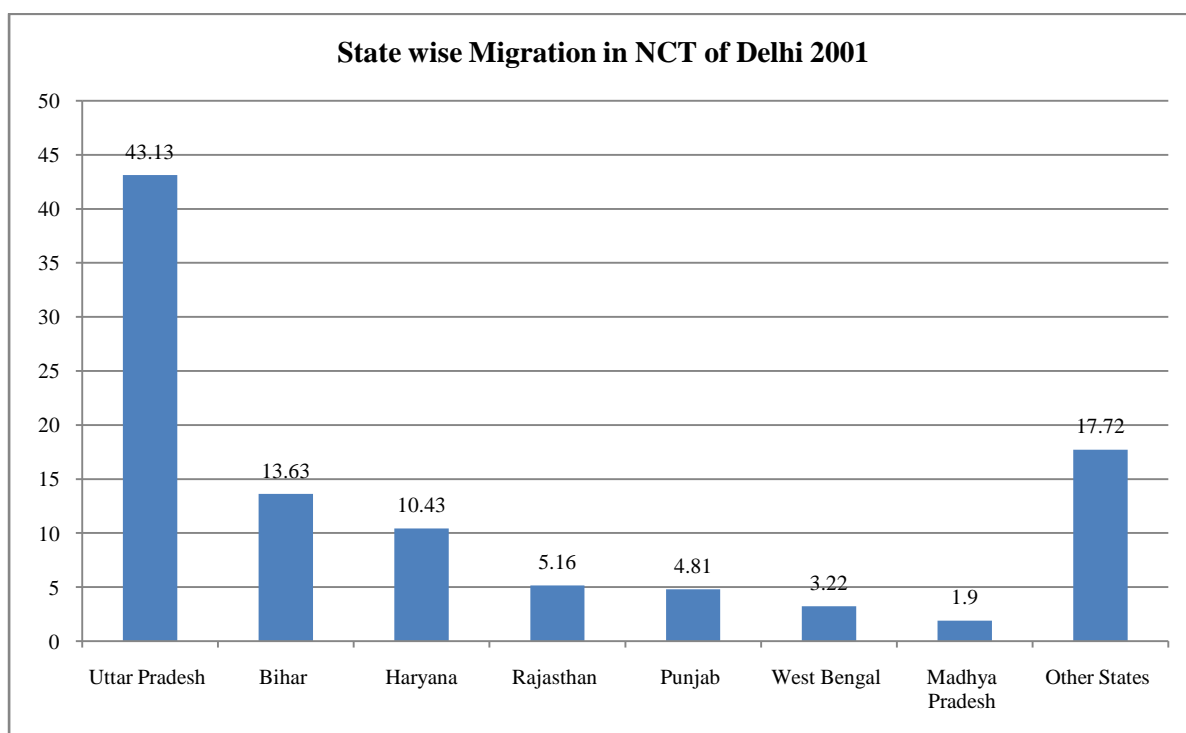
**Study Area: National Capital Territory of Delhi**



**Map 1**  
**Source:** Census of India 2011

NCT of Delhi has recorded a significant decline of population growth rate in 2011 Census like other metro cities such as Mumbai and Kolkata. The reduction in the growth rate of population may be attributable to a drop in the fertility rate and substantial increase in the population of other towns of National Capital Region. Besides, it seems that the rate of in-migration in Delhi has declined or at least stabilized, a large number of migrants are now settling down in other expanding towns of NCR. NCT of Delhi continues to be a favourable destination for a large number of people seeking livelihood, better employment opportunities and higher education.

As per the census 2001, a large percentage of population in NCT of Delhi was migrant (43 percent), majority of them from the neighbouring states of Uttar Pradesh, Haryana, Rajasthan, and Punjab etc. The information regarding state-wise migration in NCT of Delhi during the year 2001 is presented below in a figure 1.1. It is evident from the graph that more than two fifth of the migrants in NCT of Delhi during the year 2001 were from Uttar Pradesh. Second and third position of high percentage of migrant population in Delhi during 2001 was from Bihar and Haryana with 14 percent and 10 per cent respectively.



**Figure: 1.1**

**Sources:** Census of India 2001, D Series-Migration Table

**Table 1.3: State wise migration in NCT of Delhi 2001 and TFR**

States	In-Migration* in Delhi (Percent)	TFR**	
		Rural	Urban
<i>NCT of Delhi</i>	-	-	<i>2.1</i>
Uttar Pradesh	43.13	4.13	2.95
Bihar	13.63	4.22	2.87
Haryana	10.43	2.92	2.17
Rajasthan	5.16	3.62	2.21
Punjab	4.81	2.02	1.88
West Bengal	3.22	2.54	1.59
Madhya Pradesh	1.90	3.34	2.58
Other States	17.72	-	-

*Source: \*Census of India 2001, \*\*NFHS – 3, India, IIPS, 2007.*

This metropolitan city now consists of educated, skilled and unskilled employees who are demographically young and migrants from other states also. So, NCT of Delhi is most appropriate area to study the fertility behaviour among migrant and non-migrant.

#### **1.4 Review of Literature:**

Numerous studies have attempted to gain insight into the possible interrelationship between migration and fertility. And these earlier research has proposed four partly complementary, partly contradictory hypothesis about the pattern of fertility might appear following themigration. These hypotheses are selection, disruption and, socialization and adaptation hypothesis. For the purpose of the present study, the various relevant literature has been reviewed in the following section.

The selection hypothesis, says that the migrants are those specific group of people whose fertility preference are more similar to those of people at a destination than at the origin. This selection can be a result of observed characteristics, such as education triggering migration, or from unobserved factors such as social mobility ambitions or family proneness. The disruption hypothesis, suggests that immediately after migration shows a low level of fertility due to disruptive factors associated with the migration process like separation of spouses or because of the new environment (Kullu, 2005).

Socialization hypothesispremiered on the observation that rural fertility is generally greater than urban fertility. Therefore, rural migrants can thus be expected to have

higher fertility than urban natives because of the rural migrant socialization on the values, norms, and behaviour dominant during a person's childhood environment. That's why migrants exhibit similar fertility levels to stayers in the rural area (origin) and the convergence towards fertility level of population in the urban area (destination) occurs only in the next generation. The adaptation hypothesis, in contrast, premises on an individual's re-socialization possibility, and suggests that the fertility behaviour of migrants, sooner or later, comes to resemble the dominant behaviour in the destination environment (Kullu, 2005).

#### **1.4.1 Impact of Migration on Fertility**

##### ***1.4.1.1 Selection Hypothesis***

The selection hypothesis has been discussed in the much earlier literature, but it is examined in very few studies. One of the first who raised the question of migrant's selectivity is Myers and Morris (1966) in their studies, where the author's emphasized that the causes of lower fertility since migration can also be selective of certain fertility levels in Puerto Rico.

In a study of San Juan, Puerto Rico, Macisco et al. (1970) compared the fertility of migrant and non-migrants exhibited significantly lower levels of fertility than the rural natives, and on the other hand, the migrant's fertility was even lower than the urban natives. The study showed that with higher educational level and work participation of migrants are some of the factors by which the fertility is lower among the migrants.

The multivariate analysis of longitudinal data of France shows the supporting evidence of the selection hypothesis in the study by Courgean (1989). In this study, the author found that migration to cities (rural to urban) significantly reduces the women fertility, and migration to rural areas increases the fertility.

In a study by Gyimah, (2006) on Ghana found that the fertility behaviour of recent migrants is very much similar to their urban counterpart. The author explains the reason for the low fertility prevalence among recent migrants with the help of selectivity and disruption hypothesis, whereas the adaptation hypothesis is not applicable to these recent migrants.

In another study by White et al. (1995) in Peru, the authors found the evidence which supported the selection hypothesis after analysing fertility of internal migrants. The migrants to larger cities in general, and in the capital cities, in particular, were more likely to have lower lifetime fertility preference than the others who migrated to smaller cities.

#### ***1.4.1.2 Disruption Hypothesis***

In the disruption hypothesis, we can observe a short-term lowering of fertility of migrants. In a study by Goldstein (1973) in Thailand showed that the life time migrants fertility level was not very different from those at destination, while the recent migrants fertility level was considerably lower than the non-migrants at destination, whereas he considers recent migrants are those who have been residing in a new destination less than five years. This phenomenon he attributes to a disruption effect, by the result of spousal separation. Goldstein and Goldstein (1981) in another study favoured the disruption hypothesis, although they alternatively proposed that phenomenon might also be related to a low overall fertility of migrants that later caught up with the corresponding level of urban population.

Hervitz (1985) clearly explained the importance of disruption hypothesis with supporting evidence in the study on migrant's fertility in Brazil, where most migrants to the modernurban region in Brazil with low or some education show a pattern of partial adaptation to the lower fertility levels at the destination. In another study by Brockerhoff (1995) on several African countries, he demonstrated a very low fertility of rural-urban migrants during their first few years in the cities. For this lower fertility prevalence among recent migrants is because of the unmarried status of migrants and higher levels of spousal separation among married migrants are the reason for this lower fertility behaviour of recent migrants.

Several authors recently, however, implicitly or explicitly challenged the disruption hypothesis in their immigrant's fertility study. Anderson (2004) examined the immigrant's fertility in Sweden and found that migration to trigger, rather than disrupt the process of childbearing and higher child birth order. In another study on Germany and Netherland by Mulder and Wagner (2001) on family formation and

homeownership, that, with increasing rates of first childbirth shortly after a couple had their own house.

Chattopadhyay et al. (2006) found that the effect of disruption is visible only in delaying higher order births while having little or no impact on the total number of children for the migrants. On the other hand, rural-urban migrant fertility is similar to that of the natives at the destination even before the move because of the selection effect. In a study by Jensen and Dennis (2004), in the Philippines found that large fertility declines because of post migration employment.

Bhattacharya et al. (1997) developed a probability model to study the fertility behaviour of couples where only husband migrate and leave their wives at home and visit their home at least once in a year at equal interval. In this study they used a survey data on eastern Uttar Pradesh done in 1992. They found a big gap between the fecundability of migrated and non-migrated couples, but due to high coition rate of migrated couples whenever they visit household. This is one of the main reasons for very small difference between migrants and non migrant's children ever born.

#### ***1.4.1.3 Socialization Hypothesis***

The earlier literature on fertility of migrants, in the course of socialization hypothesis, is very few studies are available. This socialization hypothesis is shown a limited support in the study on fertility of interregional migrants in Brazil by Hervitz (1985) analysis, where migrants from the frontier-urban sector, as well as rural-to-rural migrants moving from traditional to modern areas, appear to maintain their high fertility levels without any lasting reduction. In another study by Rosenwaite's (1973) showed that the first generation migrants maintained their specific fertility behaviour of their origin while the second generation exhibits the fertility behaviour of the destination in Italian-American in the United States. One of the recent studies by Stephen and Bean (1992) found an intergenerational fertility difference among the migrants of Mexican-American as previous studies to finding for other communities in the United States.

Like many previous studies, Goldberg's (1959, 1960) main interest was to study the socioeconomic differences in fertility of urban areas. While research has already established an inverse relation of fertility to socioeconomic status, whereas Goldberg

hypothesized that white collar families were smaller than blue collar families. The larger fertility of blue collar workers is seen because of the occupational selectivity of rural migrants, whose fertility was higher than that of urban natives (non-migrant), because of different childhood socialization. Goldberg examined the Detroit's and Indianapolis's fertility behaviour to test this hypothesis. Both the studies showed that rural migrants are showing significantly higher levels of fertility rate than urban natives (non-migrant).

#### ***1.4.1.4 Adaptation Hypothesis***

The adaptation hypothesis widespread and popular hypothesis in the study of migrant's fertility behaviour. In a study by Myers and Morris (1966) in Puerto Rico with the help of census data on place of birth and current residence, their study showed that the fertility of migrants of rural to urban areas is same as the fertility level of native urban population. The study by Goldstein (1973) in Thailand also arrived at the largely similar result in rural-urban migrant's fertility in Thailand. The author found that the rural-urban migrant's fertility level in the Bangkok was well below those of the non-migrants of the rural area from where the most of the migrants came.

In an another study, by Hiday (1978), he showed that all the previous studies on fertility of internal migrants in the Philippines are showing the fertility levels of migrants to be more similar to those of the population at the destination than at origin. But the author is careful on supporting adaptation hypothesis, because as it remained unclear whether migration did operate as a cause or an effect of low fertility.

Like several authors who tested and supported this adaptation hypothesis, Farber and Lee (1984) also studied the effect of rural-urban migrant's fertility behaviour in Korea. In this study, they compared the fertility behaviour of individuals of post-migrants and pre-migrants.

In a study by Lee, B.S., and Farber, S.C., (1985) found that the adaptation of rural to urban migrants is a significant factor in Korea. They also found that the cumulative adaptation varies across urban areas that are the migrants who migrate to larger cities were found to adapt more over their lifetime than migrants to smaller cities.

In a study by Schmid and Kohls, (2009) found that the female migrants from other countries are not able to maintain their higher fertility norms in Germany. This is due to the post-migratory adaptation process which the Germany is displaying for a decade through the small family size and slightly growing childlessness, the conditions of living and working etc. By the results of the study, the author showed that adaptation is one of the main processes by which the migrant women reproductive behaviour is shaped.

In another study by Lee and Pol (1993) found that the rural-urban adaptation behaviour in Mexico, whereas it's not seen in Cameroon, for this they attributed to the specific context of African fertility transaction. Whereas, Brockerhoff and Yang (1994), found a supporting evidence of adaptation hypothesis in African context as well. In their study of six African countries, the fertility of rural-urban migrants indicated that conception of those migrants declined drastically at the time of migration and remained low in the long term among the most migrant groups of all the six African countries. And this decline in migrant's fertility is large because of the pronounced improvement in the standard of living after migration and higher use of modern contraceptive methods. This adaptation hypothesis is lowering migrants fertility is confirmed by Brockerhoff (1995) study on fertility of rural-urban migrants in thirteen African Countries.

In a study by Milewski (2010) compared fertility of immigrants in Germany with its citizens (non-migrants). The study shows that fertility of immigrants was higher immediately after the migration supporting selection hypothesis. When controlled for socioeconomic factors, there is the difference between the fertility of second generation migrants and the locals (non-migrants) supporting the adaptation and socialization hypothesis. Another study in the context of Italy by Gabrielli et al. (2007) tested the hypotheses of socialization, adaptation, and a selection controlling various compositional factors. The study found evidence for selection and socialization hypothesis and no evidence for adaptation. The evidence on the disruption hypothesis is only a few in the European context.

In a study by Kullu (2006), the author compared the fertility of internal migrants of Austria and Poland, where he found a significant variation in fertility level across settlement hierarchies in both Austria and Poland. Natives in urban areas in general



and large cities, in particular, have lower fertility compared with non-migrants in rural areas. Both the countries are showed the relatively higher risk of the first conception for the migrant population at all destinations.

The study by Lichter et al. (2012), on Hispanic fertility in new U.S. destinations shows that high fertility among Hispanics has been driven partly by Mexican-origin population and the new immigrant population whose are non-citizens, with poor English language skills. The author says that high fertility among Mexican Hispanics could not be explained entirely by socio-demographic characteristics which place them at higher risk of fertility.

To sum up, we can say that different hypothesis has been proposed for explaining fertility behaviour of migrants and non-migrants. These entire hypotheses possessed its place in the earlier literature and have also been challenged. The childbearing behaviour of the migrants is drawn upon some theoretical view and assumption of other factors which shape the fertility of migrants. The selection hypothesis also seems to stress the importance of childhood environment. Whereasthe childhood environment of the migrants stresses the socialization hypothesis, were the norms and values of childhood environment dominates in her/his later actions in another place as well in terms of fertility behaviour. The disruption hypothesis emphasises the importance of psychological and economic costs of residential relocation in the study of migrant's fertility behaviour. In last, the current socio-cultural and economic environment is the one which mostly shapes migrants fertility behaviour when we see adaptation hypothesis. But the norms and values of the sub-groups and the minorities differ with the later move of the location where values similar to the dominance from the current residence.

#### **1.4.2 Impact of Socioeconomic Factors**

##### ***1.4.2.1 Impact of Education on Fertility***

Education is one of the significant factors in determining migration and fertility by two ways. Firstly, it has an important effect on fertility which also determines women's migration behaviour. Secondly, education has its own independent effect on migration that results in an effect on fertility.

Female education can be expected to reduce desired family size for a number of reasons. First, education raises the opportunity cost of women's time and, generally, opens up greater opportunities for women that often conflict with repeated child-bearing. This may lead educated women to want fewer children. Second, in a country such as India where there is marked son preference, the education of women may reduce their dependence on sons for social recognition or support in old age. This too may lead to some reduction in desired family size, to the extent that large families are the consequence of a desire for an adequate number of surviving sons. Third, educated women may have higher aspirations for their children, combined with lower expectations of them in terms of labour services. This may also reduce desired family size, especially if there is a trade-off between the number of children and the time available for each child. Fourth, educated women may be more receptive to modern social norms and family planning campaigns. The education factor not only influences non-migrants fertility behaviour it also influences the migrant's fertility behaviour with other factors.

Education is one of a prime factor which releases women from traditional and cultural behaviours like accessibility to changing knowledge and modes of action that support barriers to mobility such as high fertility and high information costs of migration (Omondi and Ayiemba, 2004).

In a study by Omondi, and Ayiemba (2004), on migration and fertility relationship in Kenya, they highlighted that educated women are often characterized as possessing a lower relative preference for children versus other activities. The more knowledge and interest gained from schooling puts the educated women in a position by which they can transcend the uncertainties and the risks involved with migration. The author found that the better-educated woman would be more likely to undertake migration, assuming that by so doing she would minimize the opportunity costs of children while maximizing value from the non-children related goods and services.

In a study by Yadava et al. (1990) in Uttar Pradesh found that the fertility of migrants household was lower than the non-migrants household, because of disruption i.e. husband-wife separation reduced the migrant's fertility in the starting period of the migration. But the gap between completed fertility of migrants and non-migrants was not as much as the extent of separation between the couple. This is because of the

very high coital frequency of migrated husbands when they visit the household after prolonged separation.

In a study by Schmid and Kohls (2009), in Germany found that the socio-economic factors like educational level and income affect the overall fertility of migrants. This perhaps depends on the level of schooling and professional training, personal career orientation could complete with a family orientation.

According to Oppang (1983), the educated women may desire fewer children than less educated women. Dreze and Murthi (2001) in their study of fertility, education, and development in India found a strong relationship between women's education and fertility; that is female education has a negative and highly significant effect on fertility. On the basis of his study, Singh (2002) suggested that by improving women's education, women's autonomy in decision-making, promoting employment opportunities for women and by spreading awareness of interspousal communication in family affairs reduction of fertility is achievable.

The low fertility is associated with high education, but the author points out in his study on Ghana, that there is an indication that place of current residence exerts considerable influence as well. By this, the author makes sure that the economic opportunities and normative structures of localities in which educated women find themselves may influence their fertility behaviour. The educated women living in rural areas lack in non-farming works and modern contraception and the pro-natalist norms may constrain their desire to effective control of fertility as compared to their counterparts in the urban areas (Gyimah, 2006).

Further Arokiasamy et al. (2004) says that positive educational externality is one of the main reasons for fertility decline in some southern states. According to Sujatha and Reddy (2009), education will affect fertility by bringing changes in the duration of breastfeeding, increasing the age at marriage, increase in the practice of contraceptive, reduction in the preference for a son and large numbers of children.

On the basis of the study by Arokiasamy (2009), a decline of fertility among illiterate women in India takes place because of the improved health and development conditions. In this study, the increase in contraceptive prevalence rate among uneducated women has been larger and faster among educated women. The low

fertility choice among uneducated women is guided by quantity-quality trade-off and maximization of benefits in the health and wellbeing for women and children.

#### ***1.4.2.2 Impact of Age at Marriage on fertility***

Marriage is universal in India and commencement of childbearing is socially acceptable only within the institution. Age at first marriage, therefore, influences the period of time in which a woman is exposed to the risk of pregnancy during her reproductive years.

Omondi (2004), in his study points out with others literature that, women who marry late tend to have fewer children than those who marry early, and its causal relations have been also visible in affecting contraceptive use, which weakens the importance of age at marriage in influencing fertility.

Lindstrom (2003), found in a study on Guatemala delaying marriage is very strongly associated with lower completed fertility, is a common trait of rural to urban migrants. By migration, the marriage of adolescence is delayed because of the unfamiliar marriage markets in the urban area. The young migrant women intentionally delay the marriage to pursue higher education or accumulate savings from employment prior to marriage and childbearing. The results of the study also provide more evidence for the lower age-specific fertility of rural to urban migrant women before migration is due to delayed marriage. When these rural to urban migrant women arrive in urban areas, they adjust their fertility to the level of urban natives.

In a study by Dommaraju (2008), the women marrying early and having births at younger ages tend to have higher levels of child mortality and maternal mortality. And the delay in entry into motherhood for those marrying early could be due to physiological factors, low levels of coital frequency or a combination of both. According to the author, the factors which promote late marriage are also the ones that encourage small family. The women marrying late have a shorter first birth interval than women marrying at a younger age. But second and higher birth intervals are longer among those marrying late compared with those marrying early. Visaria (1999) found that the age at marriage in urban areas among Hindu women was higher than the Muslim women and because of modernisation and educational improvement in urban areas the family planning norms are also changed among Muslim women.

### ***1.4.2.3 Women's Empowerment***

According to Mason (1987), the extent to which women have autonomy from men's control in their day-to-day lives or are economically independent of male family members has been argued to affect their age at marriage, their desires for children, the costs of children, and the use of contraception which indirectly affect fertility.

A study by Audinarayanan (1997), conducted in Sulur town of Coimbatore district of Tamil Nadu, on 300 currently married couples both husband and wives (aged between 15 to 44 years wives) found the various dimensions of the status of women, i.e., consultation of women for their marriage, control over jewels bought from natal family, extent of segregated interaction, extent of restrictions imposed on women by husbands to do certain activities, extent of women's participation in decision-making on household affairs have played a crucial role in influencing their children ever born.

Badar and Mansoor (2007) also showed that there is a strong inverse relationship between women's empowerment and their fertility. The relationship between women empowerment and contraceptive use was positive. They concluded that women's empowerment provides multidimensional aspects of security which ultimately affect parity.

Further Das and Tarai (2011) observed that many of the background characteristics of women, like decision making, do not influence the fertility behaviour significantly in the SC and ST communities. When the decision making of women was controlled, the one factor which influenced fertility behaviour is the age of the respondent among SC and ST women, and exposure to mass media also influenced fertility behaviour of the ST women.

### ***1.4.2.4 Standard of Living and Infrastructure Availability***

The standard of living of the household indicates the economic condition and acts as a proxy variable for income when direct data on income is not available.

In a study by Roy et al. (1999), it was found that unmet need for family planning was higher among households with a low level of living standard. The negative relationship between standard of living and fertility is seen in their study areas, i.e., in

Punjab, Kerala, Uttar Pradesh and Maharashtra. In Kerala, the attitudes of couples towards family size have not at all been influenced by the living standard in this study. The uniform social development made them adopt small family size norm in this state as compared to other three states of the study.

According to Savitri's (1994) study fertility decline has taken place in Tamil Nadu without achieving high literacy rate and high status of women. The main reason behind this decline in fertility in Tamil Nadu is the availability of road facilities and low child mortality. The better transportation facility which connects the rural and urban areas implies a quite strong linkage between them. The poverty effect also goes against the common belief that poor tend to have more children in Tamil Nadu. The female labour force participation in nonfarm activities has risen because of the good network of roads and efficient transportation facilities. Participation in nonfarm work activities naturally led them to have fewer children.

#### ***1.4.2.5 Impact of Caste on Fertility***

Members of the scheduled castes and scheduled tribes have distinctive social identities and face different forms of social and economic discrimination. This variable provides a rough indication of economic and social status. Unlike other indicators of economic well-being, a woman caste remains constant from the beginning of her birth through the rest of time of her life. Therefore, the expectation is that fertility would be higher in these social groups (*Dixit, 2009*).

#### ***1.4.2.6 Impact of Religion on Fertility***

Religion is one of the main factors which influence the fertility of a woman, is they are migrant or non-migrant. The norms and socialisation by religion will affect the fertility behaviour of the women. By these social norms or differences, the women (migrant or non-migrant) of a different religion are showing the difference in their fertility rate. In general, we see that the Muslim women fertility is higher than the Hindu women fertility and this visa-verse for Hindu and Christian women fertility behaviour. So, religion plays an important role in shaping the fertility of the women for migrant of non-migrant.

In a study by Schmid and Kohls (2009), found that the reproductive behaviour of Muslim women is partly determined both by their affiliation and religiosity level; mostly reflecting their socialisation experiences in the country of origin (socialisation hypothesis).

A study by Alagarajan and Kulkarni (1998) found that the decline of fertility is not uniform for the three major religions i.e. Hindu, Muslim, and Christian, after the considerable decline of third or higher order births in 1970's and 1980's in Kerala.

In a study about Muslim and non-Muslim fertility differences in women autonomy, Morgan et al. (2002) found that the religion plays a central role in fertility. Muslim women oppose some particular form of birth control, which automatically encourages higher risks of unwanted pregnancies which lead to larger family size among Muslim women than non-Muslim women.

In a study by Dharmalingam et al. (2005), among women with two or more children, Muslim women are much more likely to intend an additional child and also less likely to use contraception given an intention for no more children. The differences of Muslim-Hindu fertility are real and not due to differences in socioeconomic characteristics and either women's autonomy also. The Muslim-Hindu differences in fertility lie in discrimination against the minority group or in the role of demographic behaviour as markers of group identity.

According to Bhagat and Praharaj (2005), the Hindu-Muslim fertility differential persists in India's demographic reality, but it is no more than one child. In their study, they found that the practice of family planning is low among Muslims, but it is also important that they use more spacing traditional methods than Hindus. The authors were surprised to find that there is a higher unmet need for family planning among the Muslims and they avail fewer services from government sources even in rural areas. As Muslims are more illiterate and poor, it is necessary to look why they utilise fewer services provided by the government.

A study by Kulkarni and Alagarajan (2005) found that education is the most commonly observed variable which influences fertility. But in the study, the socio-economic factors do not seem to explain the religious differential in fertility. The

contraceptive use is the prime factor which contributes to religious differentials in fertility among the four proximate determinants of fertility.

#### ***1.4.2.7 Impact of Desire for Children and Son Preference on Fertility***

Parent's concern about their security during old age is one of the strong motives for demanding own children. Since sons usually have the responsibility of caring for parents during their old age, parents may wish to have extra 'insurance' sons simply to guarantee that at least one will be able to meet their needs.

Since the desired number of children is related to the current number of living children of women, it is not unexpected to find that with increasing age the desired number of children increases, adjusting their preferences with their changing life situations. More than age, it is the number of living children that have a stronger influence on desired fertility.

One of the major insights come from Dyson and Moore (1983), who see the low status of women in societies associated with son preference and high fertility. From another study by Basu (1992), we came to know that son preference and high fertility derive from a common root, i.e., the economic advantage of having male children. According to Yamada (1985) fertility decline is a consequence of infant mortality rate decline which will occur due to an increase in per capita real income.

On the basis of their study, Ramesh et al. (1996) found that a number of living children is an important factor that influences intention to use contraception. The intention to use the contraception is determined by the number of living children till the level of two and three children, beyond which it increases. There are two reasons for this; firstly, as potential users reach their desired number of children, they tend to use contraception and thus do not show in the non-user group and second, because older women have lower fecundity and thus do not feel the need to use contraception.

#### ***1.4.2.8 Impact of Contraception on Fertility***

In this section, an attempt has been made to review some of the studies relating to the contraceptive use and fertility behaviour. There are various factors influencing



contraception adoption of the households; such as better physical amenities, mass media exposure, education, family's economic status and female age at marriage etc.

Lindstrom (2003) studied the relationship between rural-urban migration and fertility in Guatemala. In this study, the author found that by moving to urban areas, the migrants encounter relatively high family maintenance costs in the urban area as compared to rural. By this change of economic environment discourage the parents from having high fertility. The rural to urban migrants also experience a change in cultural environment, like urban norms and values about gender roles, contraceptive use etc. The author found that by using contraception the rural to urban migrant women were adjusting their fertility to urban non-migrants level. Among urban native women and the rural to urban migrant women, the prevalence of contraception is more or less same.

In a study by Omondi (2004), says that when women migrate to different destinations they use different types of contraception. In addition, the author says that if women leaving rural areas to urban areas are rational in their decisions to leave and innovative with respect to the types of challenges and opportunities they are seeking in urban places, they may find it more desirable than never-migrants at origin to use contraceptives to control fertility. With the increase in the time of stay the migrant women who have to spend their rest of lives in the destination may adopt the fertility pattern of the destination area. But, the women who migrated to urban areas because of pressure or force from the rural areas then there is the large probability that these women will bring rural fertility values and also low knowledge and practice of contraception.

Urbanisation is often cited as an important factor that increases the level of contraceptive use. According to Dreze and Murthi (2000), in urban areas children are less likely to contribute to household production. If we consider 'diffusion process' can cause fertility decline than urban areas have more potential due to the greater exposure to mass media and wider opportunities available to observe and discuss the lifestyles of other social groups. On the other hand, Ramesh et al. (1996) found that if education is controlled, the urban-rural difference in contraceptive use is substantially reduced in India as a whole.

In Dwivedi's (1992) study of sixteen major states of India's 1987 data, he found that literacy contributes very much in motivating couples to accept sterilisation and had a direct negative effect on IUD use. He says that for strong and immediate effect on sterilisation acceptance we need further improvement in literacy in all states. According to Gulati (1996), the level of education attained by women has a significant effect on contraceptive acceptance. He observed that female education beyond the middle school increases the use of contraception in the states studied.

According to Basu (1992), working women have higher opportunities to interact with outside world which exposes her to new ideas which could bring a change in her attitudes towards family size and the use of contraception. Kanitkar and Murthi (1983) came across a positive relationship between the standard of living and use of contraception in Rajasthan and Bihar.

In a study by Kulkarni and Alagarajan (2005), it was found that contraceptive use is the main reason behind the difference in fertility among the different religious community. The factors like, income, occupation, urbanisation, age at marriage and contraception are the one by which the population of all religion varies.

Patil et.al (2010) pointed out that the unmet need for contraception is one of the main reasons for the high fertility in tribal women of India. The contraceptive choice is conspicuously absent, and the quality of care is exceptionally poor within the programme. And to overcome these types of problems the author suggested focusing on improving information, education and communication activities which are the key to address the unmet needs for contraception along with easily accessible, convenient and good quality methods of family planning.

In the analysis by Pathak et al. (1998), sterilisation plays an important role in family planning programme, i.e., 76 percent. According to the authors relying entirely on sterilisation in declining fertility is an unwise thing, because the sterilisation method is irreversible so it is acceptable only by those women who have already achieved their goals and do not want any more children in the future; this obviously leads to large families. To stop the unwanted fertility of the women who want children in the future, the temporary methods play an important role.

All the above factors i.e. education, age at marriage, son preference, religion, and contraception are important factors which are influencing the fertility behaviour of all women, is it be migrant women or non-migrant women. From the above literature, conceptual frameworks are derived to see the relationship between these factors in influencing the fertility behaviour of migrants and non-migrants.

#### ***1.4.2.9 Exposure to Mass Media on Fertility***

Exposure to mass media has considerable influence on contraceptive use. A study of NFHS data by Ramesh et al. (1996) revealed that regular exposure to electronic mass media has a large effect on contraceptive use, even after controlling the place of residence and education in India. Retherford and Mishra (1997) noted that the mass media play an important role in spreading awareness about small family norms. The study found media exposure increases the acceptance of contraceptive use when women have general media exposure.

Barber and Axinn (2004) found that both premarital and lifetime exposure to mass media are associated with higher rates of permanent contraceptive use. Individuals exposed to mass media sources prefer smaller families, have weaker preferences for sons, and are more positive toward contraceptive use.

#### ***1.4.2.10 Research Gaps***

The above studies mainly focussed on the trends, patterns, and differentials on migrant and non-migrant fertility, and some of the tested hypothesis of migrant fertility. In various studies, the authors have examined the socioeconomic factors influencing fertility and the reasons for variations across region and country. But the above studies lack in focusing on the reasons for fertility differential prevails among migrants and non-migrants. It is also necessary to understand that whether any difference in the fertility of migrant and non-migrant prevailing or not. Therefore this study is an attempt towards in these directions.

## **1.5 Objectives**

The overall objective of the study is to examine the fertility differentials between migrants and non-migrants in NCT of Delhi as well as investigate the behaviour of migrants and causes that bring fertility differentials. However, the specific objectives of the study are:

1. To study the trends and patterns of fertility as well as migration in NCT of Delhi
2. To study the fertility differentials among migrants and non-migrants and the factors which influencing the fertility behaviour of women in NCT of Delhi.
3. To study the contraceptive use of migrants and non-migrants, and the factors which influencing contraceptive use among the migrants and non-migrants women in NCT of Delhi.
4. To examine the distribution of women' fertility behaviour across the various features of migration and to understand the effect of migration on fertility and contraceptive behaviour of migrant women in NCT of Delhi.

## **1.6 Research Questions**

The study is an attempt to address the following questions related to the fertility behaviour of migrants and non migrants in NCT of Delhi.

1. Is non-migrant fertility varies than the migrant fertility in urban area?
2. What are the factors which influences the migrant's fertility behaviour?
3. What are the socio-economic factors which affect the contraceptive use among migrant and non-migrant in the urban area?
4. Is there any difference in fertility Behaviour among migrants with the increase in the duration of stay, stream of migration and region from migration in NCT of Delhi?
5. Does the hypothesis of adaptation work in case of women who migrated in NCT of Delhi

## **1.7 Chapterisation**

The thesis consists of 7 chapters. Chapter I is an introductory chapter. It describes the need for the study, study area, the review of literature which includes the different hypothesis of migrant fertility, major studies of fertility behaviour and socioeconomic condition and states the objectives and hypothesis of the study. Chapter II deals with the conceptual framework, data sources, analytical methods and the variables included in the study. Chapter III shows the trend and pattern of fertility and migration in NCT of Delhi. Chapter IV examines the fertility behaviour among migrants and non-migrant in NCT of Delhi. Chapter V describes the contraception use among migrants and non-migrants in NCT of Delhi. Chapter VI examines the fertility behaviour and contraceptive use of migrants with reference to region and stream and duration of migration. Finally, conclusion of the study is presented in Chapter VII.

## Chapter II

### Conceptual Framework and Methodology

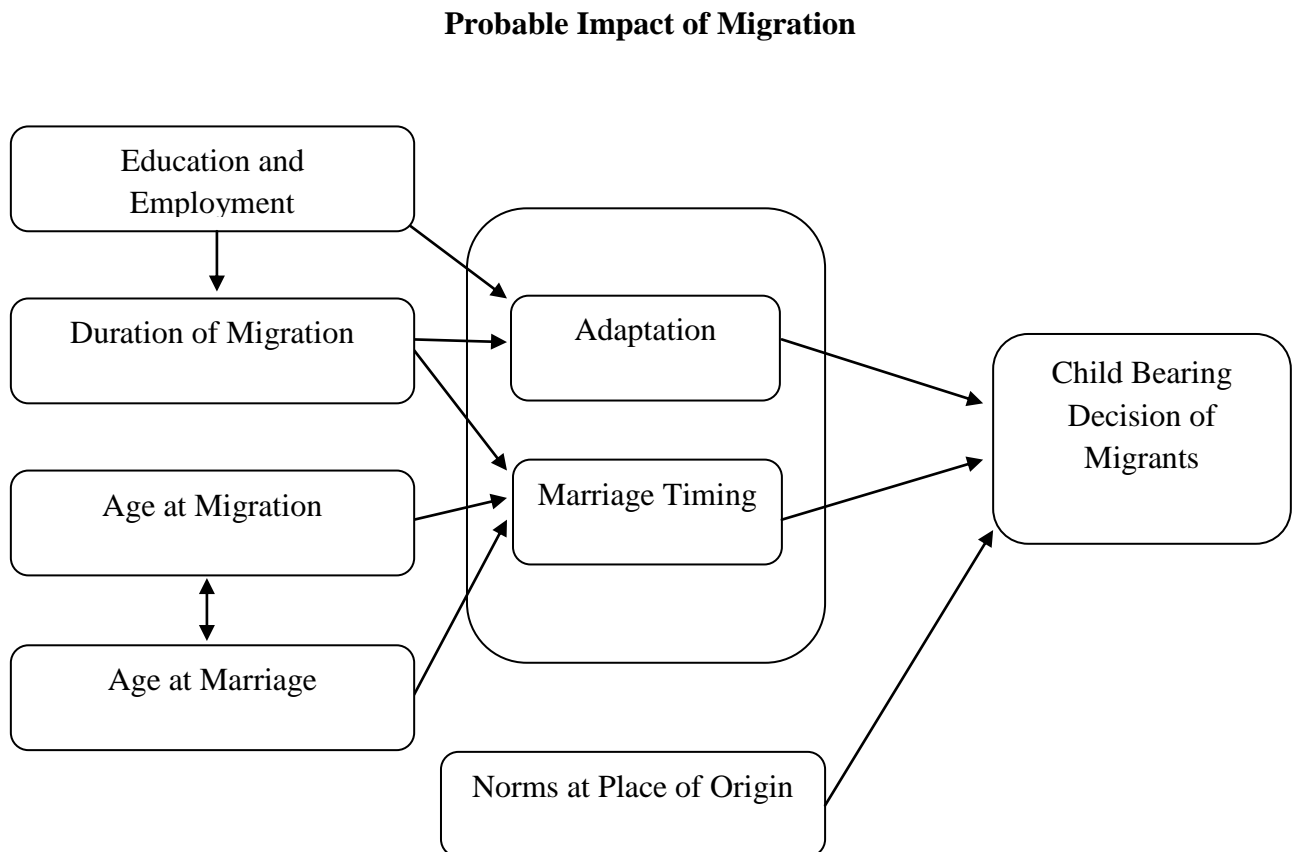
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#### 2.1 Conceptual Framework

The conceptual framework considering the fertility and migration, focuses on two forces, which act upon the fertility behaviour or childbearing decisions of migrants, which are the fertility norms at their place of origin and the probable impact of migration (Figure 2.1).

From this conceptual framework, the process by which migration influences fertility can be observed. In this framework, migration impacts the rural to urban migrants fertility in two ways i.e. adaptation and marriage timing. The degree of adaptation is determined by education, employment, and duration of migration. A longer duration of migration of a migrant and higher socioeconomic status will reflect a greater potential of adaptation to urban lifestyle and fertility behaviour.

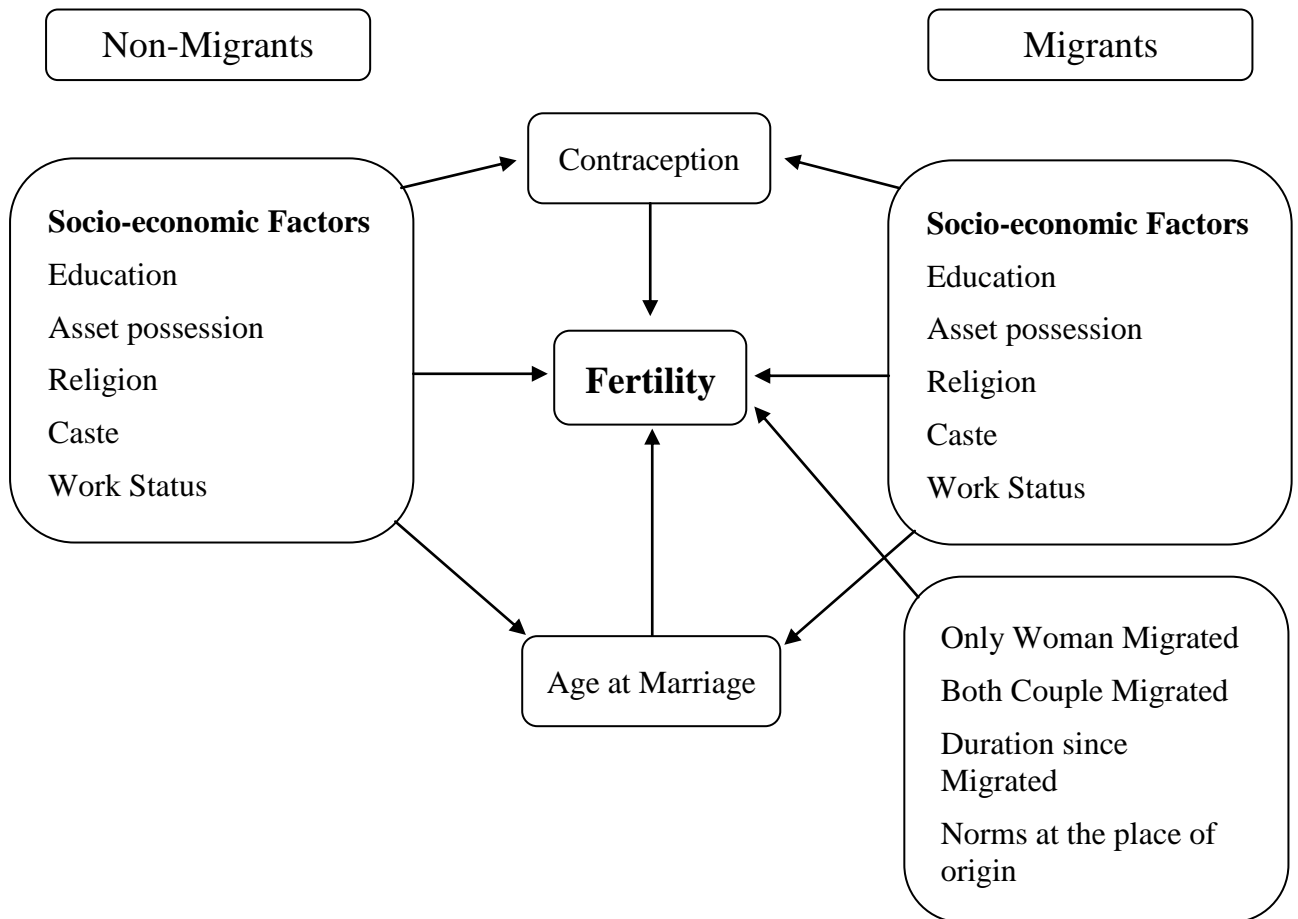
**Figure 2.1: Diagram outlining the probable impact of migration on fertility:**



*Source: Werwath, T. (2011), "The Fertility Impact of Rural to Urban Migration in China".*

The age at marriage and age at migration are mutually influential, whereas, if one migrates at a young age, there will be a probability that the migrant may choose to delay marriage until later in life and familiarity with the urban lifestyle. Similarly, if one marries at a young age, then they may be preoccupied with starting a family and delay migration until it is feasible. If the women follow the norms of the place of origin (rural in this case) than the fertility of women will not affect by adaptation and she will follow fertility behaviour of her origin place.

**Fig 2.2: Diagram outlining the impact of socio-economic, demographic and migration factors on migrant and non-migrant fertility.**



The socio-economic factors are influencing the fertility of women by either directly or indirectly, both for migrants and non-migrants. The age at marriage and contraceptive use are directly influenced by the socio-economic factors of the migrant and non-migrants. Contraceptive use directly influences the fertility of women whereas the age at marriage is indirectly in the course of fertility of migrant and non-migrant. The age

at marriage and contraceptive use having a negative impact, with an increase in age at marriage and contraceptive use the fertility of the woman will decrease. The duration of migration indirectly affects the migrant's fertility. If the migrant is staying for a longer time in the urban area than the probability of adapting urban norms will automatically impact the fertility behaviour of the migrant with increasing duration. Fertility behaviour differs between a married couple where both of them migrates from a rural place to a urban place compared to the married couple where only woman is migrated to other place and not the man, who is considered as non-migrant. If the migrant women are following the norms of the place of origin (rural), then the fertility behaviour of migrants will prevail same as their place of origin.

## **2.2 Other Socio-Economic Factors**

Some demographic and socio-economic factors such as place of residence, age at marriage, education, religion, caste, the work status of women, wealth possession, contraceptive use and mass media exposure etc. which influence fertility behaviour of migrant and non-migrant.

### ***2.2.1 Place of Residence***

The fertility behaviour is affected by the place of residence of migrant and non-migrant. The rural-urban dichotomy has generally been regarded as an important area where it can be seen the fertility differential among these rural-urban residences. Fertility rate varies substantially between rural and urban areas because urban residents are relatively better off than their rural counterparts in terms of their economic conditions as well as their access to health care and educational facilities.

### ***2.2.2 Age at Marriage***

One of the important factors in determining fertility Behaviour of women is the age at marriage. Age at marriage plays a crucial role in the fertility Behaviour. Lower age at marriage leads to high parity and more chances for childbearing, whereas higher age at marriage lowers the childbearing chances. The low age at marriage and marriage stability contributes to the high level of fertility.



### ***2.2.3 Education***

Women education is considered as one of the important factors, which can affect the fertility behaviour. Education provides an opportunity to acquire knowledge, new outlook and creates a desire to be free from traditional beliefs, thinking and superstition etc. Education has a specific value of its own as literate people are more likely to adopt birth control measures than illiterate ones. It also affects fertility in several indirect ways, like delayed age at marriage, reduction in the desired family size, greater exposure to knowledge of family planning methods. Education provides "new look" towards the quality of life and seems to have an effect on the practice of contraception and also on the fertility behaviour.

### ***2.2.4 Religion***

Religion plays a significant role among the various socio-cultural factors that influence the acceptance of family planning methods and the resultant fertility behaviour toward the entire issue and program of population control. Precepts and injunctions associated with religion are known to influence fertility desires and contraceptive acceptance. McQuillan (2004), states that "religious affiliation as a determinant of demographic Behaviour was once at the forefront of demographic research, especially in the study of fertility differentials."

### ***2.2.5 Caste***

Scheduled Castes (SCs) and Scheduled Tribes (STs) are the social groups which are recognised by the government of India as socially backward group. Other Backward Classes are castes and communities that have been designated by the Government of India as socially and educationally backward and in need of protection from social injustice. Generally, SCs and STs population are traditionally bounded by customs. Besides these, SCs and STs may be deprived of services due to denial of access to public outlets on account of poor social status or traditional segregation or isolation in settlement and be not well served by health personnel (Kulkarni, 2010).

### ***2.2.6 Work Status of Women***

Work status not only gives women an opportunity to earn income but also exposes them to the outside world. It has also the empowering effect for women in terms of the nature of work, whether they earn and control income and soon. If the woman is working, then there is the possibility that the women would have greater knowledge about the contraceptive methods and would go for small family size.

### ***2.2.7 Wealth Possession***

Wealth possession of the household is expected to be positively associated with the adaption of contraceptive methods. Generally, women from higher economic status have the power of knowledge and affordability for contraception. Besides they also desire quality children by adopting small family size. Therefore, the quality-quantity trade-off allows women to go for small family size. Besides, there is also the possibility of pure income effect that is with the increase in incomes, the number of children would also increase. Therefore, the economic condition of the household is considered as one of the important indicator to examine the fertility Behaviour of women.

### ***2.2.8 Contraceptive use***

Fertility decline is sometimes attributed more to the results of family planning efforts and successful birth control than to economic and social change. Increased contraceptive use is largely responsible for the observed decline in fertility. Use of effective contraceptive methods significantly reduces the reproductive years of a woman and thus it helps in reducing fertility.

### ***2.2.9 Mass Media Exposure***

In a country like India where the majority of women are illiterate or have little formal education, channels such as mass media play an important role in bringing about awareness, acceptability, and access to family planning services which in turn may lead to a positive attitude towards fertility regulation. Therefore, it is pertinent to examine the effect of mass media on the adoption of contraception and its role in family limitation.

**2.2.10 Single/Couple Migration:** The disruption is one of the main factors in lowering fertility. If the women or her spouse migrate individually then the fertility of the women will be lower than the women who are migrating with their spouse (couple migration). The disruption (separation of couple) plays a vital role in lowering fertility.

**2.2.11 Duration of Migration:** The duration of migration affects the process of fertility in various ways; firstly, after migration the migrant women in the initial time periods follow the norms of the origin if she came from rural areas they most likely they will follow the fertility norms of rural areas. Secondly, with increase in duration of stay on the place of destination the migrant women tend to adapt norms of destination. So, if the women who came from rural areas or from high fertility areas with increase of time they tend follow the norms of urban or the low fertility areas, which leads to lowering the fertility of migrants.

## **2.3 Data Source**

### **2.3.1 Secondary Data Source**

In this study, both secondary and primary data is used. In this study specifically, secondary data from Census of India, Sample Registration System (SRS) and National Family Health Survey (NFHS) all three rounds, and National Sample Survey (NSS) issued and other Official data from the state also been incorporated.

The data through census is available on a decennial basis. The Government of India, in late 1960s, initiated the Sample Registration System that is based on a Dual Recording System. The SRS provides reliable data on fertility and mortality at the state and national levels for rural and urban areas separately. From SRS data of Crude Birth Rate (CBR) and Total Fertility Rate (TFR) is used to analyse the fertility trend in India and NCT of Delhi.

National Sample Survey (NSS) was started in 1951, with the objective of filling up the gaps in essential statistics by collecting comprehensive data through sample surveys. A wide variety of subjects have been covered by the NSS. These may be broadly classified as socio-economic, demographic, agricultural survey and industrial. The 64th round of NSS is earmarked for survey on "Employment-Unemployment and

Migration". Various indicators of women migration like there as on for migration; educational level of migrants and work status of migrant etc. has been used from NSS data of 64<sup>th</sup> round conducted during the year of 2007-08.

The National Family Health Survey (NFHS) till now conducted 4 surveys. The first NFHS survey conducted in 1992-93, subsequently second in 1998-99, third in 2005-06 and the fourth in 2015-16. However the data of fourth round has not been released yet. Therefore the study utilise NFHS III data which surveyed total of 85790 currently married women samples in India, which includes 66172 migrant samples and 19618 non-migrant samples. In NCT of Delhi 2301 currently married women samples were collected of this 1829 samples are migrants and 472 samples are non-migrants. The primary objective of the survey was to provide national and state level data on fertility, nuptiality, knowledge and practice of contraception, reproductive behaviour, child nutrition and immunization, infant and child death etc. The present study delineates the migrant and non-migrant fertility patterns in NCT of Delhi and examines the impact of demographic and socio-economic factors on the level of migrant and non-migrant fertility performances in NCT of Delhi. Therefore the study makes extensive use of the NFHS III data of NCT of Delhi.

### ***2.3.2 Primary Data Source***

For the primary data, the survey has been conducted in the study area with a structured questionnaire in the place of destination in NCT of Delhi. There are 500 sample has been collected from five slums in Delhi during the time period of February to May 2016. Moreover, For the purpose of better representation of the results obtained through primary data, results have been presented in the form of percentages only in respective chapters and the sample size (N) across the all socio-economic, demographic variable along with variables of migration and fertility has been placed in the appendix section.

### ***2.3.3 Sampling Design for field survey***

In this study, a stratified sampling technique is used to collect samples. 'Stratified sampling is a probability sampling procedure in which the target population is first separated into mutually exclusive, homogeneous segments (strata), and then a simple random sample is selected from each segment (stratum). The samples selected from

the various strata are then combined into a single sample' (Daniel, 2012). In specific the disproportionate allocation of sample technique is used in this study, whereas 250 samples each is taken for the study of migrant and non-migrant fertility behaviour. Actually 'disproportionate stratified sampling is a stratified sampling procedure in which the number of elements sampled from each stratum is not proportional to their representation in the total population. Population elements are not given an equal chance to be included in the sample' (Daniel, 2012).

#### ***2.3.4 Area for Field Survey***

In this study, total 500 samples are collected from NCT of Delhi. The study area NCT of Delhi is divided into five zones that are north, south, east, west and central zones, for the convenience purpose in covering all corners of NCT of Delhi. This type of division is also followed by the planning commission in studying the NCT of Delhi slums. From each zone, one old and large slum area has been selected and from that slum 50 samples, each of migrant and non-migrant currently married women are been taken for the study. The purpose of taking old slums is, to obtain two types of cohort, i.e. the old population (cohort) who are migrants and their children who are born or stayed from their childhood in these areas are non-migrants, considered as another cohort. These second generation populations are considered as non-migrants in this study. The women (female) who came to these slums before attaining the age of 15 years are also be considered as the non-migrants. The slums where survey is conducted are:

Wazirpur JJ Colony is situated in north Delhi district. It is one of the oldest and largest slums in NCT of Delhi; it is situated near to Wazirpur metro station. In this slum most of the people are from Uttar Pradesh, Punjab and Bihar. From Wazirpur slum 50 migrant and 50 non-migrant samples of currently married women is surveyed. The second slum is Nehru Ekta colony, it is one of the slums in south-west Delhi; which situated in R.K Puram sector 7. This slum mostly consists of Tamil and Telugu peoples from Tamil Nadu and Andhra Pradesh respectively.

Sanjay Amar JJ colony is situated in east Delhi near to I.P extension. Most of the people in this slum are from Bihar, Uttar Pradesh and Madhya Pradesh. The next slum is Katputli JJ colony near metro station in west Delhi. In this slum mostly people are

from Rajasthan and Haryana. The fifth slum is Takiya Kalan JJ colony, which is situate in the central Delhi L.N.J.P hospital area. Most of the people are from Uttar Pradesh, Bihar and West Bengal. This slum is dominated by Muslim population. From these five slums 50 each of migrant and non-migrant currently married women sample is collected. To analyse the regional difference of fertility among migrant, 100 samples of southern state migrants and 150 samples of northern state migrants are collected.

**Table 2.1: The five Slums Surveyed in NCT of Delhi.**

Name of the Slum	Number of Samples		Zone
	Migrant	Non-Migrant	
Wazirpur JJ Colony	50	50	North
Nehru Ekta Colony	50	50	South
Sanjay Amar JJ Colony	50	50	East
Katputli JJ Colony	50	50	West
Takiya Kalan JJ Colony	50	50	Central

*Source: Computed from Primary Data (February to May 2016).*

From these slums, 50 samples of currently married women in the age group of 15 to 49 each from migrant and non-migrant are collected. While selecting samples from these slums the stratified proportionate sampling method have used. ‘Proportionate stratified sampling, the number of elements allocated to the various strata is proportional to the representation of the strata in the target population. That is, the size of the sample drawn from each stratum is proportional to the relative size of that stratum in the target population’ (Daniel, 2012).

### **2.3.5 Data Collection: Tools Used in the Survey**

The questionnaire is used as the tool for data collection which includes a number of questions regarding household details, assets details, education and a large number of questions related to the reproduction issues. This method is used because it has high respondent participation and direct involvement of the researcher. Two types of schedules are used for the study, (i) Household schedule and (ii) the eligible women interview schedule.

The *household schedule* was used to list the currently married eligible women in the 15 to 49 age group and their family members who are the usual residents of the household. In this, the age, sex, relationship to head of the household and marital status is of the members acquired. The migrants and non-migrants household information regarding assets availability is also collected.

The *women interview schedule* is the detailed structure, pre-coded schedule developed to collect all relevant information about the study. The schedule covers the topics, such as; women general characteristics, reproductive behaviour of women and contraception. (The questionnaire is attached in the appendices).

## **2.4 Analytical Methods**

Trend and pattern are used to see the fertility behaviour across the time period. Bi-variate analysis has been used to see the gross effect of predictor variables on there sponse variable. For multivariate analysis, the statistical techniques used in this study are Multiple Classification Analysis (MCA), the logistic regression model. The detailed descriptions of these statistical techniques are given below:

### ***2.4.1 Trends in Fertility***

The Sample Registration System introduced in India in the second half of the 1960s, provides fairly large amount of information on the levels of fertility. The trends in fertility have been assessed by taking data from the SRS and also from the NFHS I, II and III. Trends in Crude Birth Rate, Age Specific Fertility Rate, and Total Fertility have been presented to depict a clear picture of fertility Behaviour in NCT of Delhi. The rural-urban differences are presented.

### ***2.4.2 Binary Logistic Regression***

Regression is an important technique to see the causal relationship between dependent variable and independent variables. Here contraceptive use is selected as dependent variable which is in dichotomous form as ‘using contraception’ and ‘not using contraception’ and various major socio-economic variables as independent variables such as female education, place of residence, wealth index, women work status, caste,

religion, duration of migration, stream of migration, reason for migration and mass media exposure etc..

Regression is useful for situations in which it enables us to predict the outcome based on values of a set of predictor variables. If the dependent or response variable is dichotomous (binary), such as presence or absence; success or failure; binary logistic regression is used. Logistic regression allows one to predict a discrete outcome, such as group membership, from a set of predictor variables that may be continuous, discrete, dichotomous, or a mix of any of these. There are two main uses of logistic regression: Firstly, to predict the group membership, since logistic regression calculates the probability of success over the probability of failure. Logistic regression coefficients can be used to estimate odd ratios for each of the independent variables in the model. Secondly, logistic regression also provides knowledge of the relationships and strengths among the variables.

The basic form of the logistic function is:

$$P = \frac{1}{1 + e^{-z}} \quad (1)$$

Where P is the estimated probability (here the probability of using contraception), z is the explanatory variable and e is the base of the natural logarithm (e = 2.7183).

The quantity  $\frac{p}{1-p}$  is called the odds and the quantity of  $\log(\frac{p}{1-p})$  is called the logit of P. simplifying the equation (1) we get:

$$\text{Odd} = \frac{P}{1 - P} = \frac{\text{Probability of Presence of Characteristics}}{\text{Probability of Absence of Characteristics}} \quad (2)$$

$$\text{Logit (P)} = \ln\left[\frac{P}{1-p}\right]$$

The Multivariate logistic function involving K predictor variables  $x_1, x_2, x_3, \dots, x_n$  is given by:

$$\text{Logit (P)} = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n$$



$$\text{Odds} = \frac{P}{1-P} = e^{b_0} \times e^{b_1x_1} \times e^{b_2x_2} \times e^{b_3x_3} \times \dots \times e^{b_nx_n}$$

The coefficient  $b_1$  represents the additive effect of one unit change in explanatory variable  $x_i$  on the log odds of the dependent variable.

If an explanatory variable is categorised, the ratio of odds for one category to the odds for a reference category measures the influence of the category relative to the reference category. If  $\beta_{kj}$  is the coefficient for category  $j$  of factor  $k$ , then  $e^{\beta_{kj}}$  is the odds ratio, ratio of odds for category  $j$  to the reference category for factor  $k$ .

#### 2.4.2 Multiple Classification Analysis (MCA)

‘Multiple classification analysis (MCA) is an appropriate technique to show how dependent variables are affected by various independent variables, it shows predictor relates to independent variable and before and after adjusting for the effects of other independent variables and how all the independent variables considered together related to the dependent variables’ (Andrews et al, 1973, pp. 1).

Multiple classification analysis is a technique for examining the interrelationship between several predictor variables and a dependent variable with the context of an additive model (Retherford and Choe, 1993). The statistical method signifies that a coefficient should be assigned to each category of each predictor and dependent variable should be assigned to each category to each predictor and dependent variable should be treated as the sum of the coefficients assigned to categorise plus average for all classes plus an error term. Symbolically,

$$Y_{ijk} = \bar{Y} + a_i + b_j + \dots + e_{ijk \dots n}$$

Where,

$Y_{ijk}$  = Score (on the dependent variable) of a particular individual variable who falls into the  $i^{\text{th}}$  category of predictor ‘a’,  $j^{\text{th}}$  category of predictor ‘b’, etc.

$\bar{Y}$  = Grand mean of dependent variable.

$a_i$  = The effect of the membership in the  $i^{\text{th}}$  category of predictor ‘a’;

$b_i$  = The effect of the membership in the  $j^{\text{th}}$  category of predictor 'b' ( the difference between  $y$  and the mean of all the  $j^{\text{th}}$  category of predictor b).

$e_{ijk}$ = Error term of the individual.

Through this technique, we are not able to explain how each predictor variable is related to the dependent variable but also how well all the variables are taken together explain variation in the dependent variable. In the absence of the effect of other predictors the impact of a predictor variable on response variable is called unadjusted effect and the effect of a predictor variable controlling the effect of other predictor variables constant is called adjusted effect. In addition to adjusted and unadjusted effects, the eta ( $\eta$ ) coefficient is the correlation ratio, which shows how well a given predictor can explain the variation in the dependent variable; whole square ( $\eta^2$ ) coefficient indicates the proportion of the variation explained by the predictor alone. These statistics are applicable to the unadjusted means. On the other hand, the beta ( $\beta$ ) coefficient measures on the basis of the adjusted means, the ability of a given predictor to account for variation in the dependent variable whereas the  $\beta^2$  coefficient shows the proportion of the variation that is explained by the predictor, after taking into account the proportion explained by other predictors. Further  $R^2$  unadjusted is the actual proportion of variance in the dependent variable explained by using the obtained coefficients in the analysis.  $R^2$  adjusted is an estimate of how much variance the predictors would explain if used in an additive model applied to a different but comparable set of data cases.

Multiple classification analysis (MCA) is an appropriate one in this study because it needs dependent variable as a quantitative variable, and the independent variable is categorical variables. The dependent variable (children ever born) of the study is in the form of quantitative one and other independent variables are categorical. Since the number of children ever born obviously depends on marital duration, it is necessary to control this variable while assessing the influences of other variables. Therefore, the marital duration is used as a covariate in the MCA here.

## **2.5 Measurement of Variables**

### **2.5.1 Response Variable**

a) Current Contraception use by women, which is dichotomous in nature. It is categorised as

0 = Not Using any Contraception (by women or husband)

1 = Using any Method of Contraception (by women or husband)

b) Total Children Ever Born which is numeric, with 0, 1, 2..... as possible values. This measures cumulative fertility, up to the date of the survey.

### **2.5.2 Predictor Variables**

Socioeconomic and demographic factors possibly influencing fertility behaviour are the predictor variables. These variables used here are:

**1. Place of Residence:** The place of residence of women is classified in terms rural and urban areas (Dichotomous).

**2. Education (women and her spouse):** In this study education of women is categorised as illiterates and literates, because of very low samples available in above primary level.

**3. Wealth Index:** Since information on income is difficult to obtain in a survey, the NFHS has constructed an index called 'wealth index' based on ownership of assets by the household and housing conditions, and this is used as a proxy. Each household asset is assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores are standardized in relation to a normal distribution with a mean of zero and standard deviation of one. Individuals are ranked according to the score of the household in which they reside. The sample is then divided into quintiles i.e., three groups (Low, Middle and High) with an equal number of individuals in each at the national level. The details are provided in the NFHS report. (IIPS and Macro International, 2007).

**4. Work Status of Women:** Work status of women is categorised into two, because availability of the sample in different type of work status is very few number of cases. Those who do not work are categorised as ‘Non-Working’, and those who are engaged in any work as ‘Working’.

**5. Caste of Women:** Women are categorised into two categories, such as Scheduled Caste (SC’s) & Scheduled Tribe (ST’s) and Others (other than SC’s & ST’s).

**6. Religion:** Women belonging to different religious groups are broadly categorised into two, Hindu and Non-Hindu’s (other than Hindu). Because of the very few number of cases are belonging to all other religions except Hindu, all other religions are clubbed into the category of ‘Non-Hindu’.

**7. Mass Media Exposure:** It is categorised into two i.e. Low and High. Women who either read the newspaper, listen to the radio or watch television almost every day are considered as highly exposed to mass media. The women who either read the newspaper, listen to the radio or watch television less than once a week or at least once a week is also considered as Highly exposed to mass media. And the women who are not at all either reading newspaper, listening radio or watching television are considered in the group of No mass media exposure.

**8. Marital Duration:** It refers to the gap (in completed years) between the dates of marriage to the date of Survey. This is used as a covariate in MCA.

**9. Ideal Number of Children:** This is numeric, with 0, 1, 2..... as possible values.

**10. Duration of Migration:** Duration of migration is categorized into two. The women who migrated between 1 to 10 years are considered one category and more than 10 years into another category.

**11. Region from Migrated:** It is categorised into two categories, migrants from northern region and southern region. The women who migrated from northern states like Bihar, Uttar Pradesh, Madhya Pradesh, Haryana, Rajasthan and Punjab are clubbed as northern region and women from Karnataka, Andhra Pradesh, Tamil Nadu and Kerala are clubbed as southern region.

**12. Stream of Migration:** The women who migrated from rural to NCT of Delhi is referred as rural to urban migrants and the women migrated from urban areas to NCT of Delhi are referred as urban to urban migrants.

**13. Reason for Migration:** The reason of migration is categorised into three categories, i.e., marriage, economic and other (except marriage and economic).

**14. Number of CEB to respondent Mother:** In this number of children ever born to respondent's mother is taken. It consists of two categories; the women mother with below 4 CEB and 4 & above CEB.

## Chapter III

### Trend and Pattern of Fertility and Migration in NCT of Delhi

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#### 3.1 Introduction

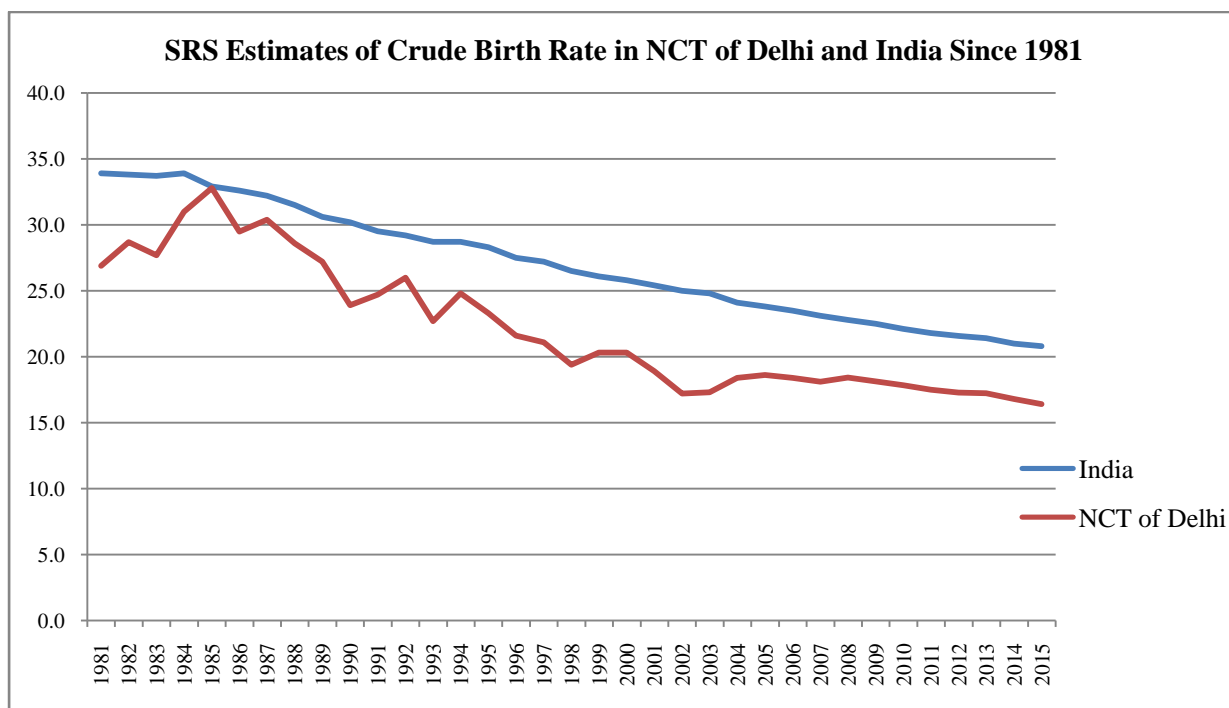
India is facing the demographic transition at its middle stage as fertility and mortality; both are continuously at the pace of declining across all states. However, the pace of declining is not uniform among all states. After independence, the crude birth rate was 42 per 1000 that is now considerably declined and reaches up to 21 in the year of 2015 as per the recent estimate provided by SRS. Similarly, total fertility rate (TFR) is also declined from 6 births per women in the beginning of 1960s to 2.2 per women in 2016 as per the recent estimates provided by the NFHS IV. As per the estimates of third round of National Family Health Survey (NFHS-III), 35 percent of total population of India covering about 10 states of India, already achieved below level of replacement level while 25 percent of the population covered by four states (including Telangana) of Southern India accounted rapid decline in fertility, posing north-south differences. Keeping in view the wide variations in fertility profiles of different regions, the present chapter provides the trend and pattern of fertility in the NCT of Delhi in Section-I. Moreover, there is a huge difference can be observed at macro-regional level especially in north-south regions. Along with natural birth, migration also plays a vital role the trend and pattern of fertility in any region and the study area of this study i.e. NCT of Delhi is one of them. Being a national capital, NCT of Delhi is considered as the desired destination among migrants as it provides administrative, political and economic opportunities along with high level of wages job opportunities. Therefore, the information on trend and pattern of migration in NCT of Delhi is also covered in the second section of this chapter.

#### 3.2 SECTION-I FERTILITY SCENARIO IN DELHI

##### 3.2.1 Crude Birth Rate in NCT of Delhi

Crude birth rate in Delhi is declined faster as compared to national level since 1981 (Figure 3.1). The SRS estimate of crude birth rate (CBR) in India from 1981 shows a smooth declining slope, where the CBR is declined from 34 births in 1981 to 21 births in the year 2013. But the scenario of NCT of Delhi is different, the birth rate of NCT

of Delhi is lower than India and it is also showing fluctuation in birth rate. From 1981 to 1985 the birth rate of NCT of Delhi goes high and afterward it came down, but the fluctuation is seen all over the period was the birth rate came down with lots of up and down. The birth rate of NCT of Delhi always remained lower than India.

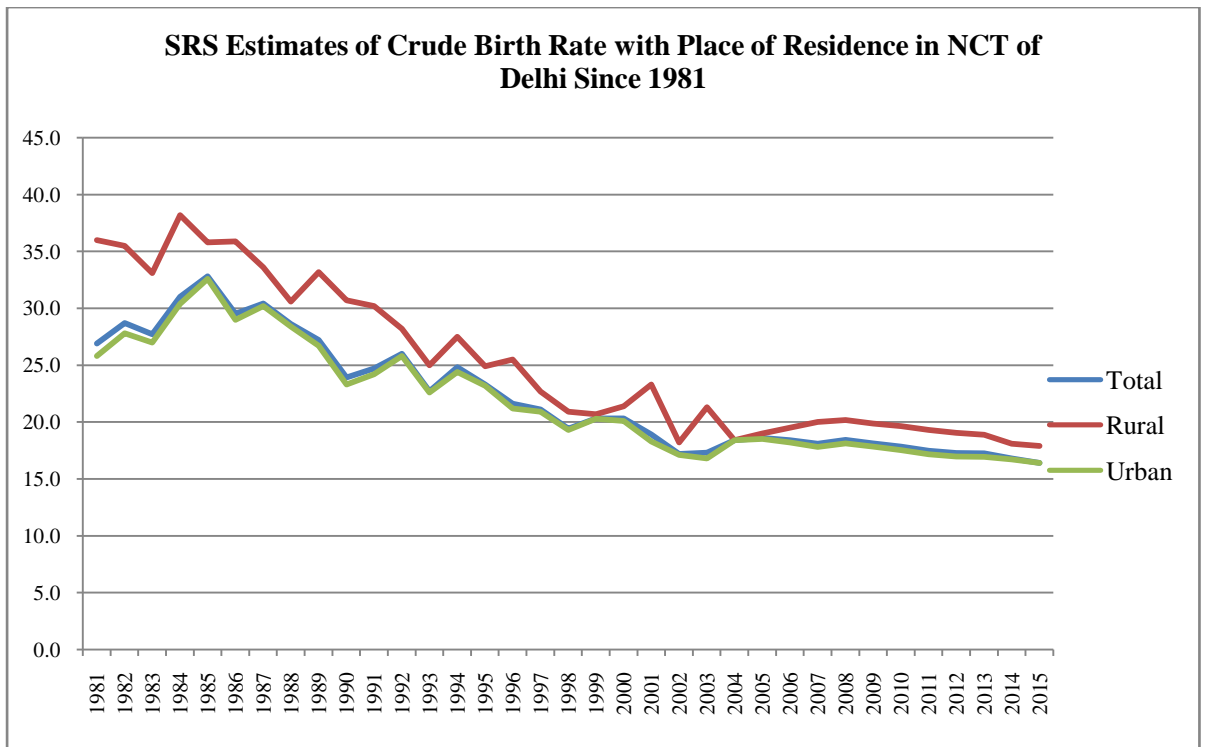


**Figure: 3.1**

*Source: Sample Registration System, Statistical Report 2015*

### **3.2.2 Crude Birth Rate in NCT of Delhi by Place of Residence**

The crude birth rate by place of residence in Delhi is presented in figure 3.2 the crude birth rate by place of residence in rural as well urban NCT of Delhi; both face a considerable amount of fluctuations, especially in the time span of 1981 to 2004. After 2004, the crude birth rate both is somehow showing a smooth trend. Moreover, there is a huge gap between rural and CBR in the time span of 1981 to 1990. It is the year of 1991, from where rural CBR started levelling with urban CBR. The year of 1981 accounted 36 births per thousand for rural while 26 births per thousand for urban areas in NCT of Delhi. In the present situation, the CBR for urban Delhi and CBR for Rural Delhi are almost same. As per the recent estimates provided by sample registration system, the crude birth rate of urban Delhi is 16.4 and 17.9 for rural Delhi.



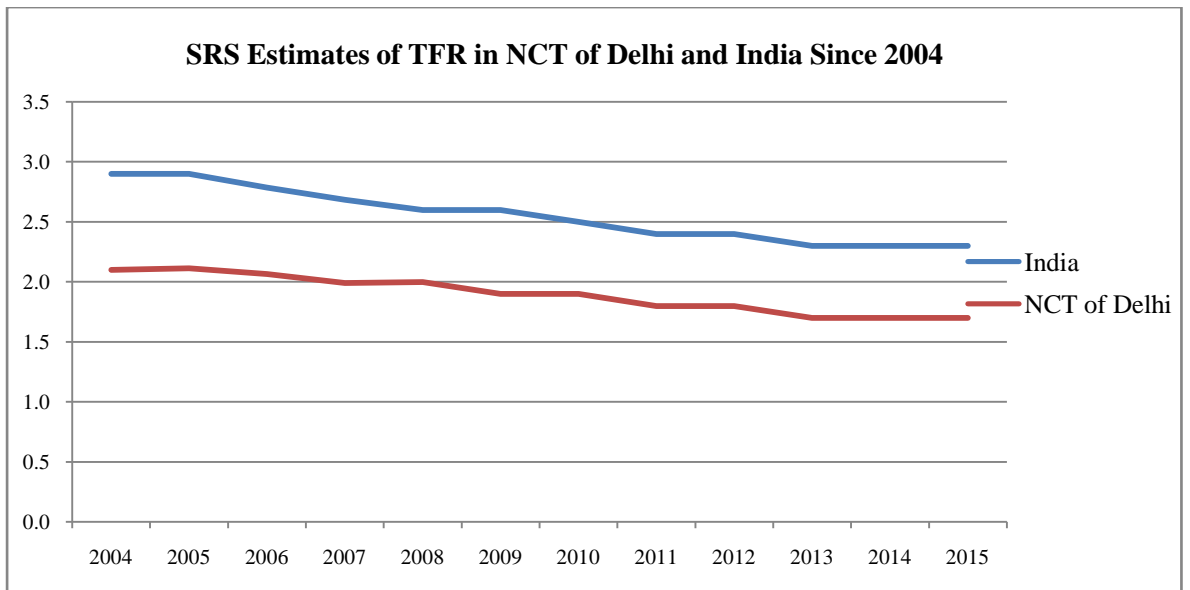
**Figure: 3.2**

*Source: Sample Registration System, Statistical Report 2015*

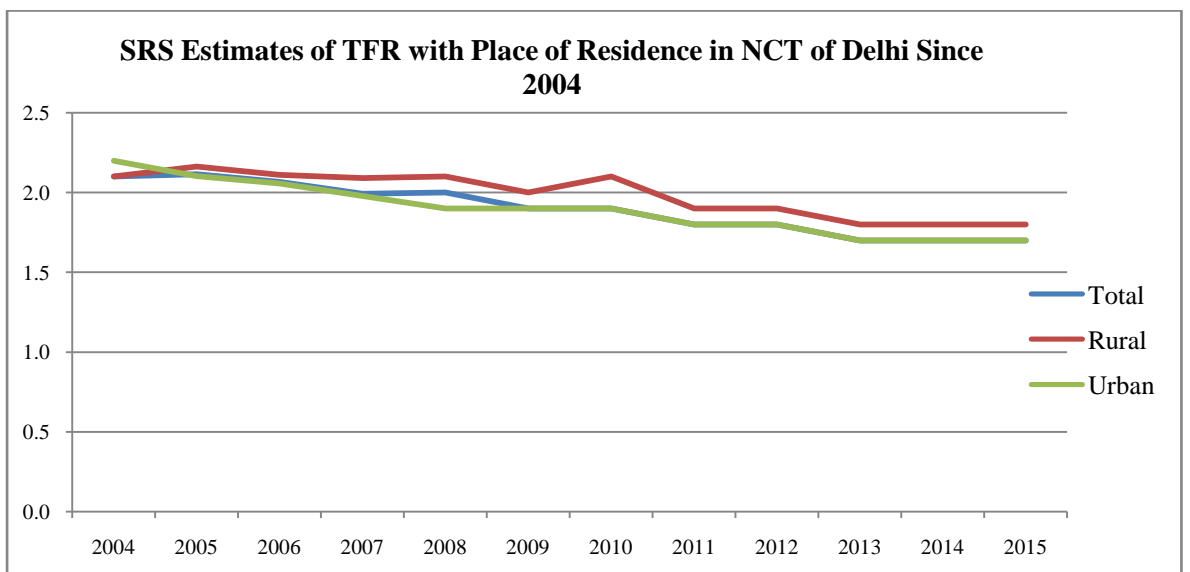
### **3.2.3 Trends in Total Fertility Rate (TFR) in NCT of Delhi**

SRS estimates of total fertility rate in Delhi and India is depicted in figure 3.3. The Total Fertility Rate in Delhi has shown considerable improvement since 1981. The Total Fertility Rate in Delhi in 1981 was about 2.2 while for India it was 2.9. TFR for India as well as Delhi shows a continuous decline since 1981. The present situation of TFR in Delhi is 1.7 as per the recent estimates in the year of 2015, while India's TFR in 2015 was 2.3. The estimates of total fertility rate in Delhi by place of residence are presented in figure 3.4. The TFR for rural areas and urban areas are almost same, especially in the present scenario. However, the TFR for rural Delhi in 1981 was 2.1 and for urban Delhi was in 2.2. The 2015 estimates of TFR in rural Delhi were 1.8 and 1.7 for urban Delhi.





**Figure: 3.3**  
*Source: Sample Registration System, Statistical Report 2015*

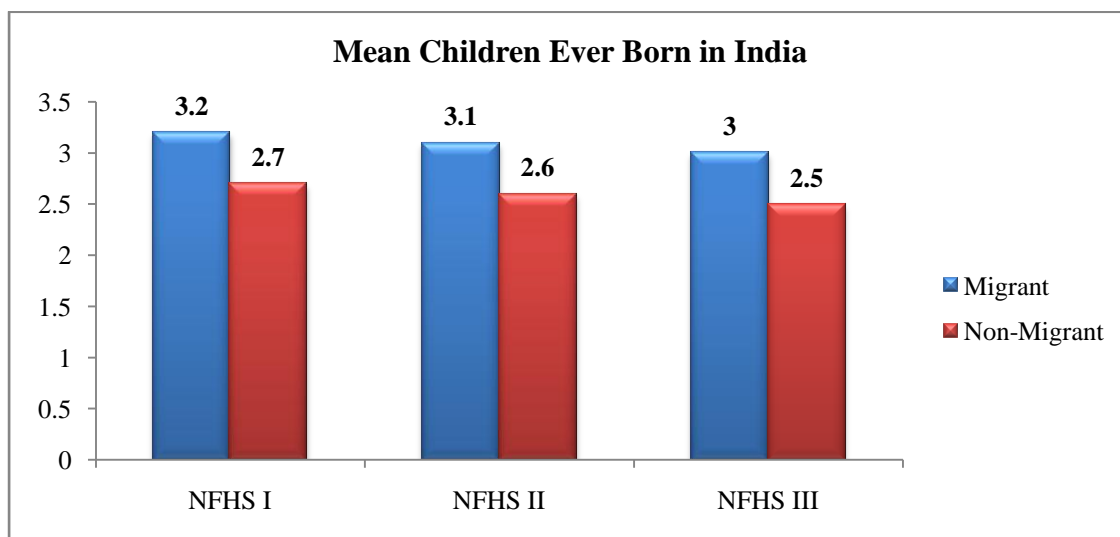


**Figure 3.4**  
*Source: Sample Registration System, Statistical Report 2015*

### 3.2.4 Mean Children Ever Born of Migrants and Non-Migrants

Information on mean children ever born by migrants and non-migrant status has been presented in figure 3.5 with the help of different rounds of National Family Health Survey. It can be clearly observed that non-migrants have always lower fertility potential as compared to their counterparts i.e. migrants. However, this is also can be observed that mean child ever born in both categories i.e. migrants and non-migrants

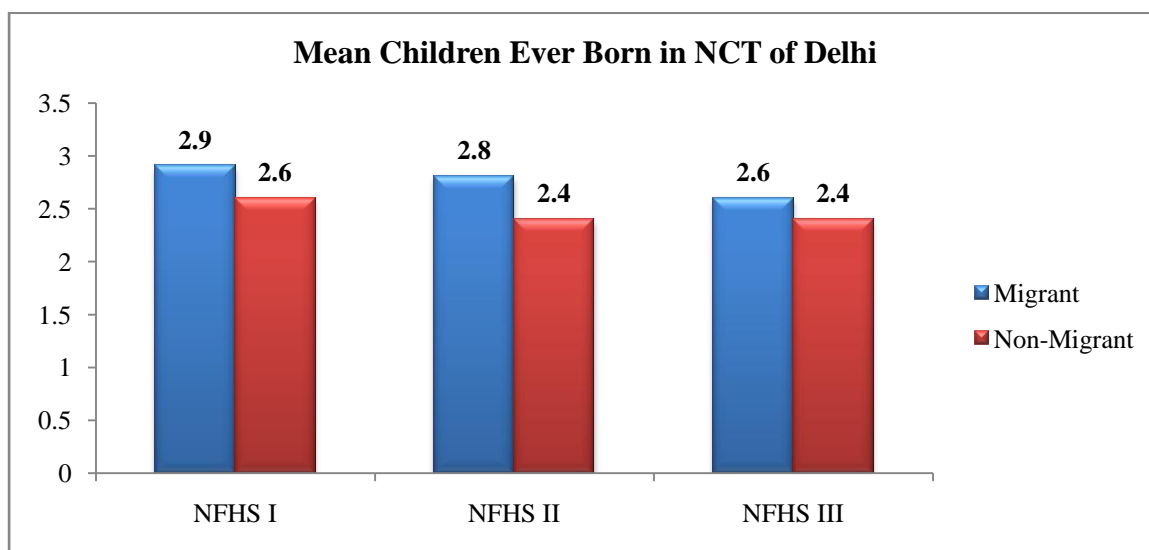
the mean children ever born are consistently decreasing over time although this is very low. Similarly, the situation prevails in NCT of Delhi is also same as it is in Indian context.



**Figure 3.5**

**Source:** National Family Health Survey (NFHS I-1992-93, NFHS II- 1998-99, NFHS III-2005-06)

In NCT of Delhi, the difference of mean children ever born among migrants and non-migrants are considerable. Surprisingly, the difference is less in the third round of national family health survey as the mean children ever born of migrants also slightly increased as compared to previous rounds of the survey. However, in all round of surveys, the mean children ever born of migrants are higher than the mean children ever born of non-migrants.



**Figure 3.6**

**Source:** National Family Health Survey (NFHS I-1992-93, NFHS II- 1998-99, NFHS III-2005-06)

The possible reason behind the high average children ever born of migrants could be that migrants usually occur in the form of rural to urban migration and rural to rural migration. In both cases, migrants are primarily restricted to the low level of awareness, accessibility, availability, and affordability. Sometimes, migrants also face the problem of unmet needs due to which they are less successful in controlling their fertility as compare to non-migrants. Moreover, economic theories of migrants generally explain that poor family wants more children in order to increase their income by the means of 'more hand, more work'. Following this approach, migrants belong to poor family wants more children for their economic gain.

### **3.3 SECTION II- MIGRANTS IN DELHI: MAGNITUDE AND CHARACTERISTICS**

In this section, an attempt has been made to highlight pattern and processes of migration and the socioeconomic profile of the migrants. The creation of slums is an alternative to the housing scarcity, cost of the proper housing. In many cases, as the time passes, the slums are integrated into the main stream of the city life also. Analysis of the process of migration with the help of their of the place of origin, causes duration, age at the time of migration, stages of migration, the decision on migration and reason of their choice of destination. The analysis of the process is followed by the socioeconomic profile of the migrants in these slums, with particular reference to size, age, sex, marital status and educational qualifications of the sample household.

Migration is the hallmark of modern times closely linked with the process of development. Migration of people from one geographic location to another for various reasons is an inevitable phenomenon. The concept of mobility or migration concerns the movement of persons from one place to another mainly because of enhancing their livelihood. A considerable part of this movement is incidental to carrying on the activities of daily life – commuting to and from the place of work, shopping, visiting, travel for business or pleasure, to name a few. However, they are to be distinguished from the type of mobility that involves a sustained or permanent residence in the place of destination. It is this latter type of mobility that is envisaged by the concept, migration. Change of residence after marriage – mainly in case of women, migration to cities and towns for employment, migration (displacement) due to construction of

dams, roads, etc., migration of refugees from Pakistan after Independence, illegal migration from Bangladesh, and migration due to education, are some of the considerable reasons for migration in cities like Delhi.

Eminent demographer Kingsley Davis had in a treatise on India in 1951 regarding the country as a relatively immobile society estimating that three out of every ten Indians migrate internally, indicating that migration is historically low in India. But in the last one decade, the capital of India is seeing increased influx of people from other States. The widening developmental gap between the rural and urban areas has largely spurred the migration. Moreover, low profits in agriculture and high returns from industry are pulling people towards cities.

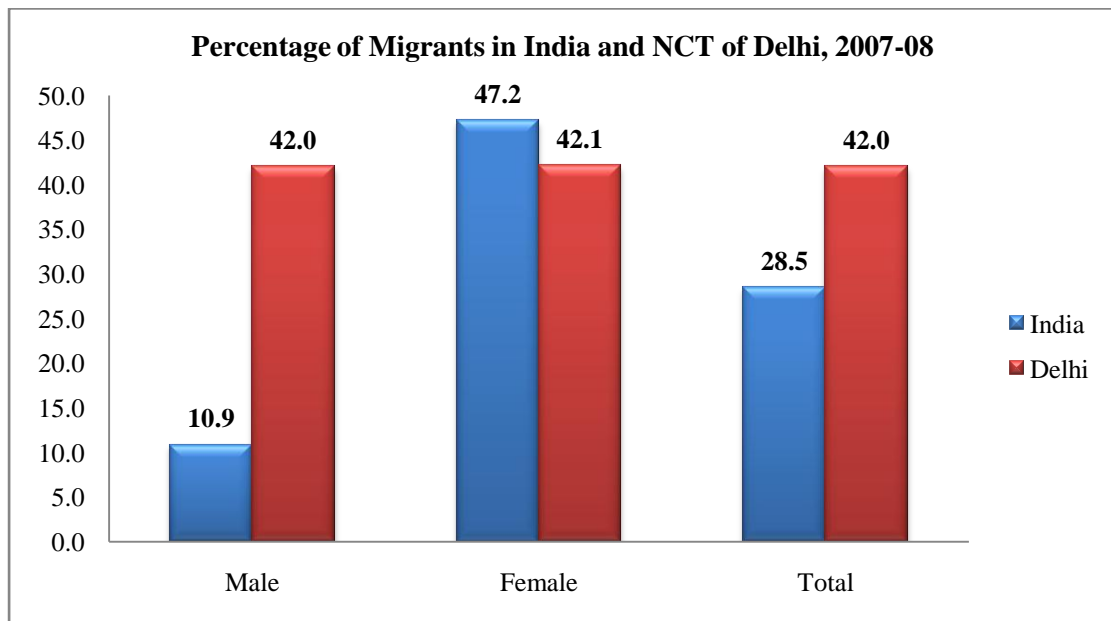
### ***3.3.1 Arrivals and Growth in NCT of Delhi***

Since 1951, the average decadal growth in Delhi's population has been 45.8 percent, exceeding 45 per cent in every decade except 2001-2011, when it increased by 21 percent. This was far higher than the national average decadal growth rate. More crucially, migration accounts for more than 23 per cent of the total increase in population. This is calculated as the additional increase in mid-year populations in each year between 2001 and 2011, over and above the natural increase (the difference between birth and death rates). In the absence of migration, Delhi's decadal growth rate during 2001-11 would have been lower than the national average of 17.64 percent. According to the last available data (Census 2001), Uttar Pradesh accounted for almost half (43percent) of Delhi's migrants. This has increased to 47 percent, as per a recent Perceptions Survey (2013) conducted by the Institute for Human Development for the Delhi government. Bihar's share has also risen to 31 percent from 14 in 2001.

### ***3.3.2 Magnitude of Migrants in NCT of Delhi***

Overall, there is a considerable difference in internal migration between India and its capital. Data from a National Sample Survey, 2007-08 (figure 3.6) revealed that there is the difference of about 14 per cent in the internal migration of India and its capital. Moreover, at national level female migration is much higher than their counterpart but in the case of Delhi, the difference between male and female migration is not much higher. This attributed the fact that being Delhi as a capital of India generates

enormous job opportunities for labourers, skilled and unskilled workers for male migrants. So people who are not paid well or who do not have enough job opportunities in their native land or the ones who are looking for growth and better job opportunities are attracted towards Delhi. Women generally relocate after marriage. This movement is benefiting migrants in terms of better wages and better lifestyle but this mass migration is somewhere inversely impacting the Capital.



**Figure 3.7**  
*Source: Computed from National Sample Survey, 2007-08*

### 3.3.3 Characteristics of Migrants in NCT of Delhi

Migrant characteristics partly reflect the characteristics of the population-at-large from which migrants are drawn. Just as the people who migrate tend to be different from those who do not, so, too, the characteristics of migrants in different migration statuses differ. The process that selects people into and out of migration is not random. The migration process is dynamic: the forces selecting people into and out of migration change over time. The spread of migration networks, which make migration accessible to an increasingly broad and diverse population in India, is but one example. Data from a variety of sources indicate that socioeconomic and demographic characteristics of migrants vary across migrant cohorts and at different stages of sending areas' migration histories. Migrants, themselves, may change as well—in

terms of legal status, labor-market experience, migratory Behaviour, human capital, etc.

### ***3.3.3.1 Demographic and Social Characteristics of Migrants in NCT of Delhi***

The available information on demographic characteristics of migrants is based on age, sex, and place of residence of migrants in Delhi. Table 3.1 suggests that the highest share of male migrants in NCT of Delhi is in the age group of 25-34, which is a working group followed by the age group of 15-24, 35-44, and 45-59. The lowest share of migrants belongs to the age group of 60 and above years. In the case of female migrants, the similar trend exhibits in the age distribution of female migrants. Surprisingly, the percentage of male and female migrants is equal in case of migration to NCT of Delhi (figure 3.1), although the reasons for migration may definitely vary for entering into NCT of Delhi. Expectedly, almost all the migrants reside in the urban area. Very few migrants are residing in rural areas, as about 92 percent area of the capital is itself constituted by urban areas.

Migration in India is mostly influenced by social structure and patterns of development (Singh et. al., 2015). The distribution of migrants by their social group revealed that migrant belongs to Scheduled Tribes (STs) are much lower than other social groups. Not even one percent of total migrants belong to this category in the capital. Although the representation of male STs migrants is little higher than female STs migrants, this quantity is highly scattered while comparing to other social groups. The highest share of migrants belongs to 'others' category of migrants. Scheduled Caste (SCs) and other backward caste migrants share an equal amount of population in NCT of Delhi. In the case of the marital status of migrants, more than double migrants belong to the married category in case of both male and female. Religious distribution of migrants shows that most of the migrants belong to Hindu religion.

Several migration studies have found a positive relationship between education and migration, particularly in urban areas (Todaro 1997). Education, though qualitatively is a very significant social factor and the wide-ranging impact of education is possibly the most important matter to be considered in inducing rural-urban migration (Caldwell 1969).

**Table 3.1: Demographic and Social Characteristics of Migrants in NCT of Delhi,  
NSSO 64<sup>th</sup> round (2007-08)**

<b>Characteristics</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Age</b>			
0-14	9.5	8.4	9.0
15-24	22.8	16.3	19.9
25-34	27.4	29.7	28.4
35-44	19.2	22.3	20.6
45-59	14.0	14.1	14.0
60+	7.1	9.3	8.1
<b>Place of Residence</b>			
Rural	4.9	7.3	6.0
Urban	95.1	92.7	94.0
<b>Social Group</b>			
Scheduled Caste	21.9	22.8	22.3
Other Backward Class	21.9	23.2	22.5
Others	54.9	53.5	54.3
<b>Marital Status</b>			
Single	38.8	21.4	31.0
Married	61.2	78.6	69.0
<b>Religious Status</b>			
Hindu	85.4	85.2	85.3
Muslim	10.8	10.5	10.7
Others	3.8	4.4	4.1
<b>Educational Attainment</b>			
Illiterate	11.0	34.1	21.4
Literate but below middle	22.1	16.1	19.4
Middle but below secondary	17.0	16.8	16.9
Secondary or higher secondary	32.5	21.6	27.6
Graduate and above	17.4	11.4	14.7
<b>Reasons for Migration</b>			
Employment	60.9	2.4	34.6
Marriage	0.2	32.7	14.8
Studies	3.0	0.0	1.7
Others	36.0	64.9	48.9

*Source: Computed from National Sample Survey, 2007-08*

However, the linkage between migration and education is very context specific (Harttgen and Klasen 2011). It not only helps people to migrate for better job opportunities, it can also improve access to education and educational outcomes in urban areas. Distribution of migrants by their educational attainment shows that the highest share of migrants belongs to secondary or higher secondary category of education followed by illiterate, literate but below middle and middle but below these condary categories of education.

Reasons for migration for migrants show that among male migrants the employment is the major reason for migration. It is nearly 61 per cent of the total male migrants came to NCT of Delhi for employment purposes. In the case of female migrants, merely 2.4 per cent of total female migrants came to NCT of Delhi for employment purpose. Most of the female migrants are the result of post-nuptial migration.

### ***3.3.3.2 Economic Characteristics of Migrants in NCT of Delhi***

In economic parlance, migration takes place when a person is likely to engage in a remunerative activity in a place where he or she is not a native or national (Singh, et. al., 2015). Data on monthly per capita consumer and expenditure are taken as proximate information of income status of migrants, which provided by national sample survey. Data (Table 3.2) suggests that with the rising of income status the share of migrants is also increasing in case of both male and female migrants.

**Table 3.2: Economic Characteristics of Migrants of NCT of Delhi, 2007-08**

<b>Characteristics</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b><i>Wealth Quintile</i></b>			
Lowest	5.1	6.9	5.9
Lower	9.9	14.5	11.9
Medium	19.6	25.4	22.2
Higher	30.6	26.4	28.7
Highest	34.8	26.9	31.3
<b><i>Work Status</i></b>			
Self employed	17.2	0.2	9.5
Regular salaried	16.8	1.3	9.8
Casual labourers	6.2	0.2	3.5
Non working	59.9	98.4	77.2

**Source:** Computed from National Sample Survey, 2007-08



Undoubtedly, working status of migrants is highly gendered, as huge disparity exists between men and women migrants in their current work status. Moreover, a lot of migrants belong to non-working category. The workforce is highly skewed towards male workers. But, there is an increasing proportion of migrants that gives 'education and training' as the reason for migration. According to NCT of Delhi's Human Development Report 2013, among those who migrated to NCT of Delhi a decade ago, about three quarters said they came looking for jobs or better salaries, while only 10 percent came for education. But among those who came to NCT of Delhi within the last one year, 40 percent said they were studying while 57 percent came for job-related reasons.

### **3.4 Summary**

The present chapter provides an account of trends and patterns in fertility and migration. Since the whole study is focused on fertility Behaviour of migrants in NCT of NCT of Delhi; therefore it would be necessary to understand the nature of migration and fertility in the study area in terms of trends and pattern. Using the different secondary data sources on fertility and migration, this chapter provides an overview of migration and fertility, although it is very difficult to show trend and pattern of both phenomena together as there is very limited sources are provided in the Indian context. Only National Family Health Survey has provided a little amount of information on fertility and migration in the form of mean children ever born. Information on fertility separately collected from Sample Registration System and National Family Health Survey while information on migration is collected from National Family Health Survey and National Sample Survey.

Fertility in NCT of Delhi is declined fairly during the last three decades. Although in the earlier decades, the trends in fertility Behaviour of its population depict a 'roller-coaster' pattern in NCT of Delhi as well as in India. However, it can be clearly observed that the fertility in rural areas is higher as compared to their counterparts. Similarly, the fertility among migrants is higher as compared to their counterparts. Moreover, the overall fertility trends show that the fertility in NCT is always lower than the national level in all forms i.e. crude birth rates, total fertility rates and mean children ever born. Through the analysis of national sample survey data of 2007-08 and various recently released reports, it is clear that migrants in NCT of Delhi are not

homogeneous. The bulk of migrants give employment related factors as reasons for coming all the way to the national capital, as suggested by the results. Female migrants are predominantly a product of post-nuptial migration in the capital. A large number of these women remain in non-working condition and, vulnerable and insecure due to lack of employment opportunities after entering into the NCT of Delhi.

As per 2011 census, NCT of Delhi has 10.63 percent slum population in unauthorized areas, JJ clusters, and *jhuggis*. During the survey, it is observed that unauthorized colonies and slums, which lack even basic facility of water and drainage suffering from the even basic facility. They are even limited to health and education facilities. Subsequently, migrants living in the slum are facing a high level of fertility. Though it cannot be said with certainty that migration is the whole sole reason for all this but definitely there is a connection among these. This has altered the socioeconomic profile of the city. Slums are the product of socio-economic and cultural conditions of a particular social system inhibiting the physical, mental, moral and social development of the individuals. Socio economic profile of slum dwellers presents a vivid picture of factors such as caste, religion, education, household size, age distribution and economic status etc. results show that migration in NCT of Delhi is mostly influenced by social structures and patterns of development and consequently it occurs with the different socioeconomic milieu. On the one hand level of development plays a crucial role in migration in terms of push and pulls factors while on the other hand, the social status (caste) plays a significant role in the migratory process.

## Chapter IV

### **Determinants of Fertility Behaviour among Migrants and Non-Migrants in NCT of Delhi**

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#### **4.1 Fertility Differentials**

Migrant's fertility behaviour has the potential to influence destination fertility trends in a variety of ways, especially if the migrant population is sizeable and their fertility is different from the native population, i.e. if migrant fertility differentials exist. For example, migrant fertility may have a direct impact on destination population size if migrants give birth to either larger or smaller numbers of children. The previous chapter clearly depicted the prevalence of migrants and non-migrants fertility differentials.

An important aspect of fertility research is the study of fertility differentials among population groups classified in terms of various socio-economic and cultural characteristics such as caste, religion, education, place of residence and economic condition of the household. Information about such differentials is necessary to identify the factors and assess the prospects for change. Therefore, this section delineates account of fertility patterns as found among the migrant and non-migrant women of the different socio-economic milieu in NCT of Delhi and evaluates the impact of socio-economic factors on the level of fertility. These analyses have been carried out mostly by using primary data. Besides, NFHS III data have also been used in the analyses to substantiate the study.

#### ***4.1.1 Differentials in Fertility among Migrants and Non-Migrants by Demographic and Socio-Economic Characteristics***

Considering differentials in development, it is expected that fertility differentials also will exist between two groups. NFHS III reveals that differences in fertility exist between rural and urban population where, 53 percent of migrants who reside in the urban area of NCT of Delhi are having 2 or less than 2 children. On the other hand, 57 percent of non-migrants of urban NCT of Delhi are having 2 or less than two children. The urban migrant and non-migrant women of NCT of Delhi are having 4 & above number of children and their percentage is 25 and 19 respectively. The rural migrant

women with 2 & below number of children in NCT of Delhi are only 38 percent, whereas, 50 percent of the rural non-migrant of NCT of Delhi are having 2 & below number of children. Only 4 percent gap prevails between urban migrant and non-migrant who are having 2 & below number of children, whereas, the gap between rural migrant and non-migrant having 2 & below number of children is 12 percent. Rural migrant and non-migrant women are having more number of children than the urban migrant and non-migrant women. The analysis shows that 13 percent of rural migrant women and 4 percent rural non-migrant women are having 4 & above children than the urban migrant and non-migrant. This shows that if migrants who are settling in rural area are more likely to have a higher number of children than the migrants who settle in the urban area. Farber & Lee (1985) study also shows that rural to urban migration is important factor in lowering fertility of any region. Most of empirical studies by Goldstein (1977), and Hendershot (1971, 1976) found the adaptation effect of rural to urban migration on fertility to be significant in the place of destination and the analysis also proves that place of residence is one of the important variables which influence the children ever born to women.

The analysis of children ever born for different age groups of women in NCT of Delhi shows that by increasing age the percentage of four and above children ever born is also increasing. The 74 percent of migrant women within the age group of below 30 years are having 2 & below number of children. At the same time, 84 percent of non-migrant women within the age group of below 30 years are having 2 & below number of children. Around 44 percent of migrant in the age group of 40 & above are having 4 & above number of children and 35 percent of non-migrant in the age group of 40 & above are having 4 & above children. The analysis shows higher the age, more the number of children.

The migrant and non-migrant women with 2 & below number of children are using more contraception than the women with 4 & above number of children. Around 48 percent of migrant women with 2 & below number of children are using contraception and women with 2 & below number of children of the non-migrant category are also using the same amount of contraception i.e. 48 percent. The non-migrant women with 4 & above number of children are using less contraception than the migrant women in the same category.

**Table 4.1: Children Ever Born to Migrants and Non-Migrants in NCT of Delhi by Demographic and Socio-Economic Backgrounds**

	Migrants			Non-Migrants		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Place of Residence</b>						
Urban	53.6	21.3	25.1	57.0	24.0	19.0
Rural	38.1	23.7	38.1	50.0	26.7	23.3
<b>Age of Respondent</b>						
Below 30	74.0	16.5	9.5	84.6	11.2	4.2
30 - 39	42.0	25.3	32.7	52.7	28.8	18.5
40 & Above	32.7	23.6	43.7	33.8	31	35.2
<b>Contraceptive Use</b>						
Using	47.8	23.0	29.2	48.7	30.7	20.6
<b>Ideal Number of Children</b>						
2 & Below	62.5	20.2	17.2	63.4	23.1	13.5
3 & Above	20.5	25.2	54.3	26.4	28.7	44.8
<b>Stream of Migration</b>						
Rural to Urban	41.3	22.9	35.8	-	-	-
Rural to Rural	32.6	23.3	44.2	-	-	-
Urban to Urban	60.7	20.4	18.9	-	-	-
Urban to Rural	47.2	24.5	28.3	-	-	-
<b>Women Education</b>						
Illiterate	29.9	20.2	49.9	29.6	21.7	48.7
Literate	64.9	22.2	12.9	65.3	24.9	9.8
<b>Spouse Education</b>						
Illiterate	27.1	19.3	53.5	43.6	21.8	34.5
Literate	56.7	21.9	21.4	58.3	24.5	17.3
<b>Social Group</b>						
SC's & ST's	39.5	19.9	40.7	44	27.5	28.5
Other's	56.2	22	21.8	60.3	23.1	16.5
<b>Religious Group</b>						
Hindu	52.9	21.5	25.6	59.1	22.8	18.2
Other's (Non-Hindu)	49.2	21.5	29.3	44.4	30.9	24.7
<b>Mass Media Exposure</b>						
Low	48.5	23.1	28.5	54.5	25.7	19.8
High	58.3	19.1	22.6	59.3	22.1	18.6
<b>Wealth Index</b>						
Low	36.2	18.8	44.9	78.6	-	21.3
Middle	35.1	21.1	43.8	48.3	10.3	41.4
High	55.9	21.7	22.5	56.4	25.9	17.7
<b>Work Status</b>						
Non-Working	55.1	22.4	22.5	55.6	26.2	18.3
Working	42.4	18.1	39.5	60.0	17.1	22.9

*Source: Computed from NFHS III (2005-06), Women Data File.*

The ideal number of children the women want and the numbers of children the women have are directly linked. The migrant women who want 2 & below number of children as their ideal number of children are mostly (63 percent) ending up with 2 & below number of children. There is not much difference between migrant and non-migrant women who want 2 & below number of children and the children they have. The migrant women migrating from rural to the rural area mostly (44 percent) end up with 4 & above children, on the other hand, only 19 percent of women who migrated from urban to urban areas are having 4 & above number of children. 36 percent of the women migrating from rural to the urban area of Delhi are also having 4 & above number of children, which is quite high. This clearly indicates that the women who are migrating from rural to the urban area are mostly following their rural norms of having a large family. The 61 percent of urban to urban migrating women are having 2 & below number of children which shows the selective behaviour of the urban culture of having fewer children.

From the earlier literature survey, it can be inferred that education plays a vital role in lowering the fertility by various ways like increasing age at marriage, empowerment of women, and increasing awareness etc (Lee & Farber 1981, 1985). The migrant and non-migrant women who are literate are having fewer children than the illiterate women of the same category. 65 percent of literate migrant and non-migrant women are having 2 & below number of children and 13 and 10 percent of literate migrant and non-migrant are having 4 & above number of children respectively. This proves that education impacts the fertility of the women i.e. with an increase in education the fertility declines. The impact of husband education is also same as the women education. In the analysis, the literate spouse is having fewer children than their counterparts.

A higher percentage (44 percent) of the SC & ST non-migrant women in NCT of Delhi are having 2 & below number of children while 39 percent migrant SC & ST women fall in the same category. When we compare children ever born to the other's group with SC & ST group, the others are having fewer children. A higher percentage of the non-migrant others group women are having 2 & below number of children ever born to them than the migrant others group women. Minimal difference prevails among migrant Hindu and non-Hindu women in terms of a number of children they

have. On the other hand, the non-migrant Hindu and non-Hindu women are having a large difference in terms of children ever born to them. The migrant women are trying to adapt fertility behaviour of urban areas; because of this adapting Behaviour; the fertility difference is very low among the women of different religion. The non-migrants of the urban area are having less fertility, but the fertility difference among different religious groups prevails.

The migrant women who are having high mass media exposure have lower number of children ever born to them. On the other hand, if the mass media exposure is low then they tend to have higher number of children born to them. The analysis shows that mass media exposure is not relevant in the case of non-migrants with 4 & above number of children; non-migrants are having the same percentage of women with 4 & above number of children ever born to them irrespective of exposure to mass media.

Most of the authors have found that the rural to urban migration is one of the main factors which change the family behaviour due to economic constraints of urban life, like the high cost of living in child rearing (Easterlin & Crimmins, 1985; Robinson, 1997). The women with low wealth are having more children ever born to them than the women with high wealth possession. 45 percent of migrant women who are having 4 & above number of children are having lesser wealth. On the other hand, only 22 percent of high wealth possessing migrant women is having 4& above children ever born to them. In the case of non-migrant women population, the percentage of children ever born to high wealth possessing women is even lower , only 17 percent of them are having 4 & above number of children ever born to them.

The non-working migrant women are having fewer children than the working migrant women. 55 percent of non-working migrant women are having two and lesser than two children, on the other hand, only 44 percent of working migrant women are having two or less than two number of children ever born to them. There are two reasons which are responsible for less percent of working migrant women with 2 & below number of children ever born to them and a high percentage of 4 & above number of children ever born to them. First, most of the non-working women are adapted to the place of destination norms, where the fertility is low and they also showing fertility near to the destination place. Secondly, the women who migrated to NCT of Delhi are ones who mostly have already completed their fertility and they

migrated for employment. Because of these factors, the non-working women are having fewer children ever born to them and working women are having a higher number of children ever born to them.

#### ***4.1.2 Differentials in Fertility among Migrants and Non-Migrants by Demographic and Socio-Economic Characteristics***

In this section the analysis has been carried out through primary data. The analysis for children ever born for different age groups of women in NCT of Delhi has been carried out. The analysis shows that by increasing age the percentage of 4 & above number of children ever born is also increasing. Around 49 percent of migrants who are in the age group of below 30 years are having 2 and less than 2 number of children ever born to them. At the same time, 66 per cent of non-migrant women in NCT of Delhi are having 2 & below number of children in the age group of below 30 years of age. The percentage of women with four or more than four number of children in the age group of 40 & above years, among migrant and non-migrants, are 53 percent and 74 per cent respectively. The percentage of women with four or more than four number of children ever born to them is higher among non-migrant women in all age groups of NCT of Delhi.

The contraceptive use of migrant women with 4 & above children is higher than the women with 2 & below children. The migrant (52 percent) women with 4 & above number of children are using more contraception than the non-migrant (38 percent) women of NCT of Delhi with 4 & above number of children. But, the non-migrant (41 percent) women of NCT of Delhi with 2 & below number of children are using more contraception than the migrant (38 percent) women. The women of NCT of Delhi who want fewer children as the ideal number of children are either migrants or non-migrants and they are having fewer numbers of children as well. So, the number of children desired (ideal number of children) by women is one the important factors which influences the fertility of the women. Here, only 6.3 percent of the migrant women who wanted 3 & above number of children born to them, are having 2 & below number of children born to them. At the same time 9.8 per cent of non-migrant women who wanted three & above children born to them, are having 2 & below number of children.



**Table 4.2: Children Ever Born to Migrants and Non-Migrants in NCT of Delhi by Demographic and Socio-Economic Background.**

Background Variables	Children Ever Born					
	Migrant			Non-Migrant		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age of Respondent</b>						
Below 30	49.0	40.8	10.2	66.4	23.8	9.8
30 - 39	15.5	25.9	58.6	22.8	20.8	56.3
40 & Above	11.1	36.1	52.8	7.4	18.5	74.1
<b>Contraceptive Use</b>						
Using Contraception	32.9	33.7	52.6	41.5	27.3	38.2
<b>Ideal Number of Children</b>						
2 & Below	59.6	21.2	19.2	80.0	15.5	4.5
3 & Above	6.3	65.6	50.0	9.8	29.4	60.8
<b>Year of Migration</b>						
1 to 10 Years	40.7	34.1	25.2	-	-	-
More than 10 Years	15.7	32.3	52.0	-	-	-
<b>Respondent Education</b>						
Illiterate	15.4	30.0	54.6	27.5	14.7	57.8
Literate	41.7	36.7	21.7	53.9	27.7	18.4
<b>Partner Education</b>						
Illiterate	10.5	27.9	61.6	36.0	24.7	39.3
Literate	37.2	36.0	26.8	46.5	40.0	40.2
<b>Social Group</b>						
SC's & ST's	24.6	33.8	41.5	33.3	23.1	43.5
Other's	31.7	32.5	35.8	55.3	20.4	24.3
<b>Religious Group</b>						
Hindu	32.4	35.2	32.4	40.9	20.1	39.0
Other's (Non-Hindu's)	16.2	27.9	55.9	45.3	25.6	29.1
<b>Mass Media Exposure</b>						
Low	21.4	28.6	50.0	39.5	16.3	44.2
High	29.9	34.5	35.6	43.0	23.2	23.8
<b>Decision Making</b>						
Low	24.6	33.3	42.1	35.0	20.0	45.0
High	29.0	33.2	37.8	43.8	22.4	33.8
<b>Wealth Index</b>						
Low	27.7	27.1	45.2	37.3	23.2	39.4
Middle	21.9	46.9	31.2	50.0	12.5	37.5
High	41.9	35.5	22.6	47.7	31.8	20.5
<b>Work Status</b>						
Non-Working	26.1	33.6	40.3	41.0	16.0	43.0
Working	3.2	32.8	37.1	44.3	30.2	25.5

*Source: Computed from Primary Data (February to May 2016)*

The percentage of women who end up with 4 & above children born to them is more among migrants (19.2 percent) as compared to non-migrants (4.5 percent) women who wanted 2 & below number of children as the ideal number of children born to them. The study in Korea by Lee & Farber (1985) founded that women who migrated from rural areas to bigger cities, are end up with lower fertility. With the increase in the duration of stay in the destination the migrants adapt the norms of the destination place and it leads to lowering the fertility of migrants. This study is also shows similar results. If the duration of migration is more than 10 years than they are ending-up with fewer children as compared to the migrants whose duration of migration is below 10 years. Around 25 percent of migrant women who are residing below 10 years in NCT of Delhi are having 4 & above number of children. if the duration of migration (above 10 years) increase than 52 percent of migrant women are ending-up with 4 & above number of children.

The study by Michael et al. (2005), finds that the children ever born (CEB) and education is inversely related i.e., women with lower education are having higher CEB than the educated migrant women. The women with no education (illiterate) from both migrant and non-migrant category are having a higher percentage of four & above children i.e. 54.6 percent and 57.8 percent respectively. The analysis shows that 53.9 percent of literate non-migrant women is having only two children ever born to them, whereas, only 41.7 percent of migrant women are having 2 & below number of children. As we can see from the analysis, the migrant women are having more children ever born to them as compared to non-migrant women in the same category in all educational level. 61.6 percent of migrant women having illiterate spouses are having 4 & above number of children born to them while 39.3 percent of non-migrant women whose partners are illiterate have four & above number of children. The migrant women are having a lower percentage of four and above children ever born if their partner is literate compared to the illiterate partner. The literate partner of non-migrant is discouraging fertility as compared to the literate partner of migrants. This shows the place of origins norm is highly influencing the migrant literate partner than the destination norms.

The Scheduled Caste (SCs) and Scheduled Tribe (STs) migrant and non-migrant women are showing the higher percentage of 4 & above number of children than the

other social groups in NCT of Delhi, but the difference among them is very low. On the other hand, the migrant (36 per cent) women of other category are having a high percentage of four & above children ever born, as compared to non-migrants (24 percent) for the same category.

Around 56 per cent of migrant Non-Hindu women are having 4 & above number of children ever born, whereas, only 29 percent of Non-Hindu non-migrant women are having 4 & above number of children ever born to them. In the migrant panel high percent of the Hindu women's are having 2 & below number of children, on the other hand, the non-Hindu women are having a high percentage of 4 & above number of children ever born. But the situation is different for the non-migrant category, where we can see that the Non-Hindu women are having a higher percentage of 2 & below (45.3 per cent) number of children, while the Hindu women are having high percentage of 4 & above (39 percent) number of children ever born to them. While comparing all the social groups of migrants and non-migrants, it can be said that the non-migrant women of NCT of Delhi are having fewer children ever born to them than to migrant women of NCT of Delhi.

The mass media and decision making of women are directly correlated to the number of children they have, i.e. with an increase in mass media exposure and decision-making power, the number of children ever born to them decreases. As we compare the migrant women with non-migrant women, with different categories of mass media exposure, the migrant women have more children ever born. But migrant women have fewer children ever born to them as compared to non-migrant women in the same decision-making category.

The non-migrants are having high children ever born among the Middle-level category of wealth index as compared to migrant women. But the migrant women with a high standard of living are having more children ever born than the non-migrant of the same category of wealth index. In NCT of Delhi, the children ever born for migrant and non-migrant women are decreasing with increase in the standard of living (wealth index).

In NCT of Delhi, the percentage of non-working women with 4 & above number of children among non-migrants is higher (43 per cent) than the migrant (40 percent) non

working women. The percentage of working migrant women (37 percent) with 4 & above number of children is more than the working non-migrant women (25 percent) in NCT of Delhi.

## **4.2 Determinants of Children Ever Born**

The decline in fertility in any population has been attracting wide attention from the researchers as the conditions that create low fertility in any society are quite complex. The preceding discussion has indicated some of the ways in which fertility decline might have been influenced by trends in mortality, nuptiality, and migration in the preceding decades. Besides, socio-economic and demographic characteristics also operate to bring differentiation in a different group of the population. But the socio-economic factors are often interrelated leading to the confounding of effects. Multiple classification analysis can be employed to disentangle these but when the explanatory variables are in a categorized form, the multiple classification analysis (MCA) is more appropriate. This provides "adjusted means" of the dependent variable controlling for the effects of other pertinent characteristics. Therefore, MCA has been carried out using the NFHS III data on currently married women with the number of children ever born as the variable representing fertility (Table 4.3). The analysis has been restricted to currently married women who have been married only once so that complications due to marriage dissolution are avoided. Thus, this analysis is based on currently married women in the age group 15-49 who have been married only once. As the number of children ever born represents cumulative fertility, it rises with age and marital duration, but both of these are very highly correlated. Hence marital duration in years has been included as a covariate in the analysis.

### ***4.2.1 Multiple Classification Analysis of Children Ever Born to Migrants and Non-Migrants in NCT of Delhi***

This section presents the unadjusted and adjusted mean of children ever born from multiple classification analysis (MCA). To study the net effect of different background variables on children ever born to migrant and non-migrant among currently married women aged 15-49, multiple classification analysis has been carried out. The author used a range of socio-demographic variables in the analysis that has been found to be significantly associated with children ever born among migrant and

non-migrant in NCT of Delhi. These variables are respondent's place of residence (urban; rural), women and her husband's education (illiterate; literate), wealth quintile (low; middle; high), work status of women (not-working; working), Caste (SC & ST; Others), religion (Hindu's; non-Hindu's), ideal number of children (2 & below; 3 & above), contraceptive use (not using; using), and mass media exposure (low; high).

Table 4.3 explains that migrant women's place of residence has significant relation with mean children ever born (CEB), on another hand; there is no significant relation among non-migrant women and place of residence with children ever born to her. The unadjusted values of migrant show that, migrant urban dweller is having less number of children (3.14 mean children) than the migrant rural dwellers (2.63 mean children). After adjusting all variables and covariates in the analysis, the adjusted mean CEB to migrant urban dwellers (2.99) is higher than the rural dwellers (2.64). In the case of non-migrant, the rural dwellers (2.51) are having less CEB to them as compared to urban dwellers (2.51), after adjusting all variables and covariates the urban dwellers (2.27) are having less CEB to them than the rural dwellers (2.53 mean CEB).

Education of women and her spouse makes a significant difference in a number of children ever born to migrants and non-migrants. The unadjusted illiterate migrant women are having 3.56 mean CEB, but the migrant literate women are having only 2.48 mean CEB. The migrant literate women are having 1.2 less CEB than the migrant illiterate women. On the other hand, the non-migrant literate women are having 1.59 less CEB than the non-migrant illiterate women. After adjusting all variables and covariates the mean CEB of migrant and non-migrant women has declined. After the adjustment, the gaps between migrant and non-migrant literate and illiterate women are 0.63 mean CEB and 1.15 mean CEB respectively. The migrant literate as well as illiterate are having less mean CEB than the non-migrants literate and illiterate women. The results of women education and mean CEB are highly significant. The result of spousal education and CEB to migrant and non-migrant women is same as the women education and CEB. The spousal education of migrant is showing high significance level whereas the non-migrant result is not showing any significance level.

The wealth quintile of the migrant is not showing any significance level, on the other hand, non-migrant wealth quintile is showing highly significant level. In the

unadjusted migrant panel, the mean CEB to women of low wealth quintile is having 3.43 mean CEB and women in high wealth quintile it is 2.52 mean CEB. The mean CEB between low and high quintile is almost 1 child, whereas, in the non-migrant panel, there is no difference at all among the low and high wealth quintile of the unadjusted panel. The result is vice versa in the adjusted panels of migrants and non-migrants.

**Table 4.3: Multiple Classification Analysis of Children Ever Born to Migrants and Non-Migrants in NCT of Delhi.**

Background Characteristics	Migrants		Non-Migrants	
	Unadjusted Mean	Mean Adjusted	Unadjusted Mean	Mean Adjusted
<b>Grand Mean</b>	<b>2.984</b>		<b>2.917</b>	
<b>Place of Residence (Eta/Beta)</b>	<b>0.078</b>	<b>0.053**</b>	<b>0.018</b>	<b>0.037</b>
Rural	3.14	2.64	2.51	2.53
Urban	2.63	2.99	2.63	2.27
<b>Women Education (Eta/Beta)</b>	<b>0.387</b>	<b>0.174***</b>	<b>0.398</b>	<b>0.291***</b>
Illiterate	3.56	3.07	3.71	3.39
Literate	2.17	2.44	2.13	2.24
<b>Spouse Education (Eta/Beta)</b>	<b>0.265</b>	<b>0.075***</b>	<b>0.118</b>	<b>0.009</b>
Illiterate	3.77	2.98	3.07	2.56
Literate	2.48	2.61	2.44	2.51
<b>Wealth Quintile (Eta/Beta)</b>	<b>0.189</b>	<b>0.001</b>	<b>0.14</b>	<b>0.105**</b>
Low	3.43	2.67	2.43	1.51
Middle	3.38	2.66	3.45	2.41
High	2.52	2.67	2.46	2.56
<b>Women Work Status (Eta/Beta)</b>	<b>0.162</b>	<b>0.097***</b>	<b>0.02</b>	<b>0.038</b>
Not Working	2.52	2.58	2.5	2.48
Working	3.21	2.99	2.58	2.64
<b>Caste (Eta/Beta)</b>	<b>0.15</b>	<b>0.031</b>	<b>0.096</b>	<b>0.001</b>
SC's & ST's	3.14	2.77	2.82	2.51
Other's	2.53	2.64	2.43	2.52
<b>Religion (Eta/Beta)</b>	<b>0.069</b>	<b>0.054**</b>	<b>0.093</b>	<b>0.068**</b>
Hindu's	2.62	2.63	2.45	2.46
Non-Hindu's	2.97	2.91	2.86	2.77

<b>Ideal No. Children (Eta/Beta)</b>	<b>0.4</b>	<b>0.27<sup>***</sup></b>	<b>0.327</b>	<b>0.205<sup>***</sup></b>
2 & Below	2.28	2.4	2.25	2.35
3 & Above	3.89	3.49	3.69	3.25
<b>Mass Media Exposure (Eta/Beta)</b>	<b>0.072</b>	<b>0.014</b>	<b>0.046</b>	<b>0.009</b>
Low	2.77	2.69	2.59	2.53
High	2.51	2.64	2.43	2.5
<b>Contraceptive Use (Eta/Beta)</b>	<b>0.177</b>	<b>0.214<sup>***</sup></b>	<b>0.221</b>	<b>0.279<sup>***</sup></b>
Not using	2.25	2.17	1.98	1.84
Using	2.89	2.94	2.78	2.85
<b>Multiple R</b>	<b>0.577</b>		<b>0.589</b>	
<b>R<sup>2</sup></b>	<b>0.33</b>		<b>0.347</b>	
<b>Number of Cases</b>	<b>1829</b>		<b>471</b>	

*Level of Significance: \*\*\*P<0.01; \*\*P<=0.05; \*P<=0.1*

*Source: Computed from NFHS III (2005-06), Women Data File.*

The work status of women in the migrant panel is showing highly significant effect, on another hand; there is no significant level of non-migrants and work status of women. The unadjusted mean of migrant and non-migrant panels, the women who are working are having high mean CEB than the not-working women, and this phenomenon is also same for non-migrant women.

The unadjusted mean CEB of SC & ST migrant women are higher than the non-migrant SC & ST women. The other's group migrant women (3.14 mean CEB) having less mean CEB than the SC & ST migrant women (2.53 mean CEB). After adjusting the variables with covariates the migrant difference between the mean CEB of SC & ST and other's groups is negligible in migrant and non-migrant panels. The unadjusted and adjusted panels of Hindu migrant women are having less mean CEB than the non-Hindu women and the difference is also very less.

The ideal number of children migrant and non-migrant women want is one of the factors which determine the number of children ever born to them. The ideal number of children the women want is showing high significance level both for migrant and non-migrants. Migrant women who want 2 & below number of children are having 2.28 mean CEB in the unadjusted panel and the non-migrant unadjusted panel is also showing the same pattern of mean CEB. The migrant and non-migrant women of the adjusted panel who want 3 & above number of children as their ideal number of

children then they are having 3.89 and 3.25 mean CEB respectively. The analysis shows that the actual children migrant and non-migrant women are having is higher than the ideal number children they want. This shows that they have an unmet need for contraception to restrict the children ever born to them.

The migrant and non-migrant women with low mass media exposure are having high mean CEB to them than the women with high mass media exposure. The difference in mean CEB is also very low among migrant and non-migrant women in the same category of mass media exposure. The result is also not showing any significant level. The migrant and non-migrant women in unadjusted and adjusted panels, women who are using contraception are having high mean CEB than the women who are not using contraception.

#### ***4.2.2 Multiple Classification Analysis of Children Ever Born to Migrants in NCT of Delhi.***

The Multiple Classification Analysis (MCA) results give the information on the mean number of Children Ever Born (CEB) to women in this study by two forms, i.e., unadjusted and adjusted mean. The result shows the category of mean and the eta ( $\eta$ ) value. This eta value is a common correlation ratio associated with the set of unadjusted category effect. This eta ( $\eta^2$ ) indicates the proportion of variance as explained by a given predictor variable (all categories combined). In this table beta ( $\beta$ ) is a partial correlation ratio, associated with the adjusted categories effect for each independent variable. These beta ( $\beta$ ) values can be treated as standardised partial regression coefficients. MCA finally provides a multiple 'R' value; which is a multiple correlation between the Dependent variable and all factors and the covariates. The analysis in this study is restricted to currently married women only. Taking currently married women in this study for the reason that the marital status effectively controls the variation in birth histories and in the use of contraception. And marital duration has been included as a covariate in this study. This section analysis has been carried out by using primary data for the migrant women.

Like other empirical studies, finding of Werwath, (2011), also says educational level of migrant women and mean children they are having is inversely related i.e. with an increase in education level the mean children of women goes down. This is directly



visible from the analysis for both the panels, i.e. unadjusted and adjusted panels of the migrant women. The difference between the illiterate and literate category of women in terms of mean children they are having in the unadjusted panel is 0.54 children. Whereas after adjusting the mean children of women by predictors and covariates the difference between the same categories of education level is goes to 1.15 mean children.

The wealth index (wealth possession) is showing a considerable inverse relationship with mean children ever born (CEB) among migrant women, i.e. higher the wealth possession lowers the mean children they have. After controlling the effect of other predictors, the adjusted values are showing the minimal difference between low and higher wealth index in migrant women mean children i.e. after adjusting for predictors the higher category in wealth index is showing 3 and low category wealth index is having 3.38 mean children.

In the case of work status and mean children, the unadjusted mean of working women is showing the very negligible difference in mean children than the not-working women i.e. 3.35 and 3.31 mean children respectively. After controlling the predictors, the work status and mean children among the migrant women is also showing the minor difference in mean children they possess.

The social group has a substantial effect on the number of children ever born to migrant women in NCT of Delhi. Where, the unadjusted value shows that the Other's (General and Other Backward Caste) caste women have less number of children (3.2) than the SC and ST category, i.e., 3.45 mean children. After the adjustment of all predictors and covariates, the gap among these caste groups is showing as same as the unadjusted category of caste.

From the analysis it is visible the religion has a substantial effect on the number of CEB. After making adjustments for all variables and covariates used in the model, the explanatory power of religion in determining the children ever born is more or less constant and very high. Thus the religion effect persists ever after other factors are controlled the migrants in NCT of Delhi. The exposure to mass media has a showing significant negative effect on their fertility, those who are highly exposed mass media show lower mean children (3.29) than those who are lower exposed to mass media

(3.48). The mean children gap between the women with low and high media exposure is increased after controlling the other predictors.

The duration of migration and mean children of migrant women is showing direct correlation. According to adaptation theory with increase in the duration in destination the migrant women tend to adapt the norms of destination. The NCT of Delhi is having lower fertility so adaptation is altering the fertility of migrant. But the mean children of migrant women who are residing in NCT of Delhi for more than 10 years (3.72 mean children) are having higher fertility than the migrants who are staying below 10 years (2.93 mean children). After adjustment of variables with covariate the difference prevailed.

**Table 4.4: Multiple Classification Analysis of Children Ever Born to Migrants in NCT of Delhi.**

<b>Background Variables</b>	<b>Unadjusted Deviations</b>	<b>Eta</b>	<b>Deviations Adjusted for Factors and Covariates</b>	<b>Unadjusted Mean</b>	<b>Beta</b>	<b>Mean Adjusted for Factors and Covariates</b>
<b>Female Education</b>						
Illiterate	0.460	0.327	0.259	3.59	0.184*	3.79
Literate	-0.499		-0.280	3.05		2.83
<b>Wealth Index</b>						
Low	0.049	0.085	-0.059	3.27	0.097	3.38
Middle	0.043		0.233	3.57		3.38
High	-0.332		-0.184	3.15		3.00
<b>Women Work Status</b>						
Not Working	0.041	0.03	0.018	3.35	0.013	3.37
Working	-0.048		-0.021	3.31		3.28
<b>Social Group</b>						
SCs & STs	0.083	0.059	0.122	3.45	0.086	3.42
Other's	-0.090		-0.132	3.20		3.24
<b>Religion</b>						
Hindu	-0.233	0.26	-0.228	3.10	0.255**	3.10
Non-Hindu	0.624		0.611	3.94		3.96
<b>Mass Media Exposure</b>						
Low	0.257	0.094	0.150	3.48	0.055	3.59
High	-0.074		-0.043	3.29		3.26
<b>No. of Year of Migration</b>						
1 to 10 Years	-0.511	0.343	-0.398	2.93	0.267	2.82
Above 10 Years	0.495		0.386	3.72		3.83

<b>Couple Migration</b>						
Women only	-0.342	0.184	-0.284	3.05	0.153	2.99
With Couple	0.213		0.177	3.51		3.55
<b>Visiting Parent Home</b>						
Regularly	-0.177	0.068	-0.077	3.25	0.053	3.16
Not Frequent	0.038		0.070	3.40		3.37
Not Visiting	0.094		-0.097	3.24		3.43
<b>Region from Migration</b>						
Northern Region	0.070	0.100	0.026	3.36	0.037	3.40
Southern Region	-0.310		-0.115	3.22		3.02
<b>Grand Mean</b>				<b>2.158</b>		
<b>Multiple R</b>				<b>0.554</b>		
<b>R<sup>2</sup></b>				<b>0.0.307</b>		
<b>Number of Cases</b>				<b>250</b>		

*Source: Computed from Primary Data (February to May 2016).*

The women who are migrating with their husband (couple migration) from other area to NCT of Delhi, are having higher mean children (3.51 mean children) born to them. These couples are following the place of origin norms, where the fertility is high. But, the women only migrate to NCT of Delhi as reasons of marriage tend to have fewer children, because spouse is from NCT of Delhi and his norm is dominating. The analysis is also showing the same result.

The migrant women who are regularly visiting their parental homes are having the same number of mean children as the women who are not visiting at all to their parental home i.e. 3.24 mean children. After adjusting the mean with covariates we found that the women who regularly visiting their parental home are having less mean children (3.16 mean children) than the women who are not visiting at all to their parental home i.e. 3.43 mean children but the mean children difference between them is very low. The women who have migrated from the northern region to NCT of Delhi are showing higher mean children both in the unadjusted category (3.36 mean children) and adjusted category (3.4 mean children). The difference between the northern and southern region in terms of mean children is not very high but a visible one, i.e., 0.4 mean children.

#### ***4.2.3 Multiple Classification Analysis of Children Ever Born to Non-Migrants in NCT of Delhi.***

The educational level of non-migrant women and mean children is inversely related i.e. with an increase in education level the mean children born to women goes down. This is directly visible from the analysis for both the panels, i.e. unadjusted and adjusted panels of the non-migrant women. In the case of no education (Illiterate) women in unadjusted mean is 2.6 mean children and the literate women category is having 2.26 mean children. The difference between no education and literate category of women in terms of mean children they are having is not very high. Whereas after adjusting the mean children of women by predictors and covariates the difference between mean children among the illiterate and literate women is increased i.e. 0.84 mean children. The analysis of spouse educational status of non-migrant women is also showing the same pattern of results that women education level is showing for unadjusted.

The wealth index (wealth possession) is showing a considerable inverse relationship with mean children ever born (CEB) among non-migrant women, i.e. higher the wealth possession lowers the mean children they have in the unadjusted panel. The unadjusted values of low, medium and higher wealth index (standard of living) category are having 2.51, 2.3 and 2 respective mean number of CEB. After controlling the effect of other predictors, the adjusted values are showing the minimal difference between low and higher wealth index in non-migrant women mean children i.e. after adjusting for predictors the higher category in wealth index is showing 2.37 and low category wealth index is having 2.16 mean children.

In the case of work status and mean children, the unadjusted mean of not-working women is 2.44 mean children whereas the working women are having only 2.28 mean children. After controlling the predictors, the work status and mean children among the non-migrant women work status are shows higher mean children to working women than the not-working women i.e. 2.27 mean children to not-working women and 2.48 mean children to working women.

The caste factor has a substantial effect on the number of children ever born to non-migrant women in NCT of Delhi. Where, the unadjusted value shows that the Other's

(General and Other Backward Caste) caste women have less number of children (2.03) than the SC and ST category, i.e., 2.65 mean children. After the adjustment of all predictors and covariates, the gap among these caste groups is showing as same as the unadjusted category of caste.

From the analysis, we can see that religion has a substantial effect on the number of CEB. The unadjusted values show that the Hindu women and Non-Hindu women are having more or less same mean children i.e. 2.36 mean children. After making adjustments for all variables and covariates used in the model, the explanatory power of religion in determining the children ever born is more or less constant.

**Table 4.5: Multiple Classification Analysis of Children Ever Born to Non-Migrants in NCT of Delhi.**

<b>Background Variables</b>	<b>Unadjusted Deviations</b>	<b>Eta</b>	<b>Deviations Adjusted for Factors and Covariates</b>	<b>Unadjusted Mean</b>	<b>Beta</b>	<b>Mean Adjusted for Factors and Covariates</b>
<b>Female Education</b>						
Illiterate	0.575	0.284	0.233	2.60	0.115	2.94
Literate	-0.266		-0.108	2.26		2.10
<b>Partner Education</b>						
Illiterate	0.163	0.081	-0.079	2.53	0.039	2.29
Literate	-0.076		0.037	2.29		2.40
<b>Wealth Index</b>						
Low	0.145	0.136	0.082	2.51	0.095	2.16
Middle	-0.062		0.008	2.30		2.45
High	-0.366		-0.281	2.00		2.37
<b>Women Work Status</b>						
Not Working	0.070	0.055	-0.099	2.44	0.078	2.27
Working	-0.083		0.116	2.28		2.48
<b>Caste</b>						
SCs & STs	0.281	0.224	0.173	2.65	0.138	2.54
Other's	-0.339		-0.209	2.03		2.16
<b>Religion</b>						
Hindu	0.070	0.075	-0.008	2.36	0.009	2.44
Non-Hindu	-0.151		0.017	2.38		2.22

<b>Ideal No. Children</b>						
2 & Below	-0.612	0.653	-0.587	1.75	0.626	1.78
3 & Above	1.320		1.266	3.69		3.63
<b>Mass Media</b>						
<b>Exposure</b>						
Low	-0.366	0.085	-0.383	2.00	0.089	1.98
High	0.038		0.039	2.40		2.41
<b>Decision Making</b>						
Low	-0.059	0.013	0.263	2.31	0.057	2.63
High	0.005		-0.023	2.37		2.34
<b>Contraceptive Use</b>						
Not Using	-0.506	0.247	-0.406	1.86	0.198*	1.96
Using	0.228		0.183	2.59		2.55
<b>Grand Mean</b>				<b>1.909</b>		
<b>Multiple R</b>				<b>0.739</b>		
<b>R<sup>2</sup></b>				<b>0.546</b>		
<b>Number of Cases</b>				<b>161</b>		

*Source: Computed from Primary Data (February to May 2016).*

The non-migrants who desire to have 3 & above number of children are having higher number of children, as compared to women who desire 2 & below children. The unadjusted value of women who wants 3 & above ideal number of children is 3.69 mean children, whereas after adjusting for covariates the mean children came down to 3.63 mean children, which is negligible. The women who want two children, they are having the mean children of 1.75 in the unadjusted category, as well as 1.79, mean children in adjusted category of mean children ever born.

The exposure to mass media is not showing the significant negative effect on their fertility as those who are highly exposed to mass media show higher mean children (2.4) than those who are lower exposed to mass media (2 mean children). The mean children gap between the women with low and high media exposure is not decreased after controlling the other predictors.

The decision making and mean children that the women have is inversely correlated, i.e. with an increase in decision making power of women the mean children they have goes on decreasing. The non-migrant women in the category of adjusted mean, with an increase in decision making from low to high the mean children, goes on decreasing that is women with low decision-making are having 2.63 mean children

and women with high decision-making power are having 2.34 mean children. In the case of non-migrant women who are using contraception are having more children than the women who are not using contraception. The adjusted mean of women who are using contraception is 2.55 mean children whereas the women who are not using the contraception are only having 1.96 mean children.

#### **4.4 Summary**

In order to understand the fertility behaviour of migrant and non-migrant women, level of fertility and differentials in fertility along with its predictors has been discussed in this chapter. Bongaarts, (1983) proposed the model of aggregate fertility for explaining the fertility behaviour of women by the four proximate determinants of fertility, such as, age at marriage, use of contraception, induced abortions and post partum infecundability. This study included the first two proximate determinants i.e. use of contraception and age at marriage. The remaining two determinants has not been found significant for the analytical purpose as the survey was conducted in the slums of Delhi and most of the respondents either hide the information regarding these two or they were not aware about these two, consequently the sample size became very small. From the study, it is evident that the use of contraception is low among non-migrant women as compared to migrant women. The contraceptive use is relatively high in migrants. Very little number of women are having one child on the other hand most of the women are having more than three children. Although the legal age at marriage in India is 18 years for females and 21 years for males, but early marriage is still prevailing among these slums residents, especially among migrant women who came from rural areas. Age at marriage is a significant factor in a woman's life with overall completed fertility and its relation with the status of women.

Multiple Classification Analysis (MCA) has been employed to understand the influence of each predictor variable on the response variable (children ever-born) for explaining the behaviour of fertility of women belonging to migrants as well as non-migrants category. Results from Multiple Classification Analysis show that religion has substantial effect on the number of children ever born. The unadjusted values show that there is not much variation across the groups but after controlling the effect of all other variables and covariates in the model, the explanatory power of religion in determining children ever-born is very high. The result indicates that Hindu women

are more satisfied with fewer numbers of children compared to other religion (Non-Hindu) women. As expected, educational level of women has effect on the children ever born. This is also evidenced after controlling other predictor variables and covariate, the predictive power of women's educational level has the positive influence on children ever-born. For those non-migrant women, who are living in NCT of Delhi, the unadjusted values obtained for mean number of children ever-born show lower fertility than those migrated from rural areas in the city. But after controlling the effect of other variables the result shows in a reverse direction. The unadjusted effect of wealth index of the household makes a substantial variation among categories while after making an adjustment the variation is very negligible among categories; not showing a statistically significant effect. Age of the migrant and non-migrants women makes a positive effect on the children ever born. Age of women is the most important variable having a positive relationship with the total number of children ever born. This suggests that as the age increases the number of children ever born increases substantially.



## Chapter V

# Contraceptive Use among Migrants and Non-Migrants in NCT of Delhi

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### 5.1 Contraception Prevalence

The Indian family planning programme is one of the oldest which was launched in 1951 with a central objective of reducing fertility. In reducing fertility the intermediate variables or proximate determinants play a crucial role, because of its direct impact on fertility. The proximate determinants of fertility are the biological and behavioural factors through which social, economic, cultural and environmental variables influence fertility. They have direct effects on fertility. The contraceptive use is one of the proximate variables that directly influence the fertility. The contraceptive use depends on socioeconomic and demographic characteristics of the individual as well as community level.

The process of migration also considerably influences the use of contraception. Moreover, contraceptive behaviour determined by various socio-economic factors, which are dynamic in nature, can be altered by the process of migration. After migration, people are exposed to other people, through interaction, having different socio-cultural and economical context which impacts the migrant's way of thinking and attitude which starts resembling to that of the host community. While rural-rural migration remains the most predominant form of migration in India, it is rural-urban migration that potentially brings change in the lives of migrants by offering knowledge, socio-economic opportunities and overall improved living standards (Aworemi et al., 2011). Subsequently, the current discourse on women migration and its associated health outcomes such as reproductive and child health outcomes call for a particular understanding (Omondi and Ayiemba, 2005). Contraceptive use among migrants therefore remains of interest to demographers, population scientists and policy makers due to its influence on fertility, sexual and reproductive health and the implications for provision of appropriate services (De Plessis, 1995).

The analysis in this chapter shows the socio-economic and demographic differentials in knowledge and practice of contraception. This chapter deals with the trends and patterns in contraceptive use along with determinants of contraceptive use with the

help of NFHS I to NFHS III and data collected from field survey. The effect of migration on contraception behaviour has been also explained in this chapter.

### 5.1.1 Contraceptive Use in India

The currently married India women contraceptive use is increased from NFHS I to NFHS III (See figure 5.1). In a high fertility situation, contraceptive use is expected to increase over time especially when government programme supports that. In NFHS I only around 41 percent of the currently married women in India used contraception which has increased to 48 percent in NFHS II and 56 percent in NFHS III respectively. Around 16 percent increase of contraceptive use from NFHS I to NFHS III i.e. over nearly 15 years of time. The difference between contraceptive use among migrant and non-migrant is clearly visible from NFHS I, NFHS II and NFHS III. The 4 percent difference is seen from NFHS I to NFHS II and 8 percent difference is seen from NFHS II to NFHS III. Here the migrant women are using more contraception than the non-migrant women. But in NFHS III the difference between contraceptive use among migrant and non-migrant women is reduced or there is no difference in the contraceptive use among migrant and non-migrant.

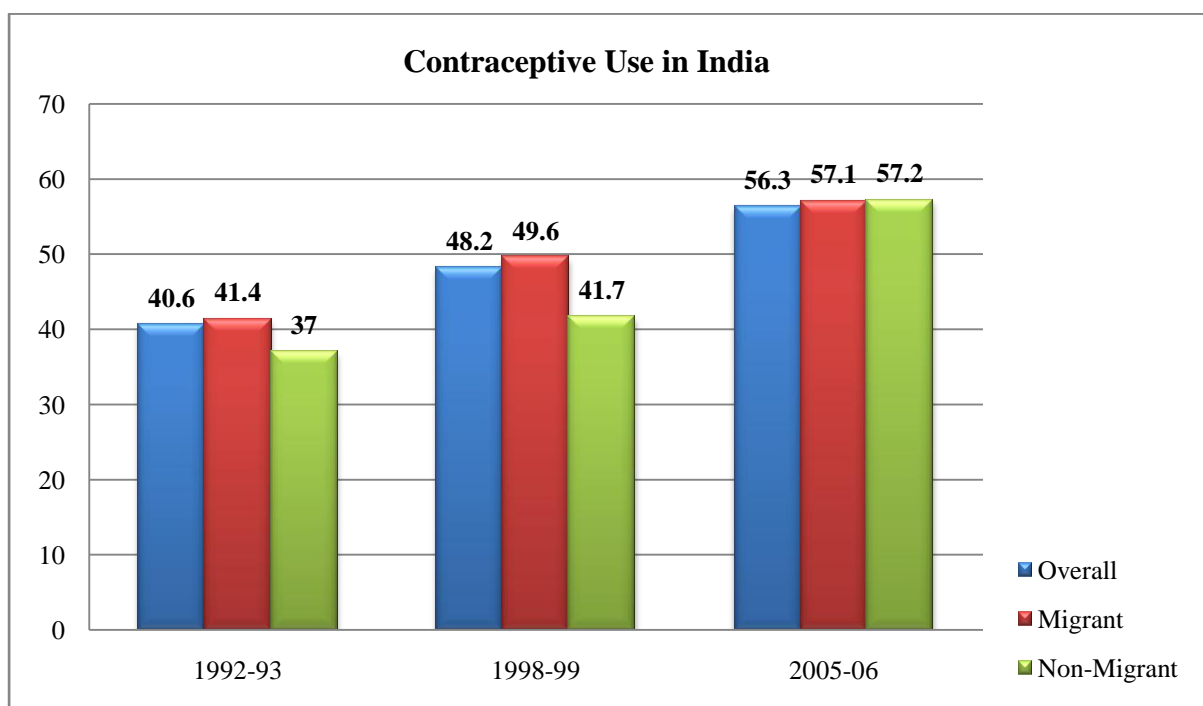


Figure: 5.1

Source: Computed from NFHS I (1992-93), NFHS II (1998-99) & NFHS III (2005-06) Women Data File.

As from the figure 5.1 clear difference of 4 percent in contraceptive uses among migrant and non-migrant is visible in NFHS I. The migrants are using more contraception (4 percent) than the non-migrants. In NFHS II, the difference between migrant and non-migrant contraceptive use is increased up to 8 percent. The contraceptive use of migrant is higher than the non-migrant. In NFHS III, the difference in contraceptive use among migrant and non-migrant is negligible i.e. 0.1 percent. Here contraceptive use by migrant and non-migrant are equal i.e. 57 percent. The behaviour of migrant and non-migrant in contraceptive use is almost same in NFHS III.

### 5.1.2 Contraceptive Use in NCT of Delhi

In the case of NCT of Delhi, the contraceptive use of currently married women is increased from NFHS I to NFHS III (see Figure 5.2). In NFHS I the currently married women of NCT of Delhi are using 60 percent of contraception, which is increased to 64 percent in NFHS II and 67 percent in NFHS III respectively. Approximately 7 percent increase in contraceptive use among currently married women of NCT of Delhi is observed during the reference period. A significant difference of contraceptive use among migrant and non-migrant women was observed during NFHS I and NFHS II, but no significance variation of using contraception was observed among migrant and non-migrant women in NFHS III.

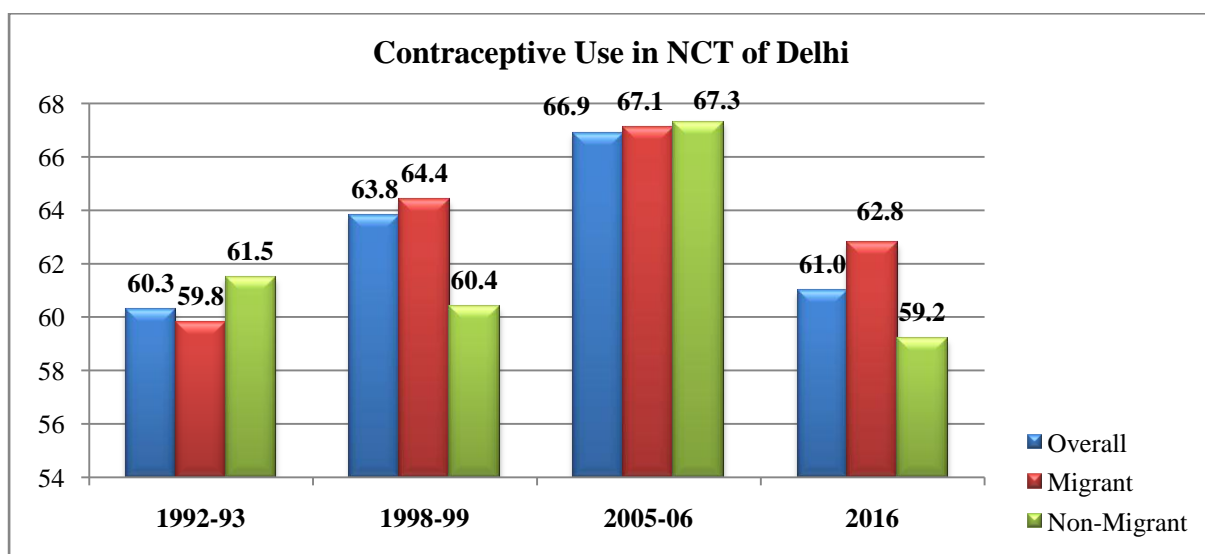


Figure: 5.2

Source: Computed from NFHS I (1992-93), NFHS II (1998-99) & NFHS III (2005-06) Women Data File. And Primary survey Data 2016.

As expected, the difference of contraceptive use among migrant and non-migrant prevails in NFHS I, NFHS II and NFHS III. The non-migrant women of NCT of Delhi are using more contraception than the migrant women i.e. nearly 2 percent difference in contraceptive use prevailed between migrant and non-migrant women. In NFHS II (1998-99) the difference between contraceptive use among migrant and non-migrant also prevailed, the migrant is using more contraception than non-migrant women of NCT of Delhi. The difference between migrant and non-migrant in terms of contraception is 4 percent. In NFHS III (2005-06), the difference in contraceptive use among migrant and non-migrant is negligible i.e. 0.2 percent. Here contraception used by migrant and non-migrant are equal i.e. 67 percent. The behaviour of migrant and non-migrant in contraceptive use is almost same in NFHS III (2005-06). From field survey data, we can see 61 percent of the respondents are using contraception in NCT of Delhi slum. The migrant respondents of NCT of Delhi slums are using more contraception than the non-migrant respondents, i.e. the difference is around 3 percent.

## **5.2 Knowledge about Contraception**

The knowledge of contraception is presumed to be a first step in motivating the desire for its use. The measurement of contraceptive knowledge does not only determine the level of awareness and sensitization but it also provides the background for which use of the service is further evaluated. Here the evaluation signifies the background characteristics of women, basically social, of the user which influences the awareness and sensitisation levels (Takyi, 2000; Kongnyey et al, 2007).

The lack of knowledge of various contraceptive methods can be an obstacle to promote use of contraceptive methods among couples. An attempt has been made to examine the knowledge of contraceptive methods among currently married migrant and non-migrant women in NCT of Delhi. In the primary survey the knowledge of family contraceptive methods was defined operationally as “have you heard of any contraception method”. It is revealed from the table 5.1 that about 95 percent of total respondent have knowledge of contraception. The 95 percent of the respondents in NCT of Delhi are having knowledge of contraception and the remaining five percent of respondent never heard about contraception. The difference between knowledge of contraception among migrant and non-migrant respondent of NCT of Delhi is only

two percent. The 94 percent of migrant and non-migrant respondents heard about female sterilization and around ninety-one percent of respondents heard about male sterilization.

**Table 5.1: Knowledge of Contraception among Migrants and Non-Migrants in NCT of Delhi.**

Contraception Knowledge	NCT of Delhi		
	Migrant	Non-Migrant	Total
Pills	80.0	84.4	82.2
Condom	54.8	66.4	60.6
IUD	38.0	47.2	42.6
Female Sterilization	94.8	94.0	94.4
Male Sterilization	92.0	90.8	91.4
Rhythm Method	8.0	10.8	9.4
Withdrawal Method	2.4	4.4	3.4
Other Methods	-	0.4	0.2
<b>Any Methods</b>	<b>94.8</b>	<b>96.0</b>	<b>95.4</b>

*Source: Computed from Primary Data (February to May 2016).*

The non-migrant respondent knowledge of condom and IUD is higher than the migrant respondents, i.e. only 38 percent migrant respondent heard about IUD and 54 percent of them heard about condom, whereas 47 percent of the non-migrant respondent heard IUD and 66 percent of them heard about condom. This show the non-migrant respondents are better of the IUD and condom as compared to migrants.

The analysis from primary data shows that the contraception prevalence rate is around 63 percent for non-migrant women and 59 percent for migrant women. Female sterilization is the foremost in terms of various contraceptive methods that the migrant and non-migrant women are using. Around 49 percent of migrant women are using female sterilization method as there contraception, whereas forty-three percent non-migrant women are using sterilization method as contraception.

**Table 5.2: Percentage of currently using different methods of contraception by migrants and non-migrants in NCT of Delhi.**

Currently Contraceptive Using Methods	NCT of Delhi	
	Migrant	Non-Migrant
Pills	14.9	22.9
Condom	20.9	21.0
IUD	12.8	09.6
Female Sterilization	48.6	43.3
Male Sterilization	02.8	00.7
Rhythm Method	-	02.5
<b>All Methods</b>	<b>59.2</b>	<b>62.8</b>

*Source: Computed from Primary Data (February to May 2016).*

Among the spacing methods, the most commonly used methods are condom and pills which account around 20 (condom) and around 15 (pills) percent of total contraceptive use among migrant women and 21 (condom) and around 23 (pills) percent of total contraceptive use among non-migrant women. The difference between migrant and non-migrant in using pills is very much visible i.e. 8 percent more non-migrant women are preferring pills as contraception as compare to migrant women, but the difference in the use of condom among migrant and non-migrant is near nil i.e. only 0.1 percent. The male sterilization prevalence is high among migrants as compared to non-migrants i.e. around 3 percent of respondents husbands are sterilized as compared to only 0.7 percent of non-migrant respondent's husbands are sterilized. But the non-migrant women prefer rhythm method as contraception i.e. 2.5 percent as compared to migrant women.

### **5.3 Contraceptive Use by Background Characteristics**

Several studies during the past few decades have recognized a close and important relationship between contraceptive use and fertility. Das and Deka (1982) have considered the importance of socio-economic and cultural factors in fertility, as there is evidence that the fertility behaviour changes with different cultural settings. The

economic value ascribed to children enhances fertility among those who are economically poor. In several studies, modernity (knowledge and availability of modern contraception) and fertility and, education is found to be the prime influencing factor. Education may have a direct influence on fertility since education affects the attitudinal and behavioural patterns of the individuals.

Gautam and Seth (2001) in their study among rural Rajputs and Scheduled Caste (SCs) find out that increase in education level besides providing knowledge on the contraceptive methods help in improving acceptance of family control devices.

### ***5.3.1 Contraceptive use among Migrants and Non-Migrants by Demographic and Socio-Economic Backgrounds***

The demographic characteristics of migrant and non-migrant respondents are provided in Table 5.3. The median age of migrant and non-migrant respondents were 31 and 32 years respectively in India, whereas the median age in NCT of Delhi for migrant and non-migrant are 32 and 34 years respectively. Contraceptive use is higher in urban areas than the rural areas. Age is one of the significant factors which are associated with the current contraceptive use. The use of contraception is higher among older women than the younger women. Both migrant and non-migrant women are using more than 70 percent contraception in the age group of 30 to 39 years. The use of contraception slightly low among 40 & above age group but it is much more than the age group of 30 & below years.

The number of children ever born (CEB) to a women is also one of the determining factors of contraceptive use. The use of contraception increases with the increase in number of children ever born to women. In NCT of Delhi migrant and non-migrant women, as expected, with three children ever born are using 69 percent and 85 percent contraception respectively. The women desiring two or less than two children as their ideal number of children, are using higher contraception than the women who desire 3 & above as their ideal number of children.

**Table 5.3: Contraceptive use among Migrants and Non-Migrants by Demographic and Socioeconomic Characteristics in India and NCT of Delhi, NFHS III**

	India		NCT of Delhi	
	Migrants	Non-Migrants	Migrants	Non-Migrants
<b>Place of Residence</b>				
Urban	63.9	63.3	64.5	67.2
Rural	54.9	54.9	66.9	63.3
<b>Age of Respondent</b>				
Below 30	43.5	39.8	48.8	44.1
30 - 39	71.6	68.5	79	83.7
40 & Above	66.7	63.4	68	68.3
<b>Children Ever Born</b>				
2 & Below	49.1	47.1	59.1	57.7
3	74.5	73.5	69.2	85.1
4 & Above	64.9	60.4	72.2	71.4
<b>Ideal Number of Children</b>				
2 & Below	61.6	60.9	66.5	69.1
3 & Above	69.2	48.4	59.1	57.5
<b>Stream of Migration</b>				
Rural to Urban	61.4	-	60.4	-
Rural to Rural	54.5	-	73.3	-
Urban to Urban	66.1	-	66.8	-
Urban to Rural	57.4	-	56.6	-
<b>Women Education</b>				
Illiterate	54.2	53.1	58.9	57.4
Literate	61.9	57.6	67.9	70
<b>Partner Education</b>				
Illiterate	52.6	50.3	61.3	54.5
Literate	60.5	57.6	65.3	68.6
<b>Social Group</b>				
SC's & ST's	54	50	59.3	69.7
Other's	60.5	59.5	66.3	66.1
<b>Religious Group</b>				
Hindu	60.6	62.3	66	68
Other's (Non-Hindu)	52.2	46.3	56.1	61.7
<b>Mass Media Exposure</b>				
Low	57.7	55.4	63.1	65.7
High	61.2	57.5	67.1	68.6
<b>Wealth Index</b>				
Low	47.7	42.7	40.6	21.4
Middle	57.9	52.3	51.2	37.9
High	65.2	63.6	67.9	70.4
<b>Work Status</b>				
Not Working	57.4	53.8	62.1	65.7
Working	60.9	54.2	74.4	71.4

*Source: Computed from National Family Health Survey (III) 2005-06 Women Data File*



In India, 61 percent of rural to urban migrant women are using contraception; on the other hand in NCT of Delhi rural to urban migrants are using 60 percent contraception. In the case of India, rural to rural migrant are using lesser contraception as compared to other stream of migration. Whereas, in NCT of Delhi the rural to rural migrant are using higher percent of contraception as compared to other stream of migration.

Women's education is widely acknowledged as being one of the most important determinants, in reducing fertility, by increasing age at marriage, and increasing knowledge about contraception. The relationship of education and contraceptive use is direct, i.e. with increase in education the contraception use also increases. The analysis shows that the migrant women of India and NCT of Delhi who are literate are using more contraception than the illiterate in the same category. When we compare the migrant and non-migrant literate in contraceptive use, the non-migrant literate are using more contraception than migrant women. The similar pattern was observed with the education of the spouse of women and use of contraception.

The analysis shows that the social group of women influences the contraceptive use. The migrant SC & ST women are using less percent of contraception as compared to other caste categories. The non-migrant on the other hand is using more contraception than the migrant both in SC & ST category and other caste category. The old literature provides ample evidence supporting the impact of religion on contraceptive use. Both migrant and non-migrant Hindus are using more contraception than the non-Hindus in India as well as in NCT of Delhi.

Evidences from numerous studies suggest that exposure to mass media increase the contraceptive use among women (Piotrow et al. 1990, Roy et al. 2015, and Chaurasia 2014). Mass media inform and motivate women to use contraception. The table 6.5, shows contraceptive use is high among the women who are having higher mass media exposure. The 67 percent of migrant women with high mass media exposure from NCT of Delhi are using contraception and 63 percent migrant women with low mass media exposure are using contraception.

A close examination of the influence of wealth index reveals that the women with lower wealth were less likely to use less contraception. The strong effect of the wealth

on contraception is visible from the analysis. More than 63 percent of rich women (with high wealth) migrant and non-migrant in Indian case are using contraception, on the other hand, the use of contraception is more than 67 percent among rich migrants and non-migrants women of NCT of Delhi.

Women's employment status is one of the most influential factors among several socio demographic determinants of contraceptive use. The early literature shows that women's employment status is strongly associated with contraceptive use as economic independence gives them more autonomy and more control over important decision. Table 6.7 showed contraceptive use and work status of migrant and non-migrant women in India and NCT of Delhi. In NCT of Delhi, the current use of contraception among working and not-working migrant women is 62.1 percent and 74.4 percent respectively. The non-migrant working and non-working women's current contraceptive use is 65.7 percent and 71.4 percent respectively.

### ***5.3.2 Contraceptive use among Migrants and Non-Migrants by Demographic and Socio-Economic Backgrounds***

In NCT of Delhi with an increase of age of the respondent, the contraceptive use is also increasing for the non-migrants. The 58 percent non-migrant women who are below 30 years of age are using contraception whereas; the 59 percent of migrant women are using contraception. In the age group of 30 to 39 years in migrant women the contraceptive use decreases to 56 percent, on the other hand, the non-migrant women contraceptive use for the same age group increased to 72 percent. But in the age group of 40 and above for migrant women the use of contraception increase to 69 percent, on the other hand, the non-migrant women contraceptive use for the same age group decreases to only 48 percent.

The number of children ever born to women is definitely influencing the contraceptive use. The NCT of Delhi migrant and non-migrant women with no or one child are using around 44 percent and 45 percent contraception respectively; whereas in the case of migrants women with two children are using 74 percent contraception and non-migrant women are using only 67 percent contraception. Whereas the women in NCT of Delhi with four and above children in terms of contraceptive use of migrant is only 48 percent and for non-migrant is 62 percent.

**Table 5.4: Contraceptive use among Migrants and Non-Migrants by Demographic and Socioeconomic Characteristics in NCT of Delhi**

Background Variables	NCT of Delhi	
	Migrant	Non-Migrant
<b>Age of Respondent</b>		
Below 30	59.2	58.2
30 - 39	56.0	72.3
40 & Above	69.4	48.1
<b>Children Ever Born</b>		
0 & 1	43.8	45.0
2	74.1	66.7
3	66.3	72.7
4 & Above	47.4	61.8
<b>Ideal Number of Children</b>		
2	66.7	68.2
3 & Above	69.8	70.6
<b>Year of Migration</b>		
Below 10 Years	53.7	-
More than 10 Years	64.6	-
<b>Respondent Education</b>		
Illiterate	53.1	58.7
Literate	65.8	66.0
<b>Partner Education</b>		
Illiterate	53.5	55.1
Literate	62.2	67.9
<b>Social Group</b>		
SC's & ST's	54.6	61.9
Other's	64.2	64.1
<b>Religious Group</b>		
Hindu	63.2	66.5
Other's (Non-Hindu)	48.5	55.8
<b>Mass Media Exposure</b>		
Low	46.4	66.5
High	62.9	55.8
<b>Decision Making</b>		
Low	47.4	40.0
High	62.7	67.1
<b>Wealth Index</b>		
Low	54.8	63.4
Middle	62.5	67.2
High	74.2	54.5
<b>Occupation</b>		
Not Working	47.8	52.8
Working	72.4	76.4

*Source: Computed from Primary Data (February to May 2016).*

In overall, the non-migrants are using more contraception than the migrants in all the categories of the number of children ever born. The women, who want fewer children, are using more contraception than the women who want more children. This we can see from the table 6.3 that with an increase of an ideal number of children the women use of contraceptive increases.

The duration of stay by migrants is directly correlated with the use of contraception. The migrant women who are staying more years, they are using higher contraception than the women who are staying for less time. Only 54 percent of migrant's women who are staying below 10 years in NCT of Delhi are using contraception, whereas 65 percent women who are staying for the period more than 10 years are using contraception.

The migrant and non-migrant contraceptive use is directly related to the educational level of women. With an increase in educational level, the contraceptive use is also increasing. The non-migrant women in NCT of Delhi with no-education (Illiterate) are using more contraception than the migrant women. In other educational level categories (Primary level and Secondary level), the NCT of Delhi migrant women is using more contraception than the non-migrant women. The literate category non-migrant women in NCT of Delhi are using more contraception than migrant women. The spouse educational level and contraceptive use pattern is also showing the same result like the women's education and contraceptive use.

In NCT of Delhi, the non-migrant SC (Scheduled Caste) and ST (Scheduled Tribe) women are using more contraception than the migrant SC (Scheduled Caste) and ST (Scheduled Tribe) women. The other's group women contraceptive use among migrant and non-migrant are same i.e. 64 percent. The other's group women are using more contraception than the SC and ST category women of the migrant as well as non-migrant.

The table 6.6 explains the overall prevalence of contraception among migrant and non-migrant women of different religious groups. Among the different religious group of NCT of Delhi, Other (Non-Hindu) women are using less contraception than Hindu religious group. The non-migrant Hindu (around 62 percent) is using more contraception than the migrant Hindu women (around 55 percent). The same pattern

is seen in the case of other religion (non-Hindu) women of non-migrant and migrant women in terms of contraceptive use.

The mass media and decision making of women are directly related to the use of contraception, i.e. with an increase in mass media exposure and decision-making power, the use of contraception also increases. As we compare the migrants with non-migrant women in all category of mass media exposure and decision making power non-migrant women are using more contraception than the migrant women.

In NCT of Delhi, the prevalence of contraception is increasing with a higher standard of living. The contraceptive use of non-migrant is high among low and medium level categories of wealth index as compared to migrant women. But the migrant women with a high standard of living are using more contraception than the non-migrant of the same category of wealth index.

Women's work status is one of the important determinants of contraceptive use. Work status of women increases likelihood of using contraception and the women may be partly attributed to cost benefit of childbearing and childrearing (Becker, 1965). The analysis also proves the above point of work status play a vital role in determining contraceptive use. In NCT of Delhi, the difference in contraceptive use among migrant working and migrant not-working women is 25 percent. On the other hand the difference of contraceptive use among non-migrant working and not-working women is 24 percent. This proves the work status influence the contraceptive use among women. The difference in contraceptive use between migrant and non-migrant working women is also prevailing i.e. at 4 percent.

### ***5.3.3 Socio-economic basis of use of Contraception among Migrants and Non-Migrants***

The migrant women whose mother have four and below children are using 74 percent contraception, on the other hand, the non-migrant women whose mother with four and below children are using only 64 per cent. But the scenario is changed in the case of women with more than four children among migrant and non-migrant i.e. only 50 per cent of migrant women are using contraception if their mother is having more than four children and 62 per cent of non-migrant women are using contraception if their mother is having more than four children.

**Table 5.5: Contraceptive Use of Migrants and Non-Migrants with various Background Variables in NCT of Delhi, Primary Data.**

Background Variables	NCT of Delhi	
	Migrant	Non-Migrant
<b>CEB to Respondent Mother</b>		
4 & Below Children	74.0	63.5
More than 4 Children	50.0	62.1
<b>Visiting Birth Place (Parents Home)</b>		
Regularly	55.2	60.8
Not Frequently	63.0	65.6
Not Visiting	53.7	72.2
<b>Infant Mortality take place</b>		
Yes	42.6	59.5
No	63.8	63.7
<b>Discussed Contraception with Husband</b>		
Yes	72.5	68.1
No	42.9	58.6
<b>Region from Respondent Migrated</b>		
Northern Region	55.3	-
Southern Region	65.0	-
<b>Respondent Reside till the Age of 15 Years</b>		
Rural/Countryside	58.9	-
Urban/Other Town	60.4	-
<b>Respondent Husband Reside till the Age of 15 Years</b>		
Delhi	58.3	-
Urban/Other Town	46.7	-
Rural/Countryside	62.5	-
<b>CEB to Respondent Mother (Region Wise)</b>		
<i>Northern Region</i>		
4 & Below Children	22.9	-
More than 4 Children	77.1	-
<i>Southern Region</i>		
4 & Below Children	80.0	-
More than 4 Children	20.0	-

*Source: Computed from Primary Data (February to May 2016).*

The non-migrant women who are regularly visiting their parent's home (birthplace) use less contraception than the women who are not frequent or not at all visiting their parent's home. The migrant women who are regularly visiting their parent's home are using more contraception than the women who are not visiting their parent's home, but the migrant women who are not frequent in visiting their parent's home are using more contraception than the women who are regularly visiting their parent's home.

The infant mortality and number of children a woman have are two important determining factors of contraceptive use and choice of contraceptive method. The early literature points out that infant mortality and contraceptive use are inversely related. The women with infant death are using less contraception than the women who have no infant mortality.

The scenario is same for both migrant and non-migrant women, i.e. the women who had infant deaths are using less contraception than the women who did not experience any infant deaths.

The women who discussed contraception with their husband are using more contraception than the women who have not discussed, in both categories i.e. migrant and non-migrant. But migrant (73 percent) women are using more contraception than the non-migrant (68 percent) who has discussed about contraception with their husband, but at the same time the non-migrant (59 percent) women who has not discussed with their husband about contraception are using more contraception than the migrant (43 percent) women.

The migrants from southern region of India are using more contraception than the migrants from the northern region. The gap in contraceptive use among the southern migrant and northern migrant is around 10 percent.

The migrants from rural/countryside are using less contraception than the migrants from urban/other town. The difference between the usage of contraception among rural areas to NCT of Delhi and urban areas to NCT of Delhi is around two percent. The women whose husbands are from NCT of Delhi they are using more contraception than the women whose husbands are from other town or other urban areas. The difference between contraceptive use among the husband from NCT of Delhi and other town or other urban areas is around 12 per cent. But the contraceptive

use of the women whose husband are from rural or countryside is higher than the women whose husband either from NCT of Delhi or from other towns or urban areas.

The migrant women whose mother have four and below number of children from northern region (23 per cent) is using less contraception than the southern region (80 percent) migrant women's whose mother have four and below number of children.

#### **5.4 Determinants of Contraceptive use**

Table 5.6 exhibits result of binary logistic regression for contraceptive use among migrant and non-migrant in NCT of Delhi. In two panels, the first category of each predictor variables is treated as the reference category.

The place of residence is important predictor variable which influences the use of contraception for both the panels i.e. migrant and non-migrants. It is generally presumed that the resident of the urban area either migrant or non-migrant they will use more contraception than their rural counterpart. The odd ratio is also proving the general perception; migrants who are residing in the urban area are more likely using contraception than a rural area. The non-migrant who is residing in rural area has 0.9 times less likely to use contraception than urban counterpart non-migrants.

The analysis explains that age has highly significant relation with contraceptive use. As age increases the women are more likely to use contraception. The migrant women who are in the age group of 30 to 39 are 2.9 times more likely to use contraception than the women in the age group of below 30 years. On the other hand the migrant women in the age agroup of 40 & above are only 1.5 times more likely to use contraception. The non-migrant women in the age group of 30 to 39 years are 5.1 times more likely to use contraception than the non-migrant women in the age group of below 30 years, the odds for the age of respondent is showing very high significance level.

The analysis shows that the Children Ever Born (CEB) and contraceptive use is inversely related. Contraceptive uses among migrant women who have three children are 1.6 times more likely to use contraception than the women with two or one children. The migrant women who are having 4 & above children are 2.1 times more likely to use contraception than the women with two or one children, the odds of



migrant women and contraceptive use is very highly significant. The non-migrant women who are having three children are 3.9 times more likely to use contraception than the women with two & below children. On the other hand, women with 4 & above children are 2.7 times more likely to use contraception and the odds of non-migrants are also showing high significance level.

The ideal number of children that women want and contraceptive prevalence among women are interconnected which has been proved from the logistic analysis. The migrant women who want three & above children are 1.5 times less likely to use contraception than the women who want two & below children and it is also showing significance. The non-migrant women are also showing the same pattern i.e. women who want three & above children they are 1.5 times less likely to use contraception than the women who want two & below children, but the result is insignificant.

With the increase in women education, the contraceptive use is also increasing both for migrant and non-migrants. The literate migrants are 1.39 times more likely to use contraception than the illiterate migrant women. The non-migrant literate women are 2.06 time more likely to use contraception than the illiterate non-migrant women. The logistic analysis is showing, education is more influencing the non-migrant women to use more contraception than the migrant women. In this analysis, partner's/husband's education is analysed to know the impact/influence of partner's/husband's education and contraceptive use. The literate partners of migrant and non-migrant women in NCT of Delhi are less likely to use contraception than the illiterate.

In a religious group, Hindu is treated as the reference category for both migrant and non-migrant panels of NCT of Delhi. The odds ratio shows non-Hindus (other religious groups) are 0.4 times less likely to use contraception than the Hindu category women and the odd ratio is also showing high significance level. The migrant others group are 1.3 times more likely to use contraception than the SC & ST caste group. On the other hand the non-migrant women of others caste group are 0.3 times less likely to use contraception than the SC & ST but the result is not showing any significance level.

**Table 5.6: Odd Ratios of Contraceptive Use by Currently Married Migrant and Non-Migrant Women by Background Characteristics in NCT of Delhi, NFHS III.**

<b>Background Characteristics</b>	<b>Migrants</b>	<b>Non-Migrants</b>
<b>Place of Residence</b>		
Urban	1	1
Rural	0.645	0.929
<b>Age of Respondent</b>		
Below 30	1	1
30 to 39	2.972***	5.191***
40 & Above	1.522**	1.780*
<b>Children Ever Born</b>		
2 & Below	1	1
3	1.586***	3.974***
4 & Above	2.125***	2.691**
<b>Ideal Number of Children</b>		
2 & Below	1	1
3 & Above	0.669**	0.64
<b>Respondent Education</b>		
Illiterate	1	1
Literate	1.388**	2.057**
<b>Husband Education</b>		
Illiterate	1	1
Literate	0.826	0.965
<b>Religion</b>		
Hindu's	1	1
Other's (Non-Hindu's)	0.619**	0.72
<b>Social Group</b>		
Scheduled Caste & Tribe	1	1
Other's	1.305**	0.688
<b>Work Status</b>		
Not-Working	1	1
Working	1.562***	1.294
<b>Wealth Index</b>		
Low	1	1
Middle	1.668	1.413
High	2.979***	3.007

**Mass Media Exposure**

Low	1	1
High	1.15	1.07

**Stream of Migration**

Rural to Urban	1	-
Rural to Rural	-	-
Urban to Urban	2.176**	-
Urban to Rural	1.007	-

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<b>R<sup>2</sup></b>	<b>0.120</b>	<b>0.194</b>
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<b>N</b>	<b>1816</b>	<b>472</b>
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Notes: \* $P < 0.1$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$ , @ = Reference category,

Source: Computed from National Family Health Survey (III) 2005-06 Women Data File

In the women work status, not-working is taken as reference category both for migrant and non-migrant. The prevalence of contraception is higher among working women for both migrant and non-migrant categories compared to not-working women category in NCT of Delhi. The migrant working women are 1.5 times more likely to use contraception than the not working migrant women and the result also showing high significance level. On the other hand the non-migrant working women are 1.2 times more likely to use contraception, but the result is not showing any significance.

The wealth possession determines the standard of living and with a high standard of living the contraception prevalence is also more. The low wealth category is taken as the reference category in this analysis. In the case of migrant women who have middle level wealth possession, they are 1.6 time more likely to use contraception than the migrant women with low wealth possession. The migrant women with high wealth possession are 2.9 times more likely to use contraception than the migrant with low wealth possession and the odds also show high significance level. The non-migrant women who have middle level wealth possession are 1.4 time more likely to use contraception than the non-migrant women with low wealth possession. The non-migrant women with high wealth possession are 3 times more likely to use contraception than the migrant with low wealth possession, but the odds ratio is not showing any significance level.

The odds of mass media exposure and contraceptive use are not showing any significance level. The migrant and non-migrant women with higher exposure to mass media are 1.15 times and 1.07 times more likely to use contraception than the women

with low mass media exposure respectively. The stream of migration and the use of contraception is analyzed; in this rural to urban migrating women are taken as reference category. The women who are migrating from urban to urban area are 2.1 times more likely to use contraception than the rural to urban migrants and the odds ratio is also showing high significance level. The urban to rural migrant women also uses the same level of contraception as the rural to urban migrants are using, but the odds ratio is not showing any significance level.

### **5.5 Determinants of Contraceptive use in NCT of Delhi (Primary survey)**

The multivariate analysis was carried out to understand the role of different co-variates effect on contraceptive use. The contraceptive use is in dichotomous, so the logistic regression technique is carried out to understand the effects of the background characteristics on contraceptive use of migrants and non-migrants in NCT of Delhi.

Table 5.7 presents two panels, the first panel is migrants and the second panel is non-migrants contraceptive use. The first panel (migrants) is carried out with two models; the first model incorporates various socio-economic factors, followed by second model, which incorporates migration factors (characteristics). The second panel deals with non-migrants contraceptive use with socio-economic factors. The estimates from logistic models are presented in the form of odds ratio, along with confidence interval.

In the first model of migrant contraceptive use, the women who are in the age group of 30 to 39 are 1.5 times more likely to use contraception than the women in the age group of below 30 years. The migrant women in the age group of 40 & above are 2.2 times more likely to use contraception than the women in the age group of below 30 years. After incorporating the migration factors second model shows that the use of contraception among the 30 to 39 and 40 & above age groups are less likely to use contraception than the women with below 30 years of age. The non-migrant women in the age group of 30 to 39 years are 1.9 times more likely to use contraception than the non-migrant women in the age group of below 30 years, the odds for the age of respondent is showing significance level. On the other hand the non-migrant women in the age group of 40 & Above are 0.7 less likely to use contraception than the age group of 30 & below.

**Table 5.7: Odd Ratios of Contraceptive Use by Currently Married Migrant and Non-Migrant Women by Background Characteristics in NCT of Delhi Slums, based on Binary Logistic Analysis.**

Background Characteristics	Migrants		Non-Migrants
	Model 1	Model 2	
<b>Age of Respondent</b>			
Below 30	1	1	1
30 to 39	1.172	0.589	1.986*
40 & Above	2.234	0.959	0.733
<b>Age at Marriage</b>			
Below 18 Years	1	1	1
18 Years	1.211	1.249	0.461*
Above 18 Years	3.062**	3.514**	0.913
<b>Children Ever Born</b>			
2 & Below	1	1	1
3	1.078	1.066	1.848
4 & Above	0.542	.591	1.182
<b>Respondent Education</b>			
Illiterate	1	1	1
Literate	1.252	1.164	1.17
<b>Husband Education</b>			
Illiterate	1	1	1
Literate	0.761	0.772	1.594
<b>Religion</b>			
Hindu's	1	1	1
Other's (Non-Hindu's)	.594	.606	0.593
<b>Social Group</b>			
Scheduled Caste & Tribe	1	1	1
Other's	1.358	1.427	0.658
<b>Work Status</b>			
Not-Working	1	1	1
Working	3.062***	2.697**	2.709**
<b>Wealth Index</b>			
Low	1	1	1
Middle	0.863	0.927	0.676
High	1.207	1.228	0.487*
<b>Mass Media Exposure</b>			
Low	1	1	1
High	1.627	1.474	2.716**
<b>Decision Making</b>			
Low	1	1	1
High	1.51	1.564	2.715**

<b>Region of Migration</b>			
Northern Region	-	1	-
Southern Region	-	1.286	-
<b>Stream of Migration</b>			
Urban to Urban	-	1	-
Rural to Urban	-	1.499***	-
<b>Number of Years Since Migration</b>			
1 to 10 Years	-	1	-
More than 10 Years	-	2.301*	-
<b>Cox Snell R<sup>2</sup></b>			
<b>N</b>			

*Notes: \*P < 0.1, \*\*P < 0.05, \*\*\*P < 0.001, ® = Reference category,*

*Source: Computed from Primary Data (February to May 2016).*

The age at marriage of women is showing direct relation with use of contraception, i.e., with increase in the age at marriage the use of contraception is also increasing. The first and second model of migrant's contraceptive uses are showing that the women who married at the age of 18 years are 1.2 times more likely to use contraception than the women who are married below 18 year. The women who are married after the age of 18 years are more likely to use contraception in the migrant panel. In first model, women who married at the age of 18 & above are 3 times more likely to use contraception. After introducing migration factors in the second model the migrant women whose age at marriage is 18 & above are 3.5 times more likely to use contraception. On the other hand the non-migrant age at marriage and contraceptive use are inversely related, with increase of age at marriage non-migrant women are less likely to use contraception.

In the case of non-migrant women, Children Ever Born (CEB) and contraceptive use is directly related i.e. with increase in CEB the contraceptive use is also increasing; on the other hand, the CEB and contraceptive use is showing inverse relation among migrant women. Migrant women in both models are using less contraception with increase in CEB.

Literate migrants of both the models are using more contraception than the illiterates, but after incorporating migration factors the use of contraception slightly decreased for the migrants in second model than the first model. The migrant women's husbands who are literate are using less contraception in both the models. The non-migrant women literate husbands are 1.5 times more likely to use contraception. The logistic

analysis is showing, women and their husband's education are more influencing in case of the non-migrant women to use more contraception than the migrant women.

The non-Hindu migrant women are 0.4 times less likely to use contraception than the Hindu migrant women in model one and model two. The migrant others group are 1.3 times more likely to use contraception than the SC & ST caste group in the first model. When the migration factor is incorporated in the second model the migrant others group women are 1.4 times more likely to use contraception than the SC & ST group. On the other hand the non-migrant women of others caste group are 0.3 times less likely to use contraception than the SC & ST but the result is not showing any significance level.

The prevalence of contraception is high and significant among working women for both migrant and non-migrant categories compared to not-working women category in NCT of Delhi. In first model of migrant panel, the migrant working women are 3 times more likely to use contraception than the not-working migrant women. When the migration factors incorporated in the second model, the migrant working women are 2.7 times more likely to use contraception than the not-working migrant women.

The medium wealth possessing migrant and non-migrant women are less likely to use contraception than the lower wealth possessing women. With increase in wealth possession the contraceptive use of migrant women in model one and model two was increased, i.e. 1.2 times more likely to use contraception in model one and model two respectively. The non-migrant women who have high level wealth possession they are 0.5 time less likely to use contraception than the non-migrant women with low wealth possession and the odds also showing significance.

The non-migrant women with high mass media exposure are 2.7 times more likely to use contraception than the low mass media exposed women. The first model of migrant women with high mass media exposure is 1.6 times more likely to use contraception than the lower mass media exposed migrant women. After incorporating migration factors in the second model the use of contraception came slightly down to 1.4 times.

In first and second model of migrant panel, the use of contraception is 1.5 times more among the women who are having high decision making power than the women with

low decision making power. The non-migrant women who are having high decision making power are 2.7 times more likely to use contraception than the women with low decision making power and odds are also showing high significance level.

The women who are migrated from southern region are 1.2 times more likely to use contraception than the women who are migrated from northern region. For analyzing the effect of migration on contraceptive uses, the streams of migration in Delhi i.e. rural to urban and urban to urban has been considered in the multivariate analysis. Results shows that migrant that came from rural areas are more likely to use contraception as compared to those who already lived in urban areas before coming to Delhi. The possible reason behind this phenomenon cited the importance of migration in improving the prevalence of migration. Clearly, migrants came from rural areas interact with urban social and cultural context along with economic prosperity; they tend to use more contraception. The ‘adaption theory’ which explains the causes of differentials between migrant and non-migrant women is holding true in this case. This theory proposes that socio-cultural norms in the migration destination will influence those moving from rural to urban areas. The result is consistent with earlier literature also that argued that migration especially from rural to urban tends to higher use of contraception by the means of adaptation (Ochako et al, 2016). It is expected that duration of migration can also play the vital role in the use of contraception. Results regarding duration of migration, in the analysis, show that with increase in the duration of migration the use of contraception is also increasing. If the women’s migration duration is more than 10 years then they are 2.3 times more likely to use contraception than the women whose migration duration is between 1 to 10 years.

### ***5.6 Summary***

This chapter explores the prevalence of contraception among migrants and non migrants in study area along with the effect of migration on modern contraceptive use among women aged 15–49 years. Overall, non-migrants have the higher prevalence of contraceptive uses as compared to their counterparts. Results show that among demographic characteristics, age is one of the significant factors which are associated with the current contraceptive use among migrants as well as non migrants. The use of contraception is higher among older women than the younger women, possibly because women, who already achieved their desirable number of children, started



using contraception. The duration of stay by migrants is directly correlated with the use of contraception; explaining the theory of adaptation among non-migrants. Educational attainment of women as well as their husband played a vital role in use of contraception. Non-migrants, who are educated, are using more contraception than migrant women. Further, exposure to mass media increases the contraceptive use among women, reflecting the fact that mass media is quite successful in propagating the awareness regarding the family planning services.

The age at marriage of women is showing direct relation with use of contraception, i.e. with increase in the age at marriage the use of contraception is also increasing. This result also reflects the fact that after getting desired number of children, women are aware about the negative consequences of comparatively bigger family size. However, the desired numbers of children among non-migrants women are somehow higher if compared to non-migrant women in study area. The bivariate and multivariate logistic analysis results showed that migration stream was expressively related with current use of modern contraceptive devices. The analysis shows that, migrant women, regardless of their migration stream, have a higher likelihood to use modern contraceptives than non-migrant women, who are already residing in NCT of Delhi. Despite these findings, results further show that non-migrant urban women were more likely to use contraception than women from different migration streams, a possible sign of the adaption effect. Rural-urban migrants were more likely to use modern contraceptives compared to their non-migrant rural counterparts, possibly an indication of the adaption effect that assumes that as these women move to urban areas, they acquire urban characteristics including adoption of contraceptive use in the process of acquiring and adapting to the way of the urban area. The result is consistent with the finding of McKinney, 1996, which studied the impact of rural-urban migration on migrant's fertility.

This chapter corroborates the major role played by migration notably migration streams that have a direct significance on women's social, cultural, economic and economical changes that considerably affect the use of contraception. The policy implication of finding of this chapter can be useful to academicians, program implementers, policy makers, and various stakeholders to help update future interferences and also improve health services among various categories of the

population in Delhi as well in India. Programmatically, the differentials in modern contraceptive use by the different migration streams should be considered when designing programs in response to family planning needs of migrant and non-migrant women. It was also found that migrants unveiled better exposure to use of contraception due to access to higher levels of mass media exposure, high level of awareness, accessibility, availability, and affordability. Facilitating admittance to such services by the local government and central government will help increase greater use of contraception especially in slums of urban areas where the provision of similar services remains inadequate so far.

## Chapter VI

### Migration, Fertility Behaviour and Contraceptive Use

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#### 6.1 Introduction

Historically in India rural to rural migration is very high compared to various other streams of migration. Among these streams of migration women migration is dominant in Indian the form of post-nuptial migration. In recent decades the rural to urban migration is steadily increasing. From earlier literature it is known fact that fertility in urban areas is lower than the rural areas. The reason for low fertility in urban areas is because of various factors like, urabnisation, good educational facility, low infant mortality, easily availability of birth control methods, economic cost of rearing a child etc. The migration of people can affect the any areas population composition demographically and socially.

The migration can affect child bearing pattern of any place through selectivity, disruption, and adaptation. Selectivity means the migrants who are migrating to other areas are different in various ways. For instance, age, education, social category, class etc. Disruption is associated with migration and cause decline in fertility through physical separation (Goldstein and Tirasawat 1977) and increase fertility through interruption in contraceptive availability or by weakening of controls on sexual behaviour (Moreno 1994, Bloom and Mahal 1995). Adaptation is the practice where migrants adapt the low fertility norms of the destination, which ultimately leads to low fertility among migrants.

The migrants in NCT of Delhi are coming from different regions and different areas (rural and urban). The duration of stay by these migrants is also different, so to know how these migrants from different regions, various streams of migration and duration of stay by these migrants affect the fertility and contraceptive use in NCT of Delhi. This chapter mainly deal with migrants fertility behaviour and their contraceptive use with reference to region from they are migrating, stream of their migration and duration of their stay in NCT of Delhi.

## **6.2 Fertility Behaviour of Migrants with Reference to Region, Stream and Duration of Migration**

An attempt to explain the relations between socioeconomic factors and fertility has been done for currently married women. In specific, the analysis of fertility and contraceptive use among migrants is carried out by region from migrated, stream of migration and duration of migration with the migrant's socioeconomic backgrounds.

The migrant's age at marriage is one of the significant factors of the women's life and her overall fertility. The Table 6.1, 6.2, and 6.3 shows the relationship of age at marriage and CEB to migrant women from different regions, duration and stream of migration. The analysis shows migrant women are having fewer CEB to them if they are married in the later age with increase in the age at marriage. The numbers of CEB to women who are migrating from northern region are higher than the women who are migrating from southern region. With increase in duration the fertility of the migrant is increasing. The analysis shows, if the duration of migration is less than 10 years in the place of destination than they are having less CEB as compared to the migrants who are staying more than 10 years. These differences in CEB exist because of disruption process, as per the disruption hypothesis in the early duration of migration migrants go for fewer children than the people who are staying longer. The stream and age at marriage is also showing same results, the women who married and came to NCT of Delhi from urban areas are having fewer CEB compared to women who are migrating from rural areas.

The northern region migrant women after choosing 2 & below children as their ideal number of children, most of them are ending with 4 & above children. On the other hand, the southern migrant women are less likely to end up with high CEB while they opting 2 & below as their ideal number of children. The duration of stay in the place of destination and stream of migration is also showing CEB to migrant women in NCT of Delhi. Only 17 percent of women who desire 3 & above children as their ideal number of children they are having 4 & above number of CEB to them if their migration period is less than 10 years. On the other hand with increase in the duration of stay in the place of destination (more than 10 years) 41 percent of migrant women are ending up with 4 & above number of CEB.

**Table 6.1: Regions of Migration and Children Ever Born to Migrants in NCT of Delhi  
by Demographic and Socio-Economic Background.**

	Northern Region			Southern Region		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age at marriage</b>						
Below 18 Years	16.0	33.0	51.1	24.1	32.8	43.1
18 Years	36.4	30.3	33.3	42.9	28.6	28.5
Above 18 Years	30.4	47.8	21.5	61.9	28.6	9.5
<b>Ideal Number of Children</b>						
2 & Below	60.5	18.6	20.9	58.9	23.2	17.9
3 & Above	7.0	69.8	23.3	5.0	50.0	45.0
<b>CEB to Mother</b>						
Below 4	35.7	32.1	32.1	45.6	33.8	20.6
4 & Above	19.7	35.2	45.1	15.6	25.0	59.4
<b>Contraceptive Use</b>						
Using	61.8	63.5	45.3	72.2	71.0	51.5
<b>Women Education</b>						
Illiterate	15.6	31.1	53.3	15.0	27.5	57.5
Literate	33.3	40.0	26.7	50.0	33.3	16.7
<b>Religion</b>						
Hindu's	27.7	40.4	31.9	37.5	29.5	33.0
Non-Hindu's	14.3	25.0	60.7	25.0	41.7	33.3
<b>Social Groups</b>						
SC's & ST's	22.1	36.8	41.2	27.4	30.6	41.9
Other's	23.2	32.9	43.9	50.0	31.6	18.4
<b>Mass Media Exposure</b>						
Low	16.7	33.3	50.0	30.0	20.0	50.0
High	24.6	35.1	40.4	37.5	33.8	28.7
<b>Work status</b>						
Not working	23.9	34.1	42.0	30.4	32.6	37.0
working	21.0	35.5	43.5	40.7	29.6	29.6
<b>Wealth Quintile</b>						
Low	22.7	27.8	49.5	36.2	25.9	37.9
Middle	15.4	51.3	33.3	32.0	40.0	28.0
High	42.9	35.7	21.4	41.2	35.3	23.5
<b>Duration of Migration</b>						
1 to 10 Years	28.8	42.5	28.8	58.0	22.0	20.0
More than 10 Years	16.9	27.3	55.8	14.0	40.0	46.0
<b>Reason for Migration</b>						
Marriage	34.0	39.6	26.4	43.6	38.5	17.9
Economic	16.7	31.8	51.5	32.5	30.0	37.5
Other	16.1	32.3	51.6	28.6	19.0	52.4
<b>Stream of Migration</b>						
Rural to Urban	22.9	32.5	44.6	28.1	40.6	31.2
Urban to Urban	22.4	37.3	40.3	50.0	13.9	36.1

*Source: Computed from Primary Data (February to May 2016).*

The CEB to respondent's mother indirectly influences the fertility of the migrant women. If northern region migrant's mother is having high CEB they also end up with high fertility. This shows that the northern region migrant women are following the place of origin norms; i.e. they are following their fertility behaviour same as their mother. On the other hand the migrant women from southern region are having low CEB than their mother, so it proves that they are adapting the destination norms where fertility is low. The stream of migration is more influencing in curtailing number of CEB to the migrants. As the result shows that stream of migration is more influencing in lowering the CEB as compare to region from migrated and the duration of migration on same level of CEB the respondents mother have.

With increase in number of CEB the contraceptive use is decreasing among migrants from northern and southern region. But the contraceptive use is high among the southern region migrants in all panels of CEB than the northern region migrants. Education of women and CEB is inversely related. The contraceptive use with increase in the duration of stay at place of destination the contraceptive use is increasing. This shows that, migrant women are adapting the contraceptive use from the destination place with increase in duration of stay at NCT of Delhi.

The literate migrant women are having fewer CEB than the illiterate migrant women. The region from women migrated, stream of migration and duration of migration all are showing if the women is literate than she is having fewer children as compared to illiterate migrant women. This shows education plays a vital role in lowering fertility of women irrespective of region, stream and duration of migration.

The religion is playing a crucial role in determining the number of CEB to northern region migrant, rural to urban migrant and below 10 years of duration. Hindu women of northern region are having less CEB than the non-Hindu migrant women in NCT of Delhi. On the other hand for southern migrant women religion is not as important as the social group (Caste), here Hindu and non-Hindu migrant women of southern region are having same percent of 4 & above number of CEB.

**Table 6.2: Duration of Migration and Children Ever Born to Migrants in NCT of Delhi by Demographic and Socio-Economic Background.**

	1 to 10 years			More than 10 Years		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age at marriage</b>						
Below 18 Years	28.6	35.7	35.7	11	30.5	58.5
18 Years	62.1	27.6	10.3	12	32	56
Above 18 Years	50	37.5	12.5	40	40	20
<b>Ideal Number of Children</b>						
2 & Below	75.4	15.8	8.8	38.1	28.6	33.3
3 & Above	13.8	69	17.2	*	58.8	41.2
<b>CEB to Mother</b>						
Below 4	35.7	32.1	32.1	45.6	33.8	20.6
4 & Above	19.7	35.2	45.1	15.6	25	59.4
<b>Contraceptive Use</b>						
Using	61.8	63.5	45.3	72.2	71	51.5
<b>Women Education</b>						
Illiterate	26.9	36.5	36.5	7.7	25.6	66.7
Literate	50.7	32.4	16.9	28.6	42.9	28.6
<b>Religion</b>						
Hindu's	44.7	36.2	19.1	19.3	34.1	46.1
Non-Hindu's	27.6	27.6	44.8	7.7	28.2	64.1
<b>Social Groups</b>						
SC's & ST's	35.8	38.8	25.4	12.7	28.6	58.7
Other's	46.4	28.6	25	18.8	35.9	45.3
<b>Mass Media Exposure</b>						
Low	44.4	25.9	29.6	*	31	69
High	39.6	36.5	24	20.4	32.7	46.9
<b>Work status</b>						
Not working	34.7	33.3	32	15.3	33.9	50.8
working	50.0	35.4	14.6	16.2	30.9	52.9
<b>Wealth Quintile</b>						
Low	42.3	26.9	30.8	13.0	27.3	59.7
Middle	36.4	48.5	15.2	6.5	45.2	48.4
High	41.7	41.7	16.6	42.1	31.6	26.3
<b>Reason for Migration</b>						
Marriage	56.4	38.5	5.1	24.5	39.6	35.8
Economic	31.5	31.5	37.0	13.5	30.8	55.8
Other	36.7	33.3	30.0	*	18.2	81.2
<b>Stream of Migration</b>						
Rural to Urban	38.2	33.8	27.9	13.9	38	48.1
Urban to Urban	43.6	34.5	21.8	18.8	22.9	58.3

*Source: Computed from Primary Data (February to May 2016).*

*\* No adequate sample.*

The SCs & STs migrant and other (other than SCs & STs) migrant in the social group of northern region are having same number of CEB, on the other hand the SCs & STs from southern region are having high CEB than the other caste category. The analysis shows caste (social group) plays a vital role in determining the CEB to the southern region migrants.

The analysis shows, work status of women and mass media exposure are highly influencing the southern region; migrant's duration of staying is below 10 years and rural to urban migration to have fewer children. At the same level of mass media exposure the southern women are having fewer children as compared to northern region migrants. Increases of mass media exposure to rural to urban migrants are convincing them to have fewer children than the women who are migrating from urban area to NCT of Delhi. The analysis is also showing the aforesaid result. The work status of women is discouraging the fertility of northern region migrants. With increase in the duration of stay in the destination the migrants are going for more children and the work status of women is not affecting the fertility of migrants.

With increase in wealth possession the CEB to migrants are decreasing. The migrants who are migrating from urban to urban areas are having fewer numbers of children if their wealth possession increases. The analysis shows that, duration of migration is also affecting the CEB of migrants with increase in wealth possession, but not as much as the stream of migration and region from migration is doing.

Reason for migration of women to NCT of Delhi is one of the best ways to see, how the fertility is affected with various reason of migration. In India marriage is a social norm, because of marriage most of the women migration is taking place. The analysis shows that, the women who are migrating from southern region after marriage or for economic reason having fewer children than the women who are migrating from northern region. With increase in the duration of migration the migrants who migrated for economic reasons are going for higher parity, whereas the women who migrated by various other reasons they are having very high number of children with increase of duration of migration (Table 6.1, 6.2 and 6.3). The migrants who are migrated from rural to urban areas for economic reason are having fewer children than the migrants from urban to urban.



**Table 6.3: Stream of Migration and Children Ever Born to Migrants in NCT of Delhi by Demographic and Socio-Economic Background.**

	Rural to Urban			Urban to Urban		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age at marriage</b>						
Below 18 Years	14.4	37.8	47.8	25.8	25.8	48.4
18 Years	42.4	30.2	27.3	33.3	28.6	38.1
Above 18 Years	41.7	37.5	20.8	50.0	40.0	10.0
<b>Ideal Number of Children</b>						
2 & Below	56.9	27.5	15.7	62.5	14.6	22.9
3 & Above	7.0	60.5	32.6	5.0	70.0	25.0
<b>CEB to Mother</b>						
Below 4	33.9	37.2	28.8	56.8	27	16.2
4 & Above	19.3	35.2	45.5	18.2	30.3	51.5
<b>Contraceptive Use</b>						
Using	64.9	60.4	49.1	69.7	76.7	45.0
<b>Women Education</b>						
Illiterate	12.2	31.7	56.1	20.8	27.1	52.1
Literate	41.5	41.5	17.0	41.8	3.9	27.5
<b>Religion</b>						
Hindu's	27.9	36.9	35.1	39.4	32.4	28.2
Non-Hindu's	16.7	33.3	50.0	15.6	21.9	62.5
<b>Social Groups</b>						
SC's & ST's	19.5	34.1	46.3	33.3	33.3	33.4
Other's	56.8	47.2	33.3	30.9	25.5	43.6
<b>Mass Media Exposure</b>						
Low	15.2	24.2	60.6	30.4	34.8	34.8
High	28.1	39.5	32.5	32.5	27.5	40.0
<b>Work status</b>						
Not working	27.6	35.6	36.8	23.4	29.8	46.8
working	21.7	36.7	41.7	39.3	28.6	32.1
<b>Wealth Quintile</b>						
Low	27.1	29.2	43.8	28.8	23.7	47.5
Middle	17.1	51.4	31.4	27.6	41.4	31.0
High	31.2	43.8	25.0	53.3	26.7	20.0
<b>Reason for Migration</b>						
Marriage	32.7	42.3	25.0	45.0	35.0	20.0
Economic	22.1	35.3	42.6	23.7	23.7	52.7
Other	18.5	25.9	55.6	24.0	28.0	48.0

*Source: Computed from Primary Data (February to May 2016).*

This show, the people who are migrating from rural areas are more adapting the new urban norms as compared to the migrants who are migrating from urban areas. Migrants from northern and southern region are going for lower fertility with increase in duration of migration. This is clearly visible from the analysis that with increase in the duration of stay in NCT of Delhi the CEB is decreasing among migrants (Table 6.1).

The women who are migrating from southern regions from rural areas to NCT of Delhi are having fewer children than the women from northern region rural areas to NCT of Delhi (Table 6.2). The women migrating from urban areas to NCT of Delhi are having more children than the rural to urban migrating women with increase in the duration of migration. This was already stated, the rural migrants are adapted the urban condition of the destination (NCT of Delhi) and behaving as native in terms of their fertility behaviour. On the other hand why the urban areas migrants who migrate to NCT of Delhi is not showing drop in their fertility as compared with rural to urban migration. This will be assumed that the small town dwellers migrated from these towns to NCT of Delhi has not adapting the fertility behaviour of the NCT of Delhi's native women because they prefer their place of origin norms than the place of destination norms.

### **6.3 Determinants of Migrants Fertility in NCT of Delhi**

The analysis is suggesting a complex series of interactions existence among several variables to affect the level of fertility of migrants. In order to evaluate these interrelationships, multiple classification analysis is carried out. The variables included in this analysis are duration of migration, stream of migration, reason for migration, CEB to respondent mother, education, work status, wealth quintile, caste, ideal number of children, and mass media exposure.

#### ***6.3.1 Regional Difference and CEB***

The duration of migration and CEB to migrants is highly significant for both the region (northern region and southern region) from the migrants are migrating. With increase in the duration of migration the CEB of northern and southern region migrants are increasing. The reasons for migration is also showing very highly significant with CEB to the migrants of the two regions from these migrants are from.

**Table 6.4: Multiple Classification Analysis of Children Ever Born to Migrants from Northern and Southern Region in NCT of Delhi.**

Background Characteristics	Northern Region		Southern Region	
	Unadjusted Mean	Mean Adjusted	Unadjusted Mean	Mean Adjusted
<b>Grand Mean</b>	<b>2.391</b>		<b>4.307</b>	
<b>Duration of Migration (Eta/Beta)</b>	<b>0.338</b>	<b>0.315**</b>	<b>0.462</b>	<b>0.457***</b>
1 to 10 Years	2.53	2.56	2.07	2.08
More than 10 Years	3.22	3.19	3.23	3.22
<b>Stream of Migration (Eta/Beta)</b>	<b>0.036</b>	<b>0.053</b>	<b>0.108</b>	<b>0.046</b>
Rural to Urban	2.83	2.81	2.71	2.56
Urban to Urban	2.9	2.92	2.43	2.68
<b>Reason for Migration (Eta/Beta)</b>	<b>0.204</b>	<b>0.246**</b>	<b>0.234</b>	<b>0.218**</b>
Marriage	2.61	2.59	2.31	2.32
Economic	2.97	2.9	2.65	2.68
Other	3.1	3.24	3.06	3
<b>CEB to Respondent Mother (Eta/Beta)</b>	<b>0.082</b>	<b>0.063</b>	<b>0.232</b>	<b>0.167</b>
4 & Below	2.71	2.75	2.42	2.47
Above 4	2.91	2.9	3.04	2.92
<b>Women Education (Eta/Beta)</b>	<b>0.229</b>	<b>0.08</b>	<b>0.314</b>	<b>0.084</b>
Illiterate	3.09	2.94	3.24	2.77
Literate	2.63	2.78	2.36	2.54
<b>Women Work Status (Eta/Beta)</b>	<b>0.094</b>	<b>0.049</b>	<b>0.064</b>	<b>0.166*</b>
Not Working	2.78	2.82	2.7	2.84
Working	2.97	2.92	2.53	2.42
<b>Wealth Quintile (Eta/Beta)</b>	<b>0.125</b>	<b>0.138</b>	<b>0.039</b>	<b>0.146</b>
Low	2.88	2.84	2.64	2.74
Middle	2.92	3.02	2.53	2.3
High	2.55	2.56	2.57	2.55
<b>Caste (Eta/Beta)</b>	<b>0.059</b>	<b>0.028</b>	<b>0.276</b>	<b>0.191*</b>
SC's & ST's	2.79	2.89	2.91	2.81
Other's	2.91	2.83	2.21	2.33
<b>Ideal No. Children (Eta/Beta)</b>	<b>0.39</b>	<b>0.331***</b>	<b>0.261</b>	<b>0.116</b>
2 & Below	2.47	2.52	2.41	2.52
3 & Above	3.26	3.2	3.15	2.85
<b>Mass Media Exposure</b>	<b>0.068</b>	<b>0.005</b>	<b>0.152</b>	<b>0.168</b>
Low	3	2.87	2.17	2.12
High	2.83	2.86	2.69	2.7
<b>Multiple R</b>	<b>0.593</b>		<b>0.688</b>	
<b>R<sup>2</sup></b>	<b>0.352</b>		<b>0.474</b>	
<b>Number of Cases</b>	<b>86</b>		<b>76</b>	

*Source: Computed from Primary Data (February to May 2016).*

The southern migrants are having less CEB than the northern migrants if the reason for migrating is marriage and economic. The CEB of both region migrants is same if the reason for migration is different from marriage or economic (other) reason. The work status of women is only significant for the southern region migrants, while the northern migrant work status is not showing any significant at all. The working southern region migrant women are having less CEB (2.42 mean children) than the non-working (2.84 mean children) migrant women.

Caste of the migrant women is significant for southern region migrants. The SC & ST migrants are having more children than the non-SC & ST (others) migrants among the southern region migrants. The ideal number of children the migrant women want is very highly significant for the northern region migrants and showing no significant level for southern region migrants. The northern region migrant women who want 2 and below number of children are ending up with more than actually they want. There are two possibilities for this, first, lack of knowledge of contraception. Second, unmet need of contraception which leads them to higher fertility even they want to limit the birth of the children. The first reason is very least possible reason, because the primary data shows that the knowledge of contraception is very high among the migrants.

The stream of migration, CEB to respondent mother, education of women, wealth possession of the women, and mass media exposure are not showing any significant level in the analysis.

### ***6.3.2 Stream of Migration and CEB***

Duration of migration is very highly significant for both the stream of migration i.e. rural to urban migrants and urban to urban migrants. The women who are migrated from rural to urban areas with below 10 years of duration in NCT of Delhi are having less mean children than the migrant women who are residing more than 10 years in NCT of Delhi. The urban to urban migrating women are showing less mean children if the duration of stay is below 10 years and with increase in stay the mean children is increasing. After certain period of time migrants go for the completion of their fertility, so with increase in duration leads to higher fertility as compared to initial period of time.

**Table 6.5: Multiple Classification Analysis of Children Ever Born to Migrants and Stream of Migration in NCT of Delhi.**

Background Characteristics	Rural to Urban		Urban to Urban	
	Unadjusted Mean	Mean Adjusted	Unadjusted Mean	Mean Adjusted
<b>Grand Mean</b>	<b>2.837</b>		<b>3.772</b>	
<b>Duration of Migration (Eta/Beta)</b>	<b>0.332</b>	<b>0.292***</b>	<b>0.484</b>	<b>0.494***</b>
1 to 10 Years	2.42	2.46	2.18	2.17
More than 10 Years	3.13	3.09	3.37	3.38
<b>Region from Migrated (Eta/Beta)</b>	<b>0.055</b>	<b>0.105</b>	<b>0.191</b>	<b>0.023</b>
Northern Region	2.83	2.65	2.9	2.73
Southern Region	2.71	2.88	2.43	2.67
<b>Reason for Migration (Eta/Beta)</b>	<b>0.136</b>	<b>0.97</b>	<b>0.335</b>	<b>0.364***</b>
Marriage	2.67	2.68	2.21	2.21
Economic	2.72	2.75	3.05	2.95
Other	3.05	2.97	3.11	3.21
<b>CEB to Respondent Mother (Eta/Beta)</b>	<b>0.138</b>	<b>0.167</b>	<b>0.265</b>	<b>0.11</b>
4 & Below	2.6	2.57	2.35	2.56
Above 4	2.9	2.93	3	2.83
<b>Women Education (Eta/Beta)</b>	<b>0.317</b>	<b>0.077*</b>	<b>0.246</b>	<b>0.019</b>
Illiterate	3.19	2.87	3.07	2.68
Literate	2.49	2.7	2.46	2.72
<b>Women Work Status (Eta/Beta)</b>	<b>0.067</b>	<b>0.086</b>	<b>0.086</b>	<b>0.053</b>
Not Working	2.7	2.85	2.83	2.78
Working	2.85	2.66	2.62	2.65
<b>Wealth Quintile (Eta/Beta)</b>	<b>0.052</b>	<b>0.042</b>	<b>0.148</b>	<b>0.144</b>
Low	2.73	2.74	2.83	2.8
Middle	2.86	2.85	2.71	2.76
High	2.77	2.74	2.33	2.33
<b>Caste (Eta/Beta)</b>	<b>0.192</b>	<b>0.181*</b>	<b>0.014</b>	<b>0.066</b>
SC's & ST's	2.96	2.95	2.69	2.79
Other's	2.55	2.56	2.72	2.63
<b>Ideal No. Children (Eta/Beta)</b>	<b>0.418</b>	<b>0.3**</b>	<b>0.236</b>	<b>0.146</b>
2 & Below	2.35	2.47	2.52	2.59
3 & Above	3.26	3.12	3.15	2.98
<b>Mass Media Exposure</b>	<b>0.063</b>	<b>0.025</b>	<b>0.134</b>	<b>0.102</b>
Low	2.93	2.7	2.4	2.47
High	2.74	2.78	2.79	2.77
<b>Multiple R</b>	<b>0.582</b>		<b>0.7</b>	
<b>R<sup>2</sup></b>	<b>0.339</b>		<b>0.49</b>	
<b>Number of Cases</b>	<b>94</b>		<b>68</b>	

*Source: Computed from Primary Data (February to May 2016)*

Reason for migration of urban to urban migrants is showing a very high significant in the analysis. If urban to urban migrating women is migrated as reason of marriage than she end-up with less mean CEB as compared to women who are migrating for economic or any other reasons. There is exactly one child difference is prevailing among the women who are migrating from urban to urban areas as areas on of marriage and other reason.

For rural to urban migrating women education is significant, on the other hand education is not showing any significance level for the women who are migrating from urban to urban areas. The literate women are having slightly less CEB than the illiterate women who are migrating from rural areas to NCT of Delhi.

The caste of migrant women who are migrating from rural to urban areas showing significant, but the urban to urban area migrating women's caste is not showing any significance level. The SC & ST migrant women from rural to NCT of Delhi are having high mean CEB than the other (Except SC & ST). But the difference among SC & ST and other caste is 0.5 mean CEB.

The ideal number of children the migrant women want is highly significant for rural to urban migrating women and their no significance level to urban to urban migrating women. The rural to urban migrant women who want 2 and below number of children are ending up with more than actually they want and the gap between the CEB want and CEB they have is around 0.5 mean children. On the other hand the rural to urban migrating women who want 3 and above children are ending-up with slightly above 3 mean children. The region from migrated, CEB to respondent mother, work status of women, wealth possession, and mass media exposure are not showing any significant level for rural to urban migrant or urban to urban migrant.

### ***6.3.3 Duration of Migration and CEB***

The migrant who are migrated and staying below 10 years in place of destination (NCT of Delhi) is crucial. In the initial time period of below 10 years of duration northern region migrants are having more mean children than the southern region migrant. But, the mean children difference among the northern and southern region is very low between these two regions.

**Table 6.6: Multiple Classification Analysis of Children Ever Born to Migrants and Duration of Migration in NCT of Delhi.**

Background Characteristics	1 to 10 Years		More than 10 Years	
	Unadjusted Mean	Mean Adjusted	Unadjusted Mean	Mean Adjusted
<b>Grand Mean</b>	<b>2.751</b>		<b>1.573</b>	
<b>Region from Migrated (Eta/Beta)</b>	<b>0.215</b>	<b>0.058*</b>	<b>0.004</b>	<b>0.155</b>
Northern Region	2.53	2.37	3.22	3.08
Southern Region	2.07	2.25	3.23	3.39
<b>Stream of Migration (Eta/Beta)</b>	<b>0.108</b>	<b>0.031</b>	<b>0.115</b>	<b>0.167</b>
Rural to Urban	2.42	2.34	3.13	3.09
Urban to Urban	2.18	2.28	3.37	3.43
<b>Reason for Migration (Eta/Beta)</b>	<b>0.247</b>	<b>0.205**</b>	<b>0.393</b>	<b>0.341**</b>
Marriage	1.97	2.03	2.89	2.9
Economic	2.42	2.39	3.29	3.34
Other	2.6	2.56	4.0	3.84
<b>CEB to Respondent Mother (Eta/Beta)</b>	<b>0.206</b>	<b>0.042</b>	<b>0.131</b>	<b>0.165</b>
4 & Below	2.09	2.27	3.06	3.02
Above 4	2.53	2.36	3.33	3.36
<b>Women Education (Eta/Beta)</b>	<b>0.185</b>	<b>0.053</b>	<b>0.274</b>	<b>0.109</b>
Illiterate	2.62	2.4	3.5	3.33
Literate	2.18	2.28	2.95	3.11
<b>Women Work Status (Eta/Beta)</b>	<b>0.073</b>	<b>0.05</b>	<b>0.069</b>	<b>0.096</b>
Not Working	2.38	2.36	3.3	3.33
Working	2.22	2.25	3.16	3.14
<b>Wealth Quintile (Eta/Beta)</b>	<b>0.168</b>	<b>0.119</b>	<b>0.154</b>	<b>0.087</b>
Low	2.24	2.33	3.33	3.3
Middle	2.56	2.41	3.19	3.14
High	2	1.98	2.93	3.1
<b>Caste (Eta/Beta)</b>	<b>0.149</b>	<b>0.155**</b>	<b>0.097</b>	<b>0.168</b>
SC's & ST's	2.47	2.47	3.32	3.4
Other's	2.15	2.14	3.13	3.06
<b>Ideal No. Children (Eta/Beta)</b>	<b>0.434</b>	<b>0.331**</b>	<b>0.194</b>	<b>0.168</b>
2 & Below	1.98	2.06	3.05	3.07
3 & Above	2.97	2.81	3.44	3.14
<b>Mass Media Exposure</b>	<b>0.091</b>	<b>0.15</b>	<b>0.083</b>	<b>0.043</b>
Low	2.12	1.99	3.42	3.12
High	2.36	2.39	3.19	3.24
<b>Multiple R</b>	<b>0.602</b>		<b>0.515</b>	
<b>R<sup>2</sup></b>	<b>0.363</b>		<b>0.265</b>	
<b>Number of Cases</b>	<b>86</b>		<b>76</b>	

*Source: Computed from Primary Data (February to May 2016)*

The reason for migration of migrants who are staying below 10 years and more than 10 years is showing very high significant level. The mean children of women who are migrating to NCT of Delhi marriage as reason of migration are having less mean CEB to them in both the panels of duration of migration. If the marriage is the reason for migration to NCT of Delhi and she is staying below 10 years as compared to women who are migrating to NCT of Delhi with other reasons than they will have difference of 0.5 mean children ever born. If the women who are staying more than 10 years in NCT of Delhi and migrated with the reason of marriage and other reason than they have nearly 1 mean child as difference between them.

The caste of the migrants is highly significant to women who are staying in NCT of Delhi below 10 years. The difference between the SCs& STs and other (non SCs& STs) caste are in terms of mean CEB is very low. With increase in duration of stay at NCT of Delhi the others group is having less CEB than the SCs & SCs group, but the actual CEB of SCs& STs and other ground is increased with increased duration in NCT of Delhi.

The ideal number of children, the desire number of the children is significant for women who are staying below 10 years in NCT of Delhi. The migrant women who want 3 & above children as their ideal number of children than they are having below 3 CEB if their duration is below 10 years at NCT of Delhi. This shows the disruption is the factor which affects the CEB to migrant women who are residing in NCT of Delhi for below 1 years of duration. The stream of migration, CEB to respondent mother, education of women, work status of women, wealth possession, and mass media exposure are not showing any significant level for rural to urban migrant or urban to urban migrant.



#### **6.4 Contraceptive Use of Migrants with Reference to Region, Stream and Duration of Migration**

Distribution of migrant women using contraception by background characteristics has been presented in table 6.7. Southern region migrant women in NCT of Delhi are using more contraception with increase in the age at marriage. If the migrant age at marriage is above 18 years then the region is not a factor which influences the use of contraception. Both the region (northern and southern region) migrants are equally using contraception. The women who are migrating to NCT of Delhi from rural areas are using less contraception than the migrants who are migrating from urban areas if their age at marriage is 18 & below. On the other hand if the age at marriage of migrants from rural to NCT of Delhi is above 18 years then they are using more contraception than the urban to NCT of Delhi migrating women. The analysis is also showing same pattern of contraceptive use with increase of duration of migration and age at marriage.

There is no change in contraceptive use of northern region migrant among women who want 2 & below children as their ideal number of children and who want 3 & above children. The southern region migrant are using high percent (80 percent) of contraception if they are opting 3 & above as their ideal number children. The rural migrant with increase in ideal number of children their contraceptive use is declining. On the other hand migrants from urban areas are using more contraception with increase of their ideal number children. The duration of migration is showing adaptation characteristics of migrants with increase in the duration of migration period.

The CEB of the respondent and CEB of respondent mother are showing inverse relationship with contraceptive of the respondent. If the respondent is having 2 & below CEB then they are using 15 to 20 percent more contraception than the women who are having 4 & above CEB in all region and in all stream of migration. If the migrant's mothers have below 4 children then the migrant women from both the region are using more contraception than the migrant women whose mother is having 4 & above CEB.

**Table 6.7: Distribution of Migrant Women Using Contraception by Background Characteristics**

	Region		Stream		Duration	
	N.R	S.R	Rural	Urban	Below 10years	10 & Above Years
<b>Age at marriage</b>						
Below 18 Years	50.0	63.8	47.1	62.2	54.4	56.5
18 Years	54.5	57.1	48.3	64.0	54.5	57.1
Above 18 Years	78.3	76.2	79.2	75.0	70.8	85.0
<b>Ideal Number of Children</b>						
2 & Below	65.1	67.9	63.2	71.4	62.7	70.8
3 & Above	65.1	80.0	58.6	79.4	72.1	65.0
<b>CEB to Mother</b>						
Below 4	67.9	76.5	71.2	77.3	71.2	78.4
4 & Above	52.5	40.6	40.8	57.8	47.7	53.0
<b>CEB</b>						
2 & Below	61.8	72.2	62.0	80.0	64.9	69.7
3	63.5	71.0	50.0	82.9	60.4	76.7
4 & Above	45.3	51.5	45.2	48.5	49.1	45.0
<b>Women Education</b>						
Illiterate	51.1	57.5	46.2	57.7	48.8	60.4
Literate	61.7	70.0	59.2	75.5	67.7	63.6
<b>Religion</b>						
Hindu's	60.6	65.9	55.3	71.6	58.6	70.4
Non-Hindu's	46.4	58.3	48.3	48.7	52.8	43.8
<b>Social Groups</b>						
SC's & ST's	42.6	67.7	52.2	57.1	54.9	54.2
Other's	65.9	60.5	55.4	71.9	60.0	69.1
<b>Mass Media Exposure</b>						
Low	47.2	45.0	33.3	58.6	57.6	30.4
High	57.9	70.0	59.4	66.3	57.0	71.2
<b>Work status</b>						
Not working	43.2	56.5	40	57.6	52.9	38.3
Working	72.6	72.2	75	70.6	63.3	82.1
<b>Wealth Quintile</b>						
Low	50.5	62.1	50.0	59.7	57.3	50.8
Middle	59.0	68.0	57.6	67.7	54.3	72.4
High	78.6	70.6	66.7	78.9	62.5	86.7

*Source: Computed from Primary Data (February to May 2016)*

The use of contraception among the literate migrant women is higher than the illiterate migrant women from different regions and streams of migration. The literate migrant whose duration of migration is below 10 years are using 20 percent more contraception than the illiterate migrants. With increase in duration of migration the use of contraception is also came down for the literate migrants.

The non-Hindu migrants from southern region are using more contraception then the northern non-Hindu migrants. There is no difference in use of contraception among rural to urban migrating non-Hindu and urban to urban migrating non-Hindus. The SC's & ST's of southern region are using more contraception than the other (except SC's & ST's) caste migrants from the same region. This proves region plays a vital role in determining the contraceptive use of migrant women in NCT of Delhi. The rural to urban migrating SC's & ST's and other caste contraceptive difference is very low. This shows that the rural SC's & ST's are more adapting the urban norms than the other caste migrants.

The migrant with low mass media exposure by either region are using less contraception than the migrant with high mass media exposure. The mass media exposure is highly significant to the migrant of southern region and increase of duration of migration because they are showing very high use of contraception (above 70 percent). There is no difference in contraceptive use between urban to urban migrant with low and high mass media exposure. This shows the urban to urban migrating migrant already have knowledge contraception so in their attitude towards contraception is changing and ending up with same percent of contraception use.

The working migrants from both the region and stream are using more contraception then the not working women of these regions and streams of migration. With increase in duration of migration most (82 percent) of the working migrant women are using contraception than the non-working migrant women. With increase of wealth possession the use of contraception is increasing. With same level of wealth (high wealth possession) the migrant women whose duration of stay at NCT of Delhi is more than 10 years are using highest percent of contraception (around 87 percent).

**Table 6.8: Influence of Factors Related to Migration in Contraceptive Use in NCT of Delhi**

	Region		Duration		Stream	
	Northern Region	Southern Region	Below 10 yrs	10& Above yrs	Rural to Urban	Urban to Urban
<b>Region from Migrated</b>						
Northern Region	-	-	47.9	62.3	51.8	59.7
Southern Region	-	-	62	68	64.1	66.7
<b>Duration of Migration</b>						
1 to 10 Years	-	-	-	-	54.4	52.7
More than 10 Years	-	-	-	-	59.5	72.9
<b>Reason for Migration</b>						
Marriage	54.7	69.2	56.4	64.2	51.9	72.5
Economic	60.6	67.5	53.7	73.1	63.2	63.2
Other	45.2	52.4	50	45.5	51.9	44

*Source: Computed from Primary Data (February to May 2016)*

The migrants from northern region are with increase in duration of migration contraceptive is also increasing from 48 percent to 62 percent. The rural to urban migrants from northern region are less contraception than the migrants from the urban to urban migrants of same region. The southern region migrants are using higher contraception than the northern region migrants. The southern region migrants in NCT of Delhi are using more contraception with increase in duration of migration. The difference in contraceptive use of rural to urban migrants and urban to urban migrants is very less among southern region migrants. With increase in the duration of stay on destination the rural to urban migrant are also increased their contraceptive use, but the increase is not very high. On the other hand with increase in the duration of stay at the place of destination the contraceptive use of urban to urban migrant with increase is very high.

With the various reason of migration the regional difference in contraceptive use is visible among migrants. The northern migrant women who migrated as reason of Marriage are using less as compared to the southern region migrant. The southern region migrants are using more contraception than the northern region migrants in all the possible reasons of migration is analysed in this study. With increase in the duration of stay the use of contraception is increasing if the migrant is migrated for the reason of marriage or economic purpose. But, apart from these two aforesaid reasons any migrant is migrating with other reasons than they are using less

contraception with increase of time in the destination place. If the women are migrating from rural areas to urban areas for the reason of marriage than they are using less contraception than the urban to urban migrants who are coming to NCT of Delhi as a reason of marriage. There is no difference among rural to urban and urban to urban migrant in terms of contraception if they are migrating for economic reasons.

## **6.5 Determinants of Contraception**

### ***6.5.1 Regional Difference***

Factors affecting the use of contraception use among migrants women, presented in table 6.8. There has been 3 models of binary logistic employed for better understanding the contraceptive behaviour. Region wise, stream wise and duration of migration has been taken into consideration for examining the contraceptive behaviour among migrants. The dependent variable for all three models is use of contraception, which was coded in the form of '0' and '1', where '0' denotes no use of contraception and '1' denotes otherwise.

The determinants of contraception use for north region is listed in left most column of the table. Results show that reasons for migration, age of the migrants, age at marriage of the migrants, social status of migrants and work status of the migrants are major factors for using the contraception among women migrants from north region, who came to NCT of Delhi. Among reasons for migration, except marriage and economic reason, 'other' category of reasons is less likely to affect the use of contraception among women. Age at marriage is strongly associated with use of contraception among women migrated from north region. Women who got marriage at the age of above 18 years, they have highest probability to use the contraception. On the other hand, women who got marriage at the age of 18 year which is legal age at marriage are 3.2 times more likely to use contraception as compared to those women who got marriage before the age of 18 years. Stream of migration also played a vital role in influencing the contraceptive uses. However, the odds ratio for urban to urban stream is not significant in the result, but women migrated from urban to urban stream are 1.3 times more likely to use contraception. Working status of migrated women is also a major contributing factor for contraceptive uses. Those women who

are working have 9.4 times high probability to use contraception as compared to those women who are not working.

**Table 6.9: Determinants of Contraceptive Use among Migrant Women by Region, Stream and Duration of Migration.**

	Region		Stream		Duration	
	Northern Region	Southern Region	Rural	Urban	1 to 10 yrs	More than 10 yrs
<b>Region from migrated</b>						
Northern Region	-	-	1	1	1	1
Southern Region	-	-	1.138	0.379	0.582	1.168
<b>Stream of Migration</b>						
Rural	1	1	-	-	1	1
Urban	1.399	1.303	-	-	0.628	7.451**
<b>Reason for migration</b>						
Marriage	1	1	1	1	1	1
Economic	0.858	1.87	1.068	2.807	0.881	3.052
Other	0.256*	0.166*	0.508	0.111*	0.386	0.147*
<b>Duration of Migration</b>						
1 to 10 Years	1	1	1	1	-	-
More than 10 Years	1.703	2.067	1.326	7.012*	-	-
<b>Age at Marriage</b>						
Below 18	1	1	1	1	1	1
18	3.293	0.431	0.9	3.005	0.641	4.033
Above 18	6.149*	0.856	1.463	7.104	1.11	9.616
<b>women Education</b>						
Illiterate	1	1	1	1	1	1
literate	1.529	0.986	1.637	0.726	0.885	1.861
<b>Religion</b>						
Hindu	1	1	1	1	1	1
Non-Hindu	0.397	0.714	1.545	0.116*	3.049	0.121**
<b>Social Group</b>						
SC & ST	1	1	1	1	1	1
Other's	4.382*	1.063	1.545	3.114	0.883	1.26
<b>Work Status</b>						
Non-Working	1	1	1	1	1	1
Working	9.48***	1.897	1.357	28.116***	7.834**	4.276*

<b>Mass Media Exposure</b>						
Low	1	1	1	1	1	1
High	2.162	9.772*	2.189	6.143*	4.626*	1.098
<b>Ideal Number of children</b>						
2 & Below	1	1	1	1	1	1
3 & Above	1.689	5.585*	2.608*	2.795	1.396	8.079**
<b>CEB to Mother of Respondent</b>						
Below 4	1	1	1	1	1	1
4 & Above	0.376	0.252*	0.299*	0.258	276	0.509
<b>N</b>	<b>86</b>	<b>76</b>	<b>94</b>	<b>68</b>	<b>86</b>	<b>76</b>
<b>R Square</b>	<b>0.409</b>	<b>0.416</b>	<b>0.218</b>	<b>0.668</b>	<b>0.418</b>	<b>0.41</b>
<b>Likelihood</b>	<b>80.934</b>	<b>65.298</b>	<b>103.213</b>	<b>40.342</b>	<b>82.895</b>	<b>60.829</b>

*Source: Computed from Primary Data (February to May 2016)*

The determinants of contraception use for south region are depicted in the second left column of the table. Results show that, reason for migration, work status of migrant women, mass media exposure, ideal number of children, and children ever born are significantly associated with use of contraception. Among reasons for migration, except marriage and economic reason, ‘other’ category of reasons is less likely to affect the use of contraception among women. For work status of women, women who are engaged in any work have about 2 times more probability to use contraception as compared to those women who are not engaged in any work. Expectedly, exposure to mass media is most influencing factor for using contraception among women migrated from southern region of India. It is observed that, women who are highly exposed to mass media in NCT of Delhi have higher probability to use contraception.

The perception about the desire number of children is also the significant factor in determining the use of contraception. However, the ideal number of children among migrant household is 3 and above which is not satisfactory in terms of family planning. Result shows that women who attain their number of desire children have about 5.5 times more probability to use contraception as compared to those who have less number of ideal children. It is expected that after getting the certain limit, women started the use of contraception. Similarly, children ever born are also played an

important role for contraceptive use. Women who have above four parity are more likely to use contraception as compared to those women who have below four parity.

### ***6.5.2 Stream of Migration and Contraceptive use***

Since rural and urban areas have their own peculiar characteristics in terms of socio-economic and demographic, it is necessary to examine the factors influencing the use of contraception by streams of migration. Here, there are two streams of migration i.e. migrant from rural areas to NCT of Delhi and migrants from urban areas to NCT of Delhi has been taken in account as the study. Here NCT of Delhi is considering as fully urban area. It is observed that migrants who came from rural areas in NCT of Delhi have very less significant factors for using contraception. On the other hand women who came from urban areas into NCT of Delhi have some extent of satisfactory results regarding to the use of contraception. This observation clearly reflects the effect of place of residence on contraception use as rural areas are suffered from the availability, accessibility and affordability in terms of family planning interventions. Moreover, rural areas also suffered from lack of awareness, education, and many socio-economic characteristics. Results show that only ideal number of children and children ever born of the respondent's mother are the significant factor for influencing the use of contraception among women who migrated from rural areas into NCT of Delhi.

On the other hand, reasons of migration, duration of migration, religious status, working status and mass media exposure are the significant factors influencing the use of contraception among women who migrated from any urban areas into NCT of Delhi. Among reasons for migration, except marriage and economic reason, 'other' category of reasons is less likely to affect the use of contraception among women who migrated from urban areas.

Duration of migration is the most significant factor for contraceptive use. Women who are staying in NCT of Delhi more than 10 years, have 7 times high probability to use contraception as compared to those who spent less than 10 years in Delhi. Non-Hindu women from urban areas are less likely to use contraception as compared to Hindu women. Work status of migrant women is also strongly associated with use of



contraception among women who are in urban to urban stream. About 8 times higher probability of using contraception among working women as compared to those who are not working, reflect the importance of work among the women, which directly impact on the use of contraception. Mass media exposure again the significant factor for using the contraception among women who came from urban areas. Women having high mass media exposure are 6 times more likely to use contraception as compared to those women who have low mass media exposure.

### ***6.5.3 Duration of Migration and Contraceptive Use***

Duration of migration reflect the adoptability of migrants towards the use of contraception. It is expected that women who stay more in urban areas after their migration, have more probability to use contraception by acquiring the knowledge, culture and even by the adaptation of family planning intervention. Moreover, residing in urban area for a long time also the indicators of accessibility, availability and affordability. It is observed that working status of women is significant factor for using contraception that is residing in NCT of Delhi for 1 to 10 years. It is noted that women who are working and living more than 10 years in Delhi, have about 8 times higher probability to use contraception as compared to not working women after controlling the other explanatory variable.

Women whose duration of migration is less than 10 years have also influenced from mass media exposure. They are 4 times more likely to use contraception as compared to women who have less mass media exposure. On the other hand, women who are living in NCT of Delhi more than 10 years and migrated from urban areas have 7.4 times more probability to use contraception as compared to those women who came from rural areas in the category of more than 10 years of duration of migration. Non-Hindu women are less likely to use contraception as compared to Hindu women in the category of 10 years and above duration of migration.

Women who are working in NCT of Delhi for more than 10 years have 4 times more probability to use contraception as compared to those women who are not working and living more than 10 years in the city. Ideal number of children also influences the use of contraception among migrated women who are residing more than 10 years in NCT of Delhi. It is observed that, women who satisfied with their number of children

in terms of parity have 8 times more higher probability to use contraception as compared to those women whose number of children ever born is two or below two. Overall results show that, women have less duration of migration are less probability to use contraception whereas women who experienced higher duration of migration have higher probability to use contraception.

## **6.6 Summary**

Earlier studies on migration and fertility behaviour reflect the fact that these two components are well interconnected to each other, which decides the distribution and composition of population in any area along with the component of mortality. Therefore this chapter attempts address the relationship between migration and level of fertility in the study area. For migration characteristics, region of migration, streams of migration and duration of migration has been taken in account. Further, to understand the fertility behaviour of migrated women, the children ever born and use of contraception is taken in account along with other socio-economic and demographic variable.

Region of migration has been taken for capturing the north-south difference among women who are migrated from particular region. On the other hand a stream of migration i.e. rural to urban and urban to urban has been taken in account for capturing the effect of rural areas and urban areas other than Delhi. Moreover, duration of migration has been taken in account for testing the hypothesis of adaptation in the context of migration and fertility.

The findings of this chapter revealed that women who married and came to NCT of Delhi from urban areas are having fewer CEB compared to women who are migrating from rural areas. Further, with increase in number of CEB the contraceptive use is decreasing among migrants from northern and southern region. But the contraceptive use is high among the women who migrated from the southern states of India. Educational attainment also plays a vital role as literate migrant women are having fewer CEB than the illiterate women.

Moreover, work status and wealth possession also affecting the level of fertility among women who migrated in NCT of Delhi. As expected, with increase in the duration of stay in NCT of Delhi the CEB is decreasing among migrants, showing the

effect of adaptation. Moreover, the cost of rearing child would be increase in case of high children ever born, therefore it is expected that children ever born to women would be low after migration. Results from multivariate analysis show that overall the level of fertility among women is low who migrated from southern region as compare to those women who migrated from northern region of India. Similarly, the use of contraception is high among those women who came from urban areas as compare to those women who came from rural areas. Moreover, women who residing in NCT of Delhi for long time, they have higher probability to use contraception as compared to those women who experienced less duration of migration.

## **Chapter: VII**

### **Conclusion**

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#### **7.1 Introduction**

Fertility behaviour of migrants and non-migrant women is crucial for policy makers as it decides the future course of action towards the limiting the population growth in NCT of Delhi, which attracts a large volume of migrants. Utilizing the several secondary information on fertility and migration, this study, explores the historical aspect of level of fertility as well as migration. Moreover, primary survey through structured questionnaire has also been conducted for covering the migrants and non migrants residing in slums of NCT of Delhi. Along with bi-variate analysis, several multivariate analysis and experiences of field survey has been incorporated in the study for explaining the fertility behaviour of migrants and non-migrants in NCT of Delhi.

#### **7.2 Fertility and Migration from the Past**

India, the second most populous country in the world, is experiencing the early stages of fertility transition. It is beyond doubt that a significant contribution to this phenomenon lately has been from declining fertility, of which there is ample cumulative evidence. The extent of the decline, however, is not precisely known at either the national or sub-national level (Rele, 1987). The cultural diversity of India is mirrored in substantial demographic variations across the nation. Therefore, the trends and fertility in India can be greatly captured through rural and urban level. Before independence, the level of fertility in India was considerably high although India had faced some disastrous events time to time and eventually causes high rate of mortality. However, after getting independence, India adopted population policy towards limiting the growth of population in India. It was the first such population policy adopted by any country in the world in official and formal ways.

The policies for limiting the growth of population, various five years plan launched several measures and recognized the consequences of rapid population growth. From the very beginning of first five-year plan, government has taken some measures to control the growth of birth rates and stabilization of population. Subsequently, as a

result of various socio-economic developments and family planning intervention, India witnessed considerable decline in fertility level in post-independence period. However, regional disparities prolonged remained at the pace of rapid growth of birth rates. As a result, there is huge gap between rural and urban distribution of population across the states, what exists even today. Although, some of the states are greatly benefitted from family planning intervention, but these benefits are limited to southern states of India and later on to the some extent of south western part of the country.

In case of NCT of Delhi, Fertility has been falling consistently in Delhi, as indicated by trends in total fertility rates since the beginning of the 1981s as earlier discussed in the third chapter. Though the southern states are ahead in low fertility, the fall has been substantial in the state. Despite being the capital of country, the NCT of Delhi is far behind the southern states in limiting the birth of children. However, natural fertility is not the sole factor, which affects the level of fertility. The volume of the births in a region depends upon several factors such as age at marriage, attitudes towards the desirable number of children, contraceptive behaviour, and to the larger extent social and economic situation among the population. Further, the political economy of the state also influences the level of fertility, mortality and migration at larger level. Policy intervention in any area directly is linked with these demographic events, especially family planning programs played a vital role in level of fertility.

Several reasons can be cited for high level of fertility in NCT of Delhi, especially in earlier decades. In the sense of social security, high level of fertility in a society are repeatedly the outcome of accumulation of big number of individual choice to have large number of children as a means of insurance in the older age of parents. This situation is strongly prevalent in Indian context. Parents feel that the large number of children will help in their older age. Subsequently, along with patriarchal society, the case of son preference is also dominating in Northern region of India including NCT of Delhi. Ultimately the size of family becomes larger with the desire of son than daughter. Moreover, parents from poor family think that more children will do more work and they can earn more. Therefore, they adopted the approach of 'more hand to more work', subsequently resulted the high level of fertility.

Apart from crude birth rate, the total fertility rate that reflect the level of fertility among a cohort of women is also fluctuated because of many disastrous events in earlier decades in India, leading the high mortality rate and consequently high birth rate. However, total fertility rate has been started declining since 1970's and it is continuously declining, notwithstanding the existing disparities in total fertility rate across the states and regions of India. The decade of 1970's accounted the total fertility rate about 5.2 in India, while it is declined to 3 in the year of 2000 and now it reaches up to 2.2 per women in 2016. This estimate shows the considerable achievement in limiting the level of fertility. However, there is also a considerable gap between rural and urban areas of India as well as there is a clear difference between north and south India.

As discussed above about the level of fertility and its trends in terms of biological, socio-cultural, economic and political context. Apart from that, growth in population of any areas also influenced by migration. Huge political and regional upset and underdevelopment of regions belongs to rural India contributes the growth in Urban areas including NCT of Delhi. Moreover, city is considered as the engine of growth, consequently, people come for employment. Since male migrated for employment purpose in cities, their spouses and children also come with them, thus contributing the growth of population in particular region. According to the available data provided by the Census of India, Uttar Pradesh accounted for almost half (43.1 percent) of Delhi's migrants. This has increased to 47 percent, as per a recent Perceptions Survey (2013) conducted by the Institute for Human Development for the Delhi government. Bihar's share has also risen to 31 percent from 14 in 2001. As per the recent estimates on internal migration, National Sample Survey (2007-08), there is the difference of about 14 per cent in the internal migration of India and its capital, which is substantially high in developing countries. This attributed the fact that being Delhi as a capital of India generates enormous job opportunities for labourers, skilled and unskilled workers for male migrants. So people who are not paid well or who do not have enough job opportunities in their native land or the ones who are looking for growth and better job opportunities are attracted towards Delhi. Women generally relocate after marriage.

### **7.3 Fertility after Migration: Creating Differences**

Internal migration have imperative role in elucidation of the population dynamics, which have huge potential in altering the composition and distribution of population in any area. In many less developed countries urban fertility is lower than rural fertility, there is significant rural to urban migration, and national fertility is falling. From these demographic observations, the inference often is drawn that rural to urban migration plays a role in explaining declining fertility (Lee and Pol, 1994; Jensen et al., 2004). Most of the migrants come from rural areas to urban areas and they have relatively less knowledge, awareness about the consequences of larger family size. Moreover, people from rural areas face the problem of availability, affordability and accessibility of family planning services. Further, who wants to use contraception, they are not able to receive the services of family planning in rural areas because of problems discussed above. Consequently, women and men both suffer from ‘unmet need’ in rural areas and at a disadvantageous point in receiving the family planning services. Hence, there is considerable nexus between migration and fertility as well as reproductive health of the women and man.

Earlier literature on migration and fertility provides several theories explaining the effect of migration on fertility behaviour of migrants. Moreover these theories also explain the effect of migration at place of origin i.e. how a migrant can affect the level of fertility at his/her place of origin. Among the major theories, ‘theory of selection’, ‘theory of adaption’ and ‘theory of disruption’ are prominent for explaining the effect of migration on fertility and how these theories creating the differences among fertility behaviour of migrants and non-migrants. Selection theory reflect the differences in place of origin by the means of self-selected group with characteristics different from non-migrants in rural areas due to their higher levels of education, later age at marriage, lower pre-migration fertility and participation in gainful employment (Omondi, et al., 1998). On the other hand disruption theory explains that migration leads to physical separation of sexual partners hence leading to lower coital frequency that in turn helps in the spacing or postpone of child bearing. Moreover, theory of adaptation explains the effect of migration on fertility at place of destination.

This study tested the ‘theory of adaptation’ through primary survey in the slum of NCT of Delhi. Results suggest that post migration effect on fertility is considerable in

several aspects. After migration, more migrant women are using contraception as well as their attitude and perceptions have been changed towards the fertility. Desired number of children, age at marriage of migrant's daughter has been lower after the migration. Moreover, the facility provided by various family planning programs and policies are more received by the migrant women in study area. This can help them into reducing the level of fertility. Before migration, women from rural areas are not more aware through exposure of mass media. Their knowledge gap regarding to fertility behaviour is filling and they are more adopted in socio-cultural and economical context of urban Delhi.

#### **7.4 Determinants of Contraceptive Use among Migrants and Non-Migrants**

Determinants of contraceptive uses are not same for migrants and non-migrants. However, some of the factors are common between both the study groups. Age of the respondent is a significant factor of contraception use among migrants while among non-migrants it is not significant. However, age at marriage is significant for contraceptive uses among both, migrant and non-migrants. Moreover, working status of respondent is positively associated with use of contraception. Mass media exposure is not significant for non-migrants women while it is significant for migrant women. Overall, non-migrants have the higher prevalence of contraceptive uses as compared to their counterparts. Apart from that education of the respondent education of husband is also playing a crucial role in determining the use of contraception.

Multivariate results of contraceptive use suggest that migration streams played a vital role in contraceptive behaviour of migrant women. Expectedly, those women who came from rural backgrounds acquire the knowledge regarding the contraception, its benefits in limiting the level of fertility as well as reproductive health of women and men, indicates the sign of adaptation among migrant women. These women also can play the role in limiting fertility at their place of origin after returning back or visiting to their place of origin by the means of sociological, educational and cultural remittances.

#### **7.5 Determinants of Fertility Behaviour among Migrants and Non-Migrants**

In order to assess the fertility behaviour of migrants and non-migrant women, Multiple Classification analysis has been performed. Multiple Classification Analysis



(MCA) has been employed to understand the influence of each predictor variable on the response variable (children ever-born) for explaining the behaviour of fertility of women belongs to migrants as well as non-migrants. Results from Multiple Classification Analysis show that religion has a substantial effect on the number of children ever born. The unadjusted values show that there is not much variation across the groups but after controlling the effect of all other variables and covariates in the model, the explanatory power of religion in determining children ever-born is very high. The result indicates that Hindu women are more satisfied with fewer number of children compared to other (non-Hindu) women in religious groups. Expectedly, education of women has a negative relationship as the literate women are having fewer children than the illiterate women. This is also evidenced after controlling other predictor variables and covariate, the predictive power of women's education (literacy) has the positive influence on children ever-born. For those non-migrant women, who are living in NCT of Delhi, the unadjusted values obtained for mean number of children ever-born show lower fertility than those migrated from rural areas in the city. But after controlling the effect of other variables the result shows in a reverse direction. The unadjusted effect of wealth index of the household makes a substantial variation among categories while after making an adjustment the variation is very negligible among categories; do not show a statistically significant effect. Age of the migrant and non-migrants women makes a positive effect on the children ever born. Age of women is the most important variable having a positive relationship with the total number of children ever born. This suggests that as age increases the number of children ever born increases substantially.

## **7.6 Effect of Migration on Fertility and Contraceptive Behaviour**

As earlier studies showed that migration can affect the fertility behaviour of migrants by adaptation, selectivity and disruption, it is necessary to understand the distribution of women's children ever born and contraceptive uses of women migrants by regions of migration (i.e. migration from north region and migration from south region), streams of migration (i.e. rural-urban and urban-urban) and duration of migration (i.e. years lived in NCT of Delhi after the migration), which was discussed in Chapter 6 of the study. From the results, it was observed that the distribution of children ever born

among women migrated from south is lower as compared to those women who migrated from northern states of India.

Moreover, there is north-south differences exist for contraceptive uses also. Results shows that the north-south differences among migrant women for contraception use are not similar after the migration. There are some common factors but at the same time, there are some different factors also exist for contraception use, as result suggested by the multivariate analysis. For instance, working status of women migrants are common factors among women migrated from both regions. On the other hand, effect of age at marriage for women from north region is significant while it is not significant for women migrated from south region. Similarly, mass media exposure, ideal number of children and children ever born are crucial factors for women migrated from southern states while these factors are not significant for northern regions. It is expected that the difference between the migrants of northern region and southern region prevail because of existing difference among socio-economic characteristics like educational attainment, awareness, caste, class and to the some extent family planning interventions etc.

Multivariate results for other migrants' characteristics viz streams of migration and duration of migration have also shown the considerable outcomes for contraception use. It is observed that women came from urban areas into NCT of Delhi have higher probability to use contraception as compared to those women who migrated from rural areas. Similarly, women who experienced less duration of migration have lower probability to use contraception whereas women who experienced higher duration of migration have higher probability to use contraception. Results obtained from streams of migration and duration of migration for contraception use reflect the fact that urban areas are at advantageous point in terms of family planning intervention due to comfort level of accessibility and availability. Moreover, high duration of migration showing high use of contraception reflecting the adaptation capacity of migrant women in NCT of Delhi.

### **7.7 Policy Implication**

It is imperative that family planning can be a major player for determining the fertility behaviour. It must be combined with economic and social progress to bring about

improvement in the development of the country. Fertility measures in India have shown a decline from the 1961 level. There is a continuous increase in the population and wide diversity in the distribution of population in NCT of Delhi accompanied by the process of migration. Consequently, planners and policy-makers share many similar concerns in the entire sphere to limit the increasing pressure of population in the capital. However, finding of this study calls for necessary actions and intervention in order to limit the fertility level of migrants and non-migrants women in NCT of Delhi. Awareness of the population problem and family planning, and attitudes, knowledge, practice, and preference differ greatly at the local levels. There is a persistent need for research in the social and cultural aspects of family planning.

Despite the respectable levels of achievement in literacy and improvements in educational level, much more needs to be accomplished. This study observed that cultural and socioeconomic barriers as a main reason for low contraceptive prevalence in study area as well as in rural areas from where the women migrants came. Therefore, there is an urgent need of action to create the atmosphere of awareness regarding these barriers. Greater opportunities for the young and women in socioeconomic areas will tend to increase participation in decisions that will moderate fertility. Caste, religion, educational level, age of women has been found to be significant determinants of fertility in NCT of Delhi for both migrants and non-migrant women. They should be informed about the negative social and health consequences of early childbearing through information, education and communication. There should be the promotion or even legal provision for increasing the median age at marriage in India. Further, there should be some kind of incentives for limiting the fertility among migrants, as study suggests that migrants have higher fertility level, but at the same time they have huge potential to limit the fertility by means of adaptation.

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## Appendices

### Appendix: 1

	Northern Region			Southern Region		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age at marriage</b>						
Below 18 Years	15	31	48	14	19	25
18 Years	12	10	11	9	6	6
Above 18 Years	7	11	5	13	6	2
<b>Ideal Number of Children</b>						
2 & Below	26	8	9	33	13	10
3 & Above	3	30	10	1	10	9
<b>CEB to Mother</b>						
Below 4	10	9	9	31	23	14
4 & Above	24	43	55	5	8	19
<b>Contraceptive Use</b>						
Using	21	33	29	26	22	17
<b>Women Education</b>						
Illiterate	14	28	48	6	11	23
Literate	20	24	16	30	20	10
<b>Religion</b>						
Hindu's	26	38	30	33	26	29
Non-Hindu's	8	14	34	3	5	4
<b>Social Groups</b>						
SC's & ST's	15	25	28	17	19	26
Other's	19	27	36	19	12	7
<b>Mass Media Exposure</b>						
Low	6	12	18	6	4	10
High	28	40	46	30	27	23
<b>Work status</b>						
Not working	21	30	37	14	15	17
working	13	22	27	22	16	16
<b>Wealth Quintile</b>						
Low	22	27	48	21	15	22
Middle	6	20	13	8	10	7
High	6	5	3	7	6	4
<b>Duration of Migration</b>						
1 to 10 Years	21	31	21	29	11	10
More than 10 Years	13	21	43	7	20	23
<b>Reason for Migration</b>						
Marriage	18	21	14	17	15	7
Economic	11	21	34	13	12	15
Other	5	10	16	6	4	11
<b>Stream of Migration</b>						
Rural to Urban	19	27	37	18	26	20
Urban to Urban	15	25	27	18	5	13

## Appendix: 2

Background Characteristics	1 to 10 years			More than 10 Years		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age at marriage</b>						
Below 18 Years	20	25	25	9	25	48
18 Years	18	8	3	3	8	14
Above 18 Years				8	8	4
<b>Ideal Number of Children</b>						
2 & Below	43	9	5	16	12	14
3 & Above	4	20	5	0	20	14
<b>CEB to Mother</b>						
Below 4	30	13	9	11	19	14
4 & Above	20	29	22	9	22	52
<b>Contraceptive Use</b>						
Using	31	21	14	16	34	32
<b>Women Education</b>						
Illiterate	14	19	19	6	20	52
Literate	36	23	12	14	21	14
<b>Religion</b>						
Hindu's	42	34	18	17	30	41
Non-Hindu's	8	8	13	3	11	25
<b>Social Groups</b>						
SC's & ST's	24	26	17	8	18	37
Other's	26	16	14	12	23	29
<b>Mass Media Exposure</b>						
Low	12	7	8	0	9	20
High	38	35	23	20	32	46
<b>Work status</b>						
Not working	26	25	24	9	20	30
working	24	17	7	11	21	36
<b>Wealth Quintile</b>						
Low	33	21	24	10	21	46
Middle	12	16	5	2	14	15
High	5	5	2	8	6	5
<b>Reason for Migration</b>						
Marriage	22	15	2	13	21	19
Economic	17	17	20	7	16	29
Other	11	10	9	0	4	18
<b>Stream of Migration</b>						
Rural to Urban	26	23	19	11	3	38
Urban to Urban	24	19	12	9	11	28

### Appendix: 3

Background Characteristics	Rural to Urban			Urban to Urban		
	2 & Below	3	4 & Above	2 & Below	3	4 & Above
<b>Age at marriage</b>						
Below 18 Years	13	34	43	16	16	30
18 Years	14	10	9	7	6	8
Above 18 Years	1	9	5			
<b>Ideal Number of Children</b>						
2 & Below	29	14	8	3	7	11
3 & Above	3	26	14	1	14	5
<b>CEB to Mother</b>						
Below 4	20	22	17	21	10	6
4 & Above	17	31	4	12	20	34
<b>Contraceptive Use</b>						
Using	24	32	28	23	23	18
<b>Women Education</b>						
Illiterate	10	26	46	10	13	25
Literate	27	27	11	23	17	15
<b>Religion</b>						
Hindu's	31	41	39	28	23	20
Non-Hindu's	6	12	18	5	7	20
<b>Social Groups</b>						
SC's & ST's	16	28	38	16	16	16
Other's	21	25	19	17	14	24
<b>Mass Media Exposure</b>						
Low	5	8	20	7	8	8
High	32	45	37	26	22	32
<b>Work status</b>						
Not working	24	31	32	11	14	22
working	13	22	25	22	16	18
<b>Wealth Quintile</b>						
Low	26	28	42	17	14	28
Middle	6	18	11	8	12	9
High	5	7	4	8	4	3
<b>Reason for Migration</b>						
Marriage	17	22	13	18	14	8
Economic	15	24	29	9	9	20
Other	5	7	15	6	7	12

## Appendix: 4

Background Characteristics	Northern Region	Southern Region
<b>Duration of Migration</b>		
1 to 10 Years	45	41
More than 10 Years	41	35
<b>Stream of Migration</b>		
Rural to Urban	46	48
Urban to Urban	40	28
<b>Reason for Migration</b>		
Marriage	33	32
Economic	33	26
Other	20	18
<b>CEB to Respondent Mother</b>		
4 & Below	21	53
Above 4	65	23
<b>Women Education</b>		
Illiterate	43	21
Literate	43	55
<b>Women Work Status</b>		
Not Working	50	33
Working	36	43
<b>Wealth Quintile</b>		
Low	49	45
Middle	26	17
High	11	14
<b>Caste</b>		
SC's & ST's	39	43
Other's	47	33
<b>Ideal No. Children</b>		
2 & Below	43	56
3 & Above	43	20
<b>Mass Media Exposure</b>		
Low	17	12
High	69	64

## Appendix: 5

<b>Background Characteristics</b>	<b>Rural to Urban</b>	<b>Urban to Urban</b>
<b>Duration of Migration</b>		
1 to 10 Years	48	38
More than 10 Years	46	30
<b>Region from Migrated</b>		
Northern Region	46	40
Southern Region	48	28
<b>Reason for Migration</b>		
Marriage	36	29
Economic	39	20
Other	19	19
<b>CEB to Respondent Mother</b>		
4 & Below	43	31
Above 4	51	37
<b>Women Education</b>		
Illiterate	37	27
Literate	57	41
<b>Women Work Status</b>		
Not Working	54	29
Working	40	39
<b>Wealth Quintile</b>		
Low	59	35
Middle	22	21
High	13	12
<b>Caste</b>		
SC's & ST's	50	32
Other's	44	36
<b>Ideal No. Children</b>		
2 & Below	51	48
3 & Above	43	20
<b>Mass Media Exposure</b>		
Low	14	15
High	80	53



## Appendix: 6

Background Characteristics	1 to 10 years	10 & Above Years
<b>Region from Migrated</b>		
Northern Region	45	41
Southern Region	41	35
<b>Stream of Migration</b>		
Rural to Urban	48	46
Urban to Urban	38	30
<b>Reason for Migration</b>		
Marriage	30	35
Economic	31	28
Other	25	13
<b>CEB to Respondent Mother</b>		
4 & Below	43	31
Above 4	43	45
<b>Women Education</b>		
Illiterate	26	38
Literate	6	38
<b>Women Work Status</b>		
Not Working	50	33
Working	36	43
<b>Wealth Quintile</b>		
Low	49	45
Middle	27	16
High	10	15
<b>Caste</b>		
SC's & ST's	45	37
Other's	41	39
<b>Ideal No. Children</b>		
2 & Below	57	42
3 & Above	29	34
<b>Mass Media Exposure</b>		
Low	17	12
High	69	64