Methodology is the foundation for any scientific study. It is a guiding principle or blueprint or a pathfinder for conducting social research. It is normative and simply specified procedure which a body of scientists have more or less agreed to constitute a programme justifying the conclusions arrived. Methodology makes the study more scientific and realistic.

The present study is based on the primary data. The purpose of the study is to examine the various aspects relating to migrants of Tirupati town. For this study survey method was adopted, because it has a very wide and extensive scope in social science research when compared to all other methods. The migration aspects have been highlighted through
interview of selected rural and urban born migrants. This chapter contains objectives of the study, Hypothesis, study area and its importance, concepts and variables, sample size and frame, data collection and analysis and interpretation of data.

OBJECTIVES OF THE STUDY

Generally, census figures provide basic data for migration studies in India as elsewhere. However, the data on migration from Indian census give only limited information with longer intervals of ten years. Hence, there is a need for this type of study to have greater insight at micro level with frequent intervals.

MAIN OBJECTIVE

To find out the nature of migration and its impact on socio-economic status and fertility behaviour of migrants by residential background.

SPECIFIC OBJECTIVES:

1. To study the socio-economic characteristics of migrants by residential background.

2. To know the difference in mobility patterns according to migrants residential background.

3. To find out the impact of migration on economic status of the migrants.
4. To detect the occupational mobility of migrants and their job satisfaction.

5. To know the family/communal links with their place of origin.

6. To study the fertility behaviour of migrants by residential background.

7. To identify the determinants of differentials in fertility.

HYPOTHESES

The following major hypotheses were formulated in the present study for empirical validation.

1. Migrants are selective of certain basic characteristics viz., young, better educated and single.

2. The propensity to migrate will be more for lower income, lower caste group and land less/low size of land holders.

3. The propensity to migrate will be greater for a member of a joint family than a member of a nuclear family.

4. The probability of migration between two places diminishes as distance increases and intra-district migrants will predominant when compared to inter-district and inter-state migrants.

5. The prime motive of migration would be economic in nature; migration would contribute to improve the economic condition of the migrant families.
6. Migration would contribute to change in the occupational pattern.
7. Rural born migrants will have higher fertility than the migrants of urban born.
8. Migrants who accompany with their wives will have higher fertility than those who didn't accompany with wives. The lower fertility exists for migrants who married after migration.
9. Migrants who arrive at younger age to urban areas will have lower fertility than the migrants who come at older ages.

STUDY AREA AND ITS IMPORTANCE

Tirupati town is situated in Chittoor district of Andhra Pradesh, south-eastern part of India (See Fig.1). Tirupati sprawls on a plain land just below the chain of seven hills at a height of 853 metres above sea level. It is situated between the longitudes 79° 21' 23" E to 79° 24' 29" E and the latitudes 13° 36' 54" N to 13° 39' 12" N, according to Indian toposheet No. 53 0/6. It extends over an area of 16.07 sq. kms., and contains a population of 1,89,030 in 1991 census. Tirupati lies 586 kms., south off Hyderabad; 135 kms., north west off Madras; 254 kms., north east off Bangalore and 78 kms., west off Bay of Bengal coast.
The importance and popularity of Tirupati town has been derived from the location of the sacred Shrine of Lord Sri Venkateswara at Tirumala hills, which attracts thousands of pilgrims every day. These pilgrims, coming from all over India, have to rely on the facilities provided in Tirupati. Consequently, Tirupati town has largely been developed as a service centre, providing food, shelter and transport.

Tirupati is one of the most important cultural centres of south India and has become one of the famous sacred places for pilgrimage in India. In fact, Tirumala is the richest temple in the country. In terms of urbanisation, Tirupati town is one of the fastest growing towns in India during the last three decades. The size of urban population of Tirupati town was 0.66 lakh in 1971. It increased to 1.15 lakhs in 1981 and reached to 1.89 lakhs in 1991. The growth rate of urban population was 64 per cent during 1981-91 decade.

Natural growth and net-migration are the elements of population growth of a spatial entity. Due to lack of data on vital events for Tirupati, it is rather not possible to assess the extent of the contribution of migration to the growth of this town. However, migration can be estimated based on indirect technique. National growth rate method is used. Since it does not require vital events of birth and
death rates, it may be computed from population totals. This method yields an estimated rate of net internal migration for each geographic sub-division on the assumption that the rates of natural increase and of net-migration from abroad are the same for all parts of the country. But it gives only net-migration for each decade. The formula for estimations net-migration for sub-region is

\[
\text{Net-migration} = P_1^0 \left[ \frac{(P_1^1 - P_1^0)}{P_1^0} \right] - \left( \frac{P_T^1 - P_T^0}{P_T^0} \right) \quad \ldots \quad (1)
\]

Where \( P_T^0 \) and \( P_T^1 \) be the national population at the beginning and end of the intercensal period respectively. \( P_i^0, P_i^1, \ldots \) be the population of the geographic sub-division at the beginning and at the end of the period respectively. Thus, for a geographic division, if a rate of growth is greater than the national average, it is interpreted as net immigration, and a rate less than the national average as net out-migration. In the present study to estimate net migration, Andhra Pradesh state is considered as nation and Tirupati town as a geographic sub-division. Based on this method, net-migration has been calculated for Tirupati town. By using net-migration and growth of population of Tirupati town, the natural growth has been estimated during 1901-91 and presented in Table 2.1.
Table 2.1: Growth of Population of Tirupati town by its Components during 1901-91.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population of Tirupati*</th>
<th>Net increase/ decrease</th>
<th>Change due to natural increase</th>
<th>Change due to net-migration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Absolute Percent</td>
<td>Absolute Percent</td>
</tr>
<tr>
<td>1901</td>
<td>15485</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911</td>
<td>16701</td>
<td>1216</td>
<td>1934</td>
<td>+159.0</td>
</tr>
<tr>
<td>1921</td>
<td>17434</td>
<td>733</td>
<td>-12</td>
<td>-1.6</td>
</tr>
<tr>
<td>1931</td>
<td>19138</td>
<td>1704</td>
<td>2265</td>
<td>+132.9</td>
</tr>
<tr>
<td>1941</td>
<td>20143</td>
<td>1005</td>
<td>2440</td>
<td>+242.8</td>
</tr>
<tr>
<td>1951</td>
<td>25205</td>
<td>5062</td>
<td>2822</td>
<td>55.7</td>
</tr>
<tr>
<td>1961</td>
<td>35845</td>
<td>10640</td>
<td>3946</td>
<td>37.1</td>
</tr>
<tr>
<td>1971</td>
<td>65043</td>
<td>29998</td>
<td>12157</td>
<td>40.5</td>
</tr>
<tr>
<td>1981</td>
<td>115292</td>
<td>49449</td>
<td>26941</td>
<td>54.5</td>
</tr>
<tr>
<td>1991</td>
<td>189030</td>
<td>73738</td>
<td>39514</td>
<td>53.6</td>
</tr>
</tbody>
</table>


Based on the table, it can be said that besides natural growth, migration has also been most important factor attributed to Tirupati's fast population growth. Except in 1921, Tirupati has been losing its population till 1941. From 1951 onwards, sudden gain of population due to
net in-migration has been noticed. The growth of population due to net migration accounted in the range of 43 to 62 per cent from 1941-51 to 1981-91. In the recent decade (1981-91) also, we can know indirectly the contribution of migration to Tirupati town by comparing the population growth rates of Andhra Pradesh (23.9 per cent) and Tirupati (64.0 per cent). The witnessed phenomenal growth can be attributed that till about 1950, Tirupati town is only a famous pilgrimage centre of religious activity. Later on, due to the establishment of several educational institutions like Sri Venkateswara University and colleges in 1954 and setting up industries, many government and non-governmental offices transport and communication, medical and health, gave an impetus to the accelerated growth of Tirupati. Thus, Tirupati's importance has increased in terms of religious, educational, trade and commerce, service activities as functional roles. Therefore, a larger number of people in-migrated for employment and settled in Tirupati. To develop Tirupati as a model town, the Government of Andhra Pradesh has established Tirupati Urban Development Authority (TUDA) covering 500 sq.kms., area; which covers Tirupati and its surrounding 89 villages.

Tirupati is situated on the northern banks of Swarnamukhi river and agriculture is the stable occupation of rural population of this area. However, according to 1991 census, 4.2 per cent main workers were engaged in primary
sector, 3.9 per cent, in secondary sector and more than nine-tenths (91.9 per cent) were engaged in service sector in Tirupati town. So, Tirupati is mainly a trade, commerce and service centre consisting larger number of life-time migrants. Therefore, Tirupati town is selected for the present study.

CONCEPTS

The following concepts were used in the present study.

Migrant:

A migrant is a person whose native place is other than Tirupati town. The selection of migrants in the present study was based on their place of birth. Native place is considered as place of birth. It was used to avoid certain draw backs of the concept of birth place.

Secondary Migrant:

A person who migrated to other places before arrived to Tirupati town.

Place of Previous residence:

It refers to a place of a person where the person was living before coming to Tirupati town.
Rural and Urban Areas:

In the present study two terms were used for (place of birth) residential background of migrants. They are rural and urban. These areas were identified on the basis of information collected from the respondents and comparing it with published records of the census.

Origin and Destination

The former refers to native place and the latter to Tirupati town itself.

Age at first move:

Age of the migrant at the time of leaving his native place at first time (not only to Tirupati but also to other places).

Age at first arrival:

Age of the migrant at the time of arriving to new place (not only to Tirupati but also to other places) at first time.

Age at recent move:

Age of the secondary migrant at the time of migration to Tirupati.
In-migrant:

In-migrant is a person who enters to Tirupati by crossing its boundary from some point outside the area, but within the country.

Mean Live Births (MLBs):

Number of children ever born.

Variables:

To study fertility behaviour of migrants, the following variables were considered.

Independent Variables:

Religion and caste, education, income, age at marriage of wife, duration of married life, present age of wife, age at first arrival, duration of urban stay, marital disruption and family size norms.

Dependent Variable:

Fertility (MLBs).

Control Variable:

Place of birth (i.e., rural and urban).

Sample Size and Frame:

The study was based on the primary data collection through listing of households, houses and interviewing the sample male migrants consisting of rural as well as urban
born, in two selected wards of Tirupati town. The method adopted in selection of wards and respondents is described hereunder:

Selection of Wards:

At present Tirupati town consists of 36 municipal administrative wards. But for revenue and census purpose, grouped all these 36 wards were into 20 wards only. Initially all the 20 wards were listed out in Tirupati town according to 1991 census. The important demographic information like population, houses and households data were gathered for each ward from Tirupati municipal authority. Then all household data were arranged in an ascending order and mean household size was found out. On the basis of mean household size two wards were selected out of 20 wards, with the help of simple random tables. One of which was below the average households of wards (6th ward) and the another from above the average (13th ward).

Selection of Migrants Households:

In order to ensure representation sufficiently; 500 migrant households were selected as follows: From each selected ward, the listing of households were done in the first phase of the field work with the help of specially prepared household data proforma. From every house, information was collected with respect to name and address
of the household head, present age of wife, household size, number of couples living in the house (with names of the husbands) and present age of their wives and number of children ever born to household heads and couples (husbands). Further, data on place of birth of household heads and couples (generally sons of household head) were also collected. The non-residential houses (used as commercial, non-commercial and office purposes) and the households were not listed. In two selected wards, a total of 8361 households existed. Out of which 4663 were in 6th ward and 3698 were in 13th ward. Of total enumerated households, half of them (4216) were migrant households and the rest were non-migrant households. Among the total migrant households, little more than three-fourths (76 percent) satisfied the criteria (sample unit) for the present study that migrant household and wife in reproductive age (15-45 years) having at least one surviving child (1950 households in 6th ward and 1250 households in 13th ward). Thus, in this study, a list was prepared consisting of the migrant households and wives in the reproductive age having at least one surviving child. From this list 250 migrant households representing one respondent (migrant household) from migrant household families were selected in each ward using simple random sampling method. Thus, the sample was 500. However, in the present study male migrants alone were
considered as respondents. The required information to the present study was collected with the help of the interview schedule.

DATA COLLECTION:

The selected migrant males were interviewed by researcher from April to July, 1992. These interviews were performed through a specially designed interview schedule. It contains questions on socio-economic and demographic characteristics, migration history and links with origin and destination. The schedule also contained questions on migrant's intention to return to native place and onward migration. The respondents were interviewed at their residences and repeated visits were made to those who were not available of them. The major field work was collected on holidays because most of the respondents would be at home. One respondent was not available in each selected wards, inspite of visiting four times. Hence, another respondent was selected again in each ward using simple random method. Thus, 500 sample size was arrived. The major problems faced at the time of field work were not getting adequate response reliably from the respondents concerned because of their memory lapse, migration at early age and illiteracy. Moreover, by asking indirect questions/cross checking, better information was obtained. With regard to family income at present, business men did not give correct
information, because of fear of income tax and losing of ration cards. However, this problem has been overcome by explaining to the respondents on the importance of this survey for research purpose and all the information was collected with good quality. Another most important problem was that, most of the respondents at initial stage were not willing to give information as they were vexed with previous data collection by the many researchers on different subjects. However, by educating the respondents that this research work was useful for urban planning, they were coaxed thus and information was collected tactfully.

ANALYSIS AND INTERPRETATION:

The data analysis was carried out by using computer. Chi-square test was adopted for testing the significance among several migrational aspects in relation to residential background (i.e., rural and urban). Further, regression analysis was used to find out the influence of different independent variables on fertility. Frequency tables and cross tabulations were made use of for presenting data. Information relating to migrational aspects is presented in percentage, while data on fertility are presented by computing averages. Figures in parentheses indicate number of respondents. The next chapter deals with socio-economic profile of migrants.