CHAPTER - I

METHODOLOGY
"While the "Stylized Facts" have these three sectors [Rural, Urban Informal and Urban Formal] arrayed in increased order of average wage levels—facts that remain to be explained are the considerable variability of wages and conditions within each sector, the substantial overlap of the wage distributions between each, and mobility of workers over-time in both directions between each pair of sector."

... SPEARE and HARRIS, 1986
INTRODUCTION

Based on the neo-classical framework, economic development was conceived mainly in terms of attainment of higher growth rates of gross national product. The policy makers and international advisers believed that economic progress should be the single most important national objective of a developing country, even if economic growth is not the solution to all social problems. But however many economists all over the world questioned this kind of logic during the last decade. Their arguments were based on the experience of many developing countries where poverty, inequality and other social problems increased as economic growth proceeded. As a result there is a dramatic shift in the prevailing theory and practice of economic development in recent years. Inspired by Myrdal's criticism of development theory, a large number of economists and policy makers advocated for the dethronement of GNP and importance was given for removal of widespread absolute poverty increasing income inequalities and rising unemployment which are considered as the objectives of development policy. In short economic development was redefined in terms of reduction or elimination of poverty, inequality and unemployment. Central to this new direction the focus is laid on the basic needs of the population as a fundamental objective of development in the developing countries. In this regard, employment, i.e., the opportunity to participate in a socially and economically rewarding job, is considered as the most important basic need in the developing world.

1.1. THE PROBLEM

One of the most important features of development in the third world during the second half of the 20th Century is the unprecedented growth of population and labour force notably in large cities. Urban population nearly tripled in these countries in a short span of 25 years.
from 275 millions in 1950 to 794 millions in 1975 and it is expected to cross the mark of 2 billions by the end of this century. Three and a half billion people three-quarters of all humanity, live in developing countries, by the year 2000, this proportion will probably rise to four-fifths. The share of urban population in total has risen from 13 per cent in 1950 to 27 per cent by 1975 and is expected to rise further to 43 per cent by the turn of this country.

By the turn of year 1900 only 10% of World's population was urban whereas the figure rose to 30 by 1950 and by 2010 one half of the world's population may well be living in cities. The largest city in the world is Tokyo - YOKOHAMA with 287 million inhabitants whereas the 100th largest city is Pune with a population of 2,35 millions. The world "HYPER -Cities" each with a population of 15 millions or more. are Tokyo - Yokohama Mexico city New York Saopaulo, Osaka - Kube, Kyoto, and Seoul The 8th 9th largest cities are Bombay and Calcutta respectively. Fifty eight percent of the world's largest metropolitan areas are in developing countries. Large cities in developing countries are growing faster and by the end of 20th century urban population of the developing countries will be twice to that of the Industrialised nations. In the course of next 20 years, the world's urban population can be expected to increase by 1,5 billions. This is as per the Population Crises Committee study of Washington. It is estimated that 360 million people will be added to labour force of developing countries in 1990s. Bulk of labour force is concentrated in unorganised (Informal) sector. In 1981, the unorganised sector provided employment for 90 per cent of work force. Unorganised sector exists not only in underdeveloped economy but also in highly developed economies. The concentration of investment and incomes in urban modern sectors of these developing countries, and the population pressures which have aggravated, the grinding poverty endemic to rural areas of many developing countries, fragmentation of land-holdings, and environmental degradation.
consequent on over-grazing and over-cropping have aggravated population migration from rural to urban areas. A world Bank study estimates that a quarter of urban population in most African and low income Asian countries cannot afford, even a minimum level of permanent housing.

On the basis of development experience of western countries, Lewis, Fei and Ranis have advanced a two sector model for the development of labour force in the overpopulated developing countries. According to these economists surplus labour from the agricultural sector would be gradually absorbed in the dynamic urban economy as industrial sector expands. However contrary to this hypothesis, employment opportunities in the modern industrial sector have failed to keep pace with the urban labour force growth. The wage earning employment was found to be lagging behind rapid growth of output due to the existence of peculiar structural conditions in these developing countries. First, the rural-sector, no matter how closely knit by kinship and custom failed to absorb the youth that has entered the workforce during 1960s, 1970s and 1980s. Secondly, the labour absorption capacity of the modern urban sector has been more sluggish than once was assumed. Industrialisation in most of the developing countries is not of the labour intensive type as was the case with the West in the 19th century. Nor is it of an integrated type that spurs backward and forward linkages as in contemporary western economies. As a result the process of urbanisation has contributed to urban unemployment, underemployment and extreme poverty in the urban areas of the third world.

It is also intriguing to note the persistence of rural to urban migration despite severe unemployment in large metropolitan areas of these developing countries. As a consequence of massive rural to urban migration, the rapid growth of large cities in many of the
developing countries since 1950 has brought an urban crisis of unprecedented dimensions: a crisis of inadequate urban infrastructure and housing of political and social organisation and of employment - which is more apparent in metropolitan areas of these countries. This "premature urbanisation" or urbanisation without industrialisation, which failed to create adequate productive employment opportunities to the rapidly growing urban labour force had resulted in a dual labour market in the urban economy. On the one hand, there is the formal sector in which organised economic activities are concentrated, and on the other, the informal sector consisting of workers who as a rule are not employed by the organised enterprises and correspond in fact to the surplus labour force. The latter constitutes the residual labour market of the last resort in which persons enter as self-employed, low income producers of marginal goods and services for lack of any other means of earning a livelihood. Thus, based on the dualistic tendencies of an urban economy urban labour market has been classified into two sub-sectors. First is the "Formal" or "modern" or "organised" sector, which is highly productive and is characterised by superior earnings and the second is called "INFORMAL" or "TRADITIONAL" or "UNORGANISED" sector which generally forms the residue.

Dualistic structure of urban employment consisting of dominant but slow growing capitalistic sector characterised by modern organisation, capital intensive technology and high productivity and the traditional sector that lacks such characteristics. The former is Formal Sector and latter is Informal Sector. The Formal Sector is not large, but capital intensive, organised in a corporate form, or government regulation of wages and employment, minimum wage legislation, regulation by 'Shops and Establishment Act' and modern technology.

Under Informal Sector, can be grouped small enterprises engaged in manufacturing, commercial and service activities, run
generally by family concerns with a minimum of hired management a
fair amount of external capital. The labour costs or variable
employment and apprenticeship links are not contractual with seasonal
supplementation of labour.

Informal Sector as a categorisation of unorganised activities
particularly in the urban areas of the developing economy has gained
importance in research and policy on employment urbanisation and
development during the last decade. Though the informal sector
concept was first used by Keith Hart it has started gaining
considerable importance in the literature on development policy in
general and employment policy in particular with its adoption by ILO's
employment reports on Kenya. Recognising the limited scope for
employment growth in the formal sector, the ILO has launched a series
of studies on the employment potential of the informal sector in selected
developing countries which not only focused light on the size and
nature of the informal sector in the urban areas but also identified
several problem areas and provided estimates of the potential for
employment promotion and income generation. Subsequently several
studies were conducted in India and abroad on the urban labour
market with an emphasis on informal sector experiences analysed so
far include the organisation and segmentation of labour markets and
the relationship between structured and more loosely organised
components of the labour market the diversities in urbanisation and
employment patterns the urban wage earning structure and the
relationship of the functioning of the labour market to such policy goals
as growth employment generation and reduction of income
inequalities. However, studies conducted so far have demonstrated the
need for more detailed examination of urban labour market structures
and for consolidating diverse empirical insights from different parts of
the world.
It is in this context a study on the labour market in a rapidly growing town of a developing country with a number of large metropolitan areas (See Appendix II may yield interesting results. Hence an attempt is made to study the urban informal sector labour market of Nellore town of Andhra Pradesh state in South India, and also examine the case of information technology.

1.2. FRAMEWORK OF THE STUDY

The theoretical orientations to the dynamics of the urban labour market reviewed in chapters II and III emphasise three major areas of enquiry, the first area of enquiry relates to the labour absorption and the process of labour transfers between the traditional and modern sectors of the economy. It is assumed that the surplus labour from traditional sector will be absorbed by continually expanding modern sector at a constant real wage rate.

However in reality these absorptions and mobility processes may be affected either by the preferences and constraints of the suppliers of labour or by the demand induced constraints and potential of different activities including information activities. With respect to this aspect very few empirical studies are available in the literature on urban labour market in India.

The second major area of enquiry is with respect to the sectoral variations in average earnings and their likely determinants. These have been generally explained by the human capital model. However additional aspects of segmentation are also introduced to examine the sectoral shifts in earnings introduced by institutional factors or change in the slope of the earnings function depending upon the sectoral location of the workers. Although the patterns of sectoral variations in
average earnings are traced in many studies. Few studies in India have attempted to investigate the determinants of these variations.

The third major area of enquiry is with respect to temporal development of the two sectors in an urban area. The evidence from the available studies shows that Lewis, Fei and Ranis models of labour absorption in an expanding modern sector is not taking place. However, it is necessary to identify the developments in more cities and also examine the structure of sectoral growth factors. The empirical studies of the informal sector have generally emphasised the internal differentiation within the sectors. The different segments within the informal sector are likely to be affected differently by economic growth. Hence, it is also necessary to understand the dynamics of these different sub-sectors of the informal sector.

1.3. OBJECTIVES OF THE STUDY

The present study broadly aims at gaining an insight into the above-mentioned three lines of enquiry. The study is basically a case study which seeks to identify the absorption and mobility patterns of labour market and examine the influence of various factors on the determination of earnings of workers. The major objectives of the study are

i) To trace the pattern of employment both in organised and unorganised sectors in Nellore relative to the growth of population and labour force and improvement in information technology and in particular telecommunications.

ii) To examine the patterns of absorption and mobility among the workers in the informal sector. Here the levels of workforce participation in relation to the demographic and socio-economic characteristics of the households will be examined. Regarding
mobility patterns, the type and extent of mobility between various sub-sectors in the informal sector and shifts from informal to formal if any will be examined and

iii) To examine the structure of sectoral variation in average earnings and likely determinants of these earnings in informal sector, and to examine the determinants of earnings in various activities in the informal sector. Human capital earnings function will be used taking the variables such as education, experience, ability, productivity and nature of contract.

1.4. SCOPE OF THE STUDY

The study is confined to the town of Nellore which is a fast growing town in the state of Andhra Pradesh in South India. It presents itself as an interesting case as its economic structure is rapidly changing during the last two decades. In the last decade a number of industrial units business especially in fish and poultry were established. Immigration both from neighbouring rural and urban areas has increased resulting in a phenomenal rise in slum population which is estimated to be about 25 per cent of town's population. The town is growing in all directions; the North and South East and West. This is becoming a centre for fish and prawn culture breeding and export oriented industries. With the development of Krishnapatnam port, the commercial importance of the town will improve further.

The study is based on the data collected from worker households in formal and informal sectors. The representative informal sector activities considered for the study include manufacturing and servicing construction domestic servants petty trade retail trade, wholesale trade, rickshaw pulling, autorickshaw poultry, dairying, bakery dobhi, barbers, hotels and restaurants and others. For the convenience of the study, based on the homogeneity of the activity these are classified into
(1) small scale industry (2) construction (3) trade (4) transport (5) professions and services (6) other workers The study basically provides the supply side analysis of the labour market.

As in most of other empirical studies, we have attempted to incorporate the internal differentiation amongst these workers by adopting a sectoral framework for the study. The delineation of the subsector is based on earlier studies (Papola 1978 Deshpande 1979 Operations Research Group 1980, and Harris 1981) We have isolated the formal sector by first adopting the employment size criterion. All establishments employing more than 10 workers are treated as the formal sector. The remaining workers were divided into four categories. The workers employed in small establishments with less than 10 workers formed one sub-sector. Those working for the households are in the second sub-sector. The other unattached workers are divided into self-employed who work independently and casual workers who though unattached to specific establishment are not totally independent. Thus we have five sub-sectors of which the first four form the so-called informal or unorganised sector.

INFORMAL SECTOR CONCEPTS:

A **Self-Employed**

Who are mainly independent workers (S E)

B **Casual.**

The casual workers are those who are unattached to a specific establishment although totally not independent (C)
Domestic

Those working for household (D)

Informal Establishment

Wage employees in the informal establishment which employ less than 10 workers (IE)

Formal Sector

Formal Permanent employees in formal establishment which employ more than 10 workers (F)

See Appendix-II for the discussion of concepts.

The study is basically a case study which does not permit wide generalisation. However, the major observations and findings of the study may provide an insight into the processes which affect and determine the economic plight of workers in the informal sector.

1.5. DATA BASE AND TOOLS

The study uses data on Nellore urban labour market from diverse sources. To arrive at an estimate of total number of establishments which form the universe of this study the study relied on various sources of information such as Census of India planning office of the District Collector, Nellore, District Industries Centre Nellore and Municipal Office Nellore. After collecting the relevant information about the various types of economic activity the five main categories for the study are listed. It is found that there were 10,563 establishments employing 50,121 workers during 1989-90. It is also found that in these establishments 98.50 percent constituted the informal sector employing 85 per cent of the workforce. Out of this universe, a total sample of 110 establishments was selected at random.
giving due weightage to each category. The total coverage of the study is 34 per cent of the existing establishments. After completing the establishment survey one worker household from each economic activity has been selected on a random basis to conduct the household survey. Thus the household survey which was conducted from August 1991 to January 1992 covers the same number of worker households. The present study uses the data for 110 worker households from the activities covered in the study. Construction, domestic service also are incorporated in the present study and the data relating to this activity is obtained by canvassing the workers schedule of the above study for the same reference period. During 1990-91 the construction activity is mainly concentrated in the three pockets of Nellore town viz, Dargamitta area, Balaji nagar area and Vedaapalam area. The construction workers at these three pockets are grouped according to the activity and from each group 2 per cent of the workers were selected. The selected sample consists of 5 worker households and all the households were interviewed by canvassing workers schedule.

The Domestic servants are mainly concentrated in the neighbourhoods of posh localities and official colonies. As such 20 households were listed in Kapadipalem, Kantarpalem and Venadisangam and a sample of 4 households has been selected on random basis. The study covers a total of 110 worker households comprising informal sector households and formal sector households. The final distribution of worker households according to sector of activity is presented in Table 1.1.

To examine the impact of caste, kinship, and skills on labour absorption and also to analyse the impact of social background, economic conditions and demographic factors, on workforce participation, multiple regression technique is employed in the study. The basic framework of the model is of the following nature.
\[ P = F \text{(SOCIAL BACKGROUND, ECONOMIC LEVEL, DEMOGRAPHIC STRUCTURE.)} \]

To determine the determinants of average earnings in various activities in the informal sector, human capital earnings are defined as a function of education, experience, ability, productivity, and employment characteristics. The ability aspect is attempted to be captured.

Table 1

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<th>DISTRIBUTION OF WORKERS BY SECTOR AND ACTIVITY OF WORK SECTORS</th>
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NOTE: Figures in the brackets indicate percentage to total.
SOURCE: Workers sample

Through certain background variables reflecting both quality of education as well as experience ignoring the individual variation, the workers' skill and certain personal attributes are assumed to be related to the productivity aspect. Finally, the employment characteristic is captured through sectoral frame used in the study.

Specifically, the variables used in the equation are
\[ \ln y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_n x_n + \nu \]

Where \( \ln y \) = Natural log of the average monthly earnings

\( x_1 \) = Educational variable

\( x_2 \) = Experience variable

\( x_3 \) = Productivity variable

\( x_4 \) = Background variable

\( x_5 \) = Employment characteristic variable

\( \nu \) = Error term

The dependent variable is transformed into its natural logarithm to facilitate the computation of elasticities as well as to reduce variations in it.

1.6 SOURCES OF DATA

1 Data relating to population, labourforce employment in the organised and unorganised sectors are obtained from the Census of India 1961, 1971, 1981 & 1991.

1 (a) The data regarding information related activities is obtained from the department of telecommunications.

2 The information regarding occupational distribution of workers is obtained from the District hand books and other official publications.

3 Household data relating to activities viz manufacturing and servicing petty trade poultry, dairy, wholesale and retail trade hotels and restaurants rickshaws autorickshaw dhobi and barbers are obtained through canvassing the household schedules.
Major heads under which the information was collected through the workers' schedule are as follows:

1. **Worker household particulars**
   a. Workers particulars about sex, age, marital status, education status, main occupation, subsidiary occupation etc.
   b. Workers status particulars such as self-employed, wage earners, wage rate, average number of days worked, nature of job etc.

2. **Employment and working conditions of workers**
   a. General details like provident fund, medical allowance, clothing.
   b. Job security, hours of work, bonus, bargaining power, and membership in the union.

3. **Particulars of the facilities available in the household**

4. **Particulars of Health and Family Planning**

5. **Sources of income** particulars of household such as income from wages from regular and casual employment from other sources.

6. **Particulars of consumption expenditure** such as expenditure on food items, beverages, durable items, transport and services.

7. **Particulars of usage of different types of information technology** namely telephone, mail, fax, photo-copier etc and the difficulties in establishing these technologies.

8. **Mobility Patterns of the Workers:**
   For each job the worker held, we gathered information regarding year of joining and leaving, total months worked, sector and
activity of work, average earning at joining and leaving, reasons for joining and leaving

9 **Migration Particulars:**

a In-migration particulars like year of immigration from which place the worker migrated reasons for migration

b Out-migration particulars such as year of out-migration to which place he migrated reasons for migration

1.7. **PLAN OF THE STUDY**

The study is organised into eight Chapters. The Introductory chapter deals with the study frame

The specific objectives the methodology and data base of the study are outlined in it. In the second chapter an attempt is made to trace the received theoretical foundations of urban labour market in relation to dualism and labour transfers, determinants of sectoral earnings and labour absorption. The third chapter includes a review of related literature on informal sector on structure and determination of earnings in the informal sector and on labour mobility patterns. The fourth chapter gives a profile of the study area Nellore town and an analysis of Socio-economic characteristic of sample workers. The labour absorption and mobility patterns in the study area are discussed in fifth chapter. The sixth chapter attempts to examine the determinants of average labour earnings in the informal sector. In the seventh chapter, the effect of information technology on employment and working conditions in formal and informal sectors is analysed. Also factors causing environmental stress are analysed. The last chapter presents a summary of findings and their policy implications.
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