

# PROFILING DELHI'S ECONOMY & ITS EMPLOYMENT POTENTIAL

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an input for new Perspective Plan for DELHI 2021

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## Preface

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It is approximately fifty years since the first exercise for the planned development of Delhi was initiated. The effort was preceded by an Interim General Plan for Delhi, October 1956, that sought "to buy time" for the preparation of a long-term Master Plan, and in the meantime, endeavoured "to contain development within a confined area" of the city. The IGP was followed by the formulation of a comprehensive perspective plan for Delhi: 1962-1981, to direct and guide the future growth and development of the city. Since the first Plan, massive changes have taken place in the city's structure some in accordance with the Plan, but many in spite of the Plan.

In retrospect, Delhi, with all its changes and transformations, has emerged as a multi-functional and multi-level metropolis. Indeed, the city has undergone through a paradigm shift spatially but in the larger social and economic sense as well. Given its unique historicity, in quintessence, its diversities have increased along with phenomenal expansion in its land use activity matrix.

The first Plan of 1962-1981 was followed by the second plan, the MPD 2001. Currently a new planning effort is underway to extend the perspective of planning through the year 2021. The planning of the city, as a continuum, has been largely accepted and it has come to stay as integral to the growth and development of the country's capital.

While planners have been pointing out, time and again, of the serious inadequacies and generic defects in the original plan-enabling legislation namely, the Delhi Development Act 1957, it has, in the meantime, become out-of-date. As it were, even when it was enacted, was well behind times. With the formation of National Capital Planning Board, it is time a new planning legislation is crafted. Very few are aware that the DDA Act 1957, envisages only a single Plan besides the concept of Zonal Development Plans. As pointed out in the Review of the Plan, it has been found, practically, of little or no use. Besides, it says nothing about the effectuation of the perspective plan that could only be ensured through systematic programming presaging prioritisation.

Insofar as planning approach and practice is concerned, the planning as practiced has not been able to keep pace with the changes that are currently taking place or are presently anticipated. It needs to be pointed that the first planning exercise had significant contributions on socio-economic aspects from the planning team as it was composed of an inter-disciplinary group. However, such inputs do not seem to be available in the present planning team. As such, the team has relied on a number of external experts and committees appointed for formulation of planning strategies for the perspective plan. However, it must be recognised that such studies and committees have their peculiar limitations and constraints.

This study to profile the economy of Delhi and to develop an appreciation about the dynamics of metropolitan economy with reference to its employment potential is but a preliminary exercise. Conducted under the auspices of the NIUA, the study

was entrusted by the Delhi Development Authority (DDA) to Sayed S. Shafi, a member of the first planning team that developed the original Master Plan for Delhi: 1962- 1982. Due to limitations of time and funds, the study has been conducted using the available secondary data from official and non-official sources. The study is based on a limited database due to the fact that the latest data on migration and employment aspects are still awaiting release from the 2001 Census. Nevertheless, we hope that the study would provide useful insights in understanding the relevant aspects of Delhi's metropolitan economy and its overall employment potential as planning input in developing the new perspective plan for Delhi through the year 2021.

The concluding section of this study identifies certain critical areas that should be researched as part of the continuous planning effort underway in developing a plan that would help keep it in tune with emerging realities. An important reality that deserves reckoning in the future planning of the national capital and its region is the placement of the un-organized informal sector within the dynamics of the new planning paradigm. Further, it is suggested that the various estimates and projections made in the study should be updated, adjusted and further refined as and when the data become available.



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## Acknowledgement

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In working out an economic profile of Delhi a number of organisations and Individuals rendered invaluable help and assistance. I must place on record my deep appreciation to the Delhi Development Authority and to its Planning Team for providing me an opportunity to develop an economic profile of Delhi as an input in their endeavours in planning Delhi through year 2021. Indeed, it was one of the key recommendations made for the first time in the Review of the Delhi Plan 2001, coordinated by Mir Nasrullah, then Chairman, Delhi Urban Art Commission of which I was a member.

In terms of concepts and ideas, the Study Team would like to place on record the active help of the Advisory Team composed of Professors H U Bijlani, Om P Mathur, P S Bawa and Dr Vinod Tewari, Director, NIUA.

The Study Team acknowledges its gratitude to the DDA team of planners currently engaged in the formulation of a spectrum of policy strategies for the planned development of the nation's capital, Delhi in an extended perspective through year 2021. Particular mention is made of the Planning Commissioner, Vijay Risbud and his planning team B K Jain and his colleagues who are working against heavy odds and substantial constraints in terms of information and relevant data.

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## Introduction

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As part of the new planning exercise being undertaken by the Delhi Development Authority /DDA/ to formulate strategies for the planned development of Delhi through the year 2021, it is necessary to gain realistic insight and appreciation of Delhi's economic base and, given the unprecedented influx of migration (said to be anywhere between 350,000 and 400,000 per year), its employment potential.

Since the advent of planning /1955-56/, when an economic base study was undertaken as one of the several key studies that were part of Delhi's first planning exercise, Delhi has expanded as never before in its long history of growth and development. Indeed, as the nation's first metropolis its economy has grown enormously, so that as of now /2001/, Delhi has emerged as a multi-functional metropolis. Any attempt to furnish realistic underpinnings in the formulation of a new perspective plan demands undertaking a comprehensive Economic Base study on a continuing basis for Delhi's metropolitan economy in the context of its metropolitan region. However, given the limitations of time and other constraints, the minimum required is to gain a reasonable understanding of the city's economic profile to help furnish a fairly realistic base in developing meaningful spatial planning policies for Delhi in the initial decades of the 21<sup>st</sup> century.

Like any other metropolis, Delhi's economic life and its myriad facets are complex. Therefore, gaining meaningful insights specifically for spatial planning can take several routes, and none of them is easy. Nevertheless, this study makes an elementary appraisal to help develop basic appreciation of Delhi's overall economy within the context of its population growth since 1951 to the present /2001/, its overall anticipation and the changes observed in its labour force and workforce composition in the post-Independence decades. A major limitation is non-availability of information from Census 2001 of the standard nine industrial/occupational classification. Only the overall figures of occupational composition in four principal categories are available from the latest Census.

However, data available from the National Sample Survey (Rounds 50 and 55) and Delhi Economic Survey 2000-2002, provide useful information. Since some basic indicators on migration and occupational structure are still awaited from the Census 2001, which remains a limiting constraint, it is primarily through extrapolation of data and based on plausible assumptions that future trends and various projections have been worked out.<sup>1</sup> As and when the details about migration flows into Delhi and the occupational/industrial classification become available, the necessary correctives should be incorporated.

Apart from being the nation's capital city and the political epicentre of the world's largest democracy, as a vibrant and expanding metropolis, Delhi's land-use and activity matrix has undergone phenomenal transformation. Indeed, the expansion, change and diversities observed are an expression of a paradigm shift as the Delhi metropolis in its present incarnation is qualitatively different from anything experienced before in the so-called Delhi Triangle that is, between the Ridge and the River Yamuna.

Aiming to assist the Planning Team, and based on experience of the earlier Economic Base study undertaken during the preparation of Delhi's first Master Plan, 1962-81, Delhi's economy could be contemplated in *three* broad components *plus* two more that have emerged during the nearly fifty years of planning the Delhi metropolis. In the context of land-use and activity matrix, these are:

- a) Employment in public or government sector (at three levels and scales) and of its departments and allied institutions;

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<sup>1</sup> Methodology

In consultation with the planners of DDA, it was decided by the study team that for working out the estimates of workforce or its distribution across industrial categories, no fresh projection of the population need to be made. It was suggested that the figures given by the Sub-Group on Population Projections be taken as the base for these projections.

However, certain adjustments had to be made to the total urban population of Delhi and also its sex ratio based on the data available from the 2001 population census. Because the Report on Population Projections was submitted in 2000, before the results of the 2001 Census were published. After making the necessary adjustments, age-sex specific work participation rates were worked out both for the males and females taking into consideration both the rural and urban segments of the population based on the 50<sup>th</sup> and 55<sup>th</sup> rounds of the National Sample Survey (NSS) pertaining to the years 1993-94 and 1999-2000. These Work Participation Rates (WPRs) were multiplied with the total population to arrive at the total workforce for the years 2001, 2011, and 2021. Further, the industrial category wise occupational distribution of population (percentage share) was readjusted in the light of the data from the Population Census 2001 based on the limited four-fold classification of the workforce: (a) Cultivators, (b) Agricultural Labourers, (c) Mining and Quarrying (d) Others. These percentages were multiplied with the respective workforce to arrive at the projected distribution of workforce based on the industrial classification.

The share of unorganised sector workforce was calculated by deducting the organised sector workforce from the total workforce. Assuming a linear pattern of growth in employment, the workforce in the unorganised sector was projected for the years 2011 and 2021.

- b) Business, Commerce and Banking;
- c) Manufacturing, Processing industries and related services.

As stated earlier, *two* other components have emerged since the advent of planned development of Delhi, these are:

- a) Higher and Professional Education;
- b) Sophisticated Health Care and Treatment.

The study proceeds by analysing the observed trends of demographic change and its overall composition and distribution within the Union Territory (also called NCT i.e., National Capital Territory since the inception of the *Dilli Sarkar*). While the demographic data for Delhi and its metro-region (NCR) are available through the Census of India up to 2001, certain vital data on migration, occupational/industrial classification are still awaited. Given these limitations and constraints, available data have been culled and utilized from the National Sample Surveys, the Delhi Economic Survey, 2000-2002 and several other secondary sources.

The study reviews the population change that has taken place since 1951, analysing the migration flows into Delhi (available since 1961) to develop plausible figures for future population. After examining earlier work on population projections, labour force, male/female ratios, participation rates as indicated by the latest Census 2001, population projections for Delhi made for, the new planning exercise for Delhi and the NCR, have been further refined. This should prove useful in formulating appropriate norms and planning standards for the new perspective plan for Delhi 2021.

The study presents a probable range of derived figures for the potential labour force and employment generated in Delhi both in the organised and "un-organized informal sector". Projections have been made based on certain assumptions, the basis of which has been described in some detail and appended as separate notes with this report. The forecasts given are made within a reasonable range, particularly from 2011 onwards through 2021 and, hopefully, would improve the understanding of the economic spectrum of the metropolis; these could be "utilized" as useful inputs in planning the development of Delhi in the coming decades. However, it needs iteration that given the complex nature of Delhi's economic base, substantial immigration from the neighbouring states including Delhi's metro-region, certain studies should become part of the continuing agenda and work programme of the permanent planning team. Some of these, for<sub>3</sub>

instance, are the problems posed by “floating population”, the multiplier effect of certain jobs and activities due to the peculiar propensities of Delhi being the national capital; incidentally “the multiplier effect” is not confined only to federal government jobs and activities; wholesale trade and commerce besides certain new and upcoming activities, particularly the expanding services also have a similar potential. Then, the ripple effect in terms of consequences of the “floating population”—to and from the metropolis—needs to be adequately appreciated, analysed and catered for in planning Delhi. Yet another important factor that is bound to have formative influence in determining the future form and pattern of Delhi is the introduction of the mass transit system, the metro-rail currently being built. Moreover, there are certain key issues and problems pertinent to Delhi’s socio-economic fabric—the unorganised informal sector—that have a direct impact, short and long range, on the physical development of the national capital; they demand to be properly understood as part of the emerging reality and the changing paradigm. These issues should be addressed in time to obviate adverse consequences.

The concluding section of the study identifies some of the more pertinent issues and studies that may be taken up as part of the continuing work on the new Perspective Plan for Delhi, 2021 and its metro-region /NCR/.

### 2.1 Introduction

This chapter analyses the trends and pattern of demographic changes in the city of Delhi, largely based on data from the Census of India. Demographic growth for the various spatial units within the Union Territory of Delhi (UTD), also called the National Capital Territory (NCT), is examined in the second section: the focus is on the growth trends within Delhi Urban agglomeration (DUA) and its spatial constituents. The third section analyses the spatial/district-wise pattern of demographic change. The pattern of population growth in the UTD is examined in the following section. The last section analyses the implications of the observed pattern of demographic growth on the employment potential of the city.

### 2.2 Evolution and Changing Demographic Profile of Delhi

An analysis of demographic data since 1931 reveals, that Delhi experienced a very high growth rate over the past seven decades. In fact its average growth rate during this period is higher than all other metropolitan cities--cities with more than a million people--in the country. Delhi UA has grown by over 4.0 per cent per annum in every decade since 1931.<sup>1</sup> The growth rate of population in DUA is much higher than most other large cities in the country.<sup>2</sup> Understandably, the UTD too has recorded a very high growth rate of population since the thirties, much higher than the growth rate of urban population in the country. The population trends in UT of Delhi may be seen in Table 2.1. Figures given in parenthesis are number of villages counted since 1951 to 2001. While there were 304 villages in 1951, the

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<sup>1</sup> The growth rate has risen systematically up from 1 per cent during 1901-11 to 2.5 per cent during 1911-21, and then to 3.9 per cent during 1921-31. The rate was 4.5 per cent during the thirties.

<sup>2</sup>

census 2001 gives their numbers as 165. However, the village population between 1991 and 2001 has practically remained the same. It is remarkable to note that while in 1951 the rural population was 310,000 residing in 304 villages, after 50 years though the number of villages came down to 165, the rural population counted in 2001 was 960,000.

**Table 2.1 Population Trends in the Union Territory of Delhi: 1951-2001**

Population (in millions)						
	1951	1961	1971	1981	1991	2001
Total	1.74	2.66	4.07	6.22	9.42	13.80
Rural	0.31 (304)	0.30 (300)	0.42 (258)	0.45 (231)	0.95 (209)	0.96 (165)
Urban	1.44	2.36	3.65	5.77	8.47	12.84

Note: Figures in parenthesis are the number of villages.

Source: Census of India, different years

Tracing the growth profile of population over time, an unusually high rate of urban growth viz. 7.25 per cent per annum is observed in urban Delhi during the forties. This can be explained in terms of:

- a) Influx of migrants from across the newly carved national boundaries at the time of partition of the country. A section of these migrants were accommodated in the rural areas as well, which consequently recorded a growth rate of 3.23 per cent, much more than any preceding decade
- b) Emergence of Delhi as the National Capital of Independent India—Delhi registered a high demographic growth (of about 5 per cent) in its urban areas during 1951-61 as against a negative growth in the rural areas.

In contrast, both urban as well as rural segments of the UT witnessed impressive demographic growth in the decades following 1950, the post-independence period. This can be attributed to the dynamics of expansion in the agglomeration and its hinterland in the sixties. The seventies saw further acceleration in the growth of urban population with substantial deceleration in that of rural population. The negative demographic growth in rural Delhi during 1951-61 and a very low rate during 1971-81, however, this must not be interpreted as deceleration in migration per se. This, to a large extent, can be attributed to transformation or absorption of a number of rural settlements into towns that were ultimately subsumed as part of

urban area. Examples of Kotla Mubarakpur, Munirka, Khirki and Hauz Khas can be cited.

The pattern of population growth during the eighties, however, is quite different from the earlier decades. A phenomenal increase in the annual growth rate of rural population from around 0.8 per cent in 1971-81 to around 7.4 per cent in 1981-91 is observed (Table 2.2), indicating that rural areas of Delhi are absorbing a large proportion of the migrants coming to Delhi.<sup>2</sup> Correspondingly, there is a decline in the growth rate of urban population from 4.58 per cent to 3.84 per cent.<sup>3</sup> The growth pattern in the nineties is similar to what was observed during the seventies, the growth rate of urban population went up while that of the rural population declined dramatically. The latter can once again be attributed to a large number of villages becoming part of the urban segment due to the strong urban impact and the city developing linkages with the rural hinterland.

**Table 2.2 Annual Exponential Growth Rate of Population (Percentage)**

	1951-61	1961-71	1971-81	1981-91	1991-2001
Total	4.22	4.25	4.25	4.15	3.84
Rural	-2.52	3.36	0.77	7.35	1.68
Urban	4.96	4.35	4.58	3.84	4.15

Source: Census of India, different years

Delhi has experienced much faster urban growth during 1991-2001 as compared to the previous decade.<sup>4</sup> This is significant since most of the metro-cities in the country have experienced a decline in growth along with an overall deceleration in urban growth in the country (Census of India, 2001). The emergence of census designated "new towns" is the major factor explaining this acceleration of demographic growth of Delhi during this decade.<sup>5</sup>

<sup>2</sup> 1981-91 also witnessed the Asian Games 1982, which attracted a large number of people to Delhi; the majority of them were workers, labourers and those required suddenly for their myriad skills and expertise. A great many sports facilities including an indoor stadium, a large stadium with a capacity of near about 75,000 persons, were constructed in two years. A number of new hotels and also the Asian Games Village were built during this period. The Northern Railway received special funds to double their circular railway (originally and even now it functions a Goods Avoiding Line - GAL) that was electrified; a number of railway rakes were also manufactured. A velodrome and Sports House (now renovated for accommodating the Delhi State Government Secretariat). After the Asian Games concluded, it is said that not more than 10-15 percent of the people who came to Delhi went back. It is probable that a good proportion found shelter in villages along the periphery of the UTD.

<sup>3</sup> Census of India, 1991 and 2001.

<sup>4</sup> Ibid, Census 2001.

<sup>5</sup> In the 1991 census the demographic data were presented separately. The unit of classification in this regard was 'town' for urban areas, which is defined as follows: (a) any place with a municipality, corporation, cantonment, board or notified town area committee, etc (b) all other places which satisfy the following criteria: (i) a minimum population of 5,000. (ii) at least 75 percent of male working population engaged in non-agricultural pursuits; (iii) a density of population of at least 400 persons per sq.km.



It is worthwhile to examine the phenomenal expansion of the urbanized area of Delhi since the advent of the first Master Plan (1962-81). Urban Delhi has expanded the limited geographical space of the UT. The urbanised area has increased significantly from 240.8 sq. kms. in 1961 to 360.6 sq. kms. in 1971. It went up further by 24.2 sq. kms. during 1971-81 (Table 2.3) and 46.0 sq. kms during 1981-91. Similarly, the growth dynamics of the nineties resulted in a further increase of 206 sq. kms. in the urban area, matched with a corresponding decline in the net rural area. Importantly, about 80 per cent of the census towns within the agglomeration experienced a decadal growth of 6.5 per cent or more during the eighties.<sup>6</sup> What is significant is that all these are in close proximity of the NDMC area, particularly South Delhi.

**Table 2.3 Population Trends in Select Components of Urban Delhi: 1951-001**

Population ('000)						
	1951	1961	1971	1981	1991	2001
DUA	1,437	2,359	3,647	5,729	8,419	12,791
i. D.M.C.	1,120	2,062	3,288	4,884	7,207	9,817
ii. N.D.M.C.	276	262	302	273	301	295
iii. Delhi Cantt.	41	36	57	85	94	124
Density (persons per sq. km.)						
	1951	1961	1971	1981	1991	2001
DUA	7,167	7,225	8,172	10,594	13,486	NA
i. M.C.D	16,891	8,561	9,119	13,547	16,717	NA
ii. N.D.M.C.	3,251	6,119	7,061	6,388	7,050	NA
iii. Delhi Cantt.	832	840	1,334	1,982	2,197	NA
Annual Exponential Growth Rates of Population (Percentage)						
		1951-61	1961-71	1971-81	1981-91	1991-2001
DUA		4.96	4.40	4.50	3.80	4.20
i. M.C.D		6.10	4.70	3.96	3.90	3.09
ii. N.D.M.C.		-4.30	1.40	-6.69	0.98	-1.81
iii. Delhi Cantt.		-1.12	4.60	3.96	1.03	2.76

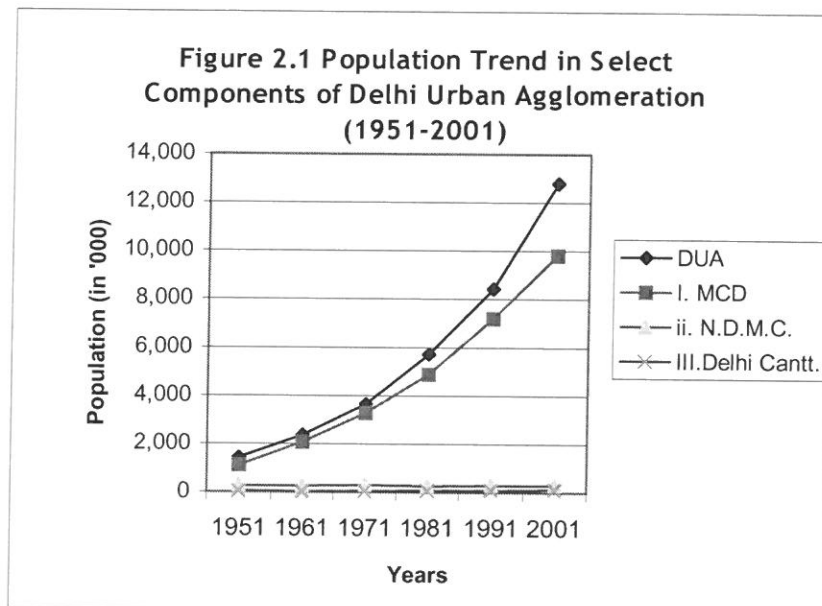
Source: Census of India, 1951, 1961, 1971, 1981, 1991 and 2001.

The differences in population growth in different constituents of the agglomeration during the recent decades provide interesting insights into its development dynamics (Table 2.3). Figure 2.1 shows the population trends in four major areas of Delhi. The population within the MCD area has increased at a high rate during the four decades since Independence, the rate being 4 per cent per annum or more.

<sup>7</sup> Among these towns, Sultanpur Majra, Palam, Nasirpur, and Nangloi Jat stand out as those having absorbed much of the incremental migrant population, each having more than 75,000 people in 1991.

The rate has declined marginally but continues to be above the national average during the nineties as well. In comparison, the rates for New Delhi Municipal Corporation (NDMC) and Delhi Cantonment are low. During the sixties, seventies and nineties, the Cantonment area in Delhi, however, registered a reasonably high growth of 4.6 per cent, 4 per cent and 3 per cent respectively. NDMC, on the other hand, has registered a negative growth in two of the past four decades, excepting the sixties and eighties.

During these two decades, the growth rate has been around 1 per cent only.<sup>7</sup> On the other hand, population within the walled city (Shahjanabad) has shown a definite decline since 1951 even though, ironically, congestion and economic activity have increased.



The growth profile over the decades can be noted as highly disparate within Delhi's urban agglomeration and this pattern continued even during 1991-2001. Population has grown faster in select MCD areas that were, in a sense, already "overpopulated". On the other hand, the localities in New Delhi that, in general, had low population densities compared to other metropolitan cities, experienced lower demographic growth (Table 2.2).

<sup>8</sup> The low population growth in NMCD areas can be attributed to the massive *Jhuggi Jhonpri* Removal (JJR) and Environmental Improvement Schemes adopted in the city. What is more important is that the population in one of the two rural *Tehsils* of the Union Territory of Delhi namely Mehrauli, has grown by about 4 per cent during the above period. This further supports the thesis of suburbanisation around Delhi.

The Delhi Master Plan 2001(MPD 2001), had projected that the population of urbanisable limits of Delhi could go up from 5.4 million to 8.2 million by 2001, indicating an annual growth rate of just over 2.0 per cent, a figure much less than the rate of 3.8 per cent per annum experienced during 1981-91 and 4.2 per cent per annum experienced during 1991-2001. It may, however, be pointed out that the growth rate slowed down from 4.5 per cent during 1971-81 to 3.8 per cent during 1981-91, but went up again to 4.1 per cent in the following decade. In fact, a large part of the incremental population was proposed to be absorbed outside the urbanised limits, for which 40 sq. kms. had been indicated as urbanisable land. Nonetheless, the growth, to a limited extent, took place within the urbanisable limits. At the same time, substantial growth also took place in the peripheral area, which found itself merged into the urban limits. The growth of population in this segment has indeed been phenomenal, the peripheral areas of Delhi absorbing a substantial proportion of migrants who came to Delhi. To an extent this helped to ease population pressure in other parts of central Delhi, in built up areas particularly New Delhi.

The population movements in and around the UTD have a distinct pattern. The movement of the more- well- to- do has somehow been confined, by and large, to the area south of New Delhi, while the relatively modest households have moved to areas west, north and east. This movement pattern has been operationalised within a definite physical framework, resulting in launching of schemes and interventions by public and private agencies, in a sense relegating the poor and middle classes out to other areas of the metropolis. This is also reflected in the land values as also the real estate market. Importantly, squatters and slum dwellers from within the city have been driven out discretely through government programmes and self-help efforts to the peripheral areas (even villages in rural Delhi), thereby substantially increasing the commuting distance for this section of the population in their search for employment to the central areas.

### **2.3 District-wise Population Distribution in 2001**

Delhi was considered as a single district for the population Census till 1991. In 1996, the Government of National Capital Territory of Delhi created 9 districts and 27 sub divisions. The population Census 2001 was conducted based on these 9 districts. The North West and South West districts are the largest districts together constituting about half the total area of UTD. Next come the South and West

districts. The North, East and North East districts are more or less of the same size. The remaining two districts, New Delhi and Central Delhi are the smallest districts: the percentage of total area under each of these districts is very small.

The North, Central and New Delhi districts show a decline in the percentage share of total population between 1991 and 2001, as their annual exponential population growth rates remain low. In fact, Central areas of Delhi have experienced a negative growth rate. In contrast, all other districts registered significantly high growth rates- above 3.8 per cent per annum. The North East, North West and South West districts also experienced a high rate of population growth- above 4.7 per cent per annum (see Table 2.4).

North East district is the most populated district of Delhi followed by Central and East districts. But the North East district registered the highest density of population in 2001, followed by Central and East districts. The South West district, on the other hand, marked a very low density of population, for it has large unbuilt areas.

**Table 2.4 District-Wise Population of Delhi, 2001**

Districts in UT Delhi	Area in Sq. Km	Pop. 2001	% to State	% of Urban Pop	Density 2001	Annual Exp. Growth Rate
North West	440	2,84,7395	20.66	90.75	6,471	4.71
South	250	2,258,367	16.39	91.83	9,033	4.10
West	129	2,119,641	15.38	95.98	16,431	3.91
North East	60	1,763,712	12.80	91.98	29,395	4.90
South West	420	1,749,492	12.69	87.21	4,165	4.78
East	64	1,448,770	10.51	98.75	22,637	4.20
North	60	779,788	5.66	93.99	12,996	1.25
Central	25	644,005	4.67	100.00	25,760	-1.92
New Delhi	35	171,806	1.25	100.00	4,909	2.43
Total	1483	13,782,976	100.00	93.01	9,294	3.81

Note: There is a disparity in the data (Total Population and Rural Urban Breakup) provided by the Economic Survey of Delhi and the 2001-2002 and Census of Delhi 2001

Source: Census of Delhi 1991, 2001; Economic Survey of Delhi: 2001-2002.

The districts of New Delhi and Central Delhi marked 100 per cent urban population in 2001 compared to 92 per cent in the entire NCT of Delhi. The East district indicated about 99 per cent of its population living in urban areas, followed by West (96%), North (94%) and South (92%) districts. In contrast, the South West and North West districts registered over 10 per cent of the population as rural.

## 2.4 Changing Pattern of Migrant Population in Delhi

The growth pattern of migrant population in the UTD during 1971-91 and the share of interstate intercensal migrants to total population are presented in Table 2.5. It can be seen that the percentage of these migrants has gone down from 20.01 per cent in 1971 to 19.77 per cent in 1981 and further to 16.39 per cent in 1991. This has also been reflected in the slowing down of the growth rates of these inmigrants, from 51.17 per cent during the seventies to 25.55 per cent in the eighties (Table 2.5). Correspondingly, the percentage of interstate intercensal migrants for urban Delhi has shown a decline from 20.57 per cent to 16.07 per cent during 1971-91. It is important to note here that the decline in migration has taken place only in urban Delhi. In contrast to this, a dramatic rise in the percentage of interstate intercensal migrants has been recorded in rural Delhi. The percentage figure has gone up from a meager 1.51 per cent in 1971 to 16.56 in 1981 and to as high as 19.24 per cent in 1991. This is in line with the sub-urbanisation thesis discussed above. Since migration data from the 2001 Census are not yet available, it is not possible to carry out a similar analysis of the trend during the last decade of the 20<sup>th</sup> century.

**Table 2.5 Population and Inter-State Intercensal Migrants into Delhi: 1971-91**

	1971	1981	1991	Growth Rate	
	Persons	Persons	Persons	1971-81	1981-91
<b>Delhi District</b>					
a. Population	4,065,698	6,220,406	9,420,644	53.00	51.45
b. Interstate Intercensal Inmigrants	813,459	1,229,744	1,544,043	51.17	25.55
c. Per cent (b) to total population	20.01	19.77	16.39	--	--
<b>Delhi Rural</b>					
a. Population	418,675	452,206	949,019	8.01	109.86
b. Interstate Intercensal Inmigrants	6,333	74,863	182,576	1082.11	143.88
c. Per cent (b) to total population	1.51	16.56	19.24		
<b>Delhi Urban</b>					
a. Population	3,647,023	5,768,200	8,471,625	58.16	46.87
b. Interstate Intercensal Inmigrants	750,126	1,154,882	1,361,380	53.96	17.88
c. Per cent (b) to total population	20.57	20.02	16.07		

Source: Migration Tables, Census of India 1971, 1981, 1991.

The sex ratio (females per thousand males) of the migrant population in rural and urban areas of UTD is given in Table 2.6. It is interesting to see that the sex ratio in urban Delhi has increased continuously during 1931-91. Similarly, in case of immigrants, coming from outside the state into urban Delhi, the sex ratio has gone

up from 719 in 1971 to 831 in 1991. In case of rural Delhi, however, the trend is opposite: here the sex ratio has gone down.

**Table 2.6 Sex Ratio of Interstate Inmigrants (Intercensal) in Delhi: 1971-1991**

Rural/Urban	1971	1981	1991
Total	743	768	835
Rural	1,082	992	870
Urban	719	755	831

Source: Migration Tables, Census of India 1971, 1981, 1991.

Systematically, almost since the beginning of the century, the figure is declining from 916 in 1901 to 807 in 1991. A similar declining trend is noted for interstate inmigrants into the rural areas of Delhi: 1082, 992 and 870 in the years 1971, 1981 and 1991 respectively. This means that male selectivity among the migrants in urban Delhi has gone down over the years, which has led to an improvement in the sex ratio and to an extent restoration of the gender balance. This is probably more due to family migration into the urban areas of Delhi, something different from the decades of sixties and seventies. At the same time this is not true of the rural areas.<sup>8</sup>

The improvement in sex ratio in DUA during 1931-91 could be explained also in terms of improvement in housing conditions, which in turn has enabled many migrants to move their whole family. It is also possible that inmigration of males into urban Delhi, attributable to lack of opportunities, poverty and social distress in the rural areas has somewhat gone down in recent years while the share of the upper and middle income households in the migration stream has gone up. The improvement in job opportunities for women could be yet another factor for the increase in female/male ratio among the migrants. Similarly, the decline in the sex ratio in rural Delhi suggests that a substantial proportion of the migrants are diverted to the peripheral areas that were formerly part of the erstwhile villages. It is also possible that many single male migrants were forced out of the rural economy of Rajasthan, Uttar Pradesh and Bihar due to economic distress have found shelter relatively more easily in rural than urban areas of Delhi.

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<sup>9</sup> The number of females among the interstate migrants or the total population arriving in rural Delhi is much less in the nineties than in the preceding two or three decades. This gives an indication of the nature of migrants being absorbed in the metropolitan city and rural areas.

The nineties, however, seem to mark a departure from the past trend in terms of the sex ratio which has gone down from 833 to 827, but was going up in earlier decades. One would be tempted to argue that the decrease in the sex ratio is due to rapid growth of migrant population that generally tends to have lesser number of females per thousand males.<sup>9</sup>

The decline in the growth rate of migration seems to have been stalled in the nineties. One would have to wait for the release of the migration data from Census 2001 to be able to estimate the number of migrants and their growth rates, changes in sex ratio during the nineties. However, the observed acceleration in the demographic growth would suggest that the migration component has increased in this decade.<sup>10</sup>

The information available from the Sample Registration Survey (SRS) is a significant pointer to the acceleration in migration. The data show that the crude birth rate has declined from 34 per 1000 in 1971 to 27 in 1981. The decline has continued through the nineties to 24 in 1990, and hitting the lowest ever figure in 1999. While it is true that the improved health and family welfare system has impacted through a reduction in the fertility rate it has affected the mortality rate as well.<sup>11</sup>

It is clear that the net effect of the improvement in the health situation has been a comparative reduction in the natural growth rate of the population, since the decline in the death rate is significantly less than the decline in the birth rate. Considering the observed rate of natural growth in population, Delhi could report acceleration in its population growth only through an increase in the rate of migration. Delhi remains a major source of attraction for the migrants leaving their age-old abodes from the neighbouring states of the National Capital Region (NCR).<sup>12</sup>

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<sup>10</sup> The fallacy in the argument can, however, be seen clearly by considering this ratio for different age groups. The decline in the over all sex ratio is due to its decline in the 0-6 age group. When we consider the 6+ age group, a distinct improvement in the ratio can be seen. This discounts the thesis of a higher rate of immigration in the NCT during the nineties.

<sup>11</sup> This is confirmed by the data available from the NSS in its 55<sup>th</sup> round covering the year 1999-2000.

<sup>12</sup> The Infant Mortality Rate (IMR), defined as the number of deaths under 12 months per 1000 live births, was as high as 75 in 1981 and dropped to 31 in 1999, registering by far the steepest fall among all the states and UTs. Similarly, the Crude Death Rate in Delhi has also gone down from 7.6 in 1971 to 7.1 in 1981 to 6.2 in 1990 and 4.8 in 1999 (Economic Survey of Delhi 2001-2002).

<sup>13</sup> Based on the birth and death rates available from SRS, one can estimate the rate of immigration in Delhi in the nineties based on 1991 population. With the decline in the birth rate and death rate and a consequent decline in the rate of natural increase as brought out by the SRS data, the share of migration to the total increment /increase in population could go up between 1991 and 1999. The percentage share of migration to total increase in population works out to 45.6 in 1991, which increased to 55.3 per cent in 1999. This again corroborates the argument that migration has increased in Delhi during the last decade.

The inference that Delhi has experienced a higher rate of immigration during the nineties as compared to the eighties, could be explained has been defended by referring to the higher demographic growth for the urban agglomeration in the nineties, despite a deceleration in its natural growth rate. The thesis stands seriously discounted as the higher growth rate of urban population in Delhi can simply be explained in terms of designation of a large number of former habitats as 'new towns' according to the Census and territorial expansions, rather "unprecedented" in recent times. If the population of the 'new towns' is excluded, the annual growth rate comes down from 4.2 per cent to 3.1 per cent. The growth rate, computed after making adjustment for territorial aggregation (considering the increase in population on the area of the base year), works out to be lower during the nineties as compared to the eighties or even the seventies. Furthermore, the growth rate of population in UTD has for the first time in Independent India gone down to 3.9 per cent after remaining at 4.3 per cent for over four decades.

**Table 2.7 Male Migrants from Rural Areas (of the Country) Outside Delhi Coming for Employment into Urban Delhi by Educational Levels**

Educational Level	Year	Percentage of Interstate Male Migrants	
		Lifetime	Intercensal
Illiterate	1981	32.85	32.98
	1991	35.87	38.29
Under-Graduates	1981	57.99	59.31
	1991	57.49	55.96
Graduates and Above	1981	9.16	7.71
	1991	6.64	5.74

Source: Migration Tables of Population Census of India 1981,1991.

Another interesting observation related to migration is that the share of illiterates has been declining over the years. This is confirmed by the Census data as well, for the percentage of illiterates has gone down during 1981-91, both for the life time as well as intercensal migrants (Table 2.7 and 2.8). Furthermore, the share of under graduates among the lifetime migrants too has gone down during this period, although the corresponding change in case of intercensal migrants is small. The significant point is that the percentage of graduates has gone up substantially during eighties.<sup>13</sup> This gentrification of the migrant population seems to have

<sup>14</sup> This is a probable indication of better job opportunities available in Delhi for those possessing degrees who chose to leave their hometowns in the adjoining states forming the metro-region.



continued in the nineties as well, as argued above. The employment opportunities opening up in the metropolis are such that only people with a certain level of education or skill can aspire for that.

**Table 2.8 Male Migrants from the Urban Areas (of the Country) Outside Delhi Coming for Employment into Urban Delhi by Educational Levels**

Educational Level	Year	Percentage of Interstate Male Migrants	
		Lifetime	Intercensal
Illiterate	1981	24.00	26.54
	1991	22.35	23.05
Under-Graduates	1981	54.22	51.76
	1991	50.34	50.22
Graduates and above	1981	21.78	21.71
	1991	27.31	26.73

Source: Migration Tables of Population Census 1981,1991.

An interstate analysis of the source of the migrant population reveals that the "distance decay model" is operating rather strongly in Delhi.<sup>14</sup> The data from the Population Census show that in 1991 about 50 per cent of the life time migrants in the metropolis were from Uttar Pradesh, followed by Haryana, Bihar and, Rajasthan (Table.2.9).

**Table. 2.9 Migrants Classified by Place of Last Origin (Percentage)**

Place of Last Residence	1971-81	1981-91	1991-2001**
Uttar Pradesh*	50.09	48.25	52
Haryana	12.93	11.51	9
Bihar	5.77	10.69	13
Rajasthan	7.63	6.00	5
Punjab	6.40	5.28	4
Rest of India	16.4	18.3	17
Total	100	100	100

Notes: \*The figure of 2001 of Uttar Pradesh includes Uttranchal

\*\* The figures are provisional based on assumptions available from NCR-PB.

Source: Census of India 1981,1991.

## 2.5 Floating Population in and out of Delhi

Like other metro cities in the country, in Delhi too a significant number of people commute to work in the metropolis from neighbouring areas. The maximum commuting time is approximately 60 to 80 minutes; and the commuting distance is around 100 kilometers or less. However, unlike other metro cities Delhi has some

peculiar characteristics: for one thing its suburbs are not quite as developed as in Mumbai, Kolkata and Chennai. Also, commutation facilitated by the rail system is not as well developed as in Mumbai and Kolkata, where during the peak hours there is an interval of about 3 minutes between each train. Nevertheless, and, particularly since the advent of the Asiad-82, and upon the electrification of four major railway lines converging on Delhi, regular EMU, DMU, MEMU trains are currently in operation. Their frequency, to and from Delhi, depends upon the peak hours. Besides, the highway network provides better links with the cities and towns within and beyond Delhi's Metropolitan Area. There is, therefore, a qualitative difference between the daytime and nighttime population in the national Capital. Based on assumptions available from the Northern Railway's latest Time Table (July 2002) and observations at the major Bus Terminals, a rough estimate indicates that over 4,00,000 people commute back and forth every working day.<sup>15</sup>

## 2.10 Floating Population in Delhi

EMU,DMU,MEMU, Passenger	No of Trains	Commuters to Delhi	Percentage
Panipat Side	9	21600	10.68*
Rohtak Side	8	19200	9.50
Rewari Side	7	16800	8.31
Aligarh Side	6	14400	7.12
Ghaziabad Side	10	24000	11.87
Meerut Side	5	12000	5.93
Hapur Side	4	9600	4.75
Palwal Side	15	36000	17.80
Sakurbasti Side	11	26400	13.06
Khurja Side	2	4800	2.37
Dankaur Side	1	2400	1.19
Other Mail and Express Trains		15000	7.42
<b>Total commuters by Train</b>		<b>202200</b>	<b>50.00</b>
Total Commuters by Bus		165000	41.00
Private vehicle/ cars		15000	4.00
2/ 3 wheelers & Others		20000	5.00
<b>Grand Total</b>		<b>402200</b>	<b>100.00</b>

\*Percentage to the total Commuters by train

Note: while calculating the population commuting by trains it has been assumed that each train has twelve coaches and approximately 200 people (higher side) can be accommodated in each coach.

Going through the latest Railway Time Table, one finds that, in all there are 78 EMU, DMU, MEMU and passenger trains, each with 12 coaches and a seating capacity of almost 80 people, are coming to (and leaving in the evening) Delhi

<sup>15</sup> The concept of declining intensity of any pattern or process with increasing distance from a given point or location. Thus the degree of spatial interaction is inversely related to distance. (Source: The Penguin Dictionary of Human Geography).

<sup>16</sup> Northern Railway, Time Table, Volume 94 (July 2002); I.S.B.T Bus Trip Schedule.

from different towns and cities of the NCR. Tabulating the information shows that not less than 50 per cent daily commuters (2,02,200) use the train. About 41 per cent or 1,65,000 commuters use buses of varying capacity including chartered buses, public transport etc. Around 4 per cent use private cars and the remaining 5 per cent two/three wheelers and other modes of transport. Apart from these there are commuters coming from 'areas beyond the daily commutable distance'. Table 2.10 gives the number of trains and daily passengers commuting from 11 directions plus people coming to Delhi by long or medium distance passenger and express trains.

It's difficult to make plausible estimates for the outflow of regular commuters out of Delhi, every day. But it could vary from 10 to 15 per cent of the inflow of commuters to Delhi. Apart from the DMA towns, some people commute to and from the relatively far-off cities like Aligarh, Agra, Alwar, Rohtak, Karnal, Hapur, Meerut, Mathura, Karnal, Hapur, Gwalior, Jaipur etc. However, in the recent past certain towns in close proximity to Delhi like Gurgaon, Faridabad, Noida and Ghaziabad have developed urban facilities and amenities including glossy shopping areas, four and five star hotels, decent clubs including sports stadia, even specially hospitals, private schools, educational institutions and reasonable housing facilities. Moreover, the house rents in Delhi are substantially high and a similar or even more spacious accommodation is available in the cities and towns within the DMA. A number of business centres, corporate offices have been lately developed attracting an estimated 25,000 to 30,000 people from Delhi to Gurgaon and Faridabad and about 20,000 to 30,000 to Noida and Ghaziabad in adjacent Uttar Pradesh.

## **2.6 Implications of Demographic Growth for the Metropolitan Economy**

From the analysis in the preceding sections, it seems clear that, despite an all round deceleration in growth in towns and cities in the country in the recent decades, Delhi has recorded stable and, even an increase in urban growth. This growth has been exceptionally high during the past decades. A part of this growth, however, is due to the emergence of a large number of "new towns" so designated by census code also due to significant expansion of urban areas within UTD with a corresponding decline in the rural areas. The rural areas and a number of small and medium towns within and outside the urban agglomeration of Delhi seem to have absorbed a substantial proportion of migrants coming to the national capital.

This has been responsible for a large number of villages being classified as towns in successive Census, resulting in a significant increase in the urbanised area. While immigration of people from outside the state to the rural areas of Delhi has been significant, the accretion of population into the Walled City, New Delhi and Cantonment area has shown a distinct decline.

Notwithstanding the comparable rapid population growth of the metropolis during the last 50 years suggests that from now on Delhi is likely to experience steady, but not rapid population growth in the opening decades of the new Century; thereafter because of land area and space, and above all scarcity of available water supply, may slow down the growth trend. It may register even a mild decline. Nevertheless, further population increase would put tremendous pressure on the basic urban amenities and infrastructure of Delhi and could possibly initiate a process of degenerated peripheralisation.

### 3.1. Introduction

The independence of India brought forth unprecedented changes in Delhi, which transformed the city as never before. Since then its growth and development has been phenomenal. At the beginning of the 21st century, Delhi has emerged as a multifunctional metropolis with enormous expansion in its economic activities. A paradigm shift is visible with several new roles and functions emerging. Even so, the prime mover that sets the pace and rhythm of India's first city/metropolis remains Delhi, the political epicentre of national governance.

To provide meaningful input for the new planning exercise related to the context of the land-use activity matrix, this chapter presents a broad profile of Delhi's economy with employment as reflected in four key components:

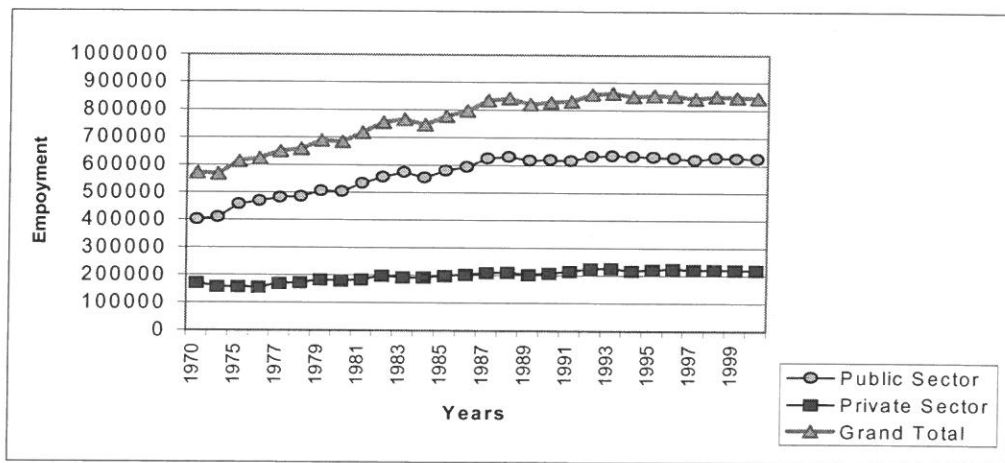
- a. Employment in public and government sector (at different levels), including its departments and allied institutions;
- b. Trade, commerce and banking services;
- c. Higher education and health care services;
- d. Manufacturing, processing and service industries and related activities.

### 3.2. Employment in the Government Sector

The Delhi metropolis experienced a major thrust of developmental activities in the post Independence era. There has been a steady growth of employment due to expansion of federal government functions, its attached and subordinate offices and allied institutions. The government sector has had a substantive multiplier effect in generating employment in allied institutions and related services. Delhi has also experienced a major spurt in trading activities, as a result of which it has

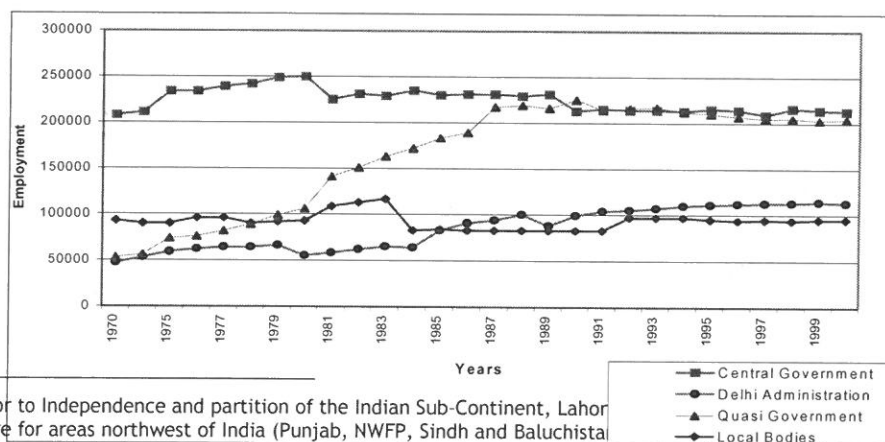
emerged as the largest wholesale trading centre in North India.<sup>1</sup> But the post -1947 era has also witnessed Delhi's emergence as a major entrepreneurial and commercial centre with phenomenal growth in certain types of manufacturing, communications and transport activities. Large-scale building activity has also expanded the construction sector. Besides, recent economic liberalization measures have given a boost to banking and commerce and other financial services.

**Figure 3.1 Employment in Public and Private Sector in Delhi (1970-June2000)**



Employment in the organised sector has increased steadily during 1970 to 1988 from 572,000 to 8,42,000. The trend in employment in the public and private sectors in Delhi for the period 1970 - June 2000 is given in Figure 3.1. Delhi's public sector constitutes about 70 per cent of the total employment in the organised sector. In 1970, employment in the Central Government constituted about 52 per cent of the total employment in the public sector. Its percentage share however came down over time, and was about 34 per cent in the nineties.

**Figure 3.2 Employment in Public Sector in Delhi (1970-June 2000)**



<sup>1</sup> Prior to Independence and partition of the Indian Sub-Continent, Lahor centre for areas northwest of India (Punjab, NWFP, Sindh and Baluchista Jammu and Kashmir.

ading  
and

This may be attributed to the phenomenal increase in the share of quasi-government (semi-government) organizations in employment, which increased from 53,000 in 1970 to 204,000 in 2000, an increase from 13 per cent to over 33 per cent. In the same period, employment in the local bodies registered only a slight increase from 93,000 to 95,000, although as a percentage of total public sector employment, their share has come down from 23 to 15 per cent.

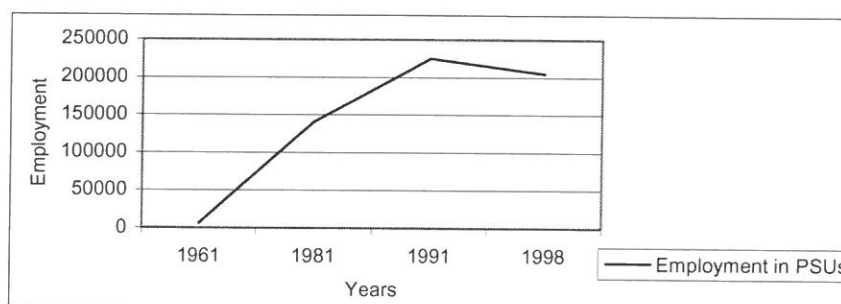
It may be from Figure 3.2 that during the decades of seventies and eighties, employment in the Central Government, State Government, Quasi Government and Local bodies was fluctuating, whereas in the nineties it remained almost constant. Further, in absolute terms there has been a marginal decline in the employment in the Central Government, Quasi Government and Local bodies during the late nineties compared to the early nineties. On the other hand, employment in the State Government increased -- most probably due to the formation of the *Dilli Sarkar*.

As of June 2000, the private sector constituted about 30 per cent of the total organized sector employment in the metropolis. This sector registered a steady increase in employment from the early seventies till the early nineties, increasing from 1,71,000 in 1970 to 2,27,000 in 1993. Thereafter it fluctuated till the beginning of the new decade (see Appendix 3.1).

### 3.3 Employment in the Public Sector Units (PSUs)

The post-independence era witnessed the setting up of several public sector units (PSUs) in the national capital. This led to creation of job opportunities, which again

**Figure 3.3 Employment in the Public Sector Units (PSUs)**



had a multiplier effect. During 1961 about 6,000 persons were employed in various PSUs in Delhi. This increased to 1,41,000 during 1981. Between 1981 and 1991, an additional 84,000 persons were employed in this sector. However, the nineties

witnessed a decline with total employment declining from 225,000 in 1991 to 205,000 in 1998.<sup>2</sup> Figure 3.3 gives the trend in employment in the PSUs of Delhi for the period 1961-98.

### 3.4 Employment in Trade and Commerce

Delhi is the major wholesale market for North West India;<sup>3</sup> consequently it has a large incidence of trade and commerce (Division 6 of NSS). The share of workers in this sector increased from 10.5 per cent to 30.4 per cent in rural Delhi during 1993-94 to 1999-2000, whereas in urban Delhi their share increased from 22.5 per cent to 28.5 per cent during the corresponding period.<sup>4</sup> According to the census data during 1951, 22.8 percent (170,000 workers) of the workforce was engaged in trade and commerce in Delhi. This increased to 22.5 per cent (413,000 workers) in 1981 and by 1991 it rose to 24.97 per cent (630,000 workers).

The wholesale trade in Delhi is more regional than local. A study by the National Capital Region Planning Board (NCR-PB) reveals that for certain commodities, most of the bulk which is procured first in Delhi is just "exported outside Delhi". This becomes amply clear from the fact that almost 85 per cent of electric and electronic appliances, and computer kits and parts, as much as over 70 per cent of vegetables and fruits, about 71 per cent of fuel oils, 60 per cent of the food grains, over 65 per cent of iron and steel products, sanitary and plumbing equipment, 65 per cent of paper and paper products, school books and stationery items are exported. It is, therefore, in the larger context of regional development and the necessity of limiting the population of Delhi to manageable limits, that priority has to be given to dispersal of certain wholesale trades, having a strong storage component. Some of these wholesale trades could be systematically shifted to cities and towns in the National Capital Region. Concentration of these activities would generate further employment opportunities resulting in increasing congestion in Delhi's limited space within the central core, as also in immediate "peripheral areas".<sup>5</sup>

This calls for appropriate alternative policy measures for developing alternate sites for wholesale markets, both within the metropolitan-area (DMA) and in the

<sup>2</sup> National Capital Region Planning Board Interim Development Plan 2001.

<sup>3</sup> Serving usually the entire northwestern region of Jammu & Kashmir, Himachal Pradesh, Punjab, most of Haryana, Rajasthan and western districts of Uttar Pradesh.

<sup>4</sup> NSS 55<sup>th</sup> Round.

<sup>5</sup> National Capital Region Planning Board: Interim Development Plan, 2001



designated “priority towns” of the NCR. There are certain wholesale trades in Delhi which are hazardous because of their location in congested areas due to bulk handling activities such as paper, plastic and PVC products, chemicals, food grains, iron and steel and timber and building materials to name only a few.<sup>6</sup>

### 3.5 Employment in the Banking Sector

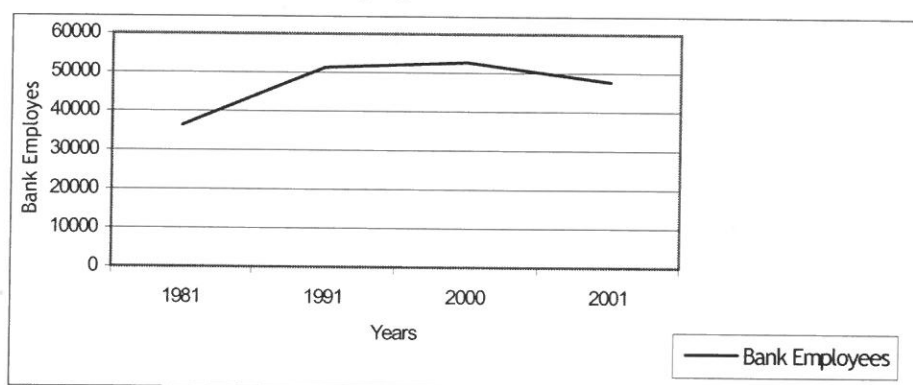
In the banking sector (both nationalised and foreign banks), the total employment was 36,311 in 1981 (Table 3.1 and Figure 3.3). Between 1981 and 1991, it increased by 41.48 per cent, but this in past could be attributed to the new banks being set up in Delhi. The following decade however witnessed a low growth of employment (2.53 percent). The growth in employment was negative at -9.30 per cent between 2000 and 2001, which may be a result of “computerized banking” which has led to “restructuring”, a euphemism for selective retrenchment of employees by several nationalised and foreign banks.

**Table 3.1 Employment in Banking Sector in Delhi: 1981-2001**

Year	Total Employees	% Variation	Annual Percentage Variation
1981	36,311		
1991	51,371	41.48	4.15
2000	52,672	2.53	0.28
2001	47,773	-9.30	-9.30

Source: Basic Statistical Returns of Scheduled Commercial Banks in India, RBI, 1981, 1991, 2000, 2001

**Figure 3.4 Bank Employees in Delhi: 1981-2001**



### 3.6 Employment in the Educational Institutions of Higher Learning

Delhi has emerged as a prime centre of higher learning and dissemination in the post-Independence era. Several universities of international repute like the Delhi

<sup>6</sup> National Capital Region Planning Board: Interim Development Plan, 2001; National Capital Region Regional Plan 2021 (draft).

University, Jawaharlal Nehru University, Jamia Millia Islamia, Indira Gandhi National Open University and the newly established Indra Prastha University attract students from all over India and the world. Colleges attached to the Delhi University also attract students from the entire subcontinent from SAARC and Arab countries. In addition, a number of research institutions of both national and international importance have been established in the last few decades. To name only a few, National Council of Applied Economic Research, National Institute of Public Policy and Finance, etc. Further, many deemed universities have also been set up like the Delhi School of Planning and Architecture and Jamia Hamdard. Delhi has also been a home for some world renowned institutions like the Indian Council of Agricultural Research, All India Institute of Medical Sciences, National

**Table 3.2 Delhi: Employment in Higher Educational Institutions**

Year	Employment				
	Universities, Colleges & Others	Percentage	Under Graduate Colleges	Percentage	Total Teachers
1976-77	6535	85.66	1094	14.34	7629
1977-78	6777	85.64	1136	14.36	7913
1978-79	6773	86.34	1072	13.66	7845
1979-80	6864	85.96	1121	14.04	7985
1980-81	7038	85.86	1159	14.14	8197
1981-82	7259	86.03	1179	13.97	8438
1982-83	7419	86.37	1171	13.63	8590
1983-84	7472	86.91	1125	13.09	8597
1984-85	7582	86.46	1187	13.54	8769
1985-86	7878	87.06	1171	12.94	9049
1986-87	7925	87.35	1148	12.65	9073
1987-88	n.a	n.a	n.a	n.a	n.a
1988-89	n.a	n.a	n.a	n.a	n.a
1989-90	n.a	n.a	n.a	n.a	n.a
1990-91	8241	100.00	n.a	n.a	8241
1991-92	8335	100.00	n.a	n.a	8335
1992-93	8463	100.00	n.a	n.a	8463
1993-94	8684	100.00	n.a	n.a	8684
1994-95	6175	100.00	na	na	6175

Source: National Capital Territory of Delhi: Statistical Abstract, 1977-96.

Physical Laboratory, National Institute of Immunology, Central Road Research Institute, etc. Several other educational and research institutes like IIT, Delhi College of Engineering, Institute of Economic Growth and several management schools attract students from all corners of the country and from overseas. These have had an impact on increasing migration and employment generation and in the process have transformed the land use activity matrix of the national metropolis.

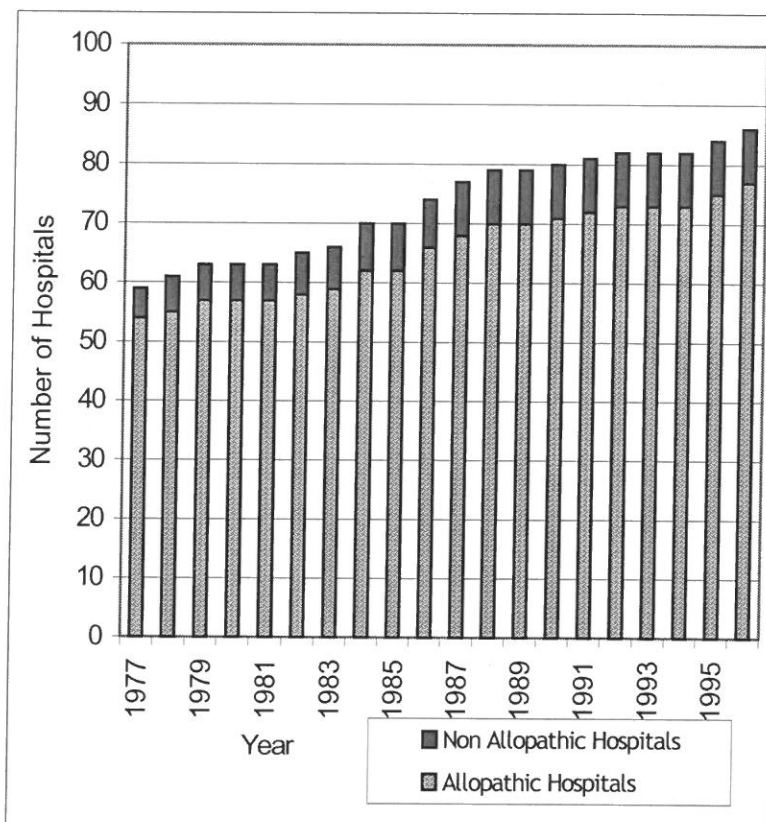
It may be pointed out that the analysis of employment in higher education suffers from inadequacy of data. Data have been regularly available till the year 1986-87. Thereafter there have been irregular gaps in the availability of information from official sources. It may be observed from Table 3.2 that employment in Universities, Colleges and Others have increased from 6,535 in 1976-77 to 7,925 in 1986-87, whereas that of employment in the Undergraduate Colleges increased from 1,094 in 1976-77 to 1,148 in 1986-87. The percentage distribution of employment in both the categories remained more or less constant. However, the percentage share of employment in Universities, Colleges and Others has increased by 2 per cent since 1985-86.

### **3.6 Health Care Services in Delhi**

Delhi has recently emerged as a major centre of sophisticated health care facilities in North India. This has generated a multiplier effect in the economy and, at the same time, attracted patients and doctors with high expertise and skills from all corners of the country. This analysis of health care services in Delhi also suffers from data inadequacy. Data on employment in the health care service (both doctors and para medical staff) was not at all available from any reliable source. The available data gives information on the number of Hospitals and Beds (Allopathic and Non Allopathic) from the mid-seventies till the mid-nineties. Though para-medical employment is not very high, yet the major speciality medical institutes have added to Delhi's significant attractions. Perusal of the above data suggests that there has been a slow growth in the number of hospitals in Delhi.

The number of Allopathic Hospitals, increased from 54 to 77 during 1977-1996, whereas Non Allopathic Hospitals increased from 5 to 9 during the corresponding period (Table 3.3 and Figures 3.4 & 3.5). However, the number of beds doubled in case of both Allopathic Hospitals and increased by three times in case of Non Allopathic Hospitals. The Economic Survey of Delhi (2001-2002 issued by the Planning Department Government of NCT of Delhi, has published the latest bed strength in various hospitals. Directorate of Health services, Government of NCT of Delhi has been cited as the source of information. According to this the total bed capacity as of February 2002 was 30,484. This includes 19,287 beds or 63.27 per cent of all beds in Government Hospitals while Private Nursing Homes provided 10,797 or 35.42 per cent beds. While the maternity centres reported 321 beds or just over one per cent.

Figure 3.5 Number of Allopathic and Non Allopathic Hospitals in Delhi (1977-1996)

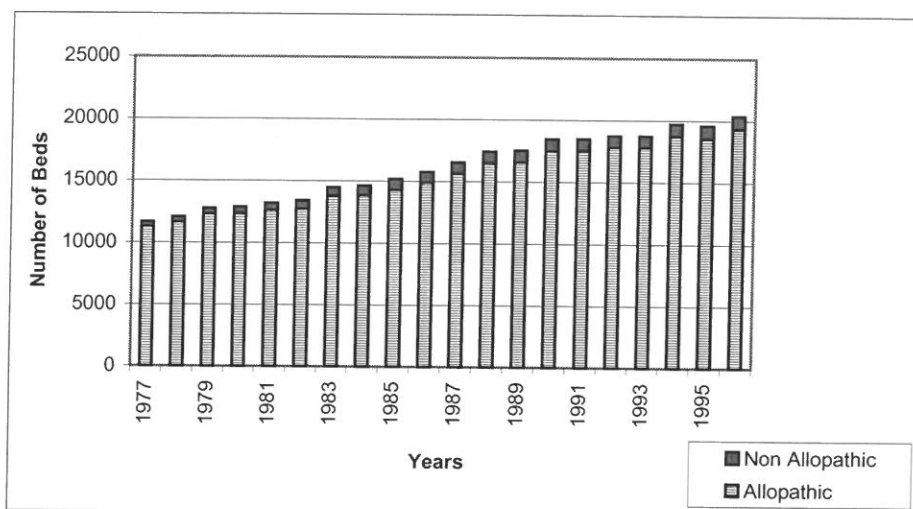


Source: Directorate of Economics & Statistics, Government of NCT

Several major hospitals with sophisticated expertise have come up in Delhi in the last two decades including Escorts Heart Centre, National Heart Centre, Sitaram Bhartiya Research Centre & Nursing Home, Modi and Batra Hospitals and Apollo Indraprastha Hospital - all under private ownership. A spinal injuries Centre and Rajiv Gandhi Research Hospital for Cancer Treatment near Rohini in north-west Delhi are the latest editions besides the Guru Govind Medical College and Hospital.

A score of diagnostic laboratories and MRI centres have come up in the previous decade, Although a majority of all medical facilities are run privately through the help of NGOs and NRIs, most of them have been able to avail land space on concessional rate from the DDA or *Dilli Sarkar* under individually negotiated protocols wherein even private hospitals and nursing homes promised to furnish highest medical service to persons of modest means.

Figure 3.5 Number of Beds in Non-Allopathic Hospitals in Delhi



Source: From Statistical Abstract, Directorate of Economics & Statistics, Government of NCT.

Table 3.3 Number of Hospitals and Beds 1977-96

Year	Allopathic Hospital	Non Allopathic Hospital	Total No	Allopathic No of Beds	Non Allopathic No. of Beds	Total Beds
1977	54	5	59	11,297	385	11,682
1978	55	6	61	11,678	408	12,086
1979	57	6	63	12,321	446	12,767
1980	57	6	63	12,397	496	12,893
1981	57	6	63	12,652	525	13,177
1982	58	7	65	12,743	673	13,416
1983	59	7	66	13,805	699	14,504
1984	62	8	70	13,890	766	14,656
1985	62	8	70	14,334	838	15,172
1986	66	8	74	14,925	838	15,763
1987	68	9	77	15,680	893	16,573
1988	70	9	79	16,536	911	17,447
1989	70	9	79	16,627	911	17,538
1990	71	9	80	17,543	921	18,464
1991	72	9	81	17,581	921	18,502
1992	73	9	82	17,849	921	18,770
1993	73	9	82	17,849	921	18,770
1994	73	9	82	18,796	930	19,726
1995	75	9	84	18,608	1,010	19,618
1996	77	9	86	19,345	1,047	20,392

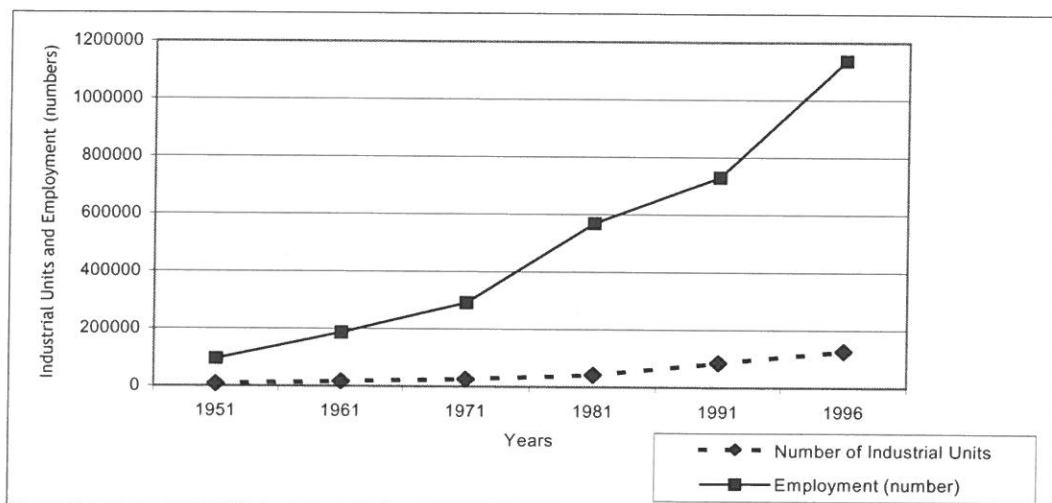
Source: National Capital Territory of Delhi, Statistical Abstract, 1977-96, Directorate of Economics and Statistics, Government of NCT.

### 3.7 Contours of Delhi's Metropolitan Economy

A major policy objective of the First Master Plan of Delhi (1962-81) envisaged decongestion and dispersal of many economic activities of the national capital by

discouraging large scale and nuisance industries from the central areas of Delhi either to the new areas designated within the urbanisable limits, or in some cases, to areas outside the urban limits. At the advent of planned development there were only a few manufacturing units like Delhi Cloth Mills (DCM), Swatantrata Bharat Mill that employed 10,000 or more workers. All these units ultimately closed down in the late 1970s. The DCM developed a new textile factory (Hindon Mills) outside Delhi on Hapur-Moradabad side in Uttar Pradesh. In fact, the Delhi Master Plan 1962-81 had envisaged seven major industrial zones located between the major highways and railway lines converging in Delhi. Also, for each designated industrial zone, particular types of industries were indicated since the advent of the planned development.<sup>7</sup>

**Figure 3.6 Growth of Industrial Units and Industrial Employment in Delhi (1951-1996)**



Source: Director General of Industries, Government of NCT Delhi.

Delhi experienced a rapid growth of manufacturing activities until the late seventies (Figure 3.6). The growth of manufacturing units and employment was phenomenal.<sup>8</sup> From the statistics available from DPCC and those generated through surveys conducted by the Department of Industries of Delhi Government, the number of industrial units that were around 8,000 in 1951, but went up five-fold in 1978. Investment and production in industries, however, increased over 30 times.

<sup>7</sup> The Master Plan, 1962-81, stated that as a matter of policy, large scale and heavy industries are not to be encouraged in Delhi; all the noxious industries (and manufacturing processes) located in residential zones should be "relocated in areas meant for extensive industrial zones". While the Master Plan, 1962-81, earmarked 8,553 acres in use by all kinds of industries including processing and service industries, light and small industries had 1,583 acres designated and shown in the Land Use Plan at 16 locations. In addition 106 acres besides 357 acres were earmarked for mining (of Kayolin deposits used for pottery), Badarpur sands etc. However stone quarries and crushers were to be discouraged and ultimately stopped or these 361 acres were to be developed on "flatted factories" in various District centres. (Source: Work Studies for Delhi Master Plan: 1962-81, pp.16-22).

The growth of manufacturing employment was also very high viz. 6.2 per cent per annum. The availability of industrial inputs and above else the spirit of entrepreneurship was the main force that gave Delhi its new character as an upcoming centre for the small and medium scale modern industries. Delhi also furnished essential infrastructure, marketing facilities and related banking and financial services. All these factors helped to make Delhi as one of the largest centres for modern small and medium scale industries.

Table 3.4 shows the growth of industrial units in Delhi from 1951 through 1996. From 8,160 industrial units, the figure rose to 126,216 by 1996 while investment grew from a mere Rs.18.13 crores to Rs. 2524 crores. There was dramatic rise in employment which went up from 95,137 to 1,13,5962 according to Delhi's Economic Survey: 2001-2002.

**Table 3.4 Growth of Industrial Sector In Delhi, 1951-96**

Year	Number of Industrial Units	Investment (Rs. Crore)	Production (Rs Crore)	Employment (number)
1951	8,160	18.13	35.35	95,137
1961	17,000	60.00	121.00	187,034
1971	26,000	190.00	388.00	291,585
1981	42,000	700.00	1,700.00	568,910
1991	85,050	1659.00	4,462.00	730,951
1996	126,218	2524.00	6,310.00	1,135,962

Source: Economic Survey of Delhi 2001-2002

The period of National Emergency (June 1975-77) saw large-scale eviction of slums along with their economic activities. An ad hoc policy was launched to shift and rehabilitate this population in the peripheral areas by providing them living space (large number of 25 sq yard plots) with worksheds for setting up enterprises. Unfortunately, the occupancy rate of the sheds provided by the Delhi Government in the new colonies, for setting up non-polluting small-scale industrial or commercial/business units remained very low as there was no systematic programming or monitoring for their proper economic rehabilitation. The infrastructural facilities were extremely inadequate in most of the localities. The provisions made in great haste were based on defective assumption and initially the impression was created that many of these localities would only be "temporary camping sites".

<sup>8</sup> Kundu et.al (2002)

Consequently, issues relating to plot size and amenities meeting the planning standards were not given due consideration.

Understandably, the growth rate of industrial workers during 1978-88 came down to 3.9 per cent, much less than in the preceding two and half decades, although the growth rate of units was by and large the same. To promote economic growth, the Delhi administration brought out an industrial policy document in 1982, emphasising the setting up of new medium-scale industries outside the urbanised limits of Delhi in the areas earlier designated as "industrial zones" in the Master Plan 1962-81. Small scale modern units (with investment in fixed assets not exceeding Rs. 1 crore), non-polluting and non-hazardous industries were promoted in the Union Territory of Delhi (UTD). The idea was to generate employment for skilled workers with minimum pressure on land and electricity supply in the metropolis. Certain select household industries were permissible even within the residential zones and were in fact envisaged in the original Master Plan and its Zoning Regulations. Certain types of small-scale industries were also encouraged in industrial zones, District Centres (flatted Factories) and service industries like "Atta Chakki"<sup>9</sup> were permitted even in the local community centre throughout urban Delhi.

The Department of Industries of the Delhi Government offers a concessional policy package and has launched a variety of programmes for providing training, marketing, and quality control, export promotion facilities etc. for promoting small-scale industries. It also helped these units in procuring certain raw materials and equipment as well by issuing certificates that facilitate issue of import licenses. While the Delhi State managed a number of industrial estates with basic infrastructural facilities, attracting a large number of entrepreneurs, it was seldom concerned about following the directions envisaged or prescribed in the original Master Plan. Besides, providing plots and flatted factories to small-scale entrepreneurs there was no meaningful coordination with the DDA as far as implementation of Master Plan

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<sup>9</sup> Delhi government brought out a list of 73 household industries falling under Group A of MPD-2001 that could be set up in urban residential areas with permission of a High Powered Committee. Besides these, industries listed under A1 of MPD-2001 could be set up in rural areas as well. These units could use power not exceeding 5 KW, occupy an area up to 30 square metres but must not create pollution or congestion in the city. The Ministry of Urban Development and Poverty Alleviation further permitted F category industries in light industries and light industries food zones and removed the restriction of maximum power load.



Policies and Programmes were concerned. Besides, not many plots for flatted factories were provided for small scale entrepreneurs.<sup>10</sup>

As a consequence of this changed policy adopted by, the Delhi Government there was a rapid growth of small manufacturing units, which increased the pace of industrial growth much above that of the previous decades. Many of these units were labour intensive and hence the growth rate of employment during 1988-96 touched an all time high record of 10.4 per cent, which was much higher than that of number of enterprises (6.4 percent per annum). Capital intensity measured in terms of investment per worker came down from Rs 40,000 to Rs 22,000 only. The decline will be much sharp if these figures are computed in real terms, taking into consideration the increase in the value of capital index. This phase of rapid industrial growth continued until the late nineties, as may be inferred from the Economic Census, which reported employment growth in manufacturing to the tune of 11 per cent during 1990-98.

However it needs to be pointed out that in one sense the policy enthusiastically pursued by the Delhi Administration (*Dilli Sarkar*) was diametrically opposite to the one enunciated by the Delhi Master Plan 1962-81, as also subsequently by the Master Plan of Delhi 2001. Both these plans clearly envisaged that all preferences and priorities were to be accorded to manufacturing and processing units already functioning in congested areas and in the areas defined as "non conforming areas and zones of the Delhi Metropolis". Consequently, this has resulted in pre-empting substantial land areas in major industrial zones earmarked in the land use plan as

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<sup>10</sup> Besides, the department recommends to the National Small Industries Corporation (NSIC), Okhla to purchase machinery for use by these units on hire purchase basis. Through a chain of service centres, NSIC offers facilities of workshops, technical laboratories and software tech parks and also assists in export promotion. Further, it has a few special programmes for providing training, institutional finance and modernisation support for sectors like handloom, handicraft, etc. Small Industries Service Institute set up by the Department at Okhla conducts skill and entrepreneurship development training programmes. Besides, a Tool Room and Training Centre has been set up at Waziropur industrial area for imparting training in tool making, tool designing, computer programming. High Tech vocational training Centre has been set up at Okhla for providing training on computerised machines. A special cell has been set up by the department to help women entrepreneurs seeking, financial assistance, other inputs and assistance in clearing administrative formalities. The proposal to build an Udyog Sadan for accommodating all offices concerned with industrial development under one roof is under its active consideration.

Apart from the Delhi State, Department of Industries, there are a few other institutions set up by Delhi government that promote the growth of SSI. Delhi State Industrial Development Corporation, incorporated as a company (under companies Act, 1956) in the year 1971 for example, provide sheds, infrastructural facilities, finance and technical help for promoting small scale industries. DSIDC has been declared as the Land Development Agency in 1978 and since then it has undertaken this task in Narela and other places. The Delhi Khadi and Village Industries Board units to be set up by providing, information, financial assistance and marketing facilities. Most importantly, there is the Delhi Financial Corporation which offers long term loan and working capital to industries, hotels, and service sector activities etc.

A plan scheme has been launched to construct 15 effluent treatment plants in various industrial areas under the design and guidance of NEERI. Half of the capital cost is to come from the central and state government as subsidy while the rest of the capital cost and cost of operation is to be met by registered CETP Societies and industries.

envisaged for manufacturing and service industries in the previous Master Plans for Delhi (196-1981 followed by MPD -2001). Nor did the Delhi Administration (now the "Dilli Sarkar") develop viable policies for promotion of "flatted factories" in the various District Centres and Community Centres that DDA developed on its own.

The unprecedented industrial growth since the mid-eighties, as noted above, is largely due to the emergence of small scale and household based industries. There has been a deliberate shift away from large to small and medium size industrial units in the eighties, that can be seen clearly from the data provided by the Annual Survey of Industries.

### 3.8 Trend in Organised Manufacturing Sector

The number of registered factories, covered under the Annual Survey of Industries of Delhi, increased at a rapid pace of 8.4 per cent (annual exponential) per annum during 1973-81 (Table 3.5).<sup>11</sup> The rate would have been still higher but for the policy to clear slums and evict 'illegal enterprises' adopted during the late seventies (1975-77), the period of National Emergency. The effect of these policies can be seen through the eighties, and in fact even now. The growth rate of enterprises came down dramatically to 0.8 per annum during the period 1981-92.

Finally, a shift in policy in 1990, which categorically precluded the location of large industries, nevertheless envisaged promotion of small and service industries to provide employment and income opportunities to people in the metropolis.

**Table 3.5 Trend in Organised Manufacturing Sector in Delhi (1973-1997)**

Years	Annual Growth Rate		
	Units	Workers	Fixed Capital Invested
1973-81	8.4	0.7	12.8
1981-92	0.8	2.0	17.1
1992-1997	0.6	-5.6	N.A.

Source: Annual Survey of Industries, Delhi, 1973-97.

Interestingly, the trend in the growth rate of workers in the organised sector differed significantly from that of industrial units. The annual growth in the

<sup>11</sup> The term 'worker' is used in the same sense as defined in Section 2 m(i) of the Indian Factories Act, 1948 where a worker is defined as a "a person employed, directly or through an agency, whether for wages or not, in any manufacturing process or in cleaning any part of the machinery of manufacturing process. However, persons holding positions of supervision and management or employed in a confidential positions are excluded". Source: Report on Annual Survey of Industries (Factory Sector) 1983-84, Bureau of Economics & Statistics, Delhi Administration, Delhi.

number of workers during 1973-81 was 0.7 per cent which was much less than the growth rate of enterprises. Significantly, the growth rate increased steadily during the eighties, the figure for the period 1981-92 being as high as 2.0 percent per year. This implies that despite a deceleration in the growth of number of units during seventies, the trend in employment was just the opposite. In the nineties, however, employment slumped dramatically, the absolute number of workers in organised industries declining at the rate of 5.6 per cent annually.

The growth in fixed capital invested in organised industries exhibits a trend similar to that in employment. It grew at 12.8 per cent annually during the seventies at current prices. Despite a deceleration in the growth of enterprises, fixed capital, again at current prices, grew by over 17 per cent. The growth in capital at constant prices would be less than that reported as the price index for capital goods has increased steadily during this period. The fixed capital has, however, declined during the nineties even at current prices. This implies there has been significant disinvestment in organised industries during the nineties.

### **3.9 Small Scale and Industrial Units / Relocation within NCR**

The first Master Plan of Delhi, 1962-81, had designated seven major industrial zones within Delhi. In all 5,753 acres were earmarked for the new industrial areas.<sup>12</sup> However, no serious attempt was made to ensure compliance of the Master Plan provisions or in shifting and relocation of non-conforming industries from the city to the newly designated conforming areas. As a consequence, while rapid growth of new industrial units was registered, proliferation of obnoxious, polluting, and even hazardous units continued within the residential and commercial areas. Understandably, this resulted in the developed industrial areas lying unutilized, for quite some time. Meanwhile the concerned agencies of the Delhi Administration went ahead to allot land and plots to new industrial units regardless of the Master Plan provisions. Unfortunately, the guidelines of the Industrial Policy clearly

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<sup>12</sup> Work Studies Relating to the Preparation of the Master Plan for Delhi:1961-82, prepared by the erstwhile TPO for DDA.

enunciated in the Master Plans of Delhi, 1962-1981 and MPD 2001 were ignored, while issuing licenses to the new small scale industrial units. A survey conducted by the Delhi Pollution Control Board (DPCB), identified as many as 1,37,000 units, operating in Delhi in 1996. Among these, there were quite a few large and medium scale industries operating from residential areas reckoned as "non-conforming" zones.

The persistence of a large number of industrial units operating from the non-conforming residential areas and other zones drew the attention of the Supreme Court of India in 1996, upon the release of the Report by DPCB.<sup>13</sup> The Supreme Court directed for the closure of about 39,000 industrial units and their relocation in conforming areas within NCR.<sup>14</sup> These units included hot mix plants, brick kilns and arc/induction furnaces among others.

The Supreme Court observed that many of these industries were polluting in nature and emitted hazardous and toxic effluents and fumes dangerous for healthy living and posing hazard to the area(s) they were operating. Moreover, a large proportion of these had been operating under the guise of small-scale industries thus violating the prescribed norms laid down in the Master Plan. The Court (in civil writ petition no 4677/85), passed a directive for immediate closure of these industries and shifting of permissible small scale units from non-conforming to conforming areas. *In this context, the Supreme Court ordered that the provisions of the Delhi Master Plan must not be violated.* As such the Hon'ble Court required that all the units that have come up in the non-conforming areas must submit their relocation plans within one year of the notification in 1990 and be shifted within the next two years to an area designated for industrial activities in the NCR.

Applications for relocation were invited from all the units declared "non-conforming" and were received until December 1996. Of the 52,000 applications received, about 27,000 were found eligible. These were forwarded to the Delhi State Industrial Development Corporation (DSIDC) for

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<sup>13</sup> This was a result of a Public Interest Litigation (PIL) filed by Mr. M.C. Mehta.

<sup>14</sup> In pursuance of that, no small-scale industry is to be registered in non-conforming areas. Even in case of conforming areas, the units must get clearance from the Delhi Pollution Control Committee (DPCC). To ensure compliance of the provisions of the Master Plan, a High Power Committee was established to examine the permissibility of certain (so-called household) units in non-conforming areas. Units failing to obtain the necessary permission from the Committee must stop operating by end of 1996 and be rehabilitated in conforming zones.

provisional registration.<sup>15</sup> Such registration was given to units in non-conforming areas, provided they had been allotted an alternate site by DSIDC under the Relocation Scheme. The provisional registration was initially for one year which was extendable depending on the progress made and steps taken in shifting the unit. Delhi Financial Corporation was expected to sanction loans at concessional terms to all units that were given firm allotment by DSIDC. Industries located in areas covered under the redevelopment Scheme of MPD-2001 such as Anand Parbhat, Samaipur Badli and Shahdara were, however, not considered under relocation scheme.

There were 28 industrial estates located within the NCT. For accommodating the "dislocated industrial units" identified within the non-conforming zones, the government of Delhi decided to acquire 1,300 acres of original agricultural farm land at Bawana and Holambi Kalan villages, however, thus too was regardless of the Master Plan land use stipulations and norms prescribed for setting up new industrial estates. The GNCT further proposed to acquire yet another 800 acres to develop new industrial estates in the outlying areas like Narela and Bawana. Besides 378 flatted factories have been constructed at Jhilmil Industrial Area under the "relocation scheme".

Since the advent of planning, significant changes have taken place in the physical as well as socio-economic environment in the rural belt of the NCT of Delhi. The acceptance of planned development as envisaged under the Master Plan, the villages within a distance of five kilometers from the central areas of the city emerged as a distinct category as many of them got merged with the urbanized area. These constitute the high density fast growing habitats with a large

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<sup>15</sup> DPCC has classified the industries into green, orange and red categories, as below:

- (a) Industries classified under groups A, AI, B, C, D and E belong to Green category. Besides, the units falling under GI as per MPD-2001, also fall in the category as per the Supreme Court order of 1995. The industries producing\ associated with PVC products, drugs, cloth dyeing, tobacco products, washing soap, aerated water, electroplating, cold storage and refrigeration, grinding work, iron foundry, ink making, fruit canning etc excluded from this category. For the Green industries, acknowledgment of the Standard Application form by DPCC itself constitutes the consent to establish and operate for a period of five years. Such acknowledgments in case of units in nonconforming areas are, however, issued with the understanding that these meet the conformability requirement in terms of power load (5KW +1KW standby generator), manpower, plot area etc. In case of any of the requirement not being met, DPCC can penalise or close the unit.
- (b) The industries placed under group F of MPD-2001 and those mentioned above as not belonging to green category, constitute the orange category. The prospective entrepreneurs are given consent to establish the units in the conforming areas without any delay. However, while submitting the application form for the consent to operate, an affidavit declaring implementation of pollution control measures along with a monitoring report from an approved laboratory must be submitted.

All hazardous/noxious/heavy and large industries as indicated in MPD-2001 amended by Central Pollution Control Board and accepted by the Supreme Court under H(a) and H(b) categories constitute the red category. These are not permitted within the jurisdiction of NCT of Delhi.

incidence of male population (relative to the females), a large proportion of workers in secondary and tertiary sectors and a high index of interaction with the central core of the metropolis. Former villages like Kotla Mubarakpur, Hauz Khas, Munirka, Karkardoma, Jhilmil Tahirpur, Shahpur Jat, Jaffarabad, Yusuf Sarai, Chiragh Delhi are only some of them.

The process of conversion of agricultural farm land into urban use, (often contrary to the prescribed land use indicated in the Master Plan) for uses such as housing, industrial, commercial and transport activities have been taking place almost all along with the urban periphery due to increasing pressures. This has affected the employment scenario in the rural areas of Delhi, particularly villages close to the urbanisable limits as shown in the land use plan. As a consequence it has pushed a large number of agricultural and household workers out of their traditional jobs making them part of the urban proletariat.

Lack of timely monitoring has led to large scale proliferation of unauthorized industrial and commercial activities have, nonetheless they have generated a large number of parallel job opportunities in these areas particularly for the unskilled or semi-skilled labour have been able to find employment. The impact for women, however, has been basically negative since most of them could not get easily absorbed in the new occupations that have come up in or near the hitherto rural communities. Notwithstanding all restrictions and impediments, Delhi has emerged as the most prosperous among the States and Union Territories of the country in the process creating a wholly new set of problems that demand innovative approaches for dealing with them.

### **3.10. Conclusion**

To summarise, the employment in the public sector which showed an unprecedented upsurge during the initial decades following the independence, registered a gradual leveling off, but seems to have somewhat stabilised during the last decade of the 20<sup>th</sup> Century. Employment in Trade and Commerce has expanded and substantially increased since 1950, especially in the recent decade after liberalization due to the economic reforms. This has been reflected in the banking sector which had earlier shown a remarkable progress, followed by a

gradual decline registered during last decade. The number of manufacturing units and employment although increased in absolute terms, seems to have levelled off as of now.

Thus the growth scenario in the organised sector during the past three decades in Delhi, it is shows that while the metropolis experienced a sustained growth of industrial units during the seventies that more or less lasted till the eighties. The industries, firms however, they were mainly capital intensive in nature. Consequently, employment grew sluggishly. The decade of eighties saw a slow growth of units accompanied by a high growth in industrial employment. This could possibly be attributed to the emergence of units employing a large number of workers; probably employment in the old units also increased accounting for the acceleration in the growth of employment. All this can be attributed to the active policy promoting shift in favour of small scale industries and near exclusion of large industries. Labour intensity in the organised sector seems to have increased as labour capital ratio (measuring capital at constant prices) has gone up. The last decade (1991-2000) however, was a period wherein the number of manufacturing units came down along with labour as well as fixed capital.

At present, the new entrepreneurs seem to be looking forward to the upcoming cities around Delhi and augmentation of their urban infrastructure and facilities, which could induce them to locate in the metro-region. In this connection the operationalization of the policy concept of CEZ i.e. Common Economic zone in the entire metropolitan region which requires rationalization of the tax structure could provide positive incentives for the progressive development of the entire metro-region around the national metropolis.

#### 4.1 Introduction

This chapter analyses the trends in income, poverty and employment in Delhi. Following the introductory section, the second section focuses on the trends in per capita income during 1980-81 to 2000-2001. The third section deals with poverty levels in the metropolis during the last three decades. The employment and unemployment scenario is discussed in the next section using alternate definitions employed by NSS. The changing spatial structure of the metropolitan economy has been examined in the fifth section. The final section discusses the implications of the past trend in making projections of employment and its anticipated sectoral distribution in the future.

#### 4.2 Per Capita Income in Delhi

The per capita State Domestic Product in the year 2000-01 is about 2.4 times that of the average for the country. Also, the growth rate of income during the past two decades has been similar to that in the country as a whole leading to the persistence of a gap between the UTD and national figures in per capita income. The per capita income at current prices increased from Rs 4,145 during 1980-81 to Rs 11,373 during 1990-91. During the nineties, it increased at a much faster rate. The advance estimate given for per capita income at current prices (new series) for the UTD is Rs 39,620 for 2000-01, that is about three times that of the national figure.<sup>1</sup> It is, therefore, not surprising that Delhi attracts a large number of migrants, which is reflected in the acceleration of its demographic growth rate during the nineties, as underlined before, when most other metro cities experienced a relatively declining trend.<sup>2</sup>

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<sup>1</sup> Economic Survey of India, 2001-2002.

<sup>2</sup> Census of India, 2001.



A study of 'urban poverty distribution according to city/town size' in India indicates that Delhi registered the most remarkable growth in income from 1985-86 through 1995-96 for all major income groups, particularly the Upper Middle and Upper income brackets: 6.8 to 21.3 (Upper Middle) and 5.5 to 23.5 (Upper income), respectively.<sup>3</sup>

#### **4.3. Poverty Levels in Delhi**

Interestingly, the poverty ratio in Delhi has always been much below the national average during the last three decades. Furthermore, as compared to the national figures it has come down even more sharply, thereby increasing the gap between the two. The percentage of people below the poverty line, which was as high as 49.6 in 1973-74 came down to 14.7 in 1993-94. As of 1999-2000 it was as low as 8 per cent. The corresponding figures for the country are 54.9, 36 and 26 per cent respectively.<sup>4</sup>

The relative decline in the poverty level in Delhi is partly explained by:

- a) the high growth in per capita income, much above that of the country as a whole;
- b) the growth of income and also employment opportunities for those in the lower economic strata that helped them to cross over the poverty line.

The opening up of new avenues (like call centers in Gurgaon, new multinational corporate offices) has encouraged, immigration of highly educated people to the metropolis, which has led to a relative diminution in the percentage of the poor. At the same time, distress migration from Bihar, Uttar Pradesh, Rajasthan, Orissa is also increasing.

#### **4.4. Employment and Unemployment in Delhi**

The stronger economic position of Delhi is reflected in the high employment rate, compared to the all India average for urban centres and other metro cities. The analysis of data available from the Population Census (Tables 4.1 & 4.2) shows that employment rate for men in urban Delhi has "always been higher than that of the country". This proposition is also confirmed by the National Sample Survey (NSS) data, considering all the three alternate concepts of employment: based on usual,

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<sup>3</sup> "Urban Poverty Distribution according to City/ Town Size in India" Abusaleh Shariff ,National Council of Applied Economic Research, New Delhi, Presented at HSML, New Delhi,September 2002.

<sup>4</sup> Economic Survey of Delhi, 2001-2002.

weekly and daily status (Table 4.3). The percentage of male workers in urban Delhi including marginal workers for the (Census) year 2001 is 52.40 (Table 4.2) while the NSS figure for the year 1999-2000, including both principal and subsidiary<sup>5</sup> employment (usual status) is 52.8 (Table 4.3). These are slightly higher than the corresponding figures of 50.8 and 51.8 per cent respectively, for urban India. The same, however, cannot be said about rural Delhi, as the percentage figures for this segment are less than the all India (rural) figure during seventies, eighties and nineties.

**Table 4.1. Work Participation Rates of Main Workers in Delhi and India Based on Population Census: 1991-2001**

Work Participation Rate: DELHI					Work Participation Rate: INDIA				
	Year	Persons	Male	Female		Year	Persons	Male	Female
Delhi District	1971	30.21	50.61		INDIA	1971			
	1981	31.93	52.47	6.52		1981	33.48	51.62	14.07
	1991	31.51	51.61	7.21		1991	34.18	51	16.03
	2001	31.18	50.06	8.19		2001	30.55	45.35	14.68
Rural	1971	26.62	45.15		Rural	1971			
	1981	28.49	46.64	6.1		1981	34.8	52.61	16.09
	1991	28.75	48.06	4.84		1991	35.84	51.88	18.75
	2001	29.11	46.37	7.78		2001	31.03	44.51	16.77
Urban	1971	30.63	51.22		Urban	1971			
	1981	32.2	52.93	6.55		1981	29.23	48.53	7.3
	1991	31.82	52.02	7.47		1991	29.48	48.57	8.15
	2001	31.34	50.34	8.22		2001	29.3	47.46	9.12
Delhi U.A.	1971	30.63	51.22						
	1981	32.21	52.97						
	1991	31.83	52.05						
	2001	n.a.	n.a.	n.a.					

Note: n.a. - not available

Source: Census of India 1971 to 2001.

There are reasons to believe that the employment situation for men in urban Delhi has not improved over the years. In fact, the situation seems to have somewhat worsened in recent years.<sup>6</sup> The Census figure for total (main + marginal) workers in 1981 was 53.08 per cent, which is higher than that reported in 2001. The same

<sup>5</sup> Principal Status: The usual activity status relates to the activity status of a person during the reference period of 365 days preceding the date of the survey. The activity status on which a person spent a relatively longer time (i.e. major time criterion) during the 365 days preceding the date of survey is considered as the principal usual activity status of the person.

Subsidiary Status: A person whose Principal Usual Status was determined on the basis of the major time criterion would have pursued some economic activity for a relatively shorter time (minor time) during the reference period of 365 days preceding the date of the survey. The status in which such economic activity was pursued was the subsidiary economic status of that person.

<sup>6</sup> Census of India 1981, 1991, 2001 and NSS 50<sup>th</sup> and 55<sup>th</sup> rounds on Employment and Unemployment in Delhi.

could be said using the NSS data, as the percentage of workers seems to have declined from 54.3 to 52.8 during 1993-99. A similar declining trend in Work Participation Rate (WPR) can be noted when we consider only the main or principal workers. It is true that a similar trend can be observed at the national level based on the secondary data sources but the decline does not emerge as clearly as in case of Delhi.

**Table 4.2 Work Participation Rates of Main and Marginal Workers in Delhi and India based on Population Census: 1981-01**

Work Participation Rate: DELHI					Work Participation Rate: INDIA				
	Year	Persons	Male	Female		Year	Persons	Male	Female
Delhi District	1981	32.19	52.67	6.84	INDIA	1981	36.70	52.62	19.67
	1991	31.64	51.72	7.36		1991	37.50	51.61	22.27
	2001	32.80	52.21	9.15		2001	39.26	51.93	25.68
Rural	1981	30.15	47.49	8.75	Rural	1981	38.79	53.77	23.06
	1991	29.12	48.23	5.46		1991	40.09	52.58	26.79
	2001	32.00	49.71	10.12		2001	41.97	52.36	30.98
Urban	1981	32.35	53.08	6.69	Urban	1981	29.99	49.60	8.31
	1991	31.92	52.12	7.57		1991	30.16	48.92	9.19
	2001	32.85	52.40	9.08		2001	32.23	50.85	11.55

Source: Census of India, 1971-2001.

**Table 4.3 Work Participation Rates of Principal and Principal Subsidiary Workers in Delhi and India for all Age Groups for Male/Female based on NSS Rounds: 1993-94 to 2000.**

		Principal		Principal+Subsidiary	
		Male	Female	Male	Female
RURAL					
Delhi	1993-94	58.2	7.5	58.6	9.8
	1999-00	52.0	2.2	52.0	2.9
All India	1993-94	54.1	23.7	56.1	33.0
	1999-00	53.1	23.1	52.2	29.9
URBAN					
Delhi	1993-94	54.3	9.8	54.3	10.2
	1999-00	52.6	8.2	52.8	10.5
All India	1993-94	53.8	13.2	54.3	16.5
	1999-00	51.3	11.7	51.8	13.9

Source: NSS 50<sup>th</sup> and 55<sup>th</sup> rounds on Employment and Unemployment in Delhi.

It would be more appropriate to compare the WPR for the 15+ age group as Delhi has a smaller percentage of population below 15 years, which gives a slightly inflated value of total WPR (for all ages) in relation to the national average. The figure for urban males in Delhi was 79.6—a national average of 76.8 in 1993-94. This, however, has gone down to 74.5 in 1999-2000, even below the national figure of 75.2 (Table 4.4).

Importantly, the percentage of employed among men above 15 years of age in urban Delhi is much higher than the country, for all levels of education in 1993-94 (Table 4.5). The figures for illiterates and educational levels up to secondary, however, have gone down significantly in recent years while that for higher secondary and above these have remained stable or gone up. The decline in case of those with lower levels of education is so dramatic that the WPRs were less than the all India figures in 1999-00. However, for the groups with educational level above higher secondary, the WPRs for urban Delhi continue to be above the all India figures.

**Table 4.4 Work Participation Rates of Principal and Principal+Subsidiary Workers in Delhi and India for Male/Female in 15+ Age Groups based on NSS Rounds: 1993-94 to 1999-00.**

	Years	Principal		Principal+Subsidiary	
		Male	Female	Male	Female
RURAL					
Delhi	1993-94	90.9	12.5	90.9	16.2
	1999-00	79.1	3.3	79.2	4.4
All India	1993-94	84.6	34.6	86.4	48.6
	1999-00	82.9	35.0	84.1	45.2
URBAN					
Delhi	1993-93	79.6	12.7	79.6	13.2
	1999-01	74.3	11.9	74.5	14.1
All India	1993-94	75.8	17.5	76.8	22.3
	1999-00	74.5	16.6	75.2	19.7

Source: NSS 50<sup>th</sup> and 55<sup>th</sup> rounds on Employment and Unemployment in Delhi.

**Table 4.5 Work Participation Rates for Males above 15 years of Age at Different Levels of Education in Delhi and India based on NSS Rounds**

RURAL MALE							
	Years	Illiterate	Literate - Primary	Middle	Secondary	Higher Secondary	Graduate and Above
Delhi	1993-94	98.4	92.7	83.6	91.7	91.9	72.7
	1999-00	75.0	75.4	85.7	65.6	78.7	95.3
All India	1993-94	91.3	89.8	73.5	68.3	32.9	79.2
	1999-00	89.1	87.2	75.2	71.3	67.9	80.2
URBAN MALE							
Delhi	1993-94	92.1	85.9	73.9	68.7	67.3	82.4
	1999-2000	82.2	81.8	69.9	62.2	66.6	83.0
All India	1993-94	86.6	84.4	71.3	66.3	58.9	80.7
	1999-2000	83.6	82.4	72.5	66.1	59.9	79.7

Source: NSS 50<sup>th</sup> and 55<sup>th</sup> rounds on Employment and Unemployment in Delhi.

Direct evidence of the worsening unemployment situation for urban males can be obtained from the recent rounds of NSS. One may infer that, by all the concepts used, unemployment rates are lower in Delhi than in urban India in 1999-2000. The

**Table 4.6 Unemployment Rates during the Nineties for Delhi and India based on NSS Rounds**

		Usual		Usual (Adj)		Weekly		Daily	
		1993-1994	1999-2000	1993-1994	1999-2000	1993-94	1999-2000	1993-1994	1999-2000
<b>RURAL</b>									
Delhi	Male	0.0	3.9	0.0	3.9	0.0	3.6	0.3	3.9
	Female	0.0	26.0	0.0	21.0	0.0	18.9	0.0	24.6
India	Male	2.0	2.1	1.4	1.7	3.0	3.9	5.6	7.2
	Female	1.4	1.5	0.8	1.0	3.0	3.7	5.6	7.0
<b>URBAN</b>									
Delhi	Male	0.9	3.2	0.9	3.2	1.5	3.4	1.6	4
	Female	6.4	5.3	6.2	3.9	5.3	3.9	6.1	4.2
India	Male	4.5	4.8	4.0	4.5	5.2	5.6	6.7	7.3
	Female	8.2	7.1	6.2	5.7	8.4	7.3	10.5	9.4

Source : NSS Quinquennial Rounds on Employment and Unemployment

rates, however, have gone up very sharply for urban Delhi during 1993-94 to 1999-2000. It is true that unemployment rates have increased at the all India level as well, but the increments are much less. There is thus no doubt that the employment situation in urban Delhi has become extremely critical for the males during the nineties (Table 4.6).

The employment scenario for women in Delhi, however, exhibits a different pattern and should be a matter of serious policy concern. The WPRs for urban Delhi are systematically less than the average for all urban centres in the country, both for the main as well as total workers, as per the Population Census data (Table 4.2). NSS, too, records WPRs in urban Delhi much below that in the country (Table 4.3), the gaps being higher than that observed with the Census data. The percentage of total (principal and subsidiary) workers in urban India is 13.9, which is much above the Delhi figure of 10.5. The gap becomes more conspicuous when one considers the 15+ age group. The all India figure is about 20 per cent, which is six percentage points higher than that of urban Delhi (Table 4.4). It is thus amply clear that the employment opportunities for women in urban Delhi are much less, compared to other metro cities or even smaller towns. This is because the incidence of primary activities (wherein women are more likely to find

employment) is low here. Incidentally compared to other metro-cities, Delhi's economy has had more "formal component" than most other cities that offered fewer jobs to women. Even in the higher education level (graduates and above) the data indicate more than 70,000 females (24.19 per cent) to be "unemployed" compared to 48,000 males (17.82 per cent) with similar a educational level (Table 4.7).

**Table 4.7 Delhi: Gender Wise Distribution of Unemployed Persons by Level of Education**

Education Level	Male	%	Female	%	Total
Illiterate	32,525	12.10	57,563	19.83	90,088
Literate + Primary	50,080	18.62	36,989	12.74	87,069
Middle	51,183	19.04	43,708	15.66	94,891
Secondary	61,074	22.71	41,804	14.40	102,878
10+2	26,114	9.71	39,980	13.77	66,094
Graduate and Others	47,912	17.82	70,198	24.19	118,110
Total	268,888	100.00	290,242	100.00	559,130

Note: Refer to 'Urban Poverty Distribution by city/ Town Size in India', by Abusaleh Shariff, National Council of Applied Economic Research, paper presented at a seminar at HSMI, September 2002.

Source: Employment and Unemployment in Delhi, NSS 55<sup>th</sup> Round, June 2002

With the decline of the agrarian economy in Delhi during the decades following Independence, the women folk were worse off, as alternate job opportunities for them were then limited. The unemployment rates by all the three NSS definitions are higher for women in rural Delhi compared to the national figures.

In the recent decades, however, the growth rate of employment for women in urban Delhi has been fairly high leading to an increase in WPR. The trend and pattern of WPR, thus, appears to be opposite to that of men. The rate for women in urban Delhi (computed by considering both main and marginal workers) has gone up from 6.69 to 9.08 during 1981-2001 (Table 4.2). The NSS data does not give a clear picture, considering all the three definitions of employment. However, in case of women in the 15+ age group, both principal as well as subsidiary workers, the rate is up from 13.2 to 14.1 during 1993-99 while the corresponding figures in the two NSS rounds show a decline at the all India level (Table 4.4). Correspondingly, the unemployment rate has declined significantly considering all the concepts employed by NSS as may be seen in Table 4.6. This decline, on the face of a rise in the rates for males, suggests opposite movements in the labour market. As women workers in Delhi are largely unorganised and function under adverse socio-economic conditions, a relatively faster growth for them would suggest a process of informalisation of the labour market.

The employment rates in the rural areas within the UTD are low, for both men and women and this should be a matter of policy concern. It has been noted above that economic activities did not come up in the periphery of Delhi in the way it was envisaged in the Master Plan. Also, the process of agricultural land being put to urban uses or being kept vacant for speculative purposes adversely affected the job opportunities in the primary sector. There was no compensatory growth of urban linked activities, which could have absorbed the workforce displaced from agriculture. Importantly, a large percentage of the migrants have been flocking into the periphery within and beyond UTD, as access to land and basic services within the central areas of the city became increasingly difficult. As a result, the WPRs in the last decade have remained low and the rate of unemployment ranged high both for men and women in rural Delhi (Tables 4.2, 4.3 and 4.6).

The employment situation in rural Delhi seems to have somewhat "worsened" during the nineties but this may be attributed to the relative decline in the WPR (principal + subsidiary) from 58.6 to 52.0 for males and from 9.8 to 2.9 for females during 1993-00 (Table 4.3). The corresponding decline at the national level (or in urban Delhi) is much less. This becomes all the more conspicuous when we consider the 15+ age group whereby the WPR for males has declined from 90.9 per cent to 79.2 per cent while the fall in case of rural (or even urban India) is about 2 percentage points only. The corresponding decline in case of women is from 16.2 per cent to 4.4 per cent while at the national level the decline is from 48.6 per cent to 45.2 per cent only (Table 4.4). In that sense the employment situation in rural Delhi should be a matter of concern for policy makers, particularly in view of the recent developments.

The employment of women in rural Delhi is comparatively less. By both Population Census and NSS, the percentage of workers is less than 5 per cent, which is several times below the all-India rural or urban figure. This may be attributed to women being thrown out of agriculture due to rural land being used for urban purposes. Unfortunately, they could not be absorbed in the alternate employment opportunities that became available over time, either due to the nature of employment, the skill required or the need to travel to places outside the villages. Recent data from the Economic Census conducted in 1998 suggest that the growth of enterprises has accelerated in the nineties. The number of enterprises grew by

5.27 per cent per annum during 1990-98, compared to a growth of 4.60 per cent during 1980-90. Both these rates are higher than the corresponding percentage figures at the national level that are 3.04 and 2.36 per cent respectively.

Correspondingly, the annual growth rate of employment in urban Delhi is 6.6 per cent during 1990-98, which is about twice as high as that of the preceding decade.<sup>7</sup> Nonetheless, serious doubts have been raised with regard to comparability of the data from different Economic Census reports due to changes in the format of data collection and tabulation. Further, the high growth of employment is partly due to merging of a number of villages with the urban agglomeration during the nineties. Also, the population growth in urban Delhi is much more than that of urban India.

The distribution of workers in casual, regular and self-employed categories, as given by NSS, gives an interesting picture for urban Delhi, which contrasts sharply with the all of India figure. The percentage of male workers in the casual category in Delhi is 10 per cent only as compared to the all-India figure of 16.1 per cent in 1993-94. Correspondingly, the percentage of regular workers is slightly higher than the all-India average. This pattern emerges much more sharply in case of women (Table 4.8). One would argue that Delhi being the national capital has a large percentage of formal workers. Much of its service activities are either within the government sector or linked to it. A large part of the manufacturing activities are being carried out within the formal structure as compared to other urban centres. The city has discouraged the growth of informal employment systematically through public policies and programmes.

**Table 4.8 Distribution of Principal+Subsidiary Workers across Employment Categories in Delhi and India based on NSS Rounds**

	Years	Male			Female		
		Self Employed	Regular	Casual	Self Employed	Regular	Casual
RURAL							
Delhi	1993-94	29.0	68.8	22.2	81.6	18.4	0.0
	1999-00	36.3	45.4	18.3	54.6	45.4	0.0
All India	1993-94	57.7	8.5	33.8	58.6	2.7	38.7
	1999-00	55.0	8.8	36.2	57.3	3.1	39.6
URBAN							
Delhi	1993-94	44.4	45.5	10.1	25.0	57.3	17.7
	1999-00	41.9	54.1	4.0	36.4	59.1	4.5
All India	1993-94	41.7	42.2	16.1	44.8	29.2	26.0
	1999-00	41.5	41.7	16.6	45.3	33.3	21.4

Source: NSS 50<sup>th</sup> and 55<sup>th</sup> rounds on Employment and Unemployment

<sup>7</sup> Economic Census of Delhi, 1980, 1990 and 1998.



It is important to note that the percentage of casual employment has gone down significantly during the nineties. For men, the figure has gone down from 10.1 per cent to 4.0 per cent during 1993-99, the corresponding decline for women being 17.7 and 4.5, respectively. On the other hand, there has been a marginal increase in the figure at the national level. It is therefore possible to argue that Delhi has become increasingly hostile to immigrants, particularly during the nineties, who are likely to be absorbed in the informal activities. The occasional drives to clear up slum settlements, as also to close down non-conforming industries must have resulted in reduction of casualisation and greater formalisation in the labour market in Delhi.<sup>8</sup>

#### **4.5. Changing Structure of the Metropolitan Economy**

The national capital of Delhi, established with massive governmental investment to house a large number of public and semi-public organisations and their employees, exhibits a peculiar economic character. Availability of better quality infrastructure and proximity to political decision-making and the bureaucracy attracts a large number of industries and liaison offices around the metropolis. This tendency was perceptible during the first few decades since Independence. Apprehending a more rapid growth, Delhi adopted the strategy of "planned development" by formulating long-range perspective plans. Accordingly, a Town Planning Organisation (TPO) was set up in 1955 together with Delhi Development (Provisional) Authority (DDPA). The erstwhile TPO prepared an Interim General Plan, a pragmatic instrument "to buy time" for a limited period enabling preparation of a long-term comprehensive Master Plan for Delhi: 1962-81. This plan was prepared by the erstwhile Town Planning Organisation for the Delhi Development Authority. It was the first ever attempt at Comprehensive Planning in India. This plan was subsequently followed by a second Master Plan: 2001 drafted by the Delhi Development Authority.

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<sup>8</sup> One can see that there has been an increase in the percentage of marginal workers by Population Census and of subsidiary workers by NSS during nineties. This is indicative of the fact that the share of workers engaged on part time basis or those who are basically non-workers but have short duration jobs, has gone up. This, importantly, is not contradictory to decline in the share of casual workers. It can be argued that many among those, who are in regular/salaried employment are not getting full time jobs. Increase in the percentage of regular workers does not mean full time employment, higher wages or improvement in the working conditions. Most of the domestic workers or those engaged in the commercial\ trading enterprises, on a low salary but somewhat on regular basis, are classified as regular\ salaried workers by NSS. The enterprises as well as households prefer to employ people in the manufacturing, processing or service activities on somewhat regular basis as that is supposed to ensure safety and security of the enterprise, household as also the neighbourhood.

The Master Plan of Delhi is M6Z-8, had a basic premise: to correct the mistakes/errors of the past and to prepare Delhi for the expanding role as the national capital city of the future. This ushered in a process of planned development and a plan was subsequently prepared by the Town Planning Organisation for the Delhi Development Authority.<sup>9</sup> The plan made a significant impact on the sectoral composition of the economy. Tables 4.9 and 4.10 present the percentage distribution of the workforce and changes therein over time, based on the data from Population Census and NSS.

The workforce distribution in the rural areas of Delhi shows high fluctuations over time, as compared to its urban counterpart. However, it may not be too pertinent to analyse the former within an economic framework or attempt to find an explanation for each sectoral shift as these can largely be attributed to changes in the area, due to merging of villages with the urban agglomeration. Also, the share of rural Delhi in the total population is very small - only about seven per cent - so that its merger with the urban segment would make no significant impact on the aggregate figures of the UTD.

The distribution of workforce across industrial categories in urban Delhi or UTD differs from that of urban India in significant ways, due mainly to the policies and programmes of the Central and State government, besides its geographic location and historical evolution. Delhi is the major wholesale market for north western India; consequently, it has a large incidence of trade and commerce including hotels and restaurants (Division 6 of NSS). The share of workers in these activities is about 4 percentage points higher than the all India figure in the nineties. A similar gap is observed in case of other services, including financial, insurance, public administration and community services (Division 8), which can be attributed to Delhi being the national capital, resulting in concentration of public, semi-public and private offices, as mentioned above. Information available from the Population Census up to 1991 confirms this pattern. In all probability this trend has continued and possibly enhanced with the introduction of multinational corporations and policies of economic liberalisation.

The percentage of non-household manufacturing employment in Delhi is however, only marginally above that of urban India. The relatively lower incidence of non-

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<sup>9</sup> Review of the Master Plan for Delhi: 1962-81 undertaken by TCPO, February 1971.

household manufacturing in Delhi is primarily due to the fact that New Delhi came into existence less than two decades before Independence. Household manufacturing activities, besides the traditional arts and crafts, have not grown in the city due to various planning measures. However, the post-independence period has indicated a higher growth of household industrial workers in Delhi mainly during 1991-2001. Even then the relative percentage share remains below the national (urban) average.

**Table 4.9 Percentage Distribution of Main Workers across Industrial Categories for Delhi and India Based on the Population Censuses: 1981-2001**

Industrial Category	Rural Delhi			Urban Delhi			Rural India			Urban India		
	1981	1991	2001	1981	1991	2001	1981	1991	2001	1981	1991	2001
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
I	21.7	9.1	8.41	0.4	0.3	0.3	50.9	48.1	40.1	5.1	4.9	3.2
II	8.3	6.0	2.76	0.2	0.3	0.1	30.1	32.2	33.2	6.1	6.7	4.7
III	2.8	1.7	n.a.	0.7	0.6	n.a.	2.4	2.0	n.a.	1.8	1.7	n.a.
IV	2.4	1.3	n.a.	0.2	0.1	n.a.	0.5	0.5	n.a.	1.1	1.1	n.a.
Va	1.6	1.7	2.26	1.7	1.4	3.0	3.1	2.2	3.8	4.9	3.1	5.1
Vb	17.9	21.1	n.a.	29.0	25.1	n.a.	3.4	3.6	n.a.	24.8	22.1	n.a.
Va+ Vb	19.5	22.8	n.a.	30.7	26.5	n.a.	6.5	5.8	n.a.	29.7	25.2	n.a.
VI	3.7	9.0	n.a.	6.2	7.9	n.a.	1.0	1.0	n.a.	4.1	5.1	n.a.
VII	5.7	14.1	n.a.	23.3	26.4	n.a.	2.8	3.3	n.a.	19.9	21.9	n.a.
VIII	8.7	9.9	n.a.	9.6	8.8	n.a.	1.1	1.2	n.a.	9.1	8.2	n.a.
IX	26.9	26.2	n.a.	28.5	29.2	n.a.	4.7	5.9	n.a.	23.2	25.1	n.a.
Others Workers	68.4	83.2	86.6	97.7	98.0	96.6	15.9	17.5	22.9	83.9	85.3	87.0

Note: Cat: I Cultivators, Cat II: Agricultural Labourers, Cat III: Livestock, Forestry etc. Cat IV: Mining and Quarrying, Cat V: Manufacturing, Cat Va: Household Manufacturing, CatVb: Non Household Manufacturing, CatVI: Construction, Cat VII: Trade & Commerce, Cat VIII: Transport, Storage and Communication, Cat IX: Other Services.<sup>10</sup>

Source: Census Reports, 1981-2001

During the previous decade (1990-2001) two major changes have taken place in the workforce structure in the urban areas. These are (a) an increase in the percentage of trade and commerce and (b) comparative decrease in the share of construction.<sup>11</sup> In the eighties, however, both the sectors registered distinct improvement in their share of employment.

<sup>10</sup> Other services includes: Public Administration and Defence services, Sanitary services,, Education, Scientific and Research services, Health and Medical services, Community services, Recreational and Cultural services, Personal services, Repair services, International and other Extra Territorial Bodies, Service not elsewhere classified.

<sup>11</sup> Of course, the previous decade (1981-1991) had the Asiad'82 staged in Delhi which resulted in massive public and private investment in a short span, leading to large migration from adjoining states. This brought a marked increase in the Construction sector, which has come down but, in turn, has been picked up by the towns and cities in the DMA e.g. Faridabad, Noida, Gurgaon.

**Table 4.10 Delhi Distribution of Principal and Subsidiary Workers across Industrial Categories based on the NSS Rounds**

		(Percentage)			
	Industrial/Occupational Category	RURAL		URBAN	
		1993-94	1999-00	1993-94	1999-00
	All	100.00	100.00	100.00	100.00
1	Agriculture, etc.	10.30	7.50	1.3	1.70
2	Mining & Quarrying	0.00	0.00	0.1	0.00
3	Manufacturing	51.40	26.00	24.2	24.40
4	Electricity, Water, etc.	0.00	0.40	0.7	0.30
5	Construction	0.80	10.00	10.6	5.40
6	Trade, Hotel and Restaurant	10.50	30.40	22.5	28.50
7	Transport, Storage, etc.	7.10	8.40	6.7	6.70
8	Services	20.00	17.20	33.7	33.10
8 (i)	Financial, Insurance, Business, etc.	0.90	0.60	5.0	5.20
8 (ii)	Public Admin, Community Services, etc	19.19	16.60	28.7	27.90

Source: NSS 50<sup>th</sup> and 55<sup>th</sup> Rounds on Employment and Unemployment.

The growth of employment in trade and commerce reinforces the servicing character of the city providing shopping, restaurant and other commercial facilities. Delhi may acquire a new dimension, more of a residential-cum-business-cum-service centre, as manufacturing activities are being relocated towards the urban periphery along with some squatter settlements. As a result, a number of construction workers have been pushed out to the towns and cities in metropolitan area. Most of the construction projects are being increasingly undertaken outside the central areas of the metropolis and confined to outer areas. The construction workers have been able to find jobs in the adjoining cities of Faridabad, Noida and Gurgaon - all in the DMA. Even when a construction project is undertaken within the city, (like the Metro Rail System) massive mechanisation and modern equipment preclude employment of unskilled labour, specially female workers. Besides the workers are discouraged from settling down in or around the project sites. All these have diverted a large part of construction workers to the urban fringe of UTD as also in locations beyond Delhi/New Delhi towards the Delhi Metropolitan Area (DMA).

As far as non-household manufacturing is concerned, employment grew steadily during the first three decades of planned development following Independence. However, due to 'planned interventions', and the emergency period exigencies, it slowed down in the eighties, thus, bringing down the percentage of workers in the industrial sector, as disclosed through the Census data.<sup>12</sup>

<sup>12</sup> The NSS data, too, suggest a process of slowing down of industrial growth in urban Delhi in the nineties. A large part of manufacturing employment in Delhi was in the organised sector, which has grown sluggishly during the past two decades.

The Economic Census, however, presents a somewhat different picture in case of the UT. It shows that manufacturing employment has grown by 10.2 per cent on an annual basis, during the nineties as opposed to 3.2 per cent in the eighties.

The Population Census 2001, has yet to release the nine-fold classification of workers for 2001, as shown in Table 4.10. However, the National Sample Survey data for 1999-2000, show that the share has remained stable during the nineties, which questions the relatively fast growth of manufacturing as suggested by Economic Census. Given the tentative nature of the data thrown up by the Economic Census and methodological problems of temporal comparability, as mentioned above, it has been considered appropriate not to use this data in the present analysis.

Although not smooth and steady in the recent decades, Delhi has experienced a rapid growth of small scale and unorganised manufacturing sector since 1947. The number of units has gone up significantly, of course with certain fluctuations, increasing thereby the relative importance of this sector in the overall industrial picture. The availability of infrastructure, wholesale markets, trade and other commercial services are the factors responsible for this proliferation. This growth could also be attributed to certain positive policy measures enunciated in the Master Plans to promote such industries while discouraging the location of large and heavy units within Delhi.

As mentioned previously the growth of manufacturing activities in Delhi has slowed down since the eighties, first due to effective implementation of planning controls and, secondly, because of judicial interventions. This deceleration in growth can, atleast partly, be attributed to orders for pushing out of hazardous and obnoxious industries to locations outside the urban limits, as discussed above.<sup>13</sup>

Furthermore, *ad-hoc* measures of deregulation, along with "informal *ad hoc* relaxations" in the Master Plan controls on the location of industries have led to the future growth of manufacturing activities outside the urban limits. Here, the industrial units could enjoy agglomeration economies while the proximity to the metropolis

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<sup>13</sup> A disaggregative analysis of the growth of manufacturing employment in urban and rural areas of Delhi during the eighties reveals an interesting pattern. There has been an absolute decline in employment in the manufacture of jute, hemp, mesta, textiles (25), textile products (26), rubber, plastic, petroleum and coal products (30), non-metallic mineral products (32), basic metal and alloy industry (33), machinery and machine tools (35) etc. in the urban areas. Many of these industries are polluting in nature. Correspondingly, there has been an increase in employment in these industries in the rural areas. The units, have, often been pushed beyond rural Delhi, due to the pressures exerted by the environmental lobby resulting in a rapid decline in the share of manufacturing employment during the nineties. One would, however, note that the share of manufacturing in the total workforce happens to be higher in rural areas as compared to the urban agglomeration (Table 3.9 & 3.10). It can, therefore, be inferred that the stipulations in the planning and legal framework have led to shifting of industries from the city to the rural hinterland within DMA.

remains intact. They can, at the same time, cut down on the cost of land, labour and environmental protection. Industries find small towns and villages around the metros as convenient locations because the legislation linked to physical planning is not implemented strictly and the environmental lobby is almost nonexistent.

Despite the problems in temporal comparisons of workforce structure, in case of rural Delhi as noted above, there has been a high growth of workers in construction, basically because of the housing and infrastructural development activities being carried out in the peripheral areas, as mentioned above. Housing, land development and road building activities in and around Delhi have had a big boost since the mid-eighties when privatisation measures were initiated. This has led to the process of sub-urbanisation around the metropolis.<sup>14</sup>

With the emergence of a large number of housing colonies, as also rapid growth of population in the villages around Delhi, trade, hotels, *dhabas* and eating joints have also come up providing employment. Some of the trade linked activities such as warehousing etc., that are land intensive in character, are tending towards the rural areas of Delhi, which explains the significant increase in the percentage share of workers in this sector.

Taking an overview, the high growth of employment in trade and construction in the periphery may be taken as an indication of growth of informal activities, reflecting a degree of peripheralisation (Table 4.10). Of the unskilled labour force, only a small number has been able to find employment in the newly emerging industrial activities, which could lead to a high unemployment rate.

#### **4.6 Conclusion**

To summarise the growth scenario in the organised sector during the past three decades in Delhi, it can be seen that the metropolis experienced a high growth of industrial units during the seventies. The industries, however, were capital intensive in nature and consequently employment grew sluggishly. The eighties saw a low growth of units but a high growth in employment. This could be attributed to

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<sup>14</sup> Analysing the data at the two digit level, it can be discerned that employment in the construction related activities, namely plumbing, heating and air-conditioning installation, sound proofing, setting of tiles, marbles, bricks, glass and stone etc. has increased by over 20 per cent per annum in the 'rural areas' around Delhi during the eighties.

the emergence of units employing a large number of workers. Possibly employment in the old units also increased, accounting for the acceleration in the growth of employment. All this can be attributed to the policy in favour of small and medium scale industries and exclusion of large industrial units. Labour intensity in the organised sector seems to have increased as the labour capital ratio (measuring capital at constant prices) has gone down. The nineties, however, was a period wherein the number of units came down sharply along with labour as well as fixed capital. This is, at least in part due to the Supreme Court directives in response to a Public Interest Litigation bringing into focus the serious repercussions of hazardous and polluting units operating from non-conforming zones primarily located in residential areas of Delhi. The Supreme Court ruled the closure and relocation of some the most polluting and obnoxious industrial units away from the residential areas.

The strong economic position of Delhi is reflected in high per capita income, low levels of poverty and correspondingly high employment rate compared to the all India average for all urban centres. Further, unemployment rates are lower for urban males in Delhi than in the country in 1999-2000. However, for urban females, the WPRs are less than the average for urban India.

## Delhi: Employment Potential

### Projection of Workforce: 2001 to 2021

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#### 5.1 Introduction

Population estimates made by the DDA; sub-group on Population Projections and Demographic Profile for preparation of the Master Plan of Delhi-2021 were worked out in the year 2000: They were based on population data provided by the Census of India up to 1991. These projections were based on the: (a) Dynamic Logistic model, linear change, (b) Dynamic Logistic model, constant change, and (c) Cohort Component method. The projections using the Dynamic Logistic method of constant change gave the maximum values and were recommended for adoption by the group. Using this method the projected population of Delhi in the year 2021 was estimated to be 21.2 million. The expert committee decided to raise this figure marginally and set the final figure in the range of 22.0- 23.0 million. The projections from 2001 to 2051 by the Dynamic Logistic method using constant ratios are given in Table 5.1.

**Table 5.1 Delhi Projected Population: 2001-2051**

Year	Population (in millions)
2001	13.80
2006	16.20
2011	18.20
2016	19.90
2021	21.20
2051	27.20

After the preliminary results of Census of India 2001 were out the projected figure of the population of India for 2001 is found to be correct up to one decimal point of a million. For arriving at the male/female break up, the sub-group estimated the past improvements in sex ratio (females per 1000 males) of Delhi from 1971 to 1991 and has used sex ratios as; 827 for 1991, 853 for 2001, 863 for 2006, 872 for 2011, 881 for 2016



and 888 for 2021. Refer to Table 5.2 indicating assumed and adjusted Sex for Delhi between 2001 and 2021.

However, after the 2001 Census results were released, the sex ratio of Delhi worked out to 821 instead of 853. This difference is sufficient to create large discrepancies in the estimation of male/female composition of the projected population. Before proceeding to make further estimates of the workforce it is, therefore, necessary to rectify this. The method adopted is to adjust all the assumed future values of the sex ratios by taking its value for 2001 as 821. The assumed and the adjusted values of the sex ratio for different years are furnished in the Table 5.2. With the help of these adjusted sex ratios, the total projected population of Delhi up to 2021 is disaggregated for males and females as given in Table 5.3 and figure 5.1.

**Table 5.2 Delhi: Assumed and Adjusted Sex Ratios: 2001-2021**

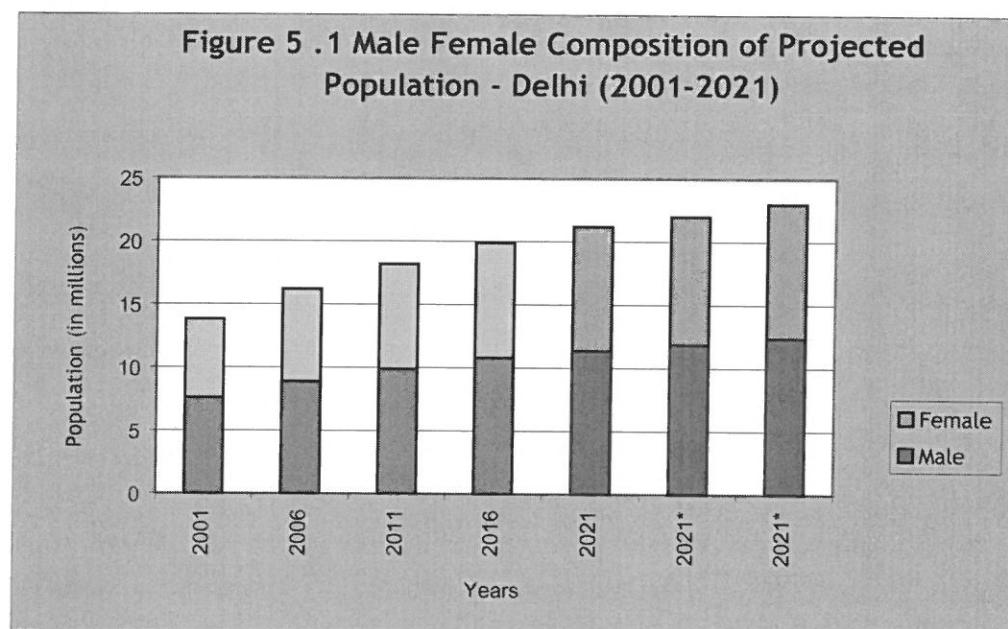
Year	Sex Ratio	
	Assumed	Adjusted
2001	853	821
2006	861	830
2011	872	839
2016	881	848
2021	888	855

After breaking up the projected population into its male and female components, work participation rates (WPR) are projected to give the magnitude of the total projected workforce. As WPR is also sensitive to age groups, first the age-sex structure and age-sex specific WORS of Delhi are projected for the broad age groups. Since the age figures from census of India 2001 are still not available, and the related 1981 and 1991 data is too old for our purpose, the recent trends provided by the National Sample Survey (NSS) 50<sup>th</sup> round and 55<sup>th</sup> rounds on Employment and Unemployment in Delhi relating to the years 1993-94 and 1999-2000 have been used. These NSS reports provide the age composition of the survey population in five yearly age groups for males and females and persons for rural and urban areas separately. The same NSS reports on work participation also provide gender wise data on principal and subsidiary status workers in five yearly groups for rural and urban areas. These figures are given in Appendix 5.1 and 5.2 for 1993-94 and in Appendix 5.3 and 5.4 for 1999 and 2000.

**Table 5.3 Delhi: Male, Female Breakup of Projected Population: 2001-2021**

Year	Projected Population in (in millions)		
	Male	Female	Total
2001	7.6	6.2	13.8
2006	8.9	7.3	16.2
2011	9.9	8.3	18.2
2016	10.6	9.1	19.9
2021	11.4	9.8	21.2
2021*	11.8	10.2	22.0
2021*	12.4	10.6	23.0

Note: \*Two upper limits adopted by the sub-group.



As the Union Territory of Delhi (UTD) comprises about 90 per cent urban population, the population figures of rural and urban area are clubbed together and given for males and females. Similarly age data is also regrouped in to meaningful age groups of 0-14, 15-34, 35-44, 45-59 and 60 +. Table 5.4 gives the regrouped age structure of the population for 1993-94 and 1999-2000.

The Table shows a marked decline in the child population of males in Delhi during this period. The proportion of male children in the age group 0-14 years has declined from 331 per 1000 to only 300. The proportion of population in the next age group of 15-34 years has shown only a marginal decline. However, the proportion of population in the

**Table 5.4 Delhi: Age Sex Composition of Population (1993-94 and 1999-2000)**

Age group	1993-94		1999-2000	
	Male	Female	Male	Female
0-14	331	291	300	314
15-34	398	418	392	383
35-44	121	133	152	155
45-59	98	103	102	87
60 +	52	55	53	61
Total	1000	1000	1000	1000

Source: National Sample Survey 50<sup>th</sup> (1993-94) and 55<sup>th</sup> (1999-2000) rounds on Employment and Unemployment.

next working age group, which incidentally also shows the highest WPR, the rise is quite substantial. It has increased from 121 per 1000 to 152. The female proportion has also registered a substantial increase in this age group. The proportion in the age group 35-44 has risen from 133 to 155 per 1000.

The increases in the proportion of population in the working age groups of both males and females and the decline in the child population of male indicate age and sex selectivity of migration into Delhi. On the basis of these trends, the population of Delhi in different age groups can be projected for 2011 and for 2021. However, as the situation approaches saturation, the same tempo of change is not likely to continue and is likely to weaken over time. It is, therefore, assumed in this case that the past trend of growth of population in different age groups will continue at least for the next decade but will reduce to half in the following decade (2011 through 2021). The projected population of Delhi for different age groups, on the basis of the above assumption is given in Table 5.5.

**Table 5.5. Delhi: Projected Population Broad Age Groups and Gender: 2011-2021**

Age Group	2011		2021	
	Male	Female	Male	Female
0-14	237	355	211	371
15-34	273	312	357	286
35-44	225	203	265	227
45-59	112	59	114	40
60 +	53	71	53	76
Total	1000	1000	1000	1000

The projected WPRS for the above population can be used for estimating the future workforce of Delhi. As mentioned above the NSS reports 50<sup>th</sup> and 55<sup>th</sup> rounds provide information about age-sex specific principal and subsidiary status worker's population ratios of Delhi for 1993-94 and 1999-2000. These Tables with rural and urban breakup are

give in Appendix 5.3 and 5.4 Both these Tables are also converted into broad age groups for males as well as females (Table 5.6).

The total WPRs given above show a marginal decline for males as well as females. The decline in the case of males is sharper in the age group 15-34 years. In the case of females a sharper decline has been registered in two age groups of 35-44 and 45-49 years. Since these trends are not very sharp, we can assume that they will continue in the future also.

**Table 5.6 Delhi: Age sex specific Usual and Subsidiary Status Workers per 1000 Population: 1993-94 and 1999-2000 in Age Groups**

Age group	1993-94		1999-2000	
	Male	Female	Male	Female
0-14	8	2	13	15
15-34	766	113	661	130
35-44	988	206	986	177
45-59	944	150	973	126
60 +	377	13	328	66
Total	539	91	530	104

Source: National Sample Survey 50<sup>th</sup> (1993-94) and 55<sup>th</sup> (1999-2000) rounds on Employment and Unemployment

On the basis of the above assumption of the continuation of the past trends of age specific WPRs for of males and females, the future WPRs for males and females are projected for 2011 and 2021 in Table 5.7.

**Table 5.7 Projections of Age sex specific Usual and Subsidiary Status Workers per 1000 Population of Delhi, for 2011 and 2021 in Broad age groups.**

Age group	2011		2021	
	Male	Female	Male	Female
0-14	30	25	50	30
15-34	570	169	505	211
35-44	984	127	180	97
45-59	1000	106	1000	92
60 +	243	80	190	100
Total	567	101	575	105

Source: National Sample Survey 50<sup>th</sup> (1993-94) and 55<sup>th</sup> (1999-2000) rounds on Employment and Unemployment

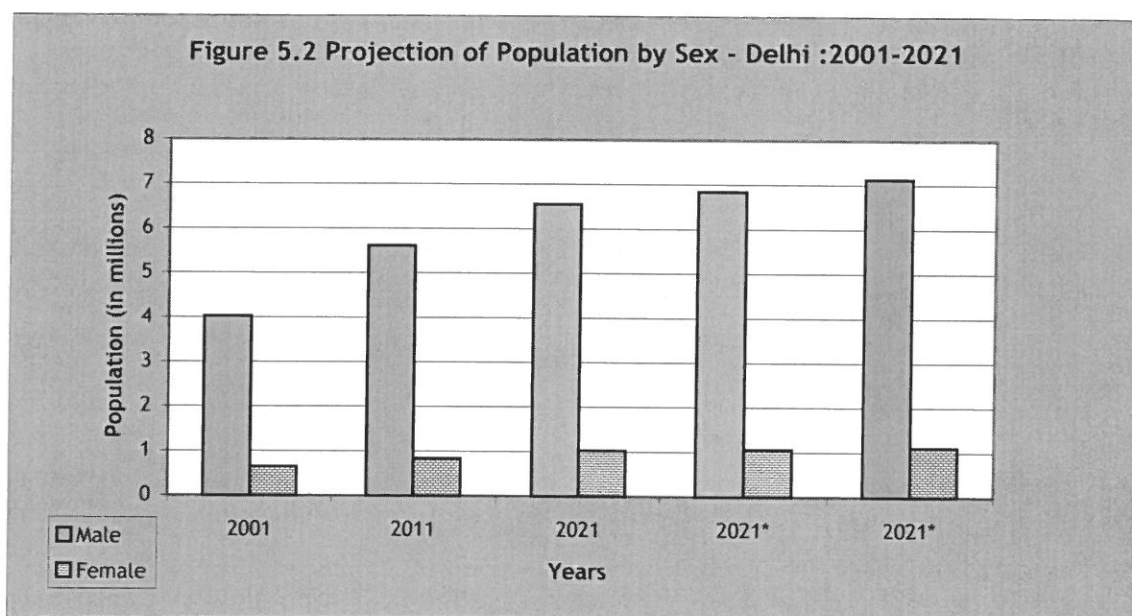
It should be noted here that any significant policy intervention in future will also have its impact on these projections. It is, therefore, suggested that before making any use of these projections for planning purposes, they should be periodically modified in the light of probable political interventions.

With the help of the projected population for 2011 and 2021 (as given in Table 5.5) and the age-sex specific WPR for males and females (Table 5.7), the total workforce has also been projected in Table 5.8 and figure 5.2.

**Table 5.8 Delhi Projected Workforce: 2001-2021**

Year	Projected work force in (million)			Total population (in million)	As percentage to total Population
	Male	Female	Total		
2001	4.028 (3.90)	0.645 (0.61)	4.673 (4.51)	13.8	33.86
2011	5.613 (5.22)	0.838 (0.97)	6.451 (6.19)	18.2	35.44
2021	6.555 (6.50)	1.029 (1.44)	7.584 (7.94)	21.2	35.77
2021*	6.843	1.061	7.903	22.0	35.2
2021*	7.130	1.113	8.243	23.0	35.84

Note: Figures in parenthesis are the projected work force by the Sub-group on Population Projections and Demographic Profile for preparation of Master Plan for Delhi-2021.



It will be useful to compare our projected figures with the projections made by the DDA's sub-group on population projections for the Master Plan of Delhi-2021 given in the parenthesis of Table 5.8 For 2001 and 2011 the latest projected figures for the workforce are slightly higher than the values given by the sub-group, mainly due to the fact that WPR given by the NSS is slightly higher in the case of females than figure used by the sub-group. In the later projection of workforce for 2021 the projection by the sub-group is marginally higher than our projection due to the fact that in making the population

projection we have assumed that the rate of growth in different age groups will be half of the previous decade.

## 5.2 Sector Wise Projection of Workforce

After making the work force projections, its sector wise break up is attempted here taking account of the past trends in the sectoral composition of the workforce in nine industrial categories of the Census of India. The proportional share of workers for each sector (with male, female breakups) in nine industrial categories for 1971, 1981, 1991 and for 2001 are given in Appendix 5.5. The data show that the share of the primary sector continues to fall, the share of trade and commerce continue to rise. Proportional share of other sectors is assumed to be the same as to give a total of 100.

**Table 5.9 Delhi: Percentage Distribution of Projected Workforce in Nine Industrial Categories: 2001- 2021**

Industrial Categories	Males			Females			Total		
	2001	2011	2021	2001	2011	2021	2001	2011	2021
I	0.67	0.60	0.30	1.76	0.40	0.20	0.82	0.57	0.29
II	0.24	0.40	0.20	0.69	0.50	0.30	0.30	0.41	0.21
III	0.50	0.30	0.20	0.30	0.20	0.10	0.47	0.29	0.19
IV	0.20	0.10	0.10	0.30	0.20	0.10	0.21	0.11	0.10
Va	2.71	3.97	5.82	4.62	4.38	4.17	2.97	4.02	5.60
Vb	22.5	20.43	17.88	6.78	6.42	6.13	20.32	18.61	16.29
VI	7.80	7.70	7.50	6.00	5.90	5.70	7.55	7.47	7.26
VII	28.00	30.00	32.30	15.20	17.80	20.30	26.23	28.42	30.67
VIII	8.70	8.60	8.40	3.10	3.00	3.00	7.93	7.87	7.67
IX	28.70	27.90	27.30	61.25	61.20	60.00	33.18	32.23	31.74
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Categories are: I Cultivators, Cat II: Agricultural Labourers, Cat III: Livestock, Forestry etc., Cat IV: Mining and Quarrying Cat V: Manufacturing, Cat V a: Household Manufacturing, Cat V b: Non Household Manufacturing, Cat VI: Construction, Cat VII: Trade & Commerce, Cat VIII: Transport, Storage and Communication, Cat IX: Other Services.

Source: Census of India.

The provisional results of Census 2001 provide workforce data only for four broad categories of cultivators, agricultural labourers, workers in household industry and others. A detailed comparison of the nine categories is therefore, not possible. However, on comparing the three categories of cultivators, agricultural labourers and workers in household manufacturing, sizeable discrepancy was found in the assumed proportion of

workers in the household-manufacturing sector.<sup>1</sup> There is a strong need for making a correction in the basic assumption of a decline in place of an actuarial increase in the household-manufacturing sector. The rise in the household manufacturing sector could be the result of the governmental policies of shifting the non-conforming industries from Delhi, as a result of which many units were closed down, therefore increasing the share of household sector. However, continuation of the same rate of growth will be unlikely in future also. It is therefore assumed in the present exercise that for next two decades the male workforce in the household manufacturing sector would grow only at half this rate. For females, it is assumed that their share in the total manufacturing will remain constant. The projected values

**Table 5.10 Delhi: Projected Industrial Composition of Workforce (in lakhs):2001-2021**

Industrial Categories	Male			Female			Total		
	2001	2011	2021	2001	2011	2021	2001	2011	2021
I	0.27	0.34	0.20	0.11	0.03	0.02	0.38	0.37	0.22
II	0.10	0.22	0.13	0.04	0.04	0.03	0.14	0.27	0.16
III	0.20	0.17	0.13	0.02	0.02	0.01	0.22	0.19	0.14
IV	0.08	0.06	0.07	0.02	0.02	0.01	0.10	0.07	0.08
Va	1.09	2.23	3.82	0.30	0.37	0.43	1.39	2.60	4.24
Vb	9.06	11.47	11.72	0.44	0.54	0.63	9.50	12.01	12.35
VI	3.14	4.32	4.92	0.39	0.49	0.59	3.53	4.82	5.50
VII	11.28	16.84	21.17	0.98	1.49	2.09	12.26	18.33	23.26
VIII	3.50	4.83	5.51	0.20	0.25	0.31	3.70	5.08	5.81
IX	11.56	15.66	17.90	3.95	5.13	6.17	15.51	20.79	24.07
Total	40.30	56.13	65.55	6.45	8.38	10.29	46.73	64.51	75.84

Note: Cat I Cultivators, Cat II Agricultural Labourers, Cat III Livestock, Forestry Etc. Cat 4 Mining and Quarrying, Cat V Manufacturing, Cat V a Household Manufacturing Cat V b Non-Household Manufacturing, Cat VI Construction, Cat VII Trade & Commerce, Cat: VIII Transportation Communication and Storage. Cat IX: Other Services Source: Based on Census of India

of the proportional share of the workforce in "nine" industrial categories are given in Table 5.9. NASSCOM has estimated that Delhi can easily provide jobs to 1 lakh people in the next three years and about 3 lakhs in the next 10 years in the area of IT enabling services.<sup>2</sup> Projected values of the proportion of workers in the nine industrial categories give the projected workforce for 2011 and 2021 both for males and females. These values are given in Table 5.10.

<sup>1</sup> It was found to be 2.71 instead of assumed value of 1.0 for male and 4.62 instead of 0.40 for female. There were some minor differences in cultivators and agricultural workers also as shown in appendix 5.5.

<sup>2</sup> Economic Survey of Delhi, 2001-2002

### **5.3 Workforce in Organised and Un-organised Sectors**

The economies of the developing countries are normally characterized by larger proportion of unorganised and informal sector.<sup>3</sup> These two sectors are said to be qualitatively different from each other because they have varying planning implications. It will be, therefore, useful to segregate them. In the following section an attempt has been made to work out the proportional share these two sectors.

### **5.4 Organized and Unorganized Sectors in the Indian Context**

Although the National Accounts Statistics, the economy is classified basically into organized and unorganized sectors. While the organised sector comprises those employment sectors for which statistics are available on a regular basis, e.g. from the Director General of Employment & Training (DGE & T), documents or reports, annual reports in the case of the Public Sector and through the Annual Survey of Industries in case of registered manufacturing units. On the other hand, the unorganised sector also refers to those enterprises whose activities or collection of data is not regulated under any legal provision and / or which do not maintain any regular registers or accounts. Non-availability of regular information has been the main criterion for treating any sector as unorganized. This definition helps to demarcate organised from the unorganised. For example, units "not registered under the Factories Act 1948" constitute the unorganized component of manufacturing on account of activity not regulated under any Act. Moreover in case of sectors like trade, transport, hotel and restaurants, storage and warehousing, and myriad services, all non-public sector operating units constitute the unorganised sector. However, the enterprises covered under the Annual Survey of Industries do not fall under the purview of the unorganised sector.

### **5.5 Organised and Unorganised Sectors: Share of Employment**

In India, various government agencies provide data on all workers. The Census of India provides data on workers in nine industrial/ occupational categories. This includes both organised and unorganised sectors (see Appendix 5.6). The Director General of Employment and Training (DGE & T) provides information on employment in the organised sector in eight broad categories. It may however be noted that there is gross under reporting of the information on employment provided by DGE & T.

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<sup>3</sup> Even though the incidence of unorganised informal sector is also present in highly developed economies such as Japan, Germany, France, even the USA, the percentage compared to countries like China, India, Pakistan, Malaysia, Egypt etc. is not large.



**Table 5.11 Employment Categories given in Population Census and DGE&T**

Category	Population Census of India	Category	DGE & T
I	Cultivators	1	Agriculture
II	Agricultural Labourers	2	Manufacturing
III	Livestock, Forestry, Fishing, Hunting, & Plantations, Orchards and Allied Activities	3	Electricity Gas and Water
IV	Mining & Quarrying	4	Construction
V (a)	Manufacturing, Processing, Servicing & Repairs in Household Industries	5	Wholesale and Retail Trade and Restaurant and Hotels
V (b)	Manufacturing, Processing, Servicing & Repairs in Other Than Household Industries	6	Transport, Storage and Communication
VI	Constructions	7	Finance, Insurance and Business Services
VII	Trade & Commerce	8	Community and Personal Services
VIII	Transport, Storage and Communications		
IX	Other Services		

Source: Census of India and DGE & T.

Employment in the unorganised sector can be estimated by subtracting the DGE & T employment figures from the total workforce provided by the Population Census. It may, however, be noted that there is lack of correspondence between industrial Categories used by the two sources. The categories of both these sources are given in Table 5.11.

In order to make the categories of both these sources comparable a reclassification of categories has been attempted in Table 5.12. The reclassified data of DGE & T for the years 1990 and 1997 is given in appendix 5.7. It may be noted that data on the organised sector was available only up to the year 1997 unlike the Census data that is available for 2001. Due to this limitation, the employment projections for the organized sector are made for the years 2001, 2011 and 2021 based on the figures of employment for 1990 and 1997. A linear growth in employment in the organised sector has been assumed during this period. The projected figures are given in Table 5.13.

**Table 5.12 Comparable Categories of Population Census and DGE&T**

SN	Sectors	Census categories	DGE&T Categories
1	Agriculture	I+II+III+IV	1
2	Manufacturing	V(a)+V(b)	2
3	Construction	VI	4
4	Transport	VIII	6
5	Residual	VII+IX	3+5+7+8

**Table 5.13 Delhi: Estimated Workforce in the Organised Sector: 2001-2021**

Sectors	2001	2011	2021
Agriculture	2,548	2,625	2,997
Manufacturing	125,765	112,006	99,753
Construction	30,390	30,500	30,700
Transportation	167,124	202,494	245,350
Residual	526,114	530,323	534,566
Total	851,941	877,948	912,966

Source: Based on DGE & T 1990 & 1997.

Employment in the unorganized sector can be obtained by subtracting employment in the organized sector from total employment as mentioned earlier. This has been done after making the categories obtained from both the sources (Population Census and DGE&T) comparable (Table 5.13). The projections of the workforce along with the estimated employment in unorganized sector are given in Table 5.14.

**Table 5.14 Delhi: Projected Workforce in the Organised and Un-organise Sectors 2001-2021**

Sectors	2001 (in Lakhs)				2011 (in Lakhs)				2021 (in Lakhs)			
	Total Workforce	Org*	Unorg*	% Unorg To Total	Total	Org	Unorg	% Unorg To Total	Total	Org	Unorg	% Unorg To Total
Agriculture	0.74	0.03	0.71	95.90	0.82	0.03	0.79	96.30	0.52	0.03	0.49	94.20
Manufacturing	10.99	1.26	9.73	88.50	14.69	1.12	13.57	92.40	16.68	1.00	15.68	94.00
Construction	3.53	0.30	3.23	91.50	4.81	0.31	4.50	93.60	5.51	0.31	5.20	94.40
Transport	3.70	1.67	2.03	54.80	5.08	2.02	3.06	60.20	5.82	2.45	3.37	57.90
Residual	27.77	5.26	22.51	81.05	39.11	5.3	33.81	86.40	47.31	5.3	42.01	88.80
Total	46.73	8.52	38.21	81.76	64.51	8.78	55.73	86.39	75.84	9.13	66.71	87.96

Note;\* Organised, \*\* Unorganised.

Source: Based on DGE & T 1990 & 1997 and Population Census of India 1991 & 2001.

A comparison of total employment and employment in the organised sector for five broad categories is given in Table 5.14. The table also gives the estimated employment in both the organised and unorganised sectors for the years 2001, 2011 and 2021. It may be

noted that the growth in organised sector employment has been very sluggish in the nineties. This trend has been projected for the next two decades as well. The bulk of employment has been estimated to be generated in the unorganised sector. The estimated unorganised sector employment for 2001 is 81.7 per cent whereas for the next two decades the percentages are 85.7 and 88 respectively.<sup>4</sup> The share of the unorganised sector manufacturing has been estimated to be increasing as a result of the shrinkage of employment in the organised sector. The unorganised manufacturing sector has been projected to grow from 89 per cent in 2001 to 92 percent in 2011 and further to 94 per cent in 2021.

Transport is the only sector where the share of the organised sector is as high as 40 per cent. This is due to the large scale employment generated by Delhi Transport Corporation (DTC), which accounts for 84 per cent of the employment generated by all the Public Sector Undertakings (PSUs) in Delhi (see appendix 5.8). The percentage share of employment in the organised transport sector is likely to go up in the next few decades with the coming up of the Delhi Metro by the end of 2002. The unorganised sector employment in the residual sectors (comprising trade and commerce and other services) is also projected to be in the range of 80 to 88 per cent during the years 2001 and 2021.<sup>5</sup>

#### 5.6 Projection of Workforce in Informal Sector:

The NSS has for the first time come up with a very specific definition of the *informal sector* in its 55th round, on employment and unemployment. Accordingly, all “unincorporated proprietary and partnership enterprises” have been defined as “informal sector enterprises”. The definition differs and in fact is a departure from the original concept of the unorganised sector so far used in the National Account Statistics. In the unorganised sector, in addition to the unincorporated proprietary or partnership enterprises, enterprises run by cooperative societies, trusts, private and public limited companies (Non ASI) have also been covered. ***The informal sector has therefore been considered as a subset of the unorganised sector.***

Activity wise distribution of employment in the informal sector in different sub sectors in Table 5.15 is given below. A comparison of informal sector employment with that of

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<sup>4</sup> A sector wise break-up shows that agriculture employs the largest share of un-organised sector workforce. The percentage share is as high as 96 per cent.

<sup>5</sup> Delhi Master Plan for 2021 should consider keeping to keep the magnitude of unorganised sector at 85 per cent or so on account of several new ‘areas/ avenues’ of employment and currently emerging and new ones may come up during the next two decades of 21<sup>st</sup> Century through 2021.

un-organised sector is possible only to a limited extent as the categorwise classification under both the sources is not comparable. A broad comparison is, nevertheless possible if we “transfer” employment in trade, hotel and restaurant and “other services” to the residual category (Table 5.15).

**Table 5.15 Share of Workers in Informal Sector in Different Subsectors- Delhi: 2000 (in Lakhs)**

Subsectors	2000					
	Total	Org	Unorg	IF	IF % to Unorg	% to Total
Manufacturing	11.00	1.26	9.73	4.10	42.34	37.49
Construction	3.50	0.30	3.23	0.00	0.31	0.28
Transportation	3.90	1.67	2.03	1.30	62.07	32.31
Residual	28.00	5.26	22.51	12.00	53.58	43.43
Total	46.00	8.49	37.50	17.00	46.53	37.78

Note : IF- Informal Sector, Org- Organised sector, Unorg- Unorganised Sector  
Source: Based on NSS 55<sup>th</sup> Round on Employment and Unemployment

Informal sector constitutes about 47 per cent of the unorganised sector employment. Further, its share is as high as 62 per cent in transport followed by the residual sector and manufacturing. Its share is the least in construction, as low as 0.31 per cent. Assuming a constant share of the informal sector in the total unorganised sector, the employment of the “informal sector” has been projected for the years 2000, 2011 and 2021 (Table 5.16).

**Table 5.16 Share of Informal Sector in Different Subsectors - Delhi: 2011- 2021 (in lakhs)**

Subsectors	2011					2021				
	Total	Unorg	IF	IF % to Unorg	% to Total	Total	Unorg	IF	IF % to Unorg	% to Total
Manufacturing	14.69	13.57	5.75	42.37	39.14	16.68	15.68	6.64	42.35	39.81
Construction	4.81	4.50	0.01	0.22	0.21	5.51	5.20	0.02	0.38	0.36
Transportation	5.08	3.06	1.90	62.09	37.40	5.82	3.37	2.09	62.02	35.91
Residual	39.11	33.81	18.12	53.59	46.33	47.31	42.01	22.51	53.58	47.58
Total	63.69	54.94	25.78	46.92	40.48	75.32	66.26	31.26	47.18	41.50

Note : IF- Informal Sector, Org- Organised sector, Unorg- Un-organised Sector  
Source: NSS 55<sup>th</sup> Round

## 5.7 Conclusion

Population projections given by the sub-group on Population Projections and Demographic Profile for preparation of Master Plan of Delhi -2021, were worked out in the year 2000 and were based on population data provided by the Census of India up to 1991. The projected population of Delhi in the year 2021 was estimated in the range of 22 - 23 million. The male female composition has now been corrected based on the data

provided by the 2001 census. With the help of the projected population for 2011 and 2021 age-sex specific WPR for males and females, the values of the total workforce have also been projected: The male workforce has been projected as 5.61 million and females as 0.83 million in 2011; for 2021 the male population is projected as 6.5 million males and females as 1.02 million. The total workforce for 2011 has been projected as 6.45 million; for 2021, the projected figure is between 7.58 million to 8.24 million. Taking account of the past trends as already been indicated on the future proportions in the sectoral composition of the workforce in nine industrial categories of the Census of India, the proportionate share of workers for each sector (with male female breakups) in nine industrial categories for 1971,1981,1991 and for 2001 are shown. The share of the primary sector will continue to fall, whereas the share of trade and commerce will continue to rise.

Employment in the unorganised sector has been estimated by subtracting the DGE & T employment figures from the total workforce provided by the Population Census. The estimated unorganised sector employment for 2001 is 81.7 per cent whereas for the next two decades the percentages are 85.7 and 88 respectively. A sector-wise breakup shows that agriculture employs the largest share of unorganised sector workforce. Though small in comparative terms, this share is as high as 96 per cent. It is estimated that the share of unorganised sector manufacturing would increase as a result of shrinkage of employment in the organised sector. The overall unorganised manufacturing sector has been projected to grow from 89 per cent in 2001 to 92 percent in 2011 and 94 per cent in 2021. The unorganised sector in 2001 has been estimated at 81.76 per cent and the projected figure for 2011 and 2021 has been estimated as 86.39 per cent and 87.96 per cent respectively.

Of these, the informal sector constitutes about 47 per cent of the unorganised sector employment, its share is as high as 62 per cent in transport followed by the residual sector and manufacturing. Its share is the least in construction, as low as 0.31 percent. Assuming a constant share of the informal sector in the total unorganized sector, the projected employment of the informal sector as projected could be 46.92 per cent in 2011 and 47.18 per cent in 2021.

In this regard, it is pointed out that for the new planning exercise for Delhi: 2021, the planning team may resolve to work on the base of 85 per cent in the over all unorganised

sector for a variety of reasons; primarily the spatial planning process deals with the provision and management of land for shelter, land-use activity matrix, circulation system, expansion of infrastructure and related urban services and facilities. Moreover, planning for Delhi metropolis has to be undertaken in the context of planning Delhi's metropolitan region. The planners and policy makers may take certain deliberate policy measures for the synchronous development of Delhi and its metro-region.

## VI

### Findings & Conclusions

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This study provides a profile of Delhi's economy and its projections for the year 2021. The study profiling Delhi's economy has been conducted under severe constraints and limitations. Lack of relevant and useable data and the non-availability of Census 2001 information regarding migration into Delhi and data on the standard occupational/industrial classification are still awaiting release. As part of the new planning exercise being undertaken by the DDA what is required and should have been done, as the first planning exercise, is a study of Delhi's economic base in conjunction with its metro-region (NCR). However, this was done neither in the next planning cycle (1982-2001) that is, MPD 2001 nor under the current planning exercise for the formulation of planning strategies for the new perspectives for Delhi 2021. The absence of an interdisciplinary planning team and expertise in spatial economics within the DDA is a gap that to a limited extent, this study aims to narrow down in making an elementary appraisal to understand the basic strands of Delhi's economy, particularly of its employment potential in the opening decades of the new 21<sup>st</sup> Century.

From the point of view of employment, the study of Delhi's basic economic spectrum has been considered through its three key components namely, government and public sector, business, commerce and financial services, besides manufacturing and service industries. Two other upcoming segments have also been reviewed: Higher Education and sophisticated health care and medical facilities.

In constructing an economic profile of Delhi, it would be unrealistic to ignore what all has been happening particularly in the cities and towns in its close propinquity to Delhi's metropolitan area (DMA) besides in its umland defined as the National Capital Region. And that too at a time when a parallel exercise is currently being carried out to formulate a new perspective plan for the NCR 2021.

The statistical analysis of the demographic data on Delhi shows that following the independence of India, there has been an unprecedented growth of population in and around Delhi. However, in the recent decades, despite all round slow down of population growth trends witnessed in the country, Delhi continues to attract a steady increase in its population right through the fading decades of the 20th Century. Though this growth has been uneven within the canvas of the National Capital Territory and significant variations can be observed within the limited confines of Delhi, it should be noted that the rural areas within Delhi and the several erstwhile rural habitats designated as "census towns" seem to have absorbed a substantial proportion of the migrants coming to Delhi in the decades: 1981-2001. In fact, a modest acceleration in demographic growth of Delhi during 1991-2001 could be discerned, which is in a way significant when viewed with the growth trends of other metro-cities in the country which have witnessed some decline in line with the deceleration of the urbanisation trend in the country<sup>1</sup>.

The emergence of a significant number of "census designated towns" within Delhi could be a major factor indicating acceleration of urban growth, in the process triggering a new propensity towards sub-urbanization in some of the habitats in the peripheral areas of Delhi. On the other hand, steady deceleration of population in the core areas of Delhi is also evident: while the Walled City and, in fact, parts of the older built up areas of Delhi, like Shahjahanabad, have registered a negative growth in population, New Delhi's population (under the NDMC) has remained, more or less stable. And indications are there that a substantial part of the incremental population has found its way to the peripheral habitats of the Delhi metropolis.

Large-scale conversion of agricultural land for urban use has also been recorded in the form of un-authorized colonies. Further industrial, commercial and transport activities, have taken place in the rural segments of Delhi regardless of the Master Plan and its zoning stipulations; in the process pushing a good number of agricultural and household workers out of their traditional abodes and vocations. On the other hand, fewer job opportunities have emerged in these areas and, at the same time, unskilled local labour force has not been able to find much employment.

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<sup>1</sup> It may however be noted that, although in absolute numbers almost all major metro-cities of India have grown in the recent decades, nonetheless, there has been a relative "slow down" insofar as growth trends are concerned.



Despite absolute increase of new type of jobs generated in the Delhi metropolis, in comparative terms, the employment situation *per se* for both men and women in urban Delhi has somewhat “worsened” in the past decade: The unemployment rates have gone up for urban Delhi especially for women having graduate or higher levels of education seeking employment in the metropolis. This has been indicated during the last two NSS rounds (50<sup>th</sup> and 55<sup>th</sup> rounds) as also by data furnished by Directorate of Economics and Statistics, Delhi. Significantly, employment opportunities for women in urban Delhi continue to be low when compared with men as also with other metro- cities or even some smaller towns in the country.<sup>2</sup>

The employment in the public sector has seen a steady increase during 1970 and through 1988. While the Public Sector accounts for nearly 70 per cent of the total employment in the organized sector, during the decades of seventies and eighties employment in the Central Government, State Government and Local bodies was fluctuating, and in the nineties it remained more or less constant. In absolute terms, in fact, there has been a marginal decline of employment in the Central Government, Quasi Government and Local bodies during the late nineties compared to early the nineties; nonetheless, the State Government employment, has increased most probably with the formation of the *Dilli Sarkar*.

The growth of employment in trade and commerce in Delhi has further reinforced the servicing character of the city providing shopping, restaurants (including *dhabas*) and a myriad of commercial activities and services that have emerged in the recent decades.

In more than one sense, Delhi is emerging as an upcoming vibrant “residential-cum- business- cum- service” center, in the process, pushing out manufacturing activities. At the same time unauthorised colonies and squatter settlements continue to proliferate are reported to be sheltering well over 3.5 million people<sup>3</sup>. Significantly, a large number of construction workers and marginally employed persons manage to find shelter in the peripheral villages of rural Delhi, while others are often able to find shelter in the “urban villages” within the urban limits.

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<sup>2</sup> Employment and Unemployment in India:1999-2000; also Urban Poverty Distribution according to City/Town Size in India, paper presented by Abusaleh Sharriff, HSMI, New Delhi, September 2002.

<sup>3</sup> MCD, Department of Slums and Jhuggi Jhonpri.

The employment in the Banking sector that had sharply gained in the eighties stabilized in the nineties: it significantly increased by 41.48 per cent between 1981-91. The following decades nonetheless witnessed only a modest growth in employment in the banking sector probably due to increasing deployment of computer technology. In the early part of the new century during 2000-2001, it registered a negative value perhaps due to the introduction of the "re-structuring" policies involving new style of banking practices and reduction in staff.

Though employment in institutions of higher learning and other educational institutions from 1976-77 to 1986-87 remained almost the same, the student enrolment went up with the opening of new and specialised institutions. However, data generated from the University Grants Commission and Association of Indian Universities indicate a modest increase of just above 2 per cent during 1985-86.

Data about employment in health care services (hospitals and nursing homes) were not available, but quite a few speciality hospitals have come up in the recent decades like the Spinal Injuries Centre, Rajiv Gandhi Institute of Cancer, Escorts Heart Centre, Batra and Modi Hospitals besides Indraprastha Apollo Hospital. According to the Economic Survey of Delhi 2001-2002, as of June 2002, a capacity of 30, 484 beds is available in various hospitals and nursing homes of Delhi, of which the share of government hospitals is 63.27 per cent.<sup>4</sup>

There has been a perceptible growth of manufacturing and processing units in the rural and peripheral areas of Delhi. The process of industrial dispersal, particularly of non-conforming and hazardous industrial units around the metropolis has begun to significantly alter the employment distribution in Delhi. Increasing strains are being felt on the existing urban infrastructure and facilities, particularly on the meagre infrastructure in the smaller habitats within the confines of the urban agglomeration and its rural segments initiating "degenerated peripheralisation".

The growth scenario in the organised sector during the past three decades in Delhi shows that although the Delhi metropolis experienced a fairly high growth of industrial enterprises during the seventies, many of them being "capital intensive" attracted only a modest increase in manufacturing employment and, consequently, employment grew only slowly. Eighties recorded only a modest growth of units, but

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<sup>4</sup> Not included are private hospitals, nursing homes having less than 50 beds.

by comparison, experienced a fairly high growth of units employing a large number of workers. Possibly employment in the older units also increased in this period accounting for the acceleration in the growth of employment. This could be attributed to the policy shift in favour of new and modern small-scale industries and a virtual exclusion for new large-scale industrial units. Labour intensity in the organised sector seems to have increased as labour capital ratio (measuring capital at constant prices) has gone up. Nineties, however, was a period wherein the number of units came down along with labour as well as fixed capital. Subsequently, in response to a Public Interest Litigation (PIL) to the Supreme Court of India, directed the closure and relocation of some obnoxious, hazardous and polluting industrial units away from the residential areas.

The strong economic position of Delhi is reflected in its higher per capita income, low levels of poverty and correspondingly high employment rate compared to the all India average for all urban centres. Further, unemployment rates are lower for urban males in Delhi than in the country in 1999-2000. However, for urban females, the WPRs are less than the average for urban India.

Population estimates worked out earlier by the DDA's sub-group on Population Projections and Demographic Profile for the preparation of Master Plan of Delhi ,2021, were developed in the year 2000. These were then based on population data available mainly from Census 1991 data. The projected value of the population of Delhi in the year 2021 was estimated in the range of 21.3 - 24.3 million.<sup>5</sup> These have been reviewed and further refined in light of new data available from the Census 2001.

#### FLOATING POPULATION of DELHI

While the magnitude of the "*floating population*" or day-time population of Delhi has been roughly estimated at around 4,02,200 each working day, approximately

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<sup>5</sup> The male female composition was also corrected based on the data provided by the 2001 census. With the help of the projected population for 2011 and 2021 the age-sex specific work participation rate for males and females, the values of the total workforce have also been projected. The workforce has been projected as 5.61 million for males and 0.83 million for female in 2011 and 6.5 million for male and 1.02 million for females in 2021. The total workforce for 2011 has been projected as 6.45 million and for 2021, the projected figure between 7.58 million to 8.24 million.

Taking account of the past trends as is already indicated in the future proportions in the sectoral composition of the workforce in nine industrial occupational categories of the Census of India. The proportional share of workers for each sector (with male female break-ups) in nine industrial occupational categories for 1971,1981,1991 and for 2001 are shown. The share of primary sector will continue to fall, whereas the share of trade and commerce would continue to rise.

the “reverse float” that are persons /males and females/ that commute daily from Delhi to the cities and towns of the DMA (and beyond), is anywhere between 11 to 15 percent (giving a figure in the range of 44,242 to 60,420)<sup>6</sup>. The progressive development of cities like Ghaziabad and Faridabad (already one million according to Census 2001) and the upgrading of communication facilities, opening of good schools and up-to-date health care facilities, clubs and social and cultural amenities and, more than anything else, development of substantial commercial office space, improved telephone and communication services have provided inducements for the new corporate sector and several MNCs to hire and acquire office space and establish (even in many cases relocate their original offices from the central core areas of Delhi) to cities mainly within the DMA like NOIDA, Gurgaon or Faridabad.

The employment in the unorganised sector has been estimated by subtracting the DGE & T employment figures from the total workforce provided by the Population Census. The most telling are the estimates for the “unorganised sector” of employment indicating as much as 81.7 per cent share as of the year 2001 within the overall employment figure in Delhi. Even more significant is the strong probability that in the next two decades, the share of unorganised sector is most likely to further increase as a result of the shrinkage of employment expected in the organised sector, particularly in the public, trading and industrial sectors: As against an estimated figure of 81.76 percent for 2001, the projected figure for 2011 and 2021 has been projected as 86.39 percent and 87.96 percent respectively. This poses perhaps the most serious challenge to the process of planned development of the national capital and demands to be adequately addressed. Indeed the new perspective plan for Delhi must adequately respond to this growing predicament. Unfortunately, nothing substantive or meaningful has so far been attempted through the planning effort since the commencement of planning in the national capital; or for that matter, in the towns and cities around it, with the result that more than 3 million squatters are currently living in sub-human conditions in various precincts of the Delhi metropolis. This, then, is one major issue that cannot be ignored any more. And, incidentally, this unorganized informal sector furnishes a very large variety of services to the metropolis and to its better-off households as, also, to virtually the entire organised or formal sector.

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<sup>6</sup> However, the reverse commutation is not really a function of inward commutation and a different calculus would have to devise to gauge the daily trips made from the central city to the towns of Delhi’s metropolitan area. Actually, the daily commutation from Delhi to towns like Faridabad, Ghaziabad, NOIDA and Gurgaon etc is to a large extent dependent on the level of urban services and amenities available in the first tier of the ring-towns.

Actually, the first planning team that drafted the Master Plan: 1962 -81 did initially suggest that around 15 percent of space should be provided for the so-called "service personnel" in all major subdivisions, but this was later reduced to 10 percent; and when finally the Plan got finalized, the percentage was reduced to a mere 5 percent. And in actuality, even the 5 percent was hardly ever furnished.

## VII

### Implications for Planning Of Delhi 2021

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A recapitulation of pertinent data by this study indicate that, while the population of Delhi as of 2001, has been reckoned as 13.8 million / urban at 12.84 million and rural at 0.96 million / the projections of population place Delhi's population around 18.2 million by year 2011 and, a range of 21.3 to 24.3 million for the year 2021.

Likewise, the active participation rate for working force for 2011 is placed at 35.44 percent, but within a range from 35.77 percent to 35.84 percent for year 2021. Of which, the unorganized sector could go up to 86.39 percent by 2011 of the working force, but is likely to reach 87.96 percent by year 2021.<sup>1</sup>

It would be no exaggeration to say that the in the following decades the future of Delhi would very much depend upon how the growing "unorganised" informal sector is addressed: The situation is piquant in view of the reality that the national capital has lately been attracting no less than 350,000 migrants from various states of the Union, mostly (over 78.3 %), of course, from the NCR states.<sup>2</sup> And, as is known, almost all of them are coming to the national capital in search of jobs and opportunity. A huge majority of them form the peculiar "unorganized informal sector". For the new migrants, cities such as Delhi serve as a "platform for their upward social and economic mobility", for it helps opening up new venues of opportunity; in that sense these people form a dynamic section of the population. As a study sponsored by the Asian Development Bank on Reducing Poverty in India stated:

*"The unplanned and uncontrolled urban growth of urban areas has had serious negative effects on urban dwellers and their environment. The provision of infrastructure facilities and services, required to support large concentration of people, is lagging far behind the pace of urbanisation. Basic amenities and urban*

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<sup>1</sup> Again, a sub-set of the un-organized sector, defined by the NSS as Informal Sector, has been reckoned at 40.48 percent as of 2011 and placed at 41.51 percent of the overall un-organised sector by year 2021.

<sup>2</sup> These states are: UP, Haryana and Rajasthan.

*services have failed to keep pace with urban growth, leading to widespread environmental degradation and a decline in the quality of life for the majority of urban dwellers. All the cities and towns in the country have serious shortage of power, water supply, sewerage, transportation, developed land, housing and other facilities.”*

The presages a positive outlook and recognising the dynamics of the informal groups points out:

*“The urban represents different and diverse poverty groups and their vulnerability levels are also different...Urban poverty is also dynamic as some poor move in and out of poverty with changing economic conditions. This poses a challenge for developing appropriate strategies and interventions that will mitigate their vulnerability and integrate them with the urban development process.”*

The Study Report suggests an assortment of approaches and emphasises the need for devising programmes and solutions that need to be tailored to the peculiarities of each given situation depending upon the characteristics of the area and its individual problems.<sup>3</sup> Delhi’s plan for 2021 must focus on the growing member of urban poor and areas inhabited by them and their integration into the city’s planning process.

As stated earlier, more than any other metropolis in India, and notwithstanding acquisition of many new functions, the fact of being the nation’s capital city, Delhi’s premiere *raison d’ etre* remains to being the fountainhead of national governance. As such, Delhi is more likely to be “impacted” by the global events, none of which are predictable, or subject to anticipation. Another limiting constraint encountered but peculiar to Delhi is the extremely limited land area of the “national capital territory”. Unlike all other metro-cities of India, Delhi’s hinterland, or its metro-region is beyond its political or administrative boundaries: just 4 kms east of River Yamuna is the largest State of the Union, Uttar Pradesh; and barely 25 kms north and/or south, is the State of Haryana. While in a participative democracy it is virtually impossible to prevent people from coming to Delhi, future growth and development of the national metropolis depend on what happens, even more so, **what does not happen** in spite of the development envisaged by the NCR Plan in the metro-region around the national capital. While the land area available is **finite**, due to increasing migration (estimated between

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<sup>3</sup> Asian Development Bank, *Reducing Poverty in India*, Final Report. (June 2001), p.15

350,000 and 400,000 persons per annum), the demands on land and activities are *infinite* thus creating a piquant situation.

Again, unlike any other Indian metropolis, it needs to be recognized that, as long as Delhi is the capital of the Republic, the Union Government has a certain inherent role: that role has to be positive. Indeed, it is part of an implied "social contract", a role that is *formative and directive* in spatial sense towards the growth and development of the national capital and its metropolitan region. In more than one sense, it is peculiar to Delhi. And, it is the one that the Union government cannot possibly afford to abdicate. Through the continuum of spatial planning the government of India are obliged to ensure that the urban milieu around the nation's capital remains manageable; and the perspectives envisaged by the Plans for Delhi as well for its metro-region are effectuated in colour and spirit. For the national capital and its metro-region (NCR), in quintessence, the perspective Plans should furnish spatial framework of development akin to basic framework provided by the Constitution. That is to say, changes and alterations should be made primarily in the larger interest of the community strictly in compliance with the provisions of the law.<sup>4</sup>

In short, the life and tenor, indeed the rhythm and pace of India's first city is, *more than less*, determined by the Union government. And in the ultimate analysis, almost all the key functions and operations of the federal government have direct repercussions on how the limited land area within the small NCT is being utilized: used, misused or abused. Which in turn, directly relates to the employment equation, its magnitude and location. In essence, it is the land use activity matrix, which really is the crux of the planned development of Delhi and the National Capital Region.

The pivotal role of the central government has also been underlined, of course, within an all India context by the noted economist Bimal Jalan<sup>5</sup> in his monograph on *India's Economy in the New Millennium*. Identifying the contours of government interventions, and enabling the economy to function efficiently and generate growth impulses, he points out: certain imperatives "*to strengthen the capacity of the government to do what it alone can do, i.e. "to create conditions for growth through higher public investment in areas such as education, health, water supply*

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<sup>4</sup> Refer Master Plan for Delhi: 1962-81; also DDA Act 1957

<sup>5</sup> India's Economy in the New Millennium, Bimal Jalan, UBSPD 2002.



*and infrastructure etc.” And, emphasises “narrowing the focus of its activities to what matters most for the future development: education, health care, clean environment and a functioning infrastructure”. India, he reiterates, “cannot adequately seize the opportunities that lie ahead, unless the public sector plays its legitimate role.”*

If anything, this has even more relevance insofar as the cities and towns of India are concerned, particularly pertinent to the national capital.

As of now, with about 30 percent of the country’s urban population, almost two-thirds of India’s gross national product is being generated within the urban areas: cities and towns. This becomes all the more relevant when it comes to the efficient functioning of the country’s national metropolis, Delhi.<sup>6</sup>

Ever since the planned development of Delhi was initiated in the mid-fifties, certain key policy measures have been iterated and re-iterated: planners have been pointing out through every Plan (Master Plan for Delhi: 1962 - 81, followed by MDP 2001) as was also pointed out in the Reviews, (both of the Delhi Plans and subsequently of NCR Plan 2001) that, notwithstanding Delhi being the capital city of the Republic, due to its small land area, quite a few functions, particularly government offices could just as well function and, probably, more efficiently from cities out of Delhi, and that some of them could be shifted and re-located elsewhere by shifting them to the cities and towns within its metro-region and, even beyond, in other urban centres of the country.

Due to acknowledged constraints, Delhi needs decongestion and decompression: offices, functions and operations that can be performed outside the Delhi metropolis need not remain entrenched in Delhi. Pursuing time-bound programmes should have been systematically formulated for their planned re-location within the NCR in the first instance, and some in other carefully designated cities and towns “beyond the daily commutation distance”; of course only after augmenting their basic urban infrastructure and furnishing them with much needed urban community amenities and facilities like good schooling and decent health care facilities.

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<sup>6</sup> Ibid, p270

However, in the first instance, at least no new government offices and institutions should have been located in Delhi. Unfortunately, and despite comprehensive planning and acceptance of the clearly enunciated policies, not much heed had been paid. While a large number of offices, attached and sub-ordinate offices and a myriad of allied institutions have proliferated and somehow managed to find location in or around Delhi, only in the last decade, for the first time, some gradual levelling off seems to be in the offing. While it is neither practical nor feasible to completely restrict the growth of Delhi which, as it is, depends upon so many tangible and intangible factors, nevertheless, it must be recognized that as the capital city of the Republic, the creation of a single job in government inevitably leads to the creation of a "multiplier effect" for such a job has the potential to generate a large number of additional ancillary jobs. And, of course, by no means the multiplier effect is exclusive to federal government jobs alone: practically the entire organized private sector also generates a similar multiplier effect. That is why successive Plans have not been in favour of proposals for certain economic or commercial activities that have high potential to create multiple jobs; besides inevitably such activities and operations further accentuate environmental predicaments. Setting up a "dry port" in Delhi is one such example resisted by the planners primarily due to its enormous multiplier effect.

In fact, if a properly designed survey is undertaken, it would reveal that both manufacturing industries (like Maruti) and the Business and Commerce sectors generate a huge number of jobs in ancillary industries and in related services, even though in many cases, such jobs may occur in the so-called "un-organised informal" sector of the economy.<sup>7</sup>

It is by now well known that Delhi's wholesale trade, generates a large number of jobs being the largest in north India. In this regard, what is not adequately realised is that several commodities are first "imported" into Delhi from other parts of India; then many of these products and goods are, in turn, sold out to other cities and towns. In fact, these commodities or products are "exported out of Delhi" to

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<sup>7</sup> Likewise, manufacturing industries also generate a lot of ancillary jobs and many related manufacturing and servicing industries. Although only at the periphery of Delhi, the location of Maruti factory, for instance has caused a large number of ancillary activities that includes "vendors" producing a myriad of parts and accessories for the main car manufacturing plant. Indeed, after the Maruti factory was built, following its example two other automobile manufacturers (Daewoo and Honda) have come up across the river in adjacent NOIDA in UP.

destinations in Punjab, Jammu & Kashmir and Himachal including western districts of Uttar Pradesh and eastern districts of Rajasthan.<sup>8</sup>

Acknowledging the pivotal role that Central government must purposefully play, it is to be recalled that the first exercise for the planned development of the national capital was taken up in 1955-56. While it underlined the prime role of the Central Government, simultaneously it discouraged proliferation of those activities that could add avoidable attractions to Delhi's economy. Incidentally, the first ever comprehensive plan for Delhi: 1962-81 was preceded by an Interim General Plan /IGP/ for Delhi, an innovation by itself and widely acclaimed by the professional planners the world over and by the UNDP. And, although meant primarily for Delhi, the first Plan did envisage the "planned development" of Delhi within the context of its metropolitan region.<sup>9</sup>

But, as it happened, it took more than 25 years before the policy makers at the helm appreciated the critical importance of planning the metro-region around Delhi when, at long last, the Parliament of India legislated (as Act one of 1985) for the formation of NCR Planning Board. Subsequently the NCR Planning Board formulated their perspective plan through 2001.

In regard to the directional role that the Central government must assume, a review of the policy decisions taken then suggests certain positive measures that indirectly influence the pace and pattern of development not only within the Union Territory, but for the larger region around Delhi, should be carefully identified forming part of the planning equation; these must be enunciated and broadly accepted as instruments of policy direction in directing sound development of the nation's capital city and its surrounding region.<sup>10</sup>

It needs to be recalled that free India's first Prime Minister, Jawaharlal Nehru, while keenly concerned about the proper development of Delhi, wished free India's capital

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<sup>8</sup> . Almost 85 percent of electric and electronic appliances and parts, 60 percent of food grains, dry fruits and condiments (spices), over 80 percent of chemicals, cosmetic and toilet articles, surgical instruments and hospital supplies, nearly 70 percent of fruits and vegetables (apples, oranges, potatoes), over 65 percent of school and other stationery items including nearly 60 percent of iron & steel sections, plumbing fixtures and hardware are "exported" out of Delhi. And, most ironically, most significant part of this trade is conducted from the central core areas of old Delhi, old *havelis* and houses turned into storage godowns.

<sup>9</sup> As far back as 1956, the Interim General Plan for Delhi strongly emphasised about the synchronous development of Delhi's metropolitan region. As it were, an indicative metro-region was outlined by the IGP and later on, delineated by the first Master Plan for Delhi: 1962 -81.

<sup>10</sup> NCR Planning Board,"NCR: *Retrospect and Prospect* (Review of NCR Plan 2001) Report of the Steering Committee. March 1999. Also refer *Review of the Master Plan of Delhi:1962-81/ Some Recommendation for the Future Development* (February 1973). Reprint issued by the T& CPO for the limited circulation.

to be a decent city imbibing the finest traditions in town planning. With his keen sense in history and interest in heritage, he wanted Delhi "not to grow too fast", or in a haphazard manner. In its new incarnation as the capital of the new Republic, he was not in favour of Delhi should acquiring the typical complexion of an overtly industrial city. Nonetheless, he did acknowledge that any large city requires an optimum level of industries to feed, maintain and service it, therefore in the first Plan, the industrial work force was to be kept at 25 percent. Accordingly, this has been reflected in the policy enunciated on the location of industries in Delhi.<sup>11</sup>

Nehru envisioned a great role for India and for its historical capital and appreciated its coveted position among other great cities of India; nevertheless, he wanted the growth and prosperity of Delhi to be shared with other cities in the country. He was enthusiastic about the planned development of areas forming Delhi's metro-region, later to be defined as the National Capital Region.

In fact, Nehru wished to have quite a few functional offices and allied institutions of the Central Government to be dispersed and located in other cities of the country. An example worth citing is his affirmative resolve that "*no new government ministries or offices of the Government of India were to be located from then on either side of the Central Vista (Rajpath) beyond its intersection with Janpath right up to the India Gate hexagon*". Alas, despite clear enunciation and acceptance of policy regarding location of new government offices and its allied institutions, in actual practice, exactly the opposite has taken place; for it seems living close to the corridors of power became a matter of pride and prestige. A large number of offices, attached and subordinate departments have manipulated to gain locations in Delhi in utter disregard of the policy directives embedded in the Master Plan. Not only that, a large number of government sponsored "public sector undertakings", as many as 53 PSUs have managed locations in the national capital, many of them perhaps could have functioned more efficiently (and profitably) had they been located

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<sup>11</sup> Refer Work Studies for the preparation of the *Master Plan For DELHI: 1962 - 1981*, by Town Planning Organisation for the DDA, Volume ONE, Printed at Government of India Press, Nasik, 1976. Reference is made to Chapters 4, 6, 7 & 8. Also, see *Master Plan for Delhi :1962-81* Published by Delhi Development Authority, Policy Note on Industries, pp 74 - 85.

in some other city.<sup>12</sup> As a consequence, they have added avoidable strains on Delhi's limited infrastructure and civic amenities because each new job in the government sector creates several others.

Yet examples of decentralised functioning could be observed from within the government itself. Two examples are cited: the offices, training establishments and production centres under the Ministry of Defence. These institutions, training centres, ordinance factories, ISRO are spread throughout the length and breadth of the country. The second example is that of the Ministry of Railways with its different railway zones, divisional offices, training facilities, locomotive and coach-making factories as also its research and development organisations.

To sum up, it needs reiteration that the Central Government has a positive formative, indeed a directional role in ensuring proper planning and development of the national capital as also of its metropolitan region defined as the National Capital Region. It is none too late to be taken up as an imperative, for another reason is that, unlike other metro-cities of India Delhi's orbit of influence and affinity, its umland, is wholly outside its formal administrative jurisdiction. The very small land area of the 'national capital territory', a mere 1,483 square Kms. makes it all the more imperative for the Union government to assume an active directional role. In the first place, it should begin with the Public/Government sector itself. But that is not all; it has to go beyond.

Even more importantly, its need recognition that, notwithstanding all the meticulous planning for the nation's first metropolis, sound and balanced development cannot be ensured without taking care of its metro-region. And, of course, this goes beyond the creation of employment opportunities in the public sector alone; rather the Union government should be instrumental in giving the entire metro-region including its teeming villages, towns and cities besides its rural agriculture area, positive direction and active support to ensure its development along desired lines and in accordance with the Plan. That Plan should, of course, be formulated with close collaboration and active participation of all concerned in the entire region as also envisioned under the Constitutional provisions accorded under 73 and 74 Amendments.

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<sup>12</sup> Among government and semi government offices recently established are the Central Coastguard Organisation, the DRDO, and head quarters of several police forces like the CRPF, BSF, RPF, ITBF, CISF etc In fact, he favoured the re-location of Northern Railway headquarters from Baroda House to a town along NR's rail network. In addition to the government offices, there are 53 public sector enterprises PSUs located in Delhi like the huge office complex of SCOPE, Central Warehousing Corporation, State Trading Corporation, Indian Oil, MMTC, National Buildings Construction Corporation, Indian Standards Institute, Engineers India Ltd, National Thermal Power Corporation, Indian Railways Construction Corporation, Engineering Projects (India) Ltd, besides National Housing Bank, HUDCO, to name only some.

## Suggestions for Further Studies

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As the new perspective plan for Delhi 2021 is being developed spanning a period of some 20 years, and, in view of the fact that certain vital data on migration and the standard industrial/occupational classification are yet to be released by the Census 2001, various estimates and projections need to be appropriately adjusted and refined. In any case and as also recommended by the Review of the Delhi Plan 2001 (as also by Review of the NCR 2002 Plan), the Plan should be reviewed every five years and revised every ten years. Moreover, it needs reiteration that, given the wider context of India and its teeming cities, spatial planning must not be made subservient to a mere exercise in "spotting" the trends as gospel truth, as something inevitable, and, therefore, to be accepted because "*trend is not destiny*" insofar as spatial planning is concerned in countries like India. To be able to achieve certain defined goals of social change, it is imperative to identify areas for meaningful public interventions as part of the larger development planning strategy.

While it is gratifying to note that perspective planning of cities and town in the country has emerged as part of a continuing process, it is advisable for the DDA to assemble with care, an inter-disciplinary group to interact with planners to enable detailed study of Delhi's economic base and its gross geographic product and that too in close collaboration with its metro-region's on a regular basis.

During the conduct of this study in developing the economic profile of Delhi, certain critical issues have been identified that demand separate surveys and studies. Five of them are listed below:

➤ **Significance & Importance of Government Employment in the National Capital and Its Multiplier Effect: Implications for Planning of Delhi 2021 and beyond.**

Employment in government and public sector creates substantial additional jobs in a wide variety of related fields. Moreover, it is not confined to government or public sector, for industry, manufacturing and myriad areas of processing also create additional jobs, all of these jobs make additional demands on

housing, basic urban services and civic amenities (schooling, health care etc). And far too often these are not provided and therefore urban services and amenities cannot keep pace resulting in overstraining of essential services and facilities. A thorough study is required to be designed to help in policy formulation.

➤ **Study of the Un Organized Informal Sector in Delhi :**

*Problems and Prospects*

To understand and the scale and magnitude of Delhi's un-organized informal sector and its far reaching ramifications and its significance to Delhi's economy in the context of its planned development, a study should be undertaken at the earliest. As emphasised in this Report, it is important to gain a sound comprehension of this all-pervasive "un-organized sector." In fact, the challenge posed by this group of population would decide the final outcome planning India's first metropolis.

Unfortunately in spite of all planning and development undertaken for the national capital, by and large, the complex problems encountered by this large section have not been satisfactorily addressed. It may be no exaggeration to say that the success of the planning effort in the Delhi metropolis (as also in other major cities of India) would be largely determined by the manner the "un-organized informal sector" is dealt with. It has a dynamics of its own. Once in the metropolis, like other citizens, they also need urban space and basic urban services and amenities like shelter, safe drinking water, sanitation etc. As of now, they constitute nearly 80 % ; therefore formulation of a realistic strategy for creating suitable urban space for them, given the urban milieu of the national capital with its severe constraints of land and space.

➤ **Survey of Delhi's Wholesale Trading Activities:**

Its location, spatial pattern and implications on Land Use, Space utilization, particularly Storage Space, Movement of goods and commodities, Economic turnover and employment, both regular and casual; formal and informal, parking spaces, loading and un-loading facilities etc

➤ **Impact of MRTS Metro Rail System on Delhi & Its Neighbourhood:**

Location of Work Centres along the proposed alignment of the Metro Stations; Impact on Environment and Heritage Sites and Monuments. Feasibility studies should be undertaken to understand advantages and cost- benefit analysis in

extending transportation network to various towns and cities in the metropolitan region.

➤ **Significance of Floating Population / Day Time & Night Time / on Delhi's Land Use & Activity Matrix:**

The progressive development of certain adjoining cities the metropolis has attracted a significant number of people from Delhi to commute daily from Delhi to these towns - all in the first tier of the "ring towns" and within the DMA. In a way, this forms the "reverse float" of the daily commutation. An estimate puts their number to not less than 50 to 60 000 persons as of October 2002.

On an average working day; for these persons Delhi serves as a bedroom. They earn an income mainly created outside Delhi, but spend most all of it in Delhi. The importance of Para Transport (chartered buses, car pools and suburban commuter rail services play an important part. These and other related Issues need to be identified and studied as part of the new perspective planning exercise currently taken up by the DDA.



## References

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- Asian Development Bank, "*Reducing Poverty in Urban India*" / Final Reprt, June 2001, technical Assistance No: 3480- IND to government of India, NIUA
- Basic Statistical Returns of Scheduled Commercial Banks in India, RBI, 1991,2000,2001.
- Bureau of Economics and Statistics, "*Report on Annual Survey of Industries*" Government. of NCT of Delhi, New Delhi. 1973-74,1983-84, 1992-93, 1996-1997.
- Chand Himat "*Urban Informal Manufacturing Sector: A Study of the Border Districts of Punjab, Jammu & Kashmir and Rajasthan*", Centre for research in Rural and Industrial Development, Chandigarh, 1997.
- Data Base Unit Research Division "*Selected Statistical Data on Indian Higher Education - 1 (data for 1993-94 to 1995-96)*" Association of India Universities, New Delhi , January 1997.
- Directorate of Economics and Statistics, "*Delhi Statistical Hand Book, 1981,1986, 1991, 1997*" Government of NCT of Delhi.
- Directorate of Economics and Statistics, "*Report on Classification of Employees in Delhi Government. & autonomous/ Local Bodies 1999*" Government of N.C.T. of Delhi.
- Directorate of Economics and Statistics, "*Report on Un Organised Manufacturing & Repairing Enterprises and household Consumer Expenditure in Delhi, NSS 51<sup>st</sup> Round (July 1994-June 1995) State Sample, June 2001*" Government of N.C.T. of Delhi.
- Directorate of Employment and Training, "Employment Review (April June 1997)" Ministry of Labour, Government. of India.
- Dupont Veronic, Tarlo Ema, Vidal Denis ed. "*Delhi Urban Space and Human Destinies*", Manohar Publications, New Delhi,2000.

- Economic Census 1998 -All India Report, Government. of India.
- Economic Census of Delhi 1980,1990,1998.
- Economic Survey of Delhi 2001-2002. Planning Department Government of NCT of Delhi.
- "*Economic Survey 2001-2002*", Economic Division, Ministry of Finance, Government of India.
- "*Employment and Unemployment in India 1993-1994*," Fifth Quinquennial Survey, NSS 50<sup>th</sup> Round (July 1993-June 1994), National Sample Survey Organisation , Government of India March 1997.
- "*Employment and Unemployment in India 1999-2000 (part 1)*," NSS 55<sup>th</sup> Round (July 1999-June 2000), National Sample Survey Organisation , Government of India May 2001.
- "*Informal Sector in Delhi (Non Agriculture)*" National Sample Survey 55<sup>th</sup> Round (July 1999-June 2000) State Sample, Directorate of Economics and Statistics, Government. of NCT of Delhi, June 2002.
- Kundu Amitabh and Sharma, Alakh.N. ed. "*Informal Sector in India: Perspectives and Policies*" Institute of Human Development, New Delhi , 2001.
- Kundu Amitabh, Schenk Hans, Dash B. "*Changing Role of State in Urban Governance- Provision of Basic Amenities to Poor in the Context of Unplanned Growth in Metropolitan Peripheries of Delhi and Hanoi*" Institute of Human Development, 2002, New Delhi.
- Master Plan of Delhi 1962-81 Prepared by TCPO for DDA.
- Master Plan of Delhi 2001.
- Mathur O.P. and Rangamannar T.S. "*Delhi Fiscal Study*", National Institute of Public Finance and Policy, 2000, New Delhi.

- "National Capital Territory of Delhi Statistical Abstract 1977-96"* Directorate of Economics and Statistics, Government of NCT of Delhi.
- "National Family Health Survey India 1998-99: Delhi"* International Institute for Population Sciences, Mumbai, March 2002
- National Capital Region Planning Board *"NCR: Retrospect and Prospect, Review of NCR Plan'2001"*.
- NCR Planning Board *"National Capital Region- Industrial Potential"*, Haranand Publication, New Delhi, 1997.
- Oberoi A.S, Sivananthiran. A, Venkataratnam. C.s, ed. *"Perspectives on Unorganised Labour"*, International Labour Organisation, New Delhi, 2000.
- Oberoi, A.S. and Chadha, G.K. ed. *"Job Creation in Urban Informal Sector in India: Issues and Policy Options"* International Labour Organisation, New Delhi, June 2001.
- Office of the Commissioner of Industries *"Industrial Profile of Delhi 2000"* Government of NCT of Delhi, New Delhi.
- Office of the Commissioner of Industries *"Industrial Profile of Delhi 2001"* Government of NCT of Delhi, New Delhi.
- Planning Department, *"Sector Wise Suggested Outlay for Annual Plan 2000-01"* Government. of N.C.T. of Delhi.
- Planning Department, *"Sectoral Highlights of Annual Plan 1999-2000"* Government. of N.C.T. of Delhi.
- Planning Department, *"Sectoral Highlights of Annual Plan 2000-01"* Government. of N.C.T. of Delhi.
- Population Census of Delhi 1961,1971,1981,1991,2001.
- Report of the Sub Group on Population Projections and Demographic Profile for Preparation of Master Plan for Delhi 2021. Delhi Development Authority.

*Review of Master Plan for Delhi: 1962-81* by Delhi Development Authority.

*Review of MPD 2001* by Delhi Urban Arts Commission.

Sanbaran T.S. & Rao " *The Urban Informal sector in India: A Study of Govindpuri (Delhi)*" Jaishankar Memorial Centre, New Delhi, 1995.

Shariff Abusaleh "*Urban Poverty Distribution according to City/Town Size in India*" Presented at HSMI, New Delhi September 2002.

The Salsasa Peace Foundation 1991/2 Fiscal Year Subsidy Project on " *Urban Informal Sector Employment-A Cross National Comparative Study*" Research Institute for Regional Planning & Developments, October 1993, Japan.

## APPENDIXES

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## Appendix

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### Chapter III

- 3.1 Employment in Public and Private Sector in Delhi (1970 -June 2000).

### Chapter V

- 5.1 Age Structure of Population 1993-94
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### 5.1 Age Structure of Population 1993-94

Age Group	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
0-4	167	111	116	141	95	99
5 to 9	140	108	111	162	100	105
10 to 14	49	109	104	94	87	87
15-19	88	109	106	57	116	110
20-24	155	100	105	82	131	127
25-29	136	98	101	163	88	94
30-34	107	83	86	84	87	87
35-39	43	70	68	47	74	72
40-44	52	53	53	50	62	61
45-49	22	50	48	11	44	41
50-54	8	31	29	22	28	27
55-59	7	24	21	0	36	35
60 +	26	54	52	87	52	55
Total	1000	1000	1000	1000	1000	1000

Source: Based on National Sample Survey, 50th Round, 1997 on Employment and Unemployment on Delhi.

## 5.2 Age Structure of Population (1999-2000)

Age Group	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
0-4	128	87	90	67	80	79
5 to 9	110	92	94	106	110	109
10 to 14	108	118	116	180	121	126
15-19	123	123	123	106	108	108
20-24	119	107	109	95	90	91
25-29	102	90	92	82	97	96
30-34	37	71	68	120	85	88
35-39	98	81	83	53	93	90
40-44	32	72	69	75	60	65
45-49	86	49	53	61	43	45
50-54	21	31	30	5	28	25
55-59	9	24	20	9	21	17
60 +	27	55	53	41	64	61
Total	1000	1000	1000	1000	1000	1000

Source: Based on National Sample Survey, 55th Round, 2001 on Employment and Unemployment on Delhi.



5.3 Age Specific Usual Principal and Subsidiary Status 1993-94  
Workers Population Ratio of Delhi

Age Group	Male		Female	
	Rural	Urban	Rural	Urban
0-4	0	0	0	0
5 to 9	0	0	0	0
10 to 14	0	26	0	6
15-19	560	492	0	32
20-24	924	738	33	83
25-29	1000	947	179	177
30-34	1000	943	0	230
35-39	1000	986	0	154
40-44	1000	990	575	272
45-49	1000	966	246	150
50-54	1000	949	0	160
55-59	1000	878	0	139
60 +	685	350	431	12
Total	586	538	98	96

Source: Based on National Sample Survey, 50th Round, 1997 on Employment and Unemployment on Delhi.

5.4 Age Specific Usual Principal and Subsidiary Status Workers Population Ratio of Delhi 1999-2000

Age Group	Male		Female	
	Rural	Urban	Rural	Urban
0-4	0	0	0	0
5 to 9	0	0	0	2
10 to 14	25	37	0	58
15-19	472	247	0	75
20-24	759	723	53	169
25-29	932	899	15	128
30-34	978	950	72	196
35-39	995	987	100	209
40-44	997	983	0	159
45-49	927	993	52	150
50-54	600	942	0	129
55-59	861	885	23	107
60 +	322	328	122	61
Total	520	528	29	105

Source: Based on National Sample Survey, 55th Round, 2001 on Employment and Unemployment on Delhi.

## 5.6 Definition of Informal/ Un-organised sector

Scholars have come up with various definition of the informal or unorganised sector. However, the following four criteria have often been used in identifying the informal or the unorganised sector using the data from secondary sources (Kundu, 1993):

- a) The household based activities as identified by the Population Census and the National Sample Survey (NSS) or the ' own account enterprises' as defined by NSS in its 33<sup>rd</sup> and later rounds may be taken to comprise the sector.
- b) 'Own account enterprises' and ' non-directory establishments', as defined by NSS and Central Statistical Organisation (CSO) employing less than six workers, may be taken to constitute the unorganised sector. As per this classification scheme, all public sector units, directory enterprises that employ six or more workers and the industries registered under the Factories Act, 1948 are treated as components of the organised sector.
- c) The units covered under the programme of collection of Employment Market Information (EMI) on a quarterly basis by the Employment Exchanges may be considered as belonging to the organised sector. Under EMI, the Director General of Employment and Training compiles data on units employing 10 or more workers. Unorganised sector may then be defined as a residual category.
- d) The units not recovered by formal legal stipulations and therefore not maintaining or submitting regular accounts to any government agency can be taken to constitute the unorganised sector, as stipulated by CSO. This implies that the manufacturing and repair units registered under the Factories Act, 1948, for which data are tabulated systematically by the Annual Survey of Industries would form the organised (manufacturing) sector. The residual would be taken to compromise the unorganised sector. In the sectors like, " trade, hotels and restaurants, storage and warehousing services, all non-public operating units constitute the unorganised segment on consideration of non - availability of regular accounts of their activity".<sup>1</sup>

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<sup>1</sup> Kundu Amitabh, " Urban Informal Sector: An Overview of Macro Dimensions, Socio Economic Correlates and Policy Perspectives in India", Urban Informal Sector Employment - A Cross National Comparative Study, Research Institute for Regional Planning and Developments, (the Sasakawa Peace Foundation 1991/2 Fiscal Year Subsidy Project) October 1993, pp. 12-13.

5.7 Employment in Organised Sector 1990,1997

Sectors	1990	Sectors	1997
Agriculture	1,738	Agriculture	2,560
Manufacturing	142,410	Manufacturing	131,520
Construction	30,285	Construction	30,360
Transport, Storage and Communication Transportation	134,199	Transport, Storage and Communication Transportation	154,080
Residual	521,254	Residual	524,340
Total	829,886	Total	842,860

Source: DGE &T, Govt. of N.C.T. of Delhi.

5.8 Employment in different PSUs under Govt. of N.C.T of Delhi  
as on March 1999

Name of the PSUs	Number of Employees	%
Board of A and U Systems of Medicine	3	0.01
Delhi Agricultural Marketing Board (Azadpur)	196	0.55
Agricultural Produce Market Committee	830	2.33
Delhi Energy development Agency	305	0.86
Delhi Financial Corporation	186	0.52
Delhi Institute of Hotel Mgmt & Catering Tech.	27	0.08
Delhi Khadi & Village Industries	58	0.16
Delhi SC Financial & Dev Corp Ltd	163	0.46
Delhi State Civil Supplies Corp. Ltd.	873	2.45
Delhi State Industrial Development	1067	2.99
Delhi State Tourism & Tpt Dev Corp. Ltd	1059	2.97
Delhi Transport Corporation	30077	84.32
Delhi Wakf Board	49	0.14
Hindi Academy	102	0.29
Institute of Human Behaviour and Allied Sciences	259	0.73
Punjabi Academy	53	0.15
Sanskrit Academy	16	0.04
Sahitya Kala parishad	41	0.11
State Council of Edu Research & Trng	253	0.71
Urdu Academy	51	0.14
Total	35668	100.00

Source: Report on Classification of Employees in Delhi Govt & Autonomous/ Local Bodies (1999). Directorate of Economics and Statistics, Govt. of N.C.T. of Delhi.

5.9 Population, Workforce and Work Participation Rate in Delhi (1971-2021)

	1971	1981	1991	2001	2011	2021
Total Population	4065698	6220406	9420644	13803085	18200000	21200000
Total Workers	1228397	2002192	2980461	4673724	6451900	7583240
Work Participation Rate	30.21	32.19	31.64	33.86	35.45	35.77

Source: Census of India 1971-2001.

