CHAPTER 3

GROWTH OF POPULATION OF JALANDHAR CANTONMENT AND SOCIO-ECONOMIC ATTRIBUTES OF CIVIL AREA

Jalandhar Cantonment, a Class III town, adjoins one of the oldest cities of the same name which is also the district headquarters, an important manufacturing centre and one of the three main cities of Punjab. The location of Jalandhar Cantonment in proximity to the international border with Pakistan has placed it among the operationally active and high administrative-functional cantonments in the northwest region. The overall characteristics of its population, like the case of other cantonment towns are, therefore, guided by its military component. The first section of this chapter focuses on trends in population attributes of Jalandhar Cantonment during 1961-2001.

The Civil Area of Jalandhar Cantonment comprised the residential as well as commercial segment inhabited by civilian population. As compared to the transitory nature of military population, the civilian population formed a stable component as it consisted of the permanent residents settled since 1846 when Jalandhar Cantonment was established by the British. In addition, its continuance as a residential-cum-commercial enclave without ever having spatially expanded beyond the initial boundaries, the Civil Area represents a unique case for understanding the population at a micro level, i.e. mohalla. An analysis of population attributes of adult population of the Civil Area has been dealt with in the second section of this chapter.

SECTION I: POPULATION ATTRIBUTES OF THE CANTONMENT

Sources of Data and Methodology

This section is based on secondary data taken from the District Census Handbook of Jalandhar District published by the Census of India from 1961 to 1991 and the electronic format of the Primary Census Abstract of Punjab for 2001 \(^1\). Five socio-economic attributes of population were studied in terms of their trends and changes in proportion during 1961-2001 for Jalandhar Cantonment as a whole. These include (1) Growth of population, (2) Sex ratio, (3) Literacy, (4) Workers and (5) Scheduled Caste population. The basic elements of these population attributes, viz. numbers, proportion, decadal growth and percentile change in successive decades during 1961-2001 have been depicted through tables. The trends have been shown through line graphs.
negative growth of population, viz. -20.58 per cent in 1951-61, -1.09 per cent in 1961-71 and -5.50 per cent in 1971-81 (Fig. 3.1).

Only two Census decades were associated with positive growth rates of population, viz. 1951-61 and 1991-2001 (Fig. 3.1) which were respectively characterised by a growth rate of 27.99 per cent due to the highest absolute increase by 9287 persons and the highest growth rate of 28.59 per cent with an absolute increase by 9011 persons. These trends in growth of population of Jalandhar Cantonment were at variance from the general trends of cantonment towns in India during 1961-2001, viz. its growth of population was markedly above the growth of population of cantonment towns in 1961 (14.64 per cent) and 2001 (15.38 per cent); but was negative in the intervening decades as compared to positive growth rates of cantonment towns.

Further, periods of consistent decline in population coincided with periods of very high crude birth rates (between 51.58 and 59.42 per one thousand population) and significantly low crude death rates (between 2.40 and 9.80 per one thousand population) (Table 3.1). Although crude birth rates and crude death rates suggest a very high natural increase in the population of Jalandhar Cantonment, however, the decline in population was related to large scale out migration of population mostly comprising males. This was evident in periods of negative growth rates of population corresponding with decline in the male population by -37.09 per cent, -6.05 per cent and -5.83 per cent during 1971-91. In turn, this was reflected in an increase in sex ratios (Fig. 3.1). Such
sex ratio. On the other hand, the female population grew in numbers (from 14948 to 16207) and formed more than half the total population of Jalandhar Cantonment, which resulted in notable excess of females in 1981 and 1991 (Table 3.2).

A continuous trend of improvement in sex ratio is coincident with a decline in the total population of Jalandhar Cantonment during 1971-91 (Fig. 3.1), which was due to higher and positive growth of female population in all the decades except during 1991-2001 (-5.19 per cent). In fact, an overall improvement in sex ratio of Jalandhar Cantonment by 156 females per thousand males during 1961-2001 is attributable to overall positive growth of female population (11.51 per cent). In comparison, consistent negative growth rates in male population by -37.09 per cent, -6.05 per cent and -5.83 per cent during 1961-91 resulted in very high sex ratio. These periods corresponded with a steep increase in sex ratios, with the highest increase by 405 females per thousand males in 1971; an increase by smaller margin (103) in 1981 and an insignificant increase by 7 females per thousand males in 1991. The sex ratio declined to 699 females per thousand males in 2001 as a result of substantial increase in male population (8549) as compared to a marginal increase in female population (462) during 1991-2001. This was mostly related to an increase in troop strength due to increased strategic importance of Jalandhar Cantonment as well as the region.

The functional character of Jalandhar Cantonment as a Corps Headquarters in a holding or defensive role contributed to a higher component of non-combatant troops who are stationed in the cantonment for up to four years as compared to the combatant troops whose tenure is for a maximum of up to two and half years. This in turn resulted in the emergence of Jalandhar Cantonment as a large family station in the northwest and contributed to an increase in the female population and sex ratio. Another important factor which contributed to its significant family status and therefore, positively affected the sex ratio was the availability of good educational institutions in the Cantonment as well as in the adjoining Jalandhar City.


Jalandhar Cantonment recorded literacy rates of 58.80 per cent, 54.82 per cent, 59.61 per cent, 66.64 per cent and 80.03 per cent in successive decades since 1961. The male literacy rates ranged between 68.68 per cent in 1961 and 84.30 per cent in 2001; and the female literacy rates between 40.60 per cent and 73.91 per cent in the same decades respectively (Table 3.3).
female literates was relatively consistent, viz. 6.83 per cent points, 8.55 per cent points, 7.73 per cent points and 10.20 per cent points; and higher than the corresponding values for total and male literacy rates during 1961-1991, but was lower in 2001 (Table 3.3). The overall magnitude of change in proportion of female literates was overwhelmingly high (33.31 per cent points) as compared to total (21.23 per cent points) and male literates (15.62 per cent points) during 1961-2001. This is attributed to its very high overall growth rates as compared to the total and male literates.

The growth of literates in Jalandhar Cantonment was characterised by a consistent increase in total literate population since 1971-81, viz. 7.56 per cent, 5.63 per cent and 54.42 per cent; in male literates since 1981-91, viz. 3.52 per cent and 88.36 per cent; and in female literates since 1961-71, viz. 28.29 per cent, 22.90 per cent, 7.90 per cent and 19.32 per cent. The overall growth of female literates was very high (103.00 per cent) with their number having more than doubled, from 6069 to 12320 during 1961-2001. On the other hand, male literates recorded very slow overall growth rate of 6.45 per cent; and the number of total literates grew by a modest 29.92 per cent during the same period. The 1991-2001 decade was most outstanding since it not only recorded the highest proportion of total, male and female literates, but also recorded their highest percentile increase and growth rates.

General factors which influenced literacy rates of cantonment towns, viz. functional requirement of minimum educational qualification at entry level in the armed forces and its trickling down effect on the families of military personnel also hold true in the case of Jalandhar Cantonment. In addition, its relatively high total, male and female literacy rates were also related to regional factors, viz. long tradition of service in the armed forces, early start of literacy with Jalandhar City being a hub of educational institutions and an administrative headquarters for over a century. Further, high levels of literacy are associated with the provision of educational facilities within the Cantonment for children of armed forces personnel as well as civilian children, which included Brigade run nursery schools, army schools, kendriya vidyalaya, convent/missionary schools. The Cantonment has 26 schools (11 senior secondary, 3 higher secondary, 7 middle and 5 primary schools). Among these, six out of twelve schools located within the Civil Area have been operational since pre-Independence period. These factors are equally relevant in the context of Civil Area population. Therefore, a trend of high literacy rate in Jalandhar Cantonment is quite expected.
in their proportion during 1961-71, followed by a decline in 1971-81 and a consistent increase thereafter, with the most perceptible increase by 3.77 per cent points during 1991-2001 (Fig. 3.3).

The overall change in proportion of total and male workers was a decline by 6.56 per cent points and 7.24 per cent points respectively during 1961-2001. This was related to an overall decline in the number of total workers by 3549 persons and of male workers by 4247 males during the same period. In fact, both were characterised by negative decadal growth rates during 1961-91 and very high positive growth rates in the following decade, i.e. 1991-2001 when the number of total and male workers more than doubled (Table 3.3). Such a trend was primarily governed by the male workers; mostly comprising the military personnel stationed in Jalandhar Cantonment. Their en mass movement to operational areas during 1961-91 contributed to a consistent decline in the total and male workers. Similarly, an increasing trend in total workers in 2001 was propelled by an increase in male workers, mostly comprising troops. This reflected an enhanced strategic importance of Jalandhar Cantonment in the northwest.

Such trends in workforce pointed to an overwhelming dominance of males in the workforce, a general characteristic of cantonment towns. Jalandhar Cantonment was no exception as its workforce was almost completely dominated by males (97.09 per cent and 92.08 per cent of the total workers in 1961 and 2001 respectively) mostly comprising the military personnel stationed in it. Further, the strategic importance of the region ensured their growing strength in the last decade. Overall this suggests a
The Scheduled Castes recorded a continuously increasing trend in the first four decades during 1961-91 (Fig. 3.5), with the most perceptible increase by 5.17 per cent points in 1961-71. This was followed by relatively low increase in the next two decades, viz. 1.67 per cent points in 1971-81 and 2.00 per cent points in 1981-91. A decline in trend from the highest ever proportion of 19.67 per cent to 12.26 per cent was recorded during 1991-2001. This was on account of a decline in their numbers by 1232 persons or -19.87 per cent during 1991-2001. This was the only instance of a decline in the number and proportion of Scheduled Castes since 1961, which is expected to be related to a possible replacement of Scheduled Castes dominated regiment by a non-Scheduled Castes dominated regiment during the said period.

It is further pointed out that the Scheduled Caste population in Jalandhar Cantonment recorded below cantonment towns’ average proportions of 12.47 per cent and 15.10 per cent only in 1961 and 2001 respectively. During the intervening decades, their proportions remained consistently higher than the cantonment towns’ average and were reflective of the regional concentration of this social group expected to comprise the Civil Area population. These trends were essentially related to an influence of military population since Jalandhar Cantonment is a functionally high status cantonment with a Corps Headquarters and a resultant large military component in the total population largely comprising non-Scheduled Castes. The troop movements to operational areas, therefore, resulted in elevation in proportions of Scheduled Castes, and their stationing within the Cantonment resulted in lowering of the proportions of this social group. This is corroborated from completely contrasting trends to Scheduled Castes’ trends by the general, non-Scheduled Caste population of Jalandhar Cantonment which recorded successive decline during 1961-91 and positive growth during 1991-2001.

Further, the Scheduled Caste population formed a high proportion in the Civil Area (35.74 per cent of the families), which reflected their regional character of high concentration. This attribute has been discussed in Chapter 5. It is further noted that the Civil Area offered very few economic opportunities for the group since the basic economic activity carried out from the Civil Area, i.e. retail trade and commerce has traditionally been dominated by the trading castes and other social groups placed high in the caste hierarchy. However, the Scheduled Caste community continued to work as service providers in a variety of roles in the military area as well as in the local municipal body (the Cantonment Board) and the adjoining city.
break in data. The discussion is based on an analysis of the spatial patterns which emerged at the mohalla level. An in-depth discussion on type of family has been given with respect to the spatial pattern of distribution of joint family since it formed a majority in the total number of families and was predominant in 33 out of 36 mohallas within the Civil Area. A separate map showing the spatial pattern of distribution of nuclear family has also been given for reference.

1. Distribution of Adult Population

The Civil Area comprised of 13158 adult persons in 2008. Their numbers varied considerably in different mohallas of the Civil Area, viz. 1462 persons in B1 Bazaar and 44 persons in Mohalla 19, which formed 11.11 per cent and 0.33 per cent of adult population respectively. The distribution of adult population was clearly marked along two elements, viz. physical and social. The physical element relates to the intensity of buildings and size of plots whereas the social element pertains to the caste affiliation of the resident population in individual mohallas. In general, a high proportion of adult population was found in mohallas which recorded higher intensity of residential buildings, small sized residential plots and largely inhabited by the low castes social groups and comprised the low class residential areas. Further, these were characterised by a higher proportion of nuclear families as compared to joint families.

Other factors such as the relative age of mohallas and predominant landuse were also associated with the distribution of adult population in the Civil Area. Some of the early settled mohallas which were predominantly residential recorded a high proportion of adult population. However, the usual spatial association between economy and society, i.e. place of work and residence resulting in higher population concentration in such mohallas is not typically found in some of the predominantly commercial and early settled mohallas of the Civil Area. Therefore, the aspect of early occupancy with high proportion of adult population can not be applied universally to the entire Civil Area because of inter-mohalla variations associated with their predominant landuses.

Spatial Pattern of Distribution of Adult Population

The spatial pattern of distribution of adult population within the Civil Area showed high and low proportions along the periphery. The proportion declined from southern periphery to the centre which emerged as an area of low proportion, and surrounded by
Jalandhar Cantonment (Civil Area)
Distribution of Adult Population (2008)

Sadar Bazaar

Per cent to total adult population

- Mohalla number
= Road/Street/Lane

Data by mohallas

Source: Computed from data in Voter's List, 2008

Map 3.1
Road 6 in the southern part of Sadar Bazaar. This area comprised one of the early occupancy parts of the Civil Area. The moderately high proportion of adult population was mostly associated with *mohallas* characterised by moderate residential intensity, medium to large sized plots, and the resettlement of displaced families in Muslim evacuee *mohallas* in southern parts. Further, *mohallas* with moderately high proportion of adult population cut across residential type and social groups (*Khatris*, trading castes and Scheduled Castes).

(iii) Areas of moderately low proportion of adult population (between 2.50 per cent and 2.00 per cent): This category comprised of nine *mohallas*, viz. Mohalla 28 (2.44 per cent), 23 (2.34 per cent), 13 (2.33 per cent), 12 (2.31 per cent), 7 (2.30 per cent), 5 (2.29 per cent), 4 (2.16 per cent), 20 (2.09 per cent) and 10 (2.08 per cent). About one fifth of the total adult population of the Civil Area (20.34 per cent) resided in these *mohallas* which are located diagonally opposite each other throughout the Sadar Bazaar (Map 3.1). Moderately low proportion of adult population was found in several upper middle class residential *mohallas* which were associated with a moderate residential intensity, medium to large sized plots, and concentration of high castes such as the Brahmins (Mohalla 10, 12), Khatris (Mohalla 23, 28) as well as middle order trading castes (Mohalla 5, 7, 13) and the Sikhs (Mohalla 28). Only Mohalla 20 was an exception, being a low class residential area with a dominance of Scheduled Castes.

(iv) Areas of low proportion of adult population (less than 2.00 per cent): This category comprised of the largest number of *mohallas* in any category, i.e. twelve *mohallas*. These included Mohalla 9 (1.99), 17 (1.99), 22 (1.96), 11 (1.92), 21 (1.82), 18 (1.76), 6 (1.50), 3 (0.98), Kumhar Mandi (0.93), Mohalla 1 (0.59), 2 (0.52) and 19 (0.33). Together these accounted for the lowest proportion of adult population, i.e. 16.29 per cent. Low proportion of adult population was found in two distinct clusters, one in the northern parts of Sadar Bazaar along Cross Road 1 and 2, and the second cluster in central parts along both the flanks of Cross Road 5 (Map 3.1). *Mohallas* of low proportion of adult population were characterised by low residential intensity and large sized plots, particularly in *mohallas* in the northern cluster. These were late occupancy areas which were largely residential and comprised a high concentration of joint families. On the other hand, the central pocket around Cross Road 5 comprised some of the earliest occupancy areas associated with commercial and residential-cum-commercial activity. The predominance of non-residential use in these *mohallas*
Jalandhar Cantonment (Civil Area)

Sex Ratio of Adult Population (2008)

Sadar Bazaar

Females per 1000 males

- Mohalla number
- Road/Street/Lane

1000 950 900 Average: 940

Source: Computed from data in Voter's List, 2008

Map 3.2
(ii) Areas of moderately high sex ratio (between 1000 and 950 females per thousand males)

(iii) Areas of moderately low sex ratio (between 950 and 900 females per thousand males)

(iv) Areas of low sex ratio (less than 900 females per thousand males)

(i) Areas of high sex ratio (more than 1000 females per thousand males): This category comprised of nine mohallas which recorded an excess of females. These include Mohalla 2 (1267), 19 (1200), 20 (1148), 1(1108), 4 (1029), 24 (1028), 3 (1016), 28 (1006) and 6 (1000). These mohallas formed two distinct clusters of contiguously located mohallas in the northern parts along Cross Road 1 and eastern parts along Ganga Road in Sadar Bazaar (Map 3.2). These mohallas comprised relatively low proportions of adult population. Their high sex ratio, particularly in mohallas of northern cluster was attributed to their predominantly residential character, above average proportion of old age group of 60 years and above (12.37 per cent), and joint family (60.50 per cent). The mohallas in the eastern cluster recorded a higher proportion of young age group of 18-34 years. The general association of a higher proportion of females among the elderly population in relation to joint family system, and therefore positively influencing sex ratio holds true in these mohallas. The positive association between joint family and sex ratio is expected since joint family facilitates outward movement of males as wife and children can be taken care of by the elderly as well as other members of the family.

(ii) Areas of moderately high sex ratio (between 1000 and 950 females per thousand males): This category included nine mohallas, viz. Mohalla 7 (993), 30 (988), 29 (985), 21 (983), 16 (983), 11 (977), 14 (971), 18 (966) and BI Bazaar (957). These formed small clusters comprising two contiguously located mohallas each in different parts of Sadar Bazaar. Isolated patches of moderately high sex ratio were also discernible (Map 3.2). The mohallas in this category comprised moderately high and low proportion of adult population. Moderately high sex ratios were recorded in mohallas with a predominance of residential use in the northern and southern parts, and residential-cum-commercial use in central parts along Patel Road. Factors associated with moderately high sex ratio were similar to those of the high sex ratio category, viz. a significant proportion (more than 55 per cent) of joint families in individual mohallas and nearly two-thirds of the adult population in the age group of 35 years and above.
proportion of females and males in the economically more active age group of 18-34 years, i.e. 45.72 per cent and 46.31 per cent respectively, and a low proportion of 12.37 per cent as the dependent population comprising the aged adults (60 years and above). Overall, the adult population was characterised by an overwhelming proportion (87.63 per cent) in the young and middle-age adults’ category comprising 18 to 59 years old. Thus, age structure of the Civil Area reflected a general pattern associated with other urban areas as well, i.e. a large base formed by the younger population and tapering off in the older age groups.3

Table 3.6

Jalandhar Cantonment (Civil Area): Number and Proportion of Adult Population in Different Age Groups (2008)

<table>
<thead>
<tr>
<th>Age Group (in years)</th>
<th>Adult Population</th>
<th>% Adults in Age Group</th>
<th>Age Group Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>18-34</td>
<td>6056</td>
<td>2915</td>
<td>3141</td>
</tr>
<tr>
<td>35-59</td>
<td>5474</td>
<td>2604</td>
<td>2870</td>
</tr>
<tr>
<td>60 &amp; Above</td>
<td>1628</td>
<td>857</td>
<td>771</td>
</tr>
<tr>
<td>Civil Area Total</td>
<td>13158</td>
<td>6376</td>
<td>6782</td>
</tr>
</tbody>
</table>

Source: Figures calculated from Voter’s List, 2008

Note: Civil Area comprises Sadar Bazaar which includes Mohalla 1 to 32 and OSM: Outside Mohalla; BIB: British Infantry Bazaar; RAB: Royal Artillery Bazaar; KM: Kumhar Mandi

Sex ratio refers to number of females per thousand males.

The Civil Area recorded highest number of adult persons (6056) in the young age group i.e. between 18 and 34 years who formed 46.03 per cent of the total adult population. Among the three age groups, their sex ratio of 928 female per thousand males was closest to the Civil Area average of 940 female per thousand males (Table 3.6). This age group recorded a high proportion in predominantly residential areas which were resettled by the displaced population after the Partition.

The age group of 35-59 years comprised the second largest group with 5474 persons and 41.60 per cent of the total adult population of the Civil Area. This age group is considered to be the mature adults’ age group whose distribution in the Civil Area was associated with location of economic activities in mohallas. Hence, they were characterised by more number of males as compared to females. Consequently, the sex ratio of this age group was the lowest among the three age groups, i.e. 907 females per thousand males (Table 3.6).

The lowest proportion of adult population, i.e. 12.37 per cent was recorded in the 60 years and above age group, and numbered only 1628 persons. Females in 60 years and above age category out-numbered their male counterparts in the Civil Area, viz. 857 females and 771 males, and was reflected in their sex ratio being 1112 female per 143
Jalandhar Cantonment (Civil Area)
Distribution of Adult Population (2008)
18-34 Years

Sadar Bazaar

Royal Artillery Bazaar

Kumhar Mandi

Concentration index

1.07
1.00
0.90

Source: Computed from data in Voter's List, 2008

Map 3.3
(ii) Areas of moderately high concentration (C.I. value between 1.07 and 1.00): This category included nine mohallas, viz. Mohalla 27 (1.05), 31 (1.05), 30 (1.03), 20 (1.03), 25 (1.02), 24 (1.02), 6 (1.01), 28 (1.01) and RA Bazaar (1.01). This category formed a distinct linear pattern of contiguously located mohallas along the southern and eastern periphery and isolated pockets in western and northern parts (Map 3.3). These mohallas recorded between 48.47 per cent and 46.42 per cent of their adult population in this age group, which was higher than the average proportion (46.03 per cent) for this age category. Several mohallas in this category were also characterised by above average proportion of nuclear families and a high proportion (upto 80 per cent) of low castes groups in low class residential areas. On the other hand, a significant proportion of high caste groups and upto two thirds of joint families were recorded in the high class residential mohallas (6 and 25), and lower middle class mohallas (27 and 28).

(iii) Areas of moderately low concentration (C.I. value between 1.00 and 0.90): Ten mohallas recorded a moderately low concentration of adults in 18-34 years age group. These included Mohalla 12 (0.99), 11 (0.99), 22 (0.98), 3 (0.98), 14 (0.97), 16 (0.96), 19 (0.94), 29 (0.92), 26 (0.91) and 4 (0.91). The proportion of adult population in this age group was below average and ranged between 45.72 per cent and 41.90 per cent in individual mohallas. This category formed small clusters comprising two or three contiguously located mohallas in the north eastern and central parts of Sadar Bazaar and isolated pockets in north and south along Patel Road (Map 3.3). These were associated with a predominance of joint families, except Mohalla 19 which recorded a higher proportion of nuclear families.

(iv) Areas of low concentration (C.I. value less than 0.90): This category included twelve mohallas, viz. Mohalla 5 (0.87), 13 (0.87), 9 (0.87), 2 (0.86), 18 (0.86), 23 (0.86), 10 (0.86), 7 (0.85), 17 (0.85), 1 (0.81), 15 (0.74) and 21 (0.73). Areas of low concentration of adult population formed a conspicuous linear pattern of contiguously located mohallas in the west along Hardayal Road comprising seven out of twelve mohallas (Map 3.3). The other mohallas formed isolated pockets adjoining moderately low concentration mohallas along Patel Road and Moolraj Road. Almost the entire northern and central parts together formed a zone of moderately low to low concentration of population in this age group. A low concentration of adults in these mohallas was attributed to a predominance of joint families and location of commercial activity particularly along Hardayal Road and Patel Road.
Jalandhar Cantonment (Civil Area)
Distribution of Adult Population (2008)
35-59 Years

Sadar Bazaar

Concentration index
- Mohalla number
- Road/Street/Lane

1.07
1.00
0.90

Data by mohallas

Source: Computed from data in Voter's List, 2008

Map 3.4
These *mohallas* together formed the highest proportion of adults in this age group, i.e. 32.51 per cent. The *mohallas* in this category adjoined those with high concentration of this age group and formed a distinct axial pattern along Patel Road in central parts and Ganga Road in eastern parts as well as small pockets along Hardayal Road in the west and (Map 3.4). This age group comprised between 44.73 per cent and 41.84 per cent of the adult population in *mohallas* comprising this category. These *mohallas* had a predominance of joint families and residential-cum-commercial use.

(iii) Areas of moderately low concentration (C.I. value between 1.00 and 0.90):
This category comprised eleven *mohallas*, viz. Mohalla 24 (0.99), 27 (0.98), 2 (0.98), 3 (0.98), RA Bazaar (0.97), 30 (0.97), Outside Mohalla (0.95), 6 (0.95), 12 (0.94), 25 (0.93) and 28 (0.93). Together these *mohallas* accounted for 32.79 per cent of the total adult population in 35-59 years category. Two small clusters appeared quite distinct in the northern and southern parts of Sadar Bazaar whereas the non-contiguous *mohallas* formed identifiable pockets in the west and east (Map 3.4). The *mohallas* recorded relatively low proportion (between 41.47 per cent and 38.94 per cent) of their adult population in 35-59 years age group. A moderately low concentration of this age group was attributed to a largely residential landuse in a majority of the *mohallas*; a predominance of residential-cum-commercial landuse in Mohalla 2, 6 and 25, and of commercial use in Outside Mohalla. Further, joint families formed a dominant proportion in all *mohallas* except Mohalla 27 and Outside Mohalla in which nuclear families were dominant. In addition, nuclear families formed above average proportion (39.50 per cent) in Mohalla 24 and 28.

(iv) Areas of low concentration (C.I. value less than 0.90):
Only five *mohallas* constituted this category, viz. Mohalla 32 (0.89), 19 (0.85), BI Bazaar (0.85), Mohalla 8 (0.84) and Kumhar Mandi (0.75). This category formed a dispersed pattern as none of these *mohallas* is spatially contiguous (Map 3.4). The low concentration of this age group was associated with a predominantly residential character of all these *mohallas* coupled with a fairly high (between 40 and 54 per cent) proportion of nuclear families in three out of five *mohallas*, viz. Mohalla 32, 19 and BI Bazaar. In the other two, viz. Kumhar Mandi and Mohalla 8, the proportion of joint families was very high, i.e. 85.00 per cent and 74.19 per cent respectively.
Jalandhar Cantonment (Civil Area)
Distribution of Adult Population (2008)
60 Years & Above

Sadar Bazaar

Royal Artillery Bazaar

Kumhar Mandi

Source: Computed from data in Voter's List, 2008

Map 3.5
(ii) Areas of moderately high concentration (C.I. value between 1.07 and 1.00):
This category comprised of only three mohallas, viz. Mohalla 4 (1.06), RA Bazaar (1.04) and Mohalla 30 (1.00). None of the mohallas are spatially contiguous (Map 3.5). These mohallas were characterised by a high to moderately high proportion of joint families and the Scheduled Castes and backward classes. A moderately high concentration of elderly population in RA Bazaar and Mohalla 30 was also associated with their early occupancy.

(iii) Areas of moderately low concentration (C.I. value between 1.00 and 0.90):
This category comprised seven mohallas which include Mohalla 9 (0.99), 24 (0.98), 8 (0.96), 16 (0.95), BI Bazaar (0.91), Mohalla 22 (0.90) and 13 (0.90). Together these mohallas accounted for nearly a quarter of the elderly population (24.69 per cent). Spatially, only two mohallas were contiguously located in the western part along Hardayal Road whereas the others formed isolated pockets in the eastern parts along Ganga Road (Map 3.5). The proportion of 60 years and above adults ranged between 11.83 per cent and 10.78 per cent in the mohallas constituting moderately low concentration category. Their low concentration in some of the early occupancy mohallas was related to a significant commercial and residential-cum-commercial use, particularly numerous retail shops being run by the younger adults.

(iv) Areas of low concentration (C.I. value less than 0.90):
Six mohallas which comprised this category include Mohalla 27 (0.85), 31 (0.81), 11 (0.79), 20 (0.67), Outside Mohalla (0.65) and 32 (0.65). This category formed a distinct cluster of contiguously located mohallas in the southern parts and isolated pockets in the eastern parts along Ganga Road (Map 3.5). The low concentration of adult population in these mohallas was associated with their resettlement by displaced population after the Partition and therefore, relatively low and below average proportions of joint families. Further, these mohallas are now dominated by the low castes groups, except Mohalla 11 and Mohalla 27 which have been traditionally associated with the trading community comprising the Banias, high castes like the Brahmins and the Khatris.

4. Type of Family
A total of 2595 families were identified in the Civil Area of Jalandhar Cantonment. Among these, 1570 families comprising 60.50 per cent of all the families were identified as living in joint families and the remaining 1025 (39.50 per cent) constituted
Jalandhar Cantonment (Civil Area)
Distribution of Joint Families (2008)

Sadar Bazaar

Concentration index

Source: Computed from data in Voter's List, 2008

Map 3.6
Jalandhar Cantonment (Civil Area)
Distribution of Nuclear Families (2008)

Sadar Bazaar

Concentration index

Data by mohallas

Source: Computed from data in Voter's List, 2008

Map 3.7
Spatial Pattern of Distribution of Joint Families

Four types of areas have been identified on the basis of concentration index values of joint families within the Civil Area (Map 3.6). These are:

(i) Areas of high concentration (C.I. value more than 1.10)
(ii) Areas of moderately high concentration (C.I. value between 1.10 and 1.00)
(iii) Areas of moderately low concentration (C.I. value between 1.00 and 0.90)
(iv) Areas of low concentration (C.I. value less than 0.90)

(i) Areas with high concentration of joint families (C.I. value more than 1.10):

Eight mohallas recorded a high concentration of joint families, namely Kumhar Mandi (1.39), Mohalla 2 (1.29), 1 (1.25), 8 (1.22), 22 (1.18), 18 (1.16), 6 (1.11) and 23 (1.10). The mohallas in this category together comprised only 14.14 per cent or 222 out of 1570 joint families within the Civil Area. However, all the mohallas recorded more than two thirds of their families living as a joint family, with the proportion ranging between 85.00 per cent and 67.19 per cent. The actual number of joint families varied between 46 in Mohalla 8 and 11 in Mohalla 2. This category formed two distinct clusters of contiguously located mohallas in northern and central parts of Sadar Bazaar. Mohalla 8 and Kumhar Mandi were the two isolated pockets (Map 3.6). The northern cluster was dominated by the Banias, whereas the other cluster had a mixed social composition including Banias, Khatris, Brahmins and Sikhs. Only Kumhar Mandi comprised the low caste group of Kumhars. A high concentration of joint families in a majority of the mohallas was attributed to above average proportion (12.37 per cent) and a high concentration of adult population in the age group of 60 years and above.

(ii) Areas with moderately high concentration of joint families (C.I. value between 1.10 and 1.00):

This category included thirteen mohallas, viz. Mohalla 30 (1.09), 4 (1.08), 21 (1.08), 13 (1.07), 10 (1.05), 12 (1.05), 15 (1.05), 14 (1.03), 25 (1.03), 3 (1.02), 7 (1.02), 16 (1.02) and RA Bazaar (1.02). More than a third of all the joint families in the Civil Area (i.e. 586 families) were living in the mohallas comprising this category. While all the mohallas recorded above average proportion of joint families (60.50 per cent), the specific values varied from 62.22 per cent to 66.39 per cent. The number of joint families varied between 100 in RA Bazaar and 15 in Mohalla 3. Moderately high concentration of joint families was recorded in mohallas adjoining those with high concentration, and formed conspicuous clusters in the northeast and
Summary

This chapter analysed the trends in growth of population, sex ratio, literacy, workforce and Scheduled Caste population of Jalandhar Cantonment as an entire urban settlement from 1961 to 2001, and the spatial pattern of socio-economic attributes of the adult population of its Civil Area in terms of distribution, sex ratio, age structure and type of family in 2008, which were analysed at the lowest morphological unit, i.e. a mohalla.

Broadly, the trends in socio-economic attributes of population of Jalandhar Cantonment were found to be at variance from general trends noted for cantonment towns in India in different decades during 1961-2001. These were governed by the movement of male population related to principal function of defence and intricately linked to the strategic importance of Jalandhar Cantonment in the northwest. Its population was marked by persistent decline ranging between -20.58 per cent and -1.09 per cent in intervening decades during 1971-91 and an overall decline by less than five per cent during 1961-2001. High positive growth of population of 27.99 per cent and 28.59 per cent were registered only in the base (1961) and terminal (2001) years respectively. The periods of decline coincided with decline in male population, mainly related to troop movements. Fluctuating trends in growth of population affected the other four socio-economic attributes of population; viz. sex ratio, proportion of literates, workers and Scheduled Castes. Its influence was discernible in the population size status of Jalandhar Cantonment which remained a Class III urban settlement during 1961-2001.

Sex ratio of Jalandhar Cantonment recorded a consistent upward trend from 543 females per thousand males to 1058 female per thousand males during 1961-91 and a decline to 699 females per thousand males in 2001. Broadly, the sex ratio revealed marked deficiency of females in 1961 and 2001, and an excess during intervening decades. Its overall improvement by 156 female per thousand males during 1961-2001 on account of high growth of female population reflected the emergence of Jalandhar Cantonment as an important family station in the northwest.

The proportion of total and male literates in Jalandhar Cantonment declined during 1961-71 and recorded a consistent increase thereafter, whereas the proportion of female literates increased consistently from 40.60 per cent to 73.91 per cent. Such a trend resulted in a narrowing of gap between male and female literacy rates. The proportion of total and male workers recorded continuous decline during 1961-91 associated with
INDIA
Cantonment Towns by Population Size Class (2001)

Map 2.7

Data by individual cantonments
Source: Census of India, 2001

Map 2.7
INDIA
Cantonment Towns
Growth of Population (1951-1961)

Source: Census of India, 1961

* - Cantonment declassified in 1951
** - Cantonment merged in adjoining municipal town in 1951

Data by individual cantonments

Source: Census of India, 1961

Map 2.8
India
Cantonment Towns
Literacy (1961)

Literates as per cent of total population
- 63.71
- 55.81
- Average: 55.52
- 51.47

Persons
- 100,000
- 40,000
- 10,000

Data by individual cantonments
Source: Census of India, 1961
Map 2.12
INDIA
Cantonment Towns
Male Literacy
(1961)

Male literates as per cent of total male population

- 73.86
- 68.26
- Average: 66.88
- 63.09

Persons

Data by individual cantonments

Source: Census of India, 1961

Map 2.13
INDIA
Cantonment Towns
Literacy (2001)

Data by individual cantonments
Source: Census of India, 2001
Map 2.15

Literates as per cent of total population
- 80.10
- 76.46
- 73.03
Average: 74.42

Persons
- 2,00,000
- 40,000
- 10,000
INDIA
Cantonment Towns
Male Literacy (2001)

Male literates as per cent of total male population
- 85.28
- 82.52
- 78.20
Average: 80.09

Persons
- 2,00,000
- 40,000
- 10,000

Source: Census of India, 2001
INDIA
Cantonment Towns
Female Literacy (2001)

Female literates as per cent of total female population

- 73.17
- 67.79
- 64.42
Average: 67.00

Persons
- 2,00,000
- 40,000
- 10,000

Data by individual cantonments
Source: Census of India, 2001

Map 2.17
INDIA Cantonment Towns Workers (2001)

Workers as per cent of total population

- 42.14
- 37.24
- 32.93
- Average: 36.30

Persons

- 2,00,000
- 40,000
- 10,000

Data by individual cantonments

Source: Census of India, 2001
Data by individual cantonments

Source: Census of India, 2001

Map 2.23

INDIA
Cantonment Towns
Female Workers (2001)

Female workers as per cent of total female population

- 11.40
- 8.67
- 6.71

Average: 9.52

Persons
- 2,00,000
- 40,000
- 10,000

Data by individual cantonments

Source: Census of India, 2001

Map 2.23
Data by individual cantonments

Source: Census of India, 2001

Map 2.25
The distribution of adult population by different age groups showed a dominance of younger population comprising the 18-34 years age group, which formed nearly half the total adult population of the Civil Area and was concentrated in southern, eastern and western parts. The adults in the age group of 35-59 years were found in high concentration in *mohallas* along commercial arteries in western and central parts; whereas 60 years and above age group was recorded in high concentration in almost the entire Civil Area. In totality, relatively older settled *mohallas* recorded high concentration of middle age and old age group population; and the resettled, new occupancy *mohallas* dominated by displaced population recorded higher concentration of young adults.

The joint family system was found to be highly prevalent and spatially pervasive as all the *mohallas* recorded more than fifty per cent of their families in a joint family system. These were associated with older settled *mohallas* in central parts as well as relatively later settled *mohallas* in the northern parts and were characterised by high social status groups including the *Brahmins*, trading castes and the Sikhs. Nuclear families were predominant in only three *mohallas* but were found in significant proportions in the resettled *mohallas* and those dominated by the Scheduled Castes and backward classes.

Given the strategic importance of Jalandhar Cantonment in the northwest region, its defence function will continue to influence its population attributes with varying degrees. The overall population characteristics of its Civil Area which emerged from the ensuing discussion is of a largely young adult’s population, comprising a very high proportion (74.83 per cent) and a high number of females (913 females per thousand males) in the reproductive age group and a high proportion of economically active male population. The joint family system so thoroughly entrenched in the socio-economic imperatives due to restrictions on subdivision of plots, is likely to remain an important institution whether out of choice or out of necessity.

References and Notes


6. The working population in Jalandhar Cantonment is dominated by persons engaged in ‘other services’ which has continued to record the highest proportion amongst all categories of workers. For purpose of comparability in occupational types across Census, figures for 1961 and 1991 were computed. These showed a very high proportion of the total workers of Jalandhar Cantonment engaged in ‘other service’, viz. 83.30 per cent in 1961 and 40.83 per cent in 1991. The proportion of workers in trade and commerce was the second highest (33.54 per cent), followed by manufacturing (15.46 per cent) and construction (3.56 per cent) in 1991. Overall, this reflects a sort of economic inertia of Jalandhar Cantonment. On the other hand, Jalandhar City recorded an almost similar proportion of workers in three categories in 1961, viz. other services (33.50 per cent), manufacturing (27.15 per cent) and construction (26.93 per cent). A relatively high proportion of workers in construction were related to the growth and building activity within the city in first two decades after Independence. Once other functions developed, this activity declined to 3.64 per cent in 1991. The economic vitality of the city was reflected in the emergence of trade and commerce (26.35 per cent), increase in manufacturing (30.38 per cent) as well as other services (26.59 per cent). In fact, growth of population of Jalandhar City has been known to be related to the growth of small-scale industrial units, commerce and other services. See Gosal, G.S. (1964): “Pattern of Population Growth in Punjab, 1951-61”, *Research Bulletin (N.S.) of the Panjab University*, Vol. 15, Parts I – II, pp. 51-68.

7. The age specific working force comprises population between 15-59 years, and is classified on five years interval up to age 29 years and on ten years interval thereafter as specified in Census of India, 1961. This age group is alternatively divided into two sub-groups (i) 15 to 34 years and (ii) 35 to 59 years. The former is also referred to as young adults and is considered economically more active. See Bose, A. et. al. eds. (1977): *Population Statistics in India*, Vikas Publishing House Pvt. Ltd., New Delhi, p. 163; Chandna, R.C. (2010), op. cit., p. 294.


9. Intensity of residential use refers to the number of structures used for residential purpose in the Civil Area. The average for the Civil Area of Jalandhar Cantonment in 2007 was 59 residential buildings per mohalla. High, medium and low intensity of residential buildings refers to more than 68 buildings, between 68 and 48 buildings and less than 48 buildings respectively. The average size of residential plot within the Civil Area was 84 square metres. Large, medium and small sized plots refer to more than 100 square metres, between 100 and 70 square metres and less than 70 square metres respectively. These have been described in detail in Section II of Chapter 4.

11. High concentration of population is usually related to early occupancy, a tendency to continue living in ancestral residences located near place of work, particularly among those associated with trade and commerce. This is true in the case of Rohtak city. A slightly different feature of distribution of population is found for example in Chamba. Mohallas which evolved at an early time were found to be associated with relatively low proportion of population as compared to the later developed mohallas in the outskirts of the town. The association between later developed mohallas and a large adult population is essentially due to availability of land for settlement, comparatively less rigid caste norms and easy access to migrant population from adjoining areas. The inhabitants usually belong to the lower social status groups. Such a feature has also been noted in the case of Calcutta. See Bose, N.K. (1968), ibid.; Berry, B.J.L. and P.H. Rees (1969), ibid., p. 491; Sharma, K.D. (1985): Urban Development in the Metropolitan Shadow: A Case Study from Haryana, Inter-India Publications, New Delhi, p. 20; Kumar, A. (1997), ibid., p. 129.

12. The commercial core houses largely young males, whereas the dominantly residential areas have more balanced sex ratios. See Berry, B.J.L. and P.H. Rees (1969), op. cit., p. 470; Sharma, K.D. (1985), op. cit., p. 35.

13. An inverse relationship between age group and the number of persons in that age group, i.e. large proportion in young age group and thinning of population in older age groups has been noted at individual town level, e.g. in Chamba. See Kumar, A. (1997), op. cit., p. 135.

14. The age structure of population finds a spatial reflection in the location of young families in areas on the periphery, which have lower land values and relatively new houses as compared to the relatively central areas located in proximity of the core of the town. Further, the young age group was found to be associated with nuclear families upon a break up of extended family bonds and mirrored in migration behaviours. This was the case in the walled city of Old Delhi wherein the age group of 20 to 40 year olds comprised a disproportionate share of migrants. See Berry, B.J.L. and P.H. Rees (1969), op. cit., p. 463; Krafft, T. (2003): “Contemporary Old Delhi: Transformation of an Historical Place”, in Ehlers, E. and T. Krafft Ed. Shahjahanabad / Old Delhi: Tradition and Colonial Change, Manohar Publishers and Distributors, New Delhi, pp. 93-119.

15. Joint families are a norm in traditional societies, especially due to economic factors to avoid division of both the house as well as land. Its prevalence can be judged from the type of

16. In Chamba, for example, nuclear families were found in high concentration in mohallas located in peripheral parts of the town, largely comprising low castes group as well as migrant population. Also some of the older parts of the town and inhabited by high caste Hindus were known to have higher concentration of nuclear families. On the other hand, the traditional association of joint family system with the trading castes was also found valid in the case of Chamba. See Kumar, A. (1997), op. cit., p. 152.