

STRUCTURE AND TRANSFORMATION OF THE LABOUR FORCE

Size, Growth, and Density of Population

Since 1949, the economy and people's living conditions have improved significantly although at a gradual pace. The population has grown rapidly, mainly because of a lower death rate, from 2,979,626 in 1950 to 6,208,944 in 1990 (see Table 2.1). The mean annual growth rate is 1.85 per cent. The proportion of the West Sichuan population to the provincial population has risen from 5.11 per cent in 1950 to 5.79 per cent in 1990. In general, the population, both in terms of the actual number and density, is greater in the south than in the north and similarly so in the east compared to the west. The population in the counties of Liangshan and Panzhihua, accordingly, exceeds 100,000; whereas in Ganzi and Aba it is less than 100,000 (see Table 2.2). Huili in Liangshan Prefecture has the highest population (382,000) and Derong in Ganzi, the lowest (14,668).

Age and Sex Breakdowns

At present, the detailed information by prefecture in the fourth census (1990) is not available to the public. So we are obliged to use the statistics from the third census (1982) and the one per cent sample survey of Sichuan from July 1, 1987, to analyse the age and sex breakdowns. In terms of population density, the highest is in Panzhihua (217/km²) and the lowest (3/km²) in Shiqu, Litang of Ganzi, and Hongyuan of Aba prefectures (See Figure 2.1 for details).

Age Breakdown

The age breakdown of West Sichuan is shown in Table 2.2. The table shows that the population below 14 years accounted for 38.59 per cent in 1982 and 33.70 per cent in 1987. The percentage of people over 60 years old was 6.53 per cent in 1982 and 6.50 per cent in 1987. The ratio of the old to the young is about 1:6. This indicates that the age balance in West Sichuan is in favour of the young although the percentage of older people is increasing.

The population between 15 to 64 years accounted for 57.29 per cent and 62.1 per cent in 1982 and 1987 respectively. The proportion of young persons within the age range is also large. So there is high pressure on employment because of the size of the young population. Meanwhile, the number of women of child-bearing age (from 15 to 49 years) was 1,293,429 in 1982, constituting 23.34 per cent of the total population. This shows that the population pressure will continue in the coming years because of high birth rates. Table 2.3 and Figure 2.2 indicate the considerable difference in the age structure between the industrial city and the backward rural region.

Figure 2.1: Population Density, 1985 (Persons / Km²)

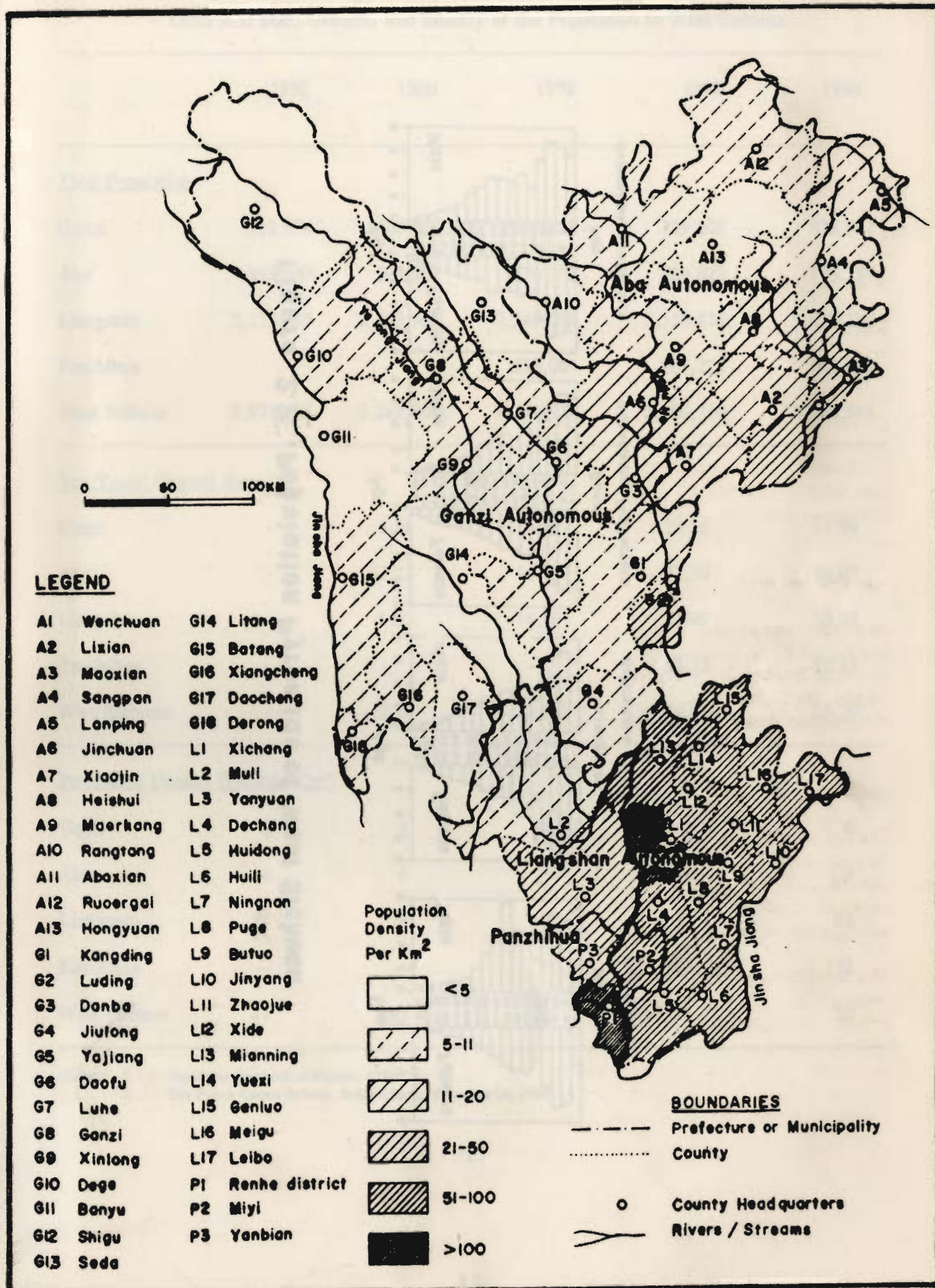


Figure 2.2: Population Pyramids of West Sichuan

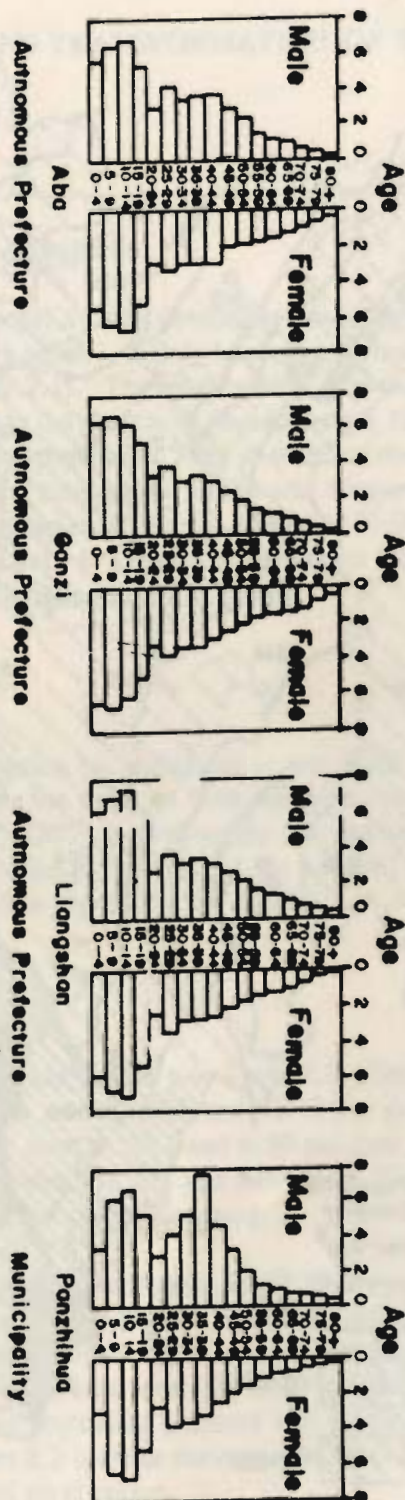


Table 2.1: Size, Growth, and Density of the Population in West Sichuan

	1950	1960	1970	1980	1990
<u>Total Population</u>					
Ganzi	512,934	546,541	600,218	739,803	828,531
Aba	353,053	502,301	576,303	704,823	775,780
Liangshan	2,113,639	2,233,965	2,549,013	3,134,933	3,656,536
Panzhihua	-	-	526,004	801,221	948,097
West Sichuan	2,979,626	3,282,807	4,251,538	5,380,780	6,208,944
<u>Ten Years' Growth Rate (%)</u>					
Ganzi	-	6.55	9.82	23.26	11.99
Aba	-	42.27	14.73	22.30	10.07
Liangshan	-	5.69	14.10	22.99	16.64
Panzhihua	-	-	-	52.32	18.33
West Sichuan	-	10.18	29.51	26.56	15.39
<u>Population Density (Persons/Km²)</u>					
Ganzi	3	4	4	5	6
Aba	4	6	7	9	9
Liangshan	35	37	42	52	61
Panzhihua	-	-	71	108	128
West Sichuan	11	11	14	18	20

Sources: 1. Population Yearbook of Sichuan, 1989.
 2. The Fourth Census Bulletin, *Sichuan Daily*, November 14, 1990.

Table 2.2: Age Breakdown in West Sichuan

(Unit: Per Cent of the Total Population)

	0-9		10-14		15-59		60-64		> 65	
	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987
Ganzi	25.54	21.7	12.40	13.2	55.12	56.8	2.82	3.1	4.72	5.1
Aba	24.07	21.3	13.13	13.8	55.45	58.0	2.76	2.1	4.59	4.8
Liangshan	26.07	24.2	14.51	13.8	52.90	55.2	2.40	2.3	4.12	4.4
Panzhihua	18.94	10.8	13.54	13.1	62.64	71.5	1.75	1.7	3.13	3.0
W. Sichuan	24.69	20.2	13.90	13.5	54.88	59.8	2.41	2.3	4.12	4.2

Sources: 1. The Third Census of Sichuan (1982), The Census Office of Sichuan, 1984.

2. The Sampling Survey of One Per Cent Population in Sichuan (1987). China Statistics Publishing House, 1988.

Table 2.3: Age and Sex Breakdowns in the Three Prefectures and Panzhihua Municipality

(Unit: Per Cent of the Total Population)

		0-9		10-14		15-59		60-64		>65		Total	
		1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987
Three Prefectures	Male	13.06	11.78	7.09	6.88	28.22	28.25	1.22	1.21	1.85	2.00	51.44	50.12
	Female	12.61	11.32	6.86	6.83	25.33	27.86	1.29	1.21	2.47	2.66	48.56	49.88
Panzhihua	Male	9.70	5.47	6.91	6.97	36.97	39.70	0.87	0.99	1.39	1.33	55.84	54.22
	Female	9.24	5.29	6.63	6.36	25.48	31.77	0.89	0.70	1.92	1.66	44.16	45.78

Sources: Same as in Table 2.2.

The young below 14 and the old above 60 are significantly lower in Panzhihua. Also the male labourers outnumber the female labourers by about 12 per cent, compared to 3 per cent in the rural areas.

Sex Breakdown

In the 37 years from 1950 to 1987, the highest proportion of men to women was 117:100 in 1966 (Table 2.4). At that time, a great number of male employees migrated to Panzhihua municipality because of the construction of Panzhihua Iron and Steel Company. The lowest proportion was 91:100 in 1950, because many male youths died during the war. From 1975 to 1987, the proportion of men to women had dropped gradually while the migration into Panzhihua had stabilised. We have already mentioned above the larger proportion of men in Panzhihua. Another important feature to note is the relatively higher proportion of males in Aba Prefecture because of the logging industry there (Table 2.5).

Urban and Rural Distribution of the Population

In the vast land of West Sichuan, there are only two cities, Panzhihua Municipality and Xichang City. Panzhihua is a new industrial and mining municipality which came into prominence because of the iron mine. It was formally promoted to the status of a municipality in 1965. In 1987, it had a population of 383,833 (non-agricultural I.D. holders). Xichang is the capital of Liangshan Prefecture. It is a small city with a population of 124,294 (non-agricultural I.D. holders). In addition, there are 66 towns in West Sichuan, and the total population in towns with non-agricultural I.D.s is 306,866.

Table 2.6 shows the change in the urban population in West Sichuan. In 1954, it was 159,254, making up 5.26 per cent of the total population. By 1987, this had reached 1,233,855, making up 21.14 per cent of the total population. The change from 1950 to 1987 can be divided into three stages. The first stage was the period from 1950 to 1960. It is a slow growth stage except for Aba. A large number of the population with non-agricultural I.D.s migrated to Aba Prefecture to engage in forestry and the urban population grew to 16.89 per cent of the total population in 1958. The second stage, from 1961 to 1975, was of an uncertain nature, caused by the economic fluctuation from 1962 onwards. Construction on a large scale in Panzhihua municipality since 1964 led to the transfer of a large population, which led to a rapid increase in the urban population. The third stage can be subdivided into two parts. The first, from 1975 to 1982, was the steady growth period; the second, from 1982 to 1987, was the rapid growth period. In the short five years' period, the city and town population rose from 16.05 per cent in 1982 to 21.14 per cent in 1987. There were two factors that contributed to this. One was the natural growth rate of the population, another was the change in administrative divisions. In the second case, although the urban population increased, the proportion of the population with non-agricultural I.D.s. decreased significantly.

The proportion of the urban population with non-agricultural I.D.s is 62.35 per cent in the cities and 37.65 per cent in the towns. This means that the urban population with non-agricultural I.D.s is mainly concentrated in Panzhihua and Xichang and is engaged in industry, commerce, and other urban off-farm economic activities. This also shows that the development of township enterprises is at a low level and the scale of off-farm employment in West Sichuan is still on a small scale.

Table 2.4: Sex Breakdown of the Population in West Sichuan

	1950	1954	1964	1966	1975	1982	1987
Percentage of Male Population	47.65	50.44	51.15	53.83	52.34	51.97	51.77
<u>Percentage of Female Population</u>	52.35	49.56	48.85	46.17	47.66	48.03	48.23
Male to Female Ratio (Female = 100)	91	102	105	117	110	108	107

Source: Population Yearbook of Sichuan, 1989.

Table 2.5: Proportion of Males to Females

(Unit: Females = 100)

	1953	1964	1982	1987
Panzhihua	-	104	128	119
Aba	98	115	112	108
Ganzi	-	96	102	102

Source: Population Yearbook of Sichuan, 1989.

Table 2.6: Structure and Change in the Urban Population

		1954	1957	1962	1964	1971	1975	1982	1985	1987
Ganzi	1	22,530	22,499	66,014	19,355	23,483	24,709	48,176	92,063	97,674
	2	4.22	4.27	13.26	3.79	3.84	3.69	6.30	11.70	12.22
	3	12,439	14,753	54,102	191,156	23,473	24,709	44,951	69,285	60,185
	4	55.21	65.57	81.96	98.97	99.96	100	93.31	75.26	61.62
Aba	1	32,877	75,756	76,945	37,654	51,377	58,206	76,486	96,188	101,135
	2	8.24	11.89	16.61	7.72	8.61	8.89	11.51	13.11	13.68
	3	19,057	61,371	66,871	30,260	48,482	56,755	73,817	79,164	81,709
	4	57.96	81.01	86.92	80.36	94.37	97.51	96.51	82.30	80.79
Liangshan	1	103,847	119,424	140,753	92,350	160,517	167,624	240,989	392,955	460,139
	2	4.95	5.45	7.23	4.51	6.11	5.75	7.40	11.74	13.39
	3	76,819	94,172	109,757	76,687	138,953	141,228	166,794	227,602	275,191
	4	73.97	78.86	77.98	83.04	86.57	84.25	69.21	57.92	59.81
Panzhihua	1	-	-	-	-	321,466	431,985	526,791	564,581	574,907
	2	-	-	-	-	56.56	60.84	64.76	66.49	66.50
	3	-	-	-	-	218,020	291,835	353,418	393,382	397,935
	4	-	-	-	-	67.85	67.56	61.09	69.68	69.23
West Sichuan	1	159,245	217,679	283,712	149,359	556,843	682,524	892,442	1,145,787	1,233,855
	2	5.26	6.87	9.18	4.61	12.64	13.79	16.05	20.04	21.14
	3	116,562	170,296	230,730	126,103	428,928	514,527	638,980	769,433	785,020
	4	69.45	78.24	81.33	84.44	77.03	75.39	71.60	67.15	63.62

Source: Population Yearbook of Sichuan, 1989.

- Note:
1. Urban population of the region.
 2. Percentage of the urban population compared to the total population.
 3. Urban population with non-agricultural I.Ds.
 4. Percentage of the urban population with non-agricultural I.Ds compared to the total urban population.

Structure of Labour Force and Employment

Occupational Structure

Here also we use the data of the third census (1982) and the one per cent sample survey of 1987. According to the occupational classification of China, the employed population can be classified into eight types: (a) professional staff and technicians, (b) officials in State organisations, party organisations, enterprises, and educational institutions, (c) office workers, (d) employees in commerce, (e) employees in the services' sector, (f) labourers in agriculture, (g) workers in manufacturing and transportation, and (h) others.

On July 1, 1987, according to the sample survey, the sample population in West Sichuan over 15 years of age was 24,364. Of these 19,598 people (80.44%) were employed. According to the 1982 Census, the employed population was 2,889,356 (see Table 2.7), making up 84.89 per cent of the total working population. The 1987 employment rate is thus lower by 4.45 per cent. Agricultural labourers constituted

the largest proportion of the employed population (74.25%) in 1987 and (77.08%) in 1982. If Panzhihua municipality is excluded, the proportion is even higher (90.40% and 83.75% respectively). The predominance of agriculture in the three prefectures is indicative of the difficulty in promoting off-farm employment. In Panzhihua, the high rate of 33.18 per cent of the workers engaged in manufacturing and transportation (compared to 2.78 per cent in the three prefectures) is characteristic of an industrial and mining area. The backward economy in West Sichuan is further reinforced by the relatively small proportion of the first rate categories of employment (10.16% in 1987). This is even lower in the three prefectures (4.81% in 1987). Panzhihua, with 25.40, is considerably better off from this perspective. Commerce and services in West Sichuan are also less developed. These sectors in Panzhihua occupied only 13.20 per cent in 1987, far lower than in other cities of the same scale.

Comparing the occupational structure in 1982 and 1987 (see Table 2.7), we found a puzzling phenomenon. In Panzhihua, the change in occupational structure conforms to the general trend of social and economic development. Accordingly, the proportion of labourers in tertiary activities is increasing, while in the primary sector it is decreasing. The change in the three prefectures is, however, reversed. The percentage of professional staff and technicians decreased from 4.63 per cent in 1982 to 2.28 per cent in 1987, while the percentage of agricultural labourers increased from 83.15 per cent in 1982 to 90.40 per cent in 1987. Three factors may be responsible for the change. The first important factor may be the difference in the statistical method. The data in 1982 was collected by census, and the data in 1987 was based on the 1 per cent sample survey. The second factor may be that many professional staff, technicians, and officials were transferred out of the three prefectures. The third factor may be that many rural youths who entered into the labour force could not find any off-farm jobs and had to return to farming activities.

Gender Implications

In West Sichuan, as shown in Table 2.8, women, more so than men, are largely concentrated in agricultural activities (85.14% in 1982 and 79.85% in 1987) and only peripherally in manufacturing and transportation (5.6% in 1982 and 5.63% in 1987). Comparing the position of men and women (Table 2.9), the only sectors where women have an edge over men are in commerce and services. Here the proportion of women's involvement has steadily increased from 1982 to 1987. In agriculture, the workers are almost equally divided. In the remaining occupations, men are predominant. The ratio among officials of State organisations, party organisations, and enterprises and institutions is in the range of 9:1; and among office workers, as well as workers in manufacturing and transportation, it is in the range of about 3:1.

Among professional staff and technicians, women and men were almost equal in proportion in 1987. This is an improvement from 1982 when the proportion of women was only 39.33 per cent compared to men. Many female college students were dispatched to the region and this contributed to the increase. This shows that, in China, the educational level achieved by women is really significant. On the contrary, the decrease in the proportion of officials in state organs and party organisations implies that it is necessary to improve the training and promotion of female cadres. It also reflects the fact that women's interest in participating in government and political affairs is weak and that their social position needs to be raised.

Comparing the women's employment position between 1982 and 1987, we found that in Panzhihua the change in the women's occupational structure is "positive". The rates of women employees in secondary

Table 2.7: Occupational Structure of the Employed Population in West Sichuan

Occupations	Three Prefectures				Panzhuhua				West Sichuan			
	Number		Per cent		Number		Per cent		Number		Per cent	
	1982 Census	1987	1982 (Sample Survey)	1987	1982 Census	1987	1982 (Sample Survey)	1987	1982 Census	1987	1982 (Sample Survey)	1987
Professional staff and technicians	112,002	331	4.63	2.28	37,506	672	7.98	13.20	149,508	1,003	5.17	5.12
Officials of State organisations, party organisa- tions, enterprises, and institutions	38,924	173	1.61	1.19	12,909	276	2.75	5.42	51,833	449	1.79	2.29
Office workers and employees	37,547	194	1.55	1.34	17,097	345	3.64	6.78	54,644	539	1.89	2.75
Employees in commerce	20,064	130	0.93	0.90	8,604	329	1.83	6.40	28,668	459	0.99	2.34
Employees in the services' sector	33,310	162	1.38	1.12	22,465	343	4.78	6.74	55,775	8,505	1.93	2.58
Agricultural labourers	2,011,474	12,115	83.15	90.40	215,775	1,436	45.88	28.21	2,227,229	14,551	77.08	74.25
Workers in manufacturing and transportation	164,627	403	6.80	2.78	154,868	1,689	32.93	33.18	319,395	2,092	11.05	10.67
Others	1,264	0	0.05	0	1,040	0	0.22	0	2,304	0	0.08	0
Total	2,419,112	14,508	100.00	100.00	470,264	5,090	100.00	100.00	2,889,356	19,598	100.00	100.00

Sources: 1. Census Office of Sichuan 1984.
2. China Statistics Publishing House 1988.

Table 2.8: Occupational Structure of the Employed Female Population

	Three Prefectures		Panzhihua		W. Sichuan	
	1982	1987	1982	1987	1982	1987
Professional staff and technicians	3.70	1.65	9.64	17.92	4.52	5.42
Officials in State organs, Party organisations, enterprises, and institutions	0.34	0.10	0.46	1.38	0.35	0.39
Office workers	0.74	0.82	2.37	5.13	0.97	1.81
Employees in commerce	1.01	1.13	2.94	11.03	1.28	3.49
Employees in services	1.35	1.00	6.33	11.41	2.05	3.41
Agricultural labourers	89.25	93.81	59.73	33.75	85.14	79.85
Workers in manufacturing and transportation	3.56	1.48	18.26	19.79	5.61	5.63
Others	0.05	0.00	0.27	0.00	0.08	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00

Sources: 1. Census Office of Sichuan 1984.
2. China Statistics Publishing House 1988.

and tertiary sectors increased, while the rate of women labourers in agriculture decreased from 59.73 per cent in 1982 to 33.75 per cent in 1987 (See Table 2.9). It should be noted that the rate of female professional staff and technicians to the total of employed females increased from 9.64 per cent in 1982 to 17.92 per cent in 1987 and the rate of female officials increased from 0.46 per cent to 1.38 per cent. This shows that in urban areas, women's social status has greatly improved. On the contrary, in the three prefectures, the change is "negative". The female labourers in agriculture increased from 89.25 per cent in 1982 to 93.81 per cent in 1987, while female professional staff and technicians decreased from 3.70 per cent to 1.65 per cent and female officials decreased from 0.34 per cent to 0.10 per cent. This shows the urgent need for promotion of female's off-farm opportunities and improvement of female education and social and economic conditions in backward rural areas.

Magnitude of Unemployment and Underemployment

According to the sample survey of 1987, the employed population was 80.44 per cent. In 1982, it was 84.89 per cent. The unemployed population is in the range of about half a million (see Table 2.10). Those engaged in housework constitute 48.29 per cent, nearly half of the unemployed population. School students and retired workers constitute 17.15 per cent and 4.82 per cent respectively. Labourers who

Table 2.9: Gender Differences in the Occupational Structure

	Three Prefectures				Panzhihua				West Sichuan			
	Male		Female		Male		Female		Male		Female	
	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987
Professional staff and technicians	63.08	65.56	36.92	34.44	53.47	43.96	46.53	56.04	60.67	51.65	39.33	48.95
Officials of State organs, Party organisations, enterprises, and institutions	90.30	96.53	9.70	3.47	93.59	89.49	6.41	10.51	91.11	92.20	8.89	7.80
Office workers	77.98	71.13	22.02	28.87	74.94	68.70	25.06	31.30	77.03	69.57	22.57	30.43
Employees in commerce	43.64	35.38	56.36	64.62	38.04	29.48	61.96	70.52	41.96	31.15	58.04	68.85
Employees in the service sectors	54.59	57.41	45.41	42.59	48.96	30.03	51.04	69.97	52.32	38.81	47.68	61.19
Agricultural labourers	50.36	50.26	49.64	49.74	49.90	50.56	50.10	49.44	50.32	50.29	49.68	49.71
Workers in manufacturing and transportation	75.80	74.69	24.20	25.31	78.65	75.84	21.35	24.16	77.18	75.62	22.82	24.38
Others	55.22	0	44.78	0	52.98	0	47.02	0	54.21	0	45.79	0

Sources: 1. Census Office of Sichuan 1984.
2. China Statistics Publishing House 1988.

Table 2.10: The Structure of the Unemployed Population

	Aba		Ganzi		Liangshan		Panzhihua		West Sichuan	
	1982 Census	1987 (Sample Survey)	1982 Census	1987 (Sample Survey)	1982 Census	1987 (Sample Survey)	1982 Census	1987 (Sample Survey)	1982 Census	1987 (Sample Survey)
Total	85,090	689	85,365	669	263,841	1,788	80,102	1,621	514,398	4,767
Students	17,248	130	11,477	87	39,315	372	20,202	622	88,242	1,211
Engaged in Housework	39,215	341	43,278	343	131,337	767	34,550	425	248,380	1,876
Waiting for entrance to high school	2,036	19	1,026	24	5,942	23	2,111	136	11,115	202
Waiting for State assignment	60	0	10	0	66	20	559	48	695	48
Urban unemployed	2,527	35	1,553	10	7,124	72	3,036	79	14,240	196
Retired	4,750	93	3,004	48	12,187	127	4,841	211	24,782	429
Others	19,254	121	25,017	157	67,870	427	14,803	100	126,944	805

Sources: 1. Census Office of Sichuan 1984.

2. China Statistics Publishing House 1988.

are absolutely unemployed are very few in both urban and rural areas. Most of the workers who are engaged in agriculture are, however, underemployed. The surplus labour force is estimated to be about one-third of the total rural labour force in West Sichuan. Based on the sample survey of 1987, there were 0.07 per cent of the total population waiting for employment.

Transformation of the Labour Force Structure

Here we emphasise the transformation processes from 1950 onwards from the point view of the rural labour force. The transformation is from cropping to other farming activities and secondly to rural off-farm activities. Another item of concern is the migration from the countryside to cities and towns.

From 1952 to 1962, the rural labourers were reduced from 96.82 per cent to 86.60 per cent (Table 2.11). Subsequently, from 1962 to 1988, the rural labour force structure in West Sichuan had undergone no substantive change. During the ten-year period of the cultural revolution, all channels of transfer were blocked. There was even a reverse flow of labour force whereby many cadres and intellectuals were transferred from the city or town to the countryside on political grounds.

Table 2.11: The Change in Rural Labour Force Structure in West Sichuan

Year	Total Social Labourers	Urban Labourers	Rural Labourers	Per Cent Rural Labourers
1952	1,190,164	38,812	1,151,352	96.74
1962	1,455,165	194,539	1,260,626	86.63
1970	1,872,850	291,534	1,581,316	84.43
1975	2,000,751	338,566	1,662,185	83.08
1980	2,187,904	419,905	1,767,999	80.81
1982	2,353,223	431,975	1,921,248	81.64
1985	2,518,673	438,158	2,080,515	82.60
1988	2,837,718	438,969	2,398,749	84.53

Note: (1) Social labourers are those engaged in a certain activity and who receive reward or income.

Source: Sichuan Nationalities Affairs' Commission and Sichuan Statistical Bureau 1988.

The percentage of rural labourers has more or less remained in the range of 80 to 86 per cent from 1962 to 1985. The agricultural economy is still primitive and manual labour has a dominant position. Agricultural labour productivity has not risen for a long time. Among the three prefectures, cropping has been dominant in Liangshan and, in Ganzi and Aba, cropping and animal husbandry occupy important positions.

Following the introduction of the Responsibility System in 1978, the percentage of agricultural labourers increased from 96.33 per cent to a maximum of 98.50 per cent in 1981. This was largely due to the incentives provided by the economic reform that encouraged farm households to get individual contracts and retain a large part of the benefits. Subsequently it went down to 96.46 per cent in 1984, indicating a saturation point that was reached. The other sectors have proportionately increased, albeit on a small scale. Some notable, though relatively small, changes can be observed in Table 2.12. The two sectors that have become prominent in this respect are transportation (from 0.1 % in 1980 to 0.58% in 1985) and commerce and services (from 0.04 per cent in 1980 to 0.51 per cent in 1985). There are indications that they are still increasing. The growth in industries and construction has also been on the rise, especially from 1983 onwards.

Table 2.12: Rural Labour Force Structure of West Sichuan

	1978	1980	1981	1982	1983	1984	1985
Total rural labour force	1,672,429	1,767,797	1,843,157	1,921,450	1,960,409	1,995,532	2,033,292
Per cent	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1. Agriculture	1,611,026	1,733,031	1,815,516	1,891,930	1,927,340	1,938,733	1,961,345
Per Cent	96.33	98.05	98.50	98.31	98.31	97.15	96.46
2. Township industries	19,410	17,745	14,345	12,498	10,524	13,046	18,414
Per Cent	1.16	1.00	0.78	0.65	0.54	0.65	0.91
3. Construction	5,056	2,498	864	1,865	2,122	3,476	6,847
Per Cent	0.30	0.14	0.05	0.10	0.11	0.17	0.34
4. Transportation and communication	3,537	1,746	1,641	2,394	3,958	7,988	11,812
Per Cent	0.21	0.10	0.09	0.12	0.20	0.40	0.58
5. Commerce and services	1,136	750	812	1,578	3,088	8,184	10,445
Per Cent	0.08	0.04	0.04	0.08	0.15	0.42	0.51
6. Education, health etc.	18,651	6,812	4,765	6,793	6,667	7,349	8,441
Per Cent	1.12	0.39	0.26	0.35	0.34	0.37	0.42
7. Scientific research	4	50	55	52	335	260	466
Per Cent	0.00	0.00	0.00	0.00	0.02	0.01	0.02
8. Social management	974	730	668	715	1,193	4,051	3,711
Per Cent	0.06	0.04	0.04	0.04	0.06	0.20	0.18
9. Temporary migrants	5,804	4,161	3,457	2,515	2,757	5,585	2,459
Per Cent	0.35	0.24	0.19	0.13	0.14	0.28	0.12
10. Other activities	6,831	1,521	1,079	1,110	2,425	6,760	9,352
Per Cent	0.41	0.09	0.06	0.06	0.12	0.34	0.46

Note: (1) Agriculture consists of farming, animal husbandry, forestry, sideline production, and fishery.
(2) Data from Panzhihua Municipality have not been included in the data.

Source: Sichuan Nationalities' Affairs' Commission and Sichuan Statistical Bureau 1988.

To conclude, the structural change of the labour force from 1950 to now can be divided into three stages. The first stage was from 1950 to 1957. At this stage, the structure of the rural labour force was basically steady, and the change from farming into non-farming activities was very slight. Nevertheless, quite a number of farmers flowed into the city or town because the government began industrial construction on a large scale and did not restrict the flow of population from countryside to city or town. At that time, the employees in industry mainly came from the rural areas.

The second stage was from 1958 to 1978. At this stage, the transformation in rural areas was seriously confined and the structure of the rural labour force was abnormally steady. Over 20 years, the rural labour force was concentrated in cropping activities which were dominated by grain production. The out-migration from the rural areas was seriously reduced. The net flow was into the rural areas from outside (see Table 2.13). In the initial stage from 1958 to 1960 (the "Great Leap Forward") there was a continuation of migration from rural to urban areas. This was subsequently reversed. The *Shang Shan Xia Xiang* movement (educated urban youth going to work in the countryside and in the mountain areas) from 1968 to 1977 was another important reason for the reverse migration.

The third stage is from 1980 to the present. Since the rural economic reforms in 1980, the structure of the social labour force in West Sichuan has conformed to the law of economic development as indicated directly by the development of township enterprises. The rural surplus labour force has begun to move again from rural into urban areas. The government has recently been trying to regulate the movement in accordance with the absorbing capability of urban areas. The "*Zi Li Kou Liang Ren Kou*" (population with non-agricultural I.Ds but without State rations of grain and edible oil) is an example of the regulatory mechanism.

Patterns of Rural Migration

The migration of the population from West Sichuan took place on a large scale and was directly affected by the social and economic conditions. During the period from 1956 to 1960 in Aba and Ganzi, there was a great number of immigrants, mainly due to forest exploitation. The net number of immigrants into Aba was 94,788 and into Ganzi 34,481 (see Table 2.11). In Liangshan, the net numbers of immigrants were still greater (up to 116,386). From 1961-1965, because of serious difficulties with the economy in Aba and Ganzi, there was a net emigration in the range of 40,468 from Aba and 10,919 from Ganzi. From 1966 to 1976, the immigrants exceeded the emigrants in West Sichuan. From 1976 to 1980, a great number of officials and cadres retired and moved out of the three prefectures to other relatively developed areas. From 1961 to 1985, in Panzhihua, there had been large-scale immigration because of the Panzhihua Project. The total net immigration during the period was 276,699. In 1986 and 1987 a large number of professional staff and technicians migrated out of Panzhihua to more developed regions. This accounts for the net emigration of 1,692. The process of migration at different stages is summarised in Table 2.14.

Typical Labour Demand Profile in Agriculture and Its Implications for Off-farm Activities

Farming activities are seasonal in nature. Planting and harvesting are extremely busy periods when a large number of labourers are required. Usually, the family's own labour force is not enough, so farmers have to exchange labour. At the same time, the employees in township enterprises generally come back to the countryside to help their family in the farmwork. During the slack season, only a small number of labourers is needed. Usually, the farm labourers have to go out to seek jobs. The seasonal change in labour affects off-farm activities and the nature of seasonal migration.

Table 2.13: Population Migration at Prefecture-Level in West Sichuan

	Aba			Ganzi			Liangshan			Panzhihua		
	In	Out	Net	In	Out	Net	In	Out	Net	In	Out	Net
1956-1960	172,358	77,570	94,788	91,401	56,920	34,481	444,303	327,917	116,386	-	-	-
1961-1965	133,727	174,195	-40,468	73,946	89,865	-10,919	556,285	535,960	535,960	20,325	65,671	28,247
1966-1970	24,064	23,035	3,029	19,075	16,131	2,844	24,418	162,083	82,335	145,426	57,280	88,146
1971-1975	100,121	94,332	5,789	65,488	59,864	5,624	351,825	358,481	-6,656	173,806	8,3074	90,832
1956-1980	35,672	103,996	-8,324	81,674	82,260	-586	367,957	379,343	-11,386	118,634	72,247	46,387
1981-1985	101,808	119,035	-17,227	91,792	9,0792	862	391,821	373,510	18,311	87,147	6,4060	23,087
1986-1987	30,576	43,032	-12,456	36,646	37,482	-836	136,778	131,805	4,973	33,074	-34,766	1,692

Source: Population Yearbook of Sichuan 1989.

Table 2.14: Migration Pattern from Rural to Urban Areas in West Sichuan

Migration Type	:	Not Applicable	Rural to Rural	Seasonal	Commuter	Semi-permanent	Permanent
Occupational Status	:	Farming job farmer	Multiple job farmer	Multiple Gong*	<i>Nong Min Gong</i>	<i>Nong Min Fei</i>	<i>Nong Zhuan</i>
Occupational Activity	:	Agriculture and rural off-farm sector	Agriculture and off-farm sector	Urban off-farm sector	Urban off-farm sector	Urban off-farm sector	Urban
Grain Supply	:	From contracted land	From contracted land	From contracted land	From contracted land higher price	From state supply at government price	From State ration at government price
Residential Status	:	Rural resident with agricultural I.D.	Rural resident with agricultural I.D.	Rural resident with agricultural I.D.	Rural resident with agricultural I.D.	<i>Zhi Li Kou Liang Ren Kou</i>	urban resident
Working Place	:	country-side	country-side or town	country-side, city	city or town	city or town	city or town
House Status	:	self built or bought	self built or bought	self built or bought	self built or bought	self built or bought units	Allocated by concerned
Implications of Migration	:	- <i>Bu Li Tu Bu Li Xiang</i>	<i>Li Tu Bu Li Xiang</i>	<i>Li Tu Bu Li Xiang</i>	<i>Li Tu You Li Xiang</i>	<i>Li Tu You Li Xiang</i>	

Glossary :

Nong Min Gong: All workers with agricultural I.Ds.

Nong Zhuan Fei: Agricultural I.D. holders converted to non-agricultural I.D. holders.

Zhi Li Kou Liang Ren Kou: Farmers who retain their land in the countryside, work in the city or town, and do not receive a State ration of grains and edible oil.

Bu Li Tu Bu Li Xiang: Farmers who do not leave the land, get employment in the rural area, and reside in the rural area.

Li Tu Bu Li Xiang: Farmers who leave the land and get employment in the urban area but reside still in the rural area.

Li Tu You Li Xiang: Farmers who leave the land, get employment in the urban area, and live in the urban area.

* *Gong*: a day's work

Table 2.15 is an example of labour demand in Bingli Village, Wechuan County, Aba Prefecture. Horticulture is an important component of the farming system here. Two busy farming seasons are apparent every year. One is the "spring sowing season" and another is the "winter harvesting season". Spring sowing season is in April. The main activity at this time is to plant maize and soybean which are both staple crops. Winter harvesting season is from the tenth of September to the tenth of October. The main activity during this period is to pick and sell apples and to harvest maize. The winter harvesting season is relatively more busy. Almost all households have inadequate labour. Consequently, exchange of labour becomes popular among farm households. What is important to note in Table 2.15 is that the farm household fits in other activities when it is not busy with its "principal tasks". Animal husbandry, forestry, and mining are thus integrated into their annual schedule. From this point of view, as long as agriculture remains the primary source of subsistence, it is essential to identify the best mechanisms to intervene during the "slack seasons" if off-farm opportunities are to be promoted.

Demographic Prognosis

From 1950 to 1990, the average annual growth rate in West Sichuan was 1.85 per cent. This is relatively more rapid than in other parts of China. The main reason for this is the predominance of minority nationalities in West Sichuan, except in Panzhihua. The family planning policy is not as strict for minority nationalities as for the *Han* people. Child-bearing starts at a younger age and the fertility rate is high. As shown in Table 2.16, the number of families with more than three children is very large. The more recent growth rate of the population is 1.63 per cent in Liangshan, 1.54 per cent in Aba, and 1.10 per cent in Ganzi, which are all higher than the average for Sichuan (see Table 2.2). The rapid growth in population has been exerting tremendous pressure on the natural resources, especially on land resources. The cultivated land per capita in the three prefectures has decreased from 0.14 ha in 1950 to 0.10 ha in 1987 and the land per labourer has decreased from 0.43 ha in 1960 to 0.22 ha in 1987.

Table 2.15: Seasonal Agricultural Labour Demand in Bingli Village, Wenchuan County

Month	Cropping	Horticulture	Animal Husbandry	Forestry	Main O.F.A.
Jan.	Preparing land, field management, wheat planting	Preparing land, manuring, controlling diseases & pests	Buying newborn pigs	Guarding forest	Making ditches for fruit trees
Feb.	same as Jan.	Pruning, watering	Feeding	Same as Jan.	Spring festival
Mar.	Purchase of maize seed, manuring, preparing soil, potato planting	Spraying lime	Same as Feb.	Planting	Mining
Apr.	Manuring, planting maize and beans	Maintaining ditches, controlling diseases and pests	Same as Feb.	Same as March.	-
May	Weeding in maize land, manuring, sowing spring buckwheat	Pruning, controlling diseases and pests	Same as Feb.	Guarding forest	Mining
Jun.	Field management of maize and bean	Same as May	Cutting grass for live-stock, cattle grazing	Guarding forest	Mining
Jul.	Gathering potatoes, second weeding in maize, manuring, sowing fall buckwheat	Guarding orchards	Same as June.	Guarding forest	Mining
Aug.	Harvesting beans and spring buckwheat	Guarding orchards	Same as June.	Guarding forest	Mining
Sep.	Harvesting and storing spring buckwheat	Guarding orchards	Same as June.	Guarding forest	Mining
Oct.	Harvesting and storing maize, soybeans, and fall buckwheat, sowing wheat, manuring	Picking and selling apples and Chinese prickly ash, management of orchards	Feeding	Guarding forest	-
Nov.	Preparing land	Same as Oct.	Feeding	Guarding forest	Mining
Dec.	Slack season	Slack season	Slaughtering for pork	Guarding forest	-

Table 2.16: Number of Children Among *Zhang* and *Yi* Families in West Sichuan (1987)

Unit: Per Cent

Minority nationality	One-child families	Two-children families	Families with three children or more
<i>Zhang</i>	39.7	29.6	30.7
<i>Yi</i>	20.4	20.2	59.4