

Gender Gaps in China: Facts and Figures

October 2006

Executive Summary

Based on the data taken from the 1982, 1990 and 2000 Population Censuses, the report examines from a quantitative perspective gender gaps in China in terms of sex ratio at birth, education, employment, infant mortality rate and average life expectancy as well as their long-term trends of changes in the past 20 years.

The main findings are as follows:

1. Since early 1980s, China's sex ration at birth has deviated from the normal range, taking on continuing, increasing and widespread elevations.
2. In the field of education, wherever in urban or rural, in regions with more developed or less developed economy, or in areas where the Han ethnic group is concentrated or the ethnic minority groups, education level of China's population has been rising. Although gaps still exist between male and female in terms of indicators such as illiteracy rate, years of school attainment, enrollment rate or dropout rate, the gender gaps have been closing and already diminished to relatively small extent.

Meanwhile, however, gender inequalities are significant at both ends of the education level. Female illiteracy rates are markedly higher than the male ones, and gender gaps in terms of illiteracy rate are bigger than rural-urban gaps. In regard to attainment of high-level education, women are disadvantaged.

Lower-income and poverty-stricken areas are at a pronounced disadvantage with regard to shortages of talent.

3. China has experienced high employment rates for both female and male labor force. The past 20 years have seen changes in terms of sectoral and occupational structures for China's female and male labor force.
The employment rates for both male and female working force are both high in China. In the past 20 years, there have been changes in both the sectoral and occupational structures of male and female working force. Since 1990s, unemployment rate for the working age population had climbed up considerably with the female unemployment rate being higher than the male rate. In urban areas, women leave their former jobs five years earlier than men do, and they also leave faster than men do. Women are at a disadvantaged status in terms of employment.
4. Average life expectancy in China has been increasing. In the past 20 years, China has seen a clear drop in the infant mortality rates. However, in both rural and urban areas, there is an abnormal phenomenon of higher female infant mortality than male infant mortality, which seems to exist in most regions of the country. There is little optimism regarding survival chances for female infants. The average life expectancy in poverty-stricken areas is lower than the national average and their IMR is obviously higher than the national average.

Chapter One Introduction

1. Definition

Gender gaps refer to differences or inequalities between men and women, based on factors such as social and cultural factors.

2. Research Methods

Based data taken from China's population censuses, this report examines in a quantitative manner gender gaps on the Chinese mainland in terms of sex ratio at birth, education, employment, infant mortality rate and average life expectancy at birth as well as their long-term trends of changes in the past 20 years.

According to the needs of the research, analyses for each of the sections are conducted from the perspectives of nationwide, by rural-urban areas, by provinces, three provinces with the highest average per capita GDP (highest-income provinces, or HIPs) and three provinces with the lowest figure (lowest-income provinces or LIPs), six minority-group-concentrated areas, 50 highest-GDP counties (highest-income counties, or HICs) and 50 lowest-GDP counties (lowest-income counties or LICs) as well as 592 poverty-stricken counties (PSCs).

3. Data Sources

All data in this report is official data provided by the National Bureau of Statistics (NBS) of China, especially that of the population censuses conducted respectively in 1982, 1990 and 2000. Some of the data is cited from the findings of scholars.

Some indicators may be disputable, but because there lacks more authoritative and reliable data the report is still based on these reported official figures.

Chapter Two Gender Gaps: Sex Ratio at Birth

Sex ratio at birth (SRB) shows the number of boy infants compared to girl infants who are born within a given period, usually represented by the number of boys per 100 girl infants. A ratio standing between 103 and 107 is considered normal. When SRB deviates from the normal range, it indicates a preference of male (or female) infants and the neglect of the other gender in society. An analysis of the statistics on SRB in China in selected years shows:

- 1) Before the 1980s, SRB remained within the normal range in China (See Table 1).
- 2) Since early 1980s, China's SRB has deviated from the normal range, the elevation of which has been constant, increasing and widespread. Specific manifestations are:
 - i) After 1982, SRB has exceeded the normal range of 103-107 (Table 1 and Figure 1);
 - ii) Since 1982, SRB has not only remained at a high range, but also experienced constant elevations. For nearly 20 years, the ratio has climbed increasingly higher, rather than showing occasional increases in some years;
 - iii) By the year 2000, it had already reached close to 120;
 - iv) Instead of being local, elevation in SRB has been widespread in the bulk of regions in China. According to the results of the 1982 Population Census, higher SRBs are seen in 18 provinces, but none of which has exceeded 115; according to data obtained from the long version of the 2000 Population Census, only the four regions of Tibet, Qinghai, Guizhou and Xinjiang had SRBs lower than 107, while more than 11 regions had SRBs higher than 120 with Jiangxi Province being highest at over 138 (Table 2).

Table 1: China's Sex Ratio at Birth in Selected Years

Year	SRB	Year	SRB
1953	104.9	1990	114.7
1964	106.6	1991	116.1
1970	105.9	1992	114.2
1979	105.8	1993	114.1
1982	107.2	1995	117.4
1987	111.0	1997	120.4
1989	111.3	2000	119.9

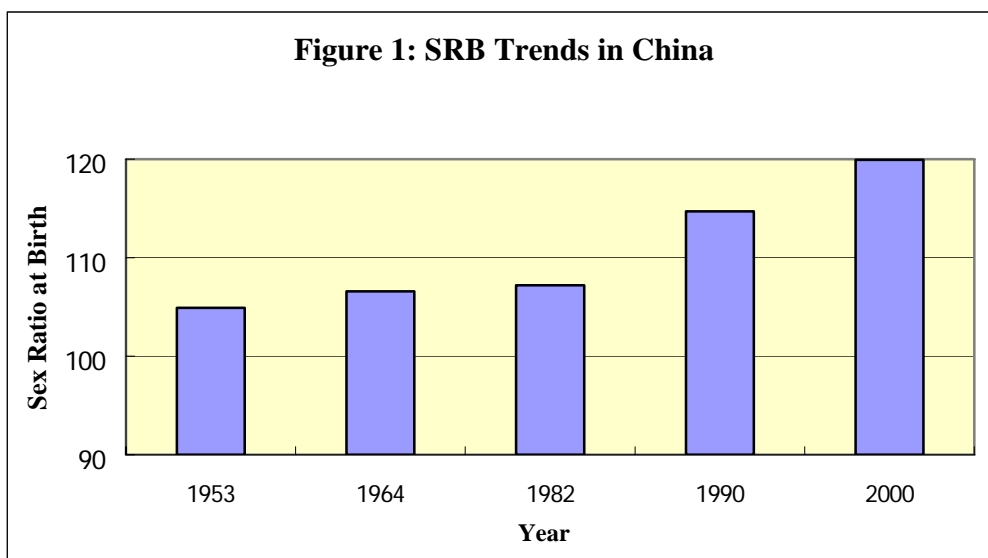
Data sources: calculated by using data taken from the population censuses, sampling surveys on 1% population, and annual sampling surveys on population change.

- 3) In terms of births of children, the birth rate for the first child is basically normal. However, with birth increases birth rates rise. Based on the long-version data of the 2000 Population Census, SRB for the first child is 107.1 and SRBs for the second and third children and more reach as high as 151.9 and 159.4 respectively. The 1990 and 1982 Population Censuses also show the trends of rising SRBs with the number of births.

SRB relates not only to the number of births but also to the sexes of children. Where the born child is a girl, sex ratio for the second child is remarkably higher. According to the 2000 Population Census, sex ratio for the second child while the first child is a girl reaches as high as 191.3 and while the first child is a boy the rate is only 103.9 (You Yunzhong, etc., 2004).

- 4) An examination by rural and urban areas¹ shows that cities, urban towns and rural areas have all consistently demonstrated the trends of increasing SRBs (See Table 3).

The data in Table 3 also reveals that, although the problem is more prominent in rural areas and urban towns, an imbalance in SRB has also been encountered in cities in recent years.



Data sources: Calculated by using data taken from previous population censuses.

- 5) Both high-income and low-income provinces have got consistently higher SRBs. According to the average per capita GDP ranking, the three HIPs are Shanghai, Beijing and Tianjin, and

¹ In many cases, it is both important and essential to make a comparison between urban and rural areas. China has taken different approaches towards disaggregating rural and urban areas during the past three population censuses. The demographic scope for urban areas in the 1982 Population Census was: all population within the jurisdiction of cities and urban towns. The demographic scope for urban areas in the 1990 Population Census was: district population of those cities with districts, neighborhood population of cities without districts, Resident Committee population of urban towns and towns of counties under the jurisdiction of cities without districts. The demographic scope for urban areas in the 2000 Population Census was: (i) all population of administrative areas under the jurisdiction of districts with the population density of over 1,500/km²; (ii) all population of cities with or without districts with the population density of below 1,500/km² and of township-level areas where the district or township government is located; all population of extended township-level areas as a result of development of urban areas where the city or district government is located; all population of areas within the neighborhood office under the jurisdiction of districts or cities; (iii) all population of districts with the population density of below 1,500/km² under the jurisdiction of a city, of other towns under the jurisdiction of a city without districts, as well as of villages where the town government is located; all population of extended villages as a result of development of areas where the town government is located; all population of other resident committees under the jurisdiction of towns; (iv) all population of towns under the jurisdiction of a county and villages where the town government is located; all population of extended villages as a result of development of areas where the town government is located; all population of other resident committees under the jurisdiction of a town.

Of the total population, those with the exception of city and urban population are rural population.

the three LIPs are Guizhou, Gansu and Guangxi. Table 2 shows that, among the above six provinces, with the exception of Guizhou which has a rather normal SRB (105.4), SRBs for the rest five provinces are obviously higher with the most developed regions of Shanghai, Beijing and Tianjin reaching 115.5, 114.5 and 113.0 respectively and lower-income provinces of Gansu and Guangxi reaching 119.4 and 128.8. The mean values of SRBs for the three HIPs and three LIPs are 114.4 and 117.8 respectively, which are clearly higher than the normal range. However, from the data disaggregated by provinces, the higher SRB has no direct correlation with levels of economic development.

- 6) In minority nationality concentrated areas, the SRBs are relatively normal. Xizang, Xinjiang, Inner Mongolia, Guangxi and Ningxia are the six provinces of China where ethnic minority populations are concentrated (To save space the report refers these provinces as six ethnic minority concentrated areas), whose average SRB was 110.0, which is slightly higher than the norm. Disaggregated by province, except for an obviously abnormal ratio in Guangxi (128.80) and a relatively abnormal ratio in Yunnan (110.57), all the other four minority nationality provinces have SRBs which are normal.

Although the SRB levels in ethnic minority areas have not reached those of the Han's, they demonstrate ever rising trends. Furthermore, great differences in SRBs exist with different minority nationalities. Research indicates that, among China's 36 largest minority nationalities, those which have SRBs exceeding 120 include Zhuang, Dong, Yao, Tujia, Tu and Shui, etc. Some of these nationalities have higher population growth and others have lower growth, indicating that imbalanced SRBs are not fully related to the birth control policy (H. Luo and S. D. Bao, 2005).

Table 2: China's Sex Ratio at Birth by Province, 2000 Population Census

Province	SRB	Province	SRB
Beijing	114.58	Heilongjiang	107.52
Tianjin	112.97	Shanghai	115.51
Hebei	118.46	Jiangsu	120.19
Shanxi	112.75	Anhui	130.76
Inner Mongolia	108.48	Zhejiang	113.11
Liaoning	112.17	Fujian	120.26
Jilin	109.87	Jiangxi	138.01
Shandong	113.49	Chongqing	115.80
Henan	130.30	Sichuan	116.37
Hubei	128.02	Yunnan	110.57
Hunan	126.92	Guizhou	105.37
Guangdong	137.76	Tibet	97.43
Guangxi	128.80	Shaanxi	125.15
Hainan	135.04	Gansu	119.35
Qinghai	103.52	Ningxia	107.99
Xinjiang	106.65		

Mean value for 3 HIPs (HIPs): 114.4
 Mean value for 3 LIPs (LIPs): 117.8
 Mean value for 6 ethnic-minority-group-concentrated areas (EMAs): 110.0
 Mean value for 592 PSCs (PSCs): 114.66
 Mean value for 50 HICs: 111.29
 Mean value for 50 LICs: 111.74

Data sources: provincial data taken from: Population Census Office under the State Council, 2002: 1681; county data calculated using data by county gathered by NBS.

Table 3: Sex Ratio at Birth by Rural-Urban Areas in China (1999 and 2000)

Year	City	Urban Town	Rural
1990 Census	110.4	113.5	114.4
2000 Census	114.2	119.9	121.7

Data sources: Calculated by using data obtained from 1990 and 2000 population censuses.

7) SRBs in poverty-stricken areas are considerably higher than the normal range.

The Chinese Government is highly committed to poverty reduction. In order to improve the assistance given to poverty-stricken areas in the struggle to eliminate poverty, the Chinese government developed for the first time a list of PSCs as priorities for assistance in 1986. The counties included in this list were provided with favorable assistance in terms of funds, projects and policies. The list has been adjusted when necessary. A total of 592 key PSCs appear on the latest list of those being targeted for state assistance.

According to data obtained from the 2000 Population Census, the mean SRB for these 592 counties was 114.7, which obviously falls outside the normal range, but is still below the national average (120).

8) The mean SRBs for 50 HICs and 50 LICs both exceed the normal range.

Via the county specific data from the 2000 Rural Socioeconomic Survey provided by the General Rural Survey Team of NBS, the 50 HICs and 50 LICs are generated².

As shown in Table 2 and according to the data of the 2000 Population Census, the mean SRB for 50 HICs was 111.3 and that for 50 LICs, 111.7. The two ratios are close and both are significantly in excess of the normal range, but below the national average (119.9). Similar to the results of province-specific data, the county-specific data also reveal that there is no linear correlation between SRB and economic development levels.

9) Various available demographic data show that China's SRB has demonstrated a rising trend after the 1980s. However, considering the underreporting of children in the data sources, there

² 50 HIC and 50 LIC are defined by GDP per capita of 2000. 50 HIC includes some counties from Western China, such as Kuerle, Shanshan and Geermu.

have been debates among Chinese and foreign scholars regarding the seriousness of China's imbalanced SRBs.

Recently, according to the analysis by scholars of the data taken from the 1997 "National Sampling Survey Materials on Population and Reproductive Health", prenatal sex identification and sex selective abortions are the main reasons of rising SRBs (Qiao Xiaochun, 2002; Chen Wei, 2005; Pang Lihua and Zheng Xiaoying, 2006).

Data from the 2001 "National Survey on Family Planning/Reproductive Health" also reveals that, SRB for the first child is basically normal (107.3), but the SRB for second child after sex selective abortions for the first child has reached a high of 120.1 and the SRB for child after a girl is borne and sex selective abortions have chosen reached a high of 195.7 (Pang Lihua, Zheng Xiaoying, 2006).

Some scholars agreed that underreporting female infants is an important reason leading to imbalanced SRBs (You Yunzhong, et. al, 2005); others also pointed out that higher SRBs are the consequences of interaction between "real increase" and "virtual increase" (Qiao Xiaochun, 1992).

Chapter Three Gender Gaps: Education

In a civilized society, education has important implications for people's career development, economic conditions and social status.

This report will examine inequalities between men and women in the field of education and their changes in the past 20 years through the indicators such as adult illiteracy rate, composition of educational attainments of population aged six and over, average years of education, enrollment rate and dropout rate.

3.1 Adult Illiteracy Rate

Eliminating illiteracy is both the important target and precondition of modernization. First of all, we are going to examine the differences between males and females in terms of adult illiteracy rate and their changes. The adult illiteracy rate is the percentage of illiterates and semi-illiterates in a population aged 15 years and over.

Table 4 and Figures 2 and 3 present gender differences in terms of adult illiteracy rates disaggregated by rural and urban areas, by gender and by age in the selected years of 1982, 1990 and 2000. The table and figures indicate:

- 1) The adult illiteracy rate dropped considerably among people aged fifteen and over throughout the nation between 1982 and 2000, which fell from 34% in 1982 to 9% in 2000³.
- 2) From a gender-specific perspective, during the same period, there were synchronous decreases in both the male and female adult illiteracy rates. The rate for male adults declined from 21% in 1982 to 5% in 2000, and the rate for women from 49% in 1982 to 13% in 2000 with the female rate dropping faster than the male rate.

**Table 4: Male and Female Adult Illiteracy Rates in Rural and Urban China
(%, Selected Years)**

Year	1982	1990	2000
National Total	34.49	22.21	8.80
Male Nationwide	20.78	12.98	4.66
Female Nationwide	48.88	31.93	13.11
Urban Total	17.75	11.97	5.22

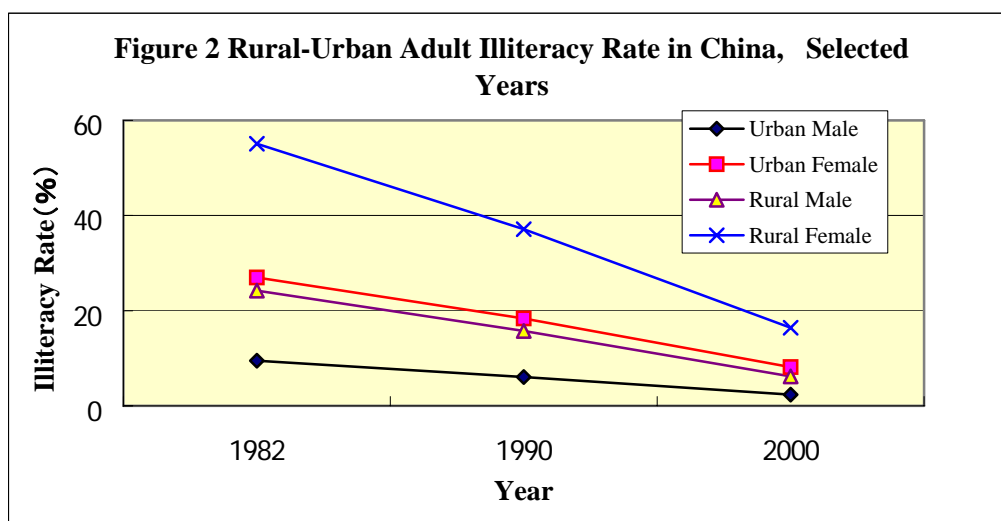
³ It is necessary to point out that there have been changes in data collection methods for China's population censuses. The changes may not alter the declining trend in illiteracy rates in general, but they are likely to affect the extent to which the rate drops. For example, in the 1990 Population Census, there was no separate information on "literacy". In the item of educational level, the level below primary education was listed as "illiterate or can read only a few words". But in the 2000 Population Census, separate information on "literacy" was collected (the option were Yes or No). A situation may thus arise: a "semi-literate" person was registered as "illiterate or can read only a few words" in the 1990 Population Census and became an illiterate while the same person may be registered as literate and thus became a non-illiterate. As a result, the illiteracy rate obtained according the information collection methods used in the 2000 Population Census may be slightly lower than that obtained by using the 1990 Census methods.

Urban Male	9.47	6.08	2.38
Urban Female	26.96	18.36	8.17
Rural Total	39.42	26.23	11.19
Rural Male	24.23	15.74	6.18
Rural Female	55.09	37.11	16.43

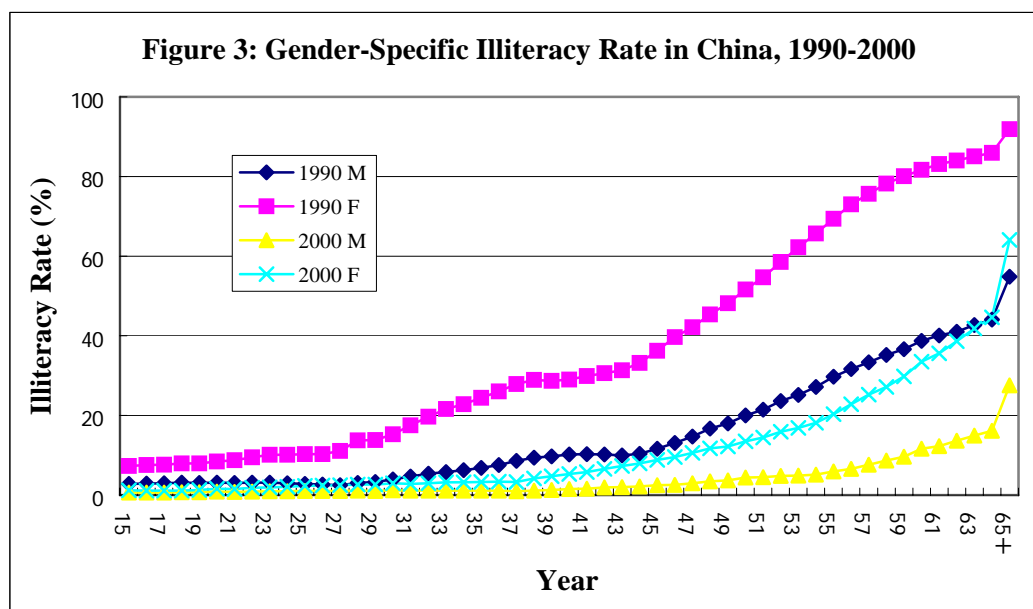
Note: 'Urban' in the table refers to the total of city and urban town data.

Data sources: Calculated by using data obtained from 1982, 1990 and 2000 Population Censuses.

- 3) From the age distribution patterns of illiteracy rate, the older the age, the higher the illiteracy rate (Figure 3). Figure 3 adequately reflect great results China has achieved in eliminating illiteracy over the past decades. The higher illiteracy rate among the elderly population is attributed to the lack of educational opportunities for these people when they were young. Since the foundation of the PRC in 1949, the Chinese government has been committed to developing education, in particular, basic education, and also, in the meantime, to providing literacy education for adults, thus enabling rapid decrease of illiteracy rate among young people who grew up after China's liberation.
- 4) Between 1990 and 2000, the illiteracy rates both for male and female age groups had declined considerably.
- 5) Comparisons both from a provincial perspective and a county perspective or nationality perspective show, a rule is that adult illiteracy rates are obviously lower in high-income areas than those in the lower-income areas, indicating that differences in adult illiteracy rates are basically the reflection of gaps in socioeconomic development.



Data sources: Calculated by using data from the 1982, 1990 and 2000 population censuses.



Data sources: Calculated by using data from 1990 and 2000 Population Censuses.

First, a comparison of provinces indicates that, in Shanghai, Beijing and Tianjin, where the GDP per capita ranks the highest, male adult illiteracy rates have declined to 2-3% and the female rates to about 10%, with an average male illiteracy rate of 2.4% and a female rate of 9.5% (Table 5). On the other hand, among the 3 LIPs, only Guangxi has a lower illiteracy rate (the male and female rates stand at 2% and 9%, respectively), similar to the average of the three HIPs, but the rates in Guizhou and Gansu provinces are high at about 10% for males and some 30% for females. The average rates of the 3 LIPs are 8% for men and 22% for women.

Second, from a comparison of counties, as indicated in Table 5, the mean adult illiteracy rate of 50 HICs has dropped to 4.62% for men and 14.88% for women, while that of the 50 LICs still stands at a high of 24.77% for males and 50.58% for females, much higher than the comparable rate of 50 HICs. The average adult illiteracy rate is 13.6% for males and 30.81% for females in the 592 PSCs, which are far above both the mean rate of 50 HICs and the national average. The work of illiteracy elimination is more difficult in the poorer areas.

Table 5: Adult Illiteracy Rate by Province in China (%)

Province	Male	Female	Sex Ratio of	Province	Male	Female	Sex Ratio of
			Illiterate Population				Illiterate Population
Beijing	2.02	8.1	27.13	Tianjin	2.8	10.23	28.19
Hebei	6.47	10.76	61.46	Shanxi	3.21	8.31	41.19
Inner Mongolia	6.98	16.53	45.21	Liaoning	2.93	8.72	34.59
Jilin	3.46	8.12	44.40	Heilongjiang	3.68	9.08	42.23

Shanghai	2.35	10.28	24.09	Fujian	5.57	13.96	41.48
Jiangsu	3.49	12.27	28.33	Jiangxi	3.09	11.04	29.25
Zhejiang	4.35	12.92	35.06	Shandong	5.53	15.98	34.68
Anhui	7.55	19.5	39.90	Henan	4.25	11.67	37.36
Hubei	4.44	14.49	32.66	Guangdong	1.72	8.6	19.99
Hunan	2.76	9.45	31.38	Guangxi	2.07	8.85	25.68
Hainan	3.84	16.11	25.98	Shaanxi	5.65	14.24	42.04
Chongqing	4.56	13.53	35.94	Gansu	12.04	27.81	46.01
Sichuan	5.37	14.62	38.70	Qinghai	15.69	35.87	46.79
Guizhou	9.96	30.61	35.36	Ningxia	9.47	22.25	44.50
Yunnan	9.32	22.15	46.06	Xinjiang	5.74	9.87	62.85
Tibet	34.38	60.47	58.43				
Mean value for 3 HIPs					2.40	9.50	26.5
Mean value for 3 LIPs					8.00	22.40	35.7
Mean value for 6 ethnic minority areas					11.30	23.40	47.1
Mean value for 592 poverty-stricken					13.60	30.81	-
Mean value for 50 HICs					4.62	14.88	-
Mean value for 50 LICs					24.77	50.58	-

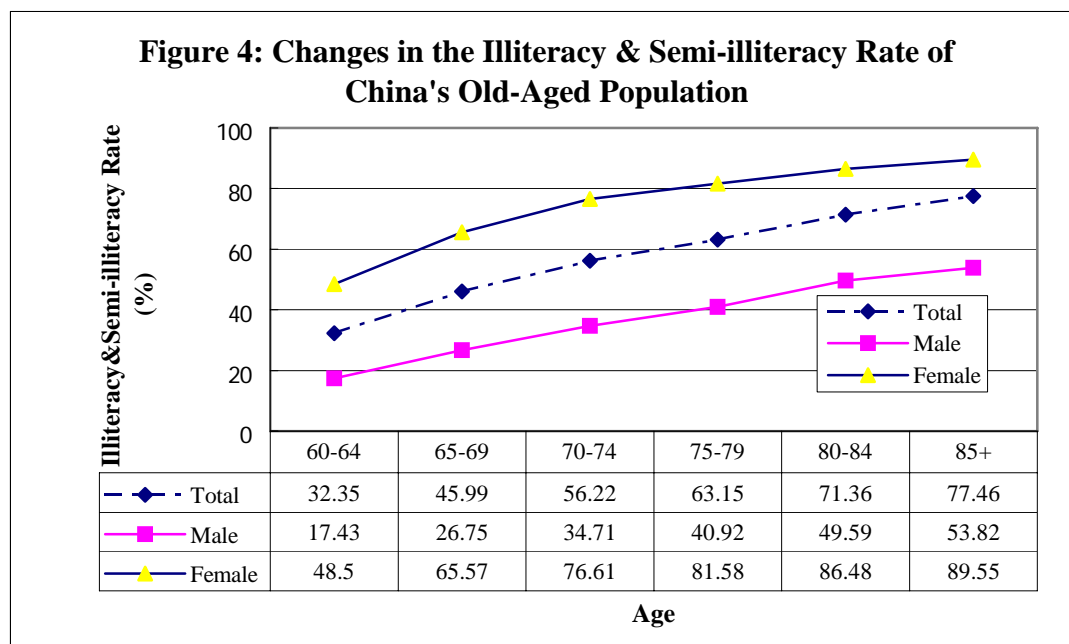
Data Sources: Calculated by using data from 2000 Population Census.

Third, from a comparison of nationalities, among the six ethnic minority areas, Guangxi and Xinjiang have lower adult illiteracy rates, which are close to that of the 3 HIP, while Tibet, Ningxia, Yunnan and Inner Mongolia have higher adult illiteracy rates. The average adult illiteracy rate for the six areas is 11% for males and 23% for females, which are higher than their respective national average. These areas still face heavy tasks for eliminating illiteracy. Tibet is worth special attention, whose male and female illiteracy rates have reached as high as 34% and 60% respectively.

Forth, from the differences in educational levels of the elderly, according to data from the 5th Population Census (See Figure 4), the changes in the elderly illiteracy and semi-illiteracy rates in China have two remarkable features: (i) as age increases, illiteracy and semi-illiteracy rates also rise, i.e. the illiteracy and semi-illiteracy rates in higher age groups are higher than lower age groups; (ii) in all age groups, the illiteracy and semi-illiteracy rates are higher than the female rates.

From an international perspective, China has relatively higher illiteracy and semi-illiteracy rates for its old-aged population. In the 1982 Population Census, the literacy rate of the population aged 60 and over was 39.1% for males and 4.6% for females. In contrast, the rates in the Philippines and Mexico were higher than China, with the male rates being 20% and 27% higher (1980) and the female rates, 44% and 50% respectively. In the 1990 Population Census, the literacy rate of the population aged 60 and over was 50.4% for males and 10.7% for females with the male rate being fivefold of the female rate, indicating the progress of the times and the younger old-aged people have higher proportionate number of being educated. On the other hand,

it also indicates that gender differences in educational rate have kept certain continuity within the elderly group, demonstrating that historical gender inequalities in the rights to education for men and women kept a fairly long period and maintained a certain stable patterns of gender differences.



Data sources: CD-Rom provided by NBS containing original data from sampling surveys on 0.95% population conducted during the 5th Population Census.

Although these changes are worth celebrating, it should also be noted that, in eliminating illiteracy, China still has a long way to go, because

- (i) Despite of considerable decrease in the adult illiteracy rate, one in twelve Chinese adults is still illiterate and the illiteracy rate remains high.
- (ii) Among the illiterate, female illiterates are clearly more than male illiterates. On average, three out of four illiterates are women, which indicates deficiencies of social gender equality in terms of educational development. In both rural and urban China, the adult illiteracy rates among women are much higher than the rates among men. The urban female rate (8%) is even higher than the rural male rate (6%). Regarding the adult illiteracy rate, the gender gap exceeds the gap between urban and rural areas. In all age groups, the female illiteracy rate is higher than the male rate. The older the age is, the wider the gender gaps are. In terms of adult illiteracy rate, China's gender gaps are wider than its rural-urban gaps.
- (iii) Adult illiteracy rate in rural areas is obviously higher that the urban rate, showing that rural areas are always the priority for eliminating illiteracy.
- (iv) Poverty-stricken areas, the poor and poor women are the most vulnerable to illiteracy risks.
- (v) From a historical perspective, China's gender inequalities in the rights to education for men and women kept a fairly long period and maintained a certain stable patterns of gender

differences.⁴

3.2 Educational Composition of Population Aged Six and Over in China

This section examines the proportionate numbers of boys and girls in the population aged six and above with their different levels of educational attainments, and also the underlying trends. In the population censuses, the educational attainments have been classified in a detailed manner, and there have been changes in the methods for classifying educational attainments in each of the population censuses. For example, in the 1982 Census educational attainments were classified to six categories while the figure had reached nine by 2000⁵. To facilitate comparisons among different periods, we have classified the educational attainments to the following four categories: (i) illiterate, referring to those who cannot read or read only a few characters; (ii) primary level, referring to those who have attended literacy classes or received primary school education⁶; (iii) medium level, referring to those who have received junior and high middle school education or polytechnic education; (iv) high level, referring to those who have received above-professional-college (including professional-college, undergraduate and postgraduate) education.

The proportionate numbers of population aged six and above with their different levels of educational attainments are shown in Table 6 and Figure 4, which indicate:

- 1) From 1982 to 2000, among the population aged six and above, the numbers of those who received a high-level education had the greatest increase followed by those who received a medium-level education. The proportion of those who received a medium-level education almost doubled, climbing from 28% to 48%; those who received a high-level education increased proportionately from 0.7% to 3.8%, showing a more than five-fold increase.

Table 6: Composition of Educational Attainment of Population Aged 6 Years and Older in China in Selected Years (%)

Educational Attainment	1982			1990			2000		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Basic Level	39.9	44.8	34.8	42.3	43.2	41.3	40.0	37.6	42.4
Med. Level	27.5	33.5	21.1	35.5	42.0	28.7	48.5	53.5	43.2
High Level	0.7	1.0	0.4	1.6	2.2	1.0	3.8	4.6	3.0

Data sources: Calculated by using data taken from the 1982, 1990 and 2000 Population Censuses.

⁴ See Mu Guangzong, et. al: The Educational Level of the Old-aged Population in China, Market and Population Analysis, 2005 Issue 3.

⁵ Compared with the 1982 and 1990 Population Censuses, the 2000 Population Census provides much more information on education. In the long version questionnaires of the 2000 Population Census, information on four aspects have been collected, including literate or illiterate, educational attainment, adult education or not, and status of schooling completion.

⁶ In the population census, so long as a person received primary school education no matter for one year or six years was registered as “primary school” educational level. Similar circumstances are seen in other educational levels. Therefore, a certain educational level obtained from the data of population censuses refers to that a person has more or less received education of such level rather than “having completed” such level of education.

Over the same period, the proportion of the population who received a basic-level education rose from 40% in 1980 to 42% in 1990 and dropped back to 40% in 2000, a small increase followed by a small decrease. The slight drop between 1990 and 2000 was attributed to the rapid progress in medium-level and high-level educational attainments which resulted in a rapid increase in their numbers respectively and thus in a relatively decreased proportion of basic-level education attainments.

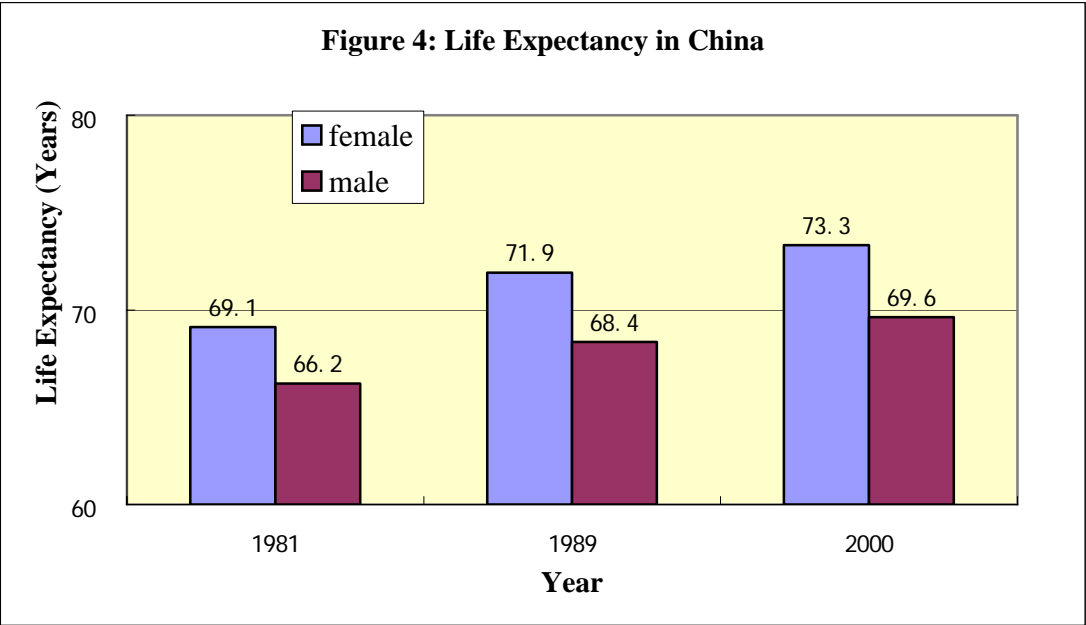
- 2) Marked differences still exist between the composition of the educational attainments of men and women: among the female population, 42% received only a basic-level education. This was a higher percentage than that of men at 38%, but the percentages of women who received medium-level and high-level educations were much lower than those of men. A satisfying change is that, a comparison between 2000 and 1982 reveals that the proportionate numbers of those who received a medium-level education outnumber those who received a primary-level education, but the changes for women lag behind the changes for men. In other words, the improvement in the educational status for men is better than for women.
- 3) From a perspective disaggregated by rural and urban areas, there was marked increase in the proportion of those who received medium-level education in both rural and urban areas (See Figures 5 and 6). The proportionate number of the rural people who had received medium-level education was markedly lower than the comparable number of the urban population and the number of those who had received a high-level education in the rural areas was almost zero.
- 4) In areas with better economic conditions, the educational status of their population is better; vice versa. Between the high and the low income provinces, there was a considerable gap, in terms of educational attainments composition, among people aged six and above.

In the 3 HIPs, the numbers of people who had received a high-level education were ranked at 14% for men and 11% for women, both far higher than the national average level. The percentages in the Beijing municipality even reached 19% and 16%, respectively. In contrast, in the 3 LIPs, the proportion of those who had received a high-level education was much lower, on average only 3% of men and 2% of women, which are lower than the national averages of 5% and 3%, respectively.

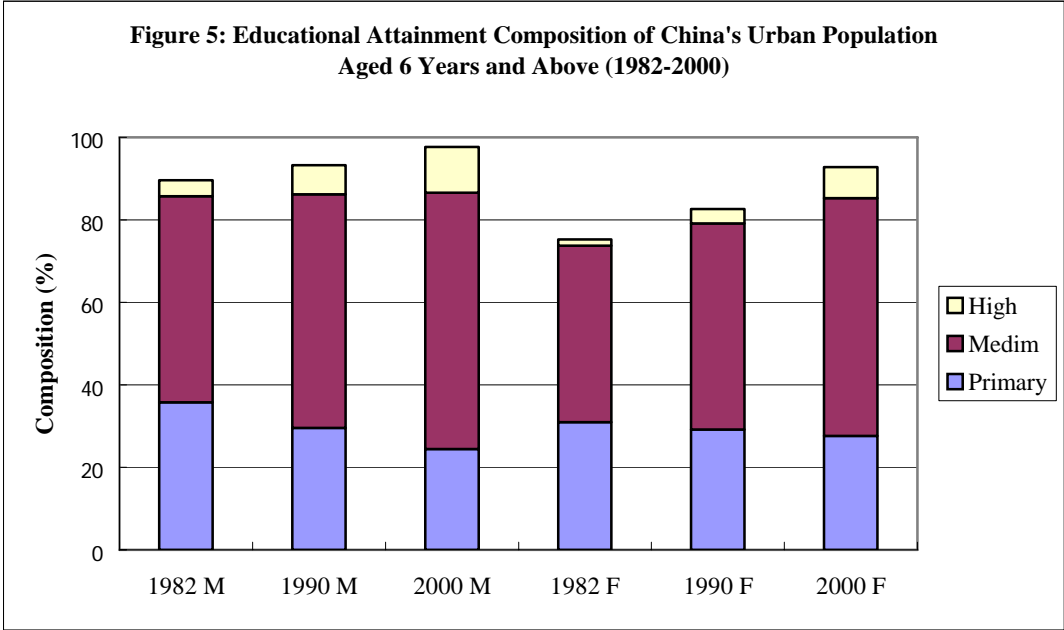
There was an even wider gap in the educational attainments of the population aged 6 and above between the 50 HICs and the 50 LICs than between the HIPs and the LIPs. In the 50 HICs, the proportionate number of people who had received a medium-level education amounted to 57% for men and 48% for women, much higher than the comparable figures for the 50 LICs (31% for men and 19% for women). It should be noted that, although the population who have received higher-level education are more concentrated in urban China, the proportionate number of people who have received higher-level education is not high. Table 7 clearly shows that significant gaps exist between the 50 HICs and 50 LICs in terms of the number of population who have received a high-level education, with the number for the former amounting to around four times that of the latter.

In the 592 PSCs, the proportionate number of those who have received medium- and high-level education was slightly higher than the mean value of 50 LICs, but was markedly lower than the mean value of 50 HICs. These have reflected that there exist disadvantages in talents in the lower-income and poverty stricken areas.

5) Gaps still exist between ethnic minorities and the Hans in terms of educational status while gaps also exist among different ethnic minorities.

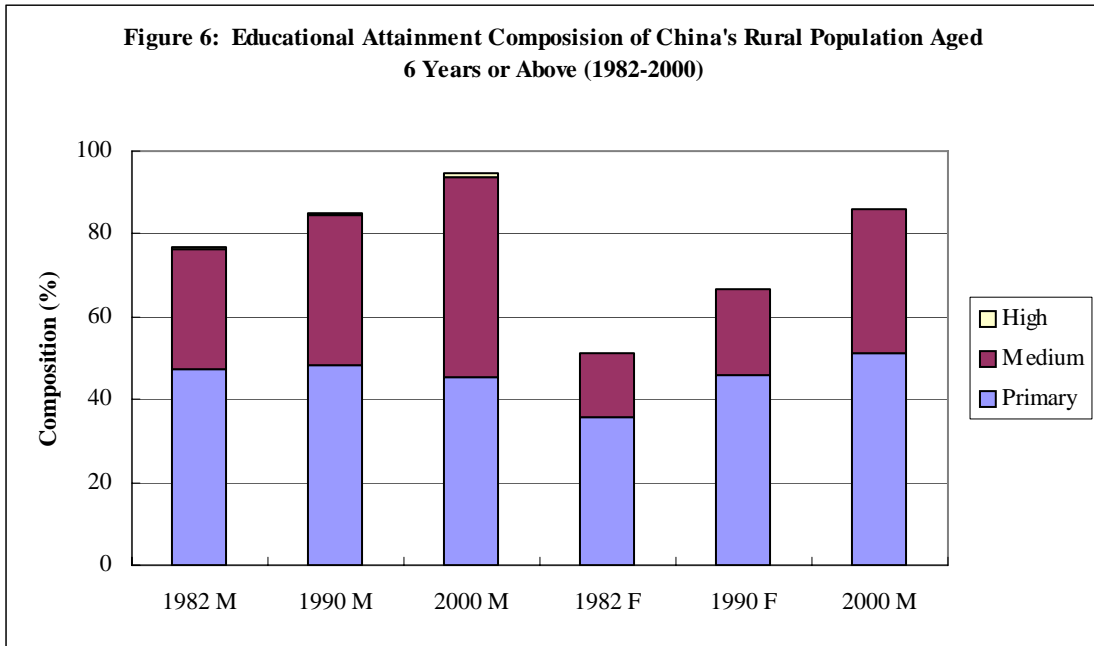


Data sources: calculated by using data taken from 1982, 1990 and 2000 Population Censuses.



Data sources: calculated by using data taken from 1982, 1990 and 2000 Population Censuses.

Figure 6: Educational Attainment Composition of China's Rural Population Aged 6 Years or Above (1982-2000)



Data sources: calculated by using data taken from 1982, 1990 and 2000 Population Censuses.

Table 7: Composition of Educational Attainment by Province of Population Aged 6 Years and Above (%)

Province	Male			Female		
	Primary Level	Medium Level	High Level	Primary Level	Medium Level	High Level
Beijing	17.18	62.40	18.53	18.97	57.29	16.46
Tianjin	25.90	61.14	10.47	27.89	55.16	8.38
Hebei	34.43	58.11	3.28	41.15	48.47	2.48
Shanxi	33.59	58.95	4.25	38.44	51.07	3.19
Inner Mongolia	32.56	56.70	4.52	35.58	46.75	3.60
Liaoning	30.84	58.98	7.28	33.05	53.33	5.74
Jilin	34.31	56.55	5.80	37.91	50.26	4.55
Heilongjiang	31.56	59.27	5.67	35.37	52.11	4.45
Shanghai	19.19	65.28	13.36	22.95	58.74	9.24
Jiangsu	33.51	58.20	5.32	40.68	46.06	2.93
Zhejiang	40.47	51.50	4.17	43.87	42.31	2.60
Anhui	39.43	51.06	3.35	46.90	35.76	1.59
Fujian	37.35	54.09	4.17	47.59	39.62	2.09
Jiangxi	39.17	54.34	3.78	49.69	39.41	1.81
Shandong	33.08	57.78	4.46	40.30	43.65	2.63
Henan	34.40	58.66	3.45	40.79	47.48	2.27
Hubei	36.00	55.18	5.11	41.50	43.52	3.06
Hunan	39.78	54.01	3.86	44.22	45.55	2.32
Guangdong	34.29	58.59	4.91	39.90	49.46	2.83
Guangxi	43.91	50.69	3.20	50.53	39.98	1.91
Hainan	36.05	55.51	4.60	41.64	42.56	2.26
Chongqing	47.44	44.83	3.65	48.90	37.13	2.39
Sichuan	47.73	44.12	3.26	49.58	35.66	2.05
Guizhou	52.11	36.46	2.66	50.63	22.17	1.60
Yunnan	53.14	35.75	2.69	53.67	25.55	1.72
Tibet	49.08	13.37	1.87	32.62	8.97	1.02
Shaanxi	36.52	53.40	5.38	41.10	43.65	3.56
Gansu	42.03	43.72	3.69	44.53	29.77	2.10
Qinghai	39.95	40.38	4.23	35.35	29.35	2.90
Ningxia	38.16	48.70	4.86	40.64	37.34	3.32
Xinjiang	42.18	46.17	5.90	44.78	40.91	5.34
Mean value for 3 HIPs	20.80	62.90	14.10	23.30	57.10	11.40
Mean value for 3 LIPs	46.00	43.60	3.20	48.60	30.60	1.90
Mean value for 6 EMAs	43.20	41.90	3.80	43.00	33.30	2.80
Mean value for 592 PSCs	45.06	41.84	1.89	46.27	28.89	0.95
Mean value for 50 HICs	35.01	56.93	3.71	36.99	47.89	2.26
Mean value for 50 LICs	49.03	30.62	1.13	42.92	19.11	0.49

Data sources: Calculated by using data taken from the 2000 Population Census.

3.3 Years of School Attainment

The numbers of years of school attainment are important indicators for any study of a population's educational level.⁷ Table 8 presents the years of school attainment for China's population aged 6 and above. Table 8 indicates:

- 1) Between 1982 and 2000, the years of school attainment for China's population aged 6 and above went up from 5.2 years to 7.6 years, an increase of 46%.
- 2) Over the same period, there was a rise in the years of school attainment for both males and females, the latter achieving a higher rate (67%) of increase than men (32%). Nevertheless, the women's years of school attainment were still one year lower than the men's.
- 3) Disaggregated by urban and rural areas, a clear increase was evident in the proportionate numbers of people who received medium-level education in both urban and rural China.

Table 8: Average Years of Education for Population Aged 6 Years and Above in China (Selected Years)

	1982	1990	2000
National Total	5.20	6.25	7.6
National Male	6.14	7.02	8.12
National Female	4.22	5.44	7.05
City Total	7.22	8.02	9.38
City Male	7.86	8.6	9.78
City Female	6.53	7.39	8.96
Urban Town Total	6.98	7.95	8.36
Urban Town Male	7.62	8.55	8.86
Urban Town Female	6.24	7.28	7.84
Rural Total	4.69	5.6	6.76
Rural Male	5.69	6.43	7.33
Rural Female	3.65	4.74	6.15

Data sources: Calculated by using data taken from 1982, 1990 and 2000 Population Censuses.

- 4) Significant gaps exist between areas with different income levels in terms of the average years of education. The higher the income level is, the longer the average years of education and the lower the income level, the shorter the average years of education. Whether a comparison between provinces or counties, the conclusion is fully consistent with the above rule. First, the average years of school attainment for 3 HIPs is about 1.3 years higher than the national average (Table 9). Contrary to this, the average figure for 3 LIPs is about 1 year lower than the national average. Among the three provinces, the average figure for Guangxi is

⁷ China's population censuses haven't directly gathered information on the years of school attainment. The average years of education are calculated indirectly according to the level of education. When calculating the average years of education, it is necessary to assign a value to the year of education corresponding to different educational level. According to China's school system, the report has assigned values to the years of different educational levels as follows: illiteracy and semi-illiteracy: 0 years; literacy class: 2 years; primary school: 6 years; junior middle school: 9 years; high school and polytechnics: 12 years; professional college: 15 years; postgraduate: 16 years; graduate: 19 years.

higher while the figures for Guizhou and Gansu are obviously lower.

Table 9: Average Years of Education by Province for Population Aged 6 Years and Above in China, 2000

Province	Male	Female	Province	Male	Female
Beijing	10.29	9.60	Anhui	8.33	7.64
Tianjin	9.32	8.55	Fujian	8.19	7.24
Hebei	8.07	7.36	Jiangxi	8.51	7.90
Shanxi	8.70	8.03	Shandong	8.54	7.88
Inner Mongolia	9.82	8.67	Henan	7.68	6.22
Liaoning	8.49	7.16	Hubei	8.16	6.86
Jilin	7.98	6.88	Hunan	8.18	7.20
Heilongjiang	8.10	6.81	Guangdong	8.33	7.11
Shanghai	8.22	6.89	Guangxi	8.21	7.31
Jiangsu	8.56	7.53	Hainan	8.00	7.05
Zhejiang	8.33	6.90	Chongqing	7.69	6.79
Sichuan	7.53	6.54	Gansu	7.30	5.69
Guizhou	6.98	5.21	Qinghai	6.89	5.24
Yunnan	6.93	5.65	Ningxia	7.68	6.30
Tibet	4.13	2.69	Xinjiang	7.90	7.46
Shaanxi	8.20	7.14			
Mean value for 3 HIPs				9.30	8.30
Mean value for 3 LIPs				7.50	6.10
Mean value for 6 minority-group-concentrated areas				7.40	6.30
Mean value for 592 PSCs				7.06	5.70
Mean value for 50 HICs				8.26	7.24
Mean value for 50 LICs				6.07	4.48

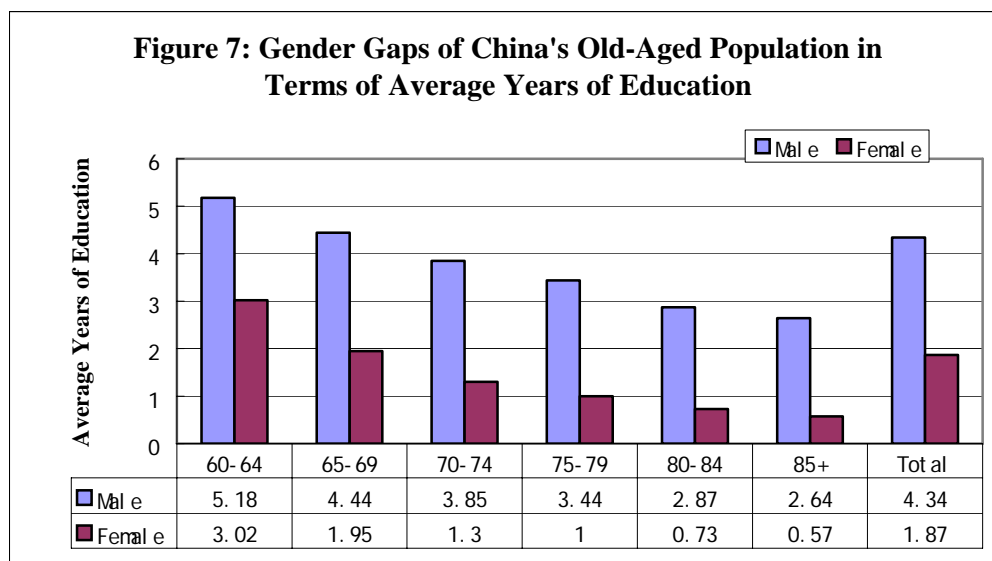
Data sources: Calculated by using data taken from 1982, 1990 and 2000 Population Censuses.

Second, a comparison between counties shows that, among the 50 HICs, the average years of school attainment of population aged 6 and above is 8.26 years for males and 7.24 for females, which are all higher than their respective national average. In the 50 LICs, the comparable average figure for 6.07 years for males and 4.48 years for females, which are way lower than their respective national average. In the 592 PSCs, the comparable figure is 7.06 years for males and 5.7 years for females, which are obviously lower than the national average and that of the 50 HICs.

Third, a comparison between different ethnic groups reveals that the average years of education for six ethnic minorities are very close to those of the three LIPs. However, major gaps exist between these minority areas in terms of average years of education. Of which, the average figures for Inner Mongolia and Guangxi are higher than the national average, Xinjiang and Ningxia are close to the national average and Tibet is much lower than the national average.

- 5) The gaps between rural and urban areas in the development of educational level for the old-aged population are attributed to the gaps between the female old-aged populations. Contrary to the trends of illiteracy and semi-illiteracy rates, with the rise in the ages for different age groups of the elderly, the average age-specific years of education demonstrated a declining trend in 2000, explaining that younger old-aged people received more education. The average years of education for the old-aged in different age groups is at a low level of 1-4 years.

In terms of the average years of education for both men and women, those for the male old-aged population aged 60 and above are 2.5 years than the female figure with the years of education for males being 2.3 times of the female figure, indicating the vulnerability of female old-aged population.⁸ As shown in Table 7, the difference in the years of education for each of the age groups is above 2 years. Knowledge development in the past for the female old-aged population lagged seriously behind both from an absolute sense and a relative sense.



Data sources: CD-Rom provided by NBS containing original data from sampling surveys on 0.95% population conducted during the 5th Population Census.

3.4 Enrollment Rate

The enrollment rate and dropout rate of the school-age population can mirror the immediate

⁸ The average years of education for the population under the 60-64 age group and the population aged 65 and older are the weighted mean value of the educated people years (the product of educational years and the number of corresponding population) for the population under different age groups. The criteria for calculation are: (i) the old criteria are the broad criteria, which suppose 16 as the weighted figure for university and college education, 12 for polytechnic and high school education, 9 for junior middle school education, 6 for primary school education and 0 for illiteracy and semi-illiteracy; (ii) the new criteria are given according to the actual years of education for China's old-aged population, with 13 for university education, 11 for college education, 9 for polytechnic and high school education, 7 for junior middle school education, 5 for primary school education, 0 for illiteracy and semi-illiteracy. See Mu Guangzong, et. al: The Educational Level of China's Old-Aged Population, Market and Population Analysis, 2005, Issue 3.

changes in the status of education. Enrollment rate in this report refers to the proportionate number of the enrolled 7-year-old population out of the total 7-year-olds.⁹ Table 10 contains the enrollment rate of school age children obtained from the 1990 and 2000 Population Censuses, which indicates:

- 1) Between 1990 and 2000, there was a significant increase in the enrollment rate for China's 7-year-old school-age children, climbing from 75.83% to 96.48%.

Table 10: Gender-specific Enrollment Rate of 7-year-old Children in China's Rural and Urban Areas (%), (Selected Years)

Year	1990	2000
National Total	75.83	96.48
National Male	77.82	96.86
National Female	73.66	96.03
City Total	79.16	97.95
City Male	79.29	98.01
City Female	79.02	97.88
Urban Town Total	81.42	97.93
Urban Town Male	81.60	98.05
Urban Town Female	81.22	97.78
Rural Total	74.64	95.86
Rural Male	77.19	96.37
Rural Female	71.87	95.26

Data sources: calculated by using data taken from 1990 and 2000 Population Censuses.

- 2) Over the same period, the improvement in the enrollment rate for China's school-age children was demonstrated as the simultaneous improvements in both male and female rates.
- 3) In 1990s, the female enrollment rate climbed up faster than the male rate and the differences between boys and girls in enrollment rate diminished from 5% to 0.8%. Such differences were originally small and will get smaller over time.
- 4) The enrollment rate of rural children was slightly lower than their urban partners.
- 5) In cities and urban towns, there were virtually no gaps between boys and girls in terms of enrollment rate and in some cases, the enrollment rate of girls was even slightly higher than boys' rate. The gaps between boys and girls in rural areas are slightly higher than those of urban areas. Therefore, China's the small gaps between boys and girls in terms of enrollment rate mainly exist in rural areas.

⁹ In line with China's Compulsory Education Law, children aged 6 should be timely enrolled to receive education. However, affected by traditions and customs in different localities, children in some areas start to receive school education at the age of seven, leading to lower enrollment rate for the 6-year-old children. For example, the enrollment rate for the 6-year-olds obtained from the 2000 Population Census was only 80.06%, a big gap with 98% announced in recent years by departments of education. That is to say, the enrollment rate for 6-year-olds cannot accurately reflect that of China's school age children. Therefore, the report has selected the enrollment rate for the 7-year-olds so as to accurately depict the enrollment rate for the school age children in China.

- 6) The enrollment rates for the school age children of 3 HIPs were higher than the national average, close to 100% (Table 11). The comparable rates of 3 LIPs (92% for boys, 91% for girls) were evidently lower than the national average (97% for boys and 96% for girls).

Table 11: Enrollment Rate by Province of 7-year-old Children in China (%), 2000

Province	Male	Female	Province	Male	Female
Beijing	100.0	100.0	Zhejiang	99.0	98.2
Tianjin	97.8	98.1	Anhui	97.4	97.1
Hebei	98.6	99.3	Fujian	96.1	97.8
Shanxi	97.9	98.0	Jiangxi	98.2	97.6
Inner Mongolia	95.8	96.8	Shandong	97.4	96.4
Liaoning	96.7	97.8	Henan	99.2	98.8
Jilin	94.1	96.2	Hubei	98.9	99.5
Heilongjiang	97.6	98.6	Hunan	97.5	98.0
Shanghai	98.5	100.0	Guangdong	94.1	91.8
Jiangsu	99.6	98.8	Guangxi	92.9	95.8
Hainan	89.7	88.2	Shaanxi	98.1	95.6
Chongqing	98.8	98.0	Gansu	92.3	91.0
Sichuan	95.4	96.2	Qinghai	84.3	76.1
Guizhou	91.9	87.3	Ningxia	91.1	94.3
Yunnan	93.6	91.0	Xinjiang	92.9	94.2
Tibet	57.7	68.0			
Mean value for 3 HIPs				98.8	99.4
Mean value for 3 LIPs				92.4	91.4
Mean value for 6 minority group areas				87.3	90.0

Data sources: Calculated by using data taken from the 2000 Population Censuses.

- 7) The enrollment rates of the six ethnic minority areas were even lower with only 87% for boys and 90% for girls, particularly in Tibet, where the rates were only 58% for boys and 68% for girls. This is a reflection of nationality and regional inequalities in primary education, which allows no more negligence from us.
- 8) After high school, the educational level of females was obviously lower than that of males.

There are virtually no gender gaps during primary school education. After the year 1999, gender gaps in terms of junior middle school enrollment rate have been narrowing and in 2002, the difference between the male and female enrollment rates for junior middle schools was only 0.9 percentage points. Such differences, however, begin to emerge during high school education, mainly because of different economic conditions of different households. In China, high school education no longer falls under compulsory education. If families don't have sufficient economic capacity, affected by the traditional gender concept (girls will get married sooner or later) and the patterns of sons supporting the old-aged, male students tend to enter high schools more easily

than females.¹⁰

Table 12: Gender Gaps in High-school Enrollment Rate (%)

Year	Female	Male	Proportion of Female Students in School
1999	22.2	27.3	40.4
2000	26.6	31.9	41.9
2001	30.5	34.7	43.2
2002	34.1	37.7	44.1

Data sources: China Education Yearbook (1999-2002).

However, in terms of university enrollment rate, the female rate was higher than the male rate and the gaps were getting wider over time (See Table 13). To some extent, this shows that the learning capacity of female students is higher than that of male students and the rate of return of investments in education for girls is higher. Still, the enrolled students, males make up the majority, but the proportionate numbers of girls in the enrolled students increases year by year.

Table 13: Gender Gaps in University Enrollment Rate (%)

Year	Female	Male	Proportion of Female Students Among the Enrolled
1999	58.4	59.3	40.3
2000	75.3	71.7	42.1
2001	80.5	77.6	42.7
2002	87.4	80.7	44.3

Data sources: China Education Yearbook (1999-2002).

3.5 Dropout Rate for School Age Children

According to China's Compulsory Education Law, it is the basic rights of the school age children to receive education at schools. However, in reality, due to various reasons some children have not received school education. The report uses dropout rate to measure the status of children being deprived of education or being dropped out. According to population census data, the dropout rate in the report refers to the percentage of 7-14-year-old children who are not able to go to schools due to a variety of reasons.¹¹ Table 14 gives the dropout rates of school age children

¹⁰ See Shao Mingbo: Analysis of Features and Status Quo of Female Human Capital in China, Market and Population Analysis, 2005, Issue 4.

¹¹ The dropout rate obtained in this way is the broad-sense rate. These children who were not receiving education at school include those who once learned at school but were dropped out midway (these are the narrow-sense dropout children), those who never received education at school and those who completed primary school but didn't go to junior middle school. All of these scenarios are inconsistent with the requirements of China for promoting 9-year compulsory education and therefore, these children are identically referred to as dropout children. As stated above, some children didn't go school in time at the age of 6, it is, therefore, necessary to try to avoid this age group. Likewise, this age group should also be avoided when calculating dropout rate. Thus, the reference age for dropout rate is defined between 7-14 years.

calculated according to data from the 1990 and 2000 Population Censuses. Table 14 indicates:

Table 14: Gender-Specific Dropout Rate of Children Aged 7-14 Years in China's Rural and Urban Areas (%), Selected Years

Year	1990	2000
National Total	13.16	2.68
National Male	11.44	2.50
National Female	15.01	2.89
City Total	11.55	2.51
City Male	11.27	2.58
City Female	11.86	2.44
Urban Town Total	9.55	2.12
Urban Town Male	9.39	2.11
Urban Town Female	9.73	2.14
Rural Total	13.78	2.82
Rural Male	11.65	2.55
Rural Female	16.06	3.13

Data sources: Calculated by using data taken from the 1990 and 2000 Population Censuses.

- 1) Between 1990 and 2000 the dropout rate of China's school age children had decreased from 13.2% to 2.7%, a drop of 80%.
- 2) Over the same period, the gender gaps in terms of dropout rate had been narrowing. In 1990, girls' dropout rate was 3.6 percentage points higher than that of boys, but by 2000 the gap diminished to 0.4 percentage points.
- 3) The dropout rate of school age children in rural areas was slightly higher than their urban partners.
- 4) Gender gaps in terms of dropout rate nationwide were mainly originated from those in rural areas.
- 5) The dropout rates of 3 HIPs were lower than national average while those of 3 LIPs were evidently higher than national average.
- 6) Dropout rates of six ethnic minority areas were even higher, which triple the national average. The rates for boys and girls of Xinjiang, Tibet and Yunnan were around or higher than 10%, which is worth attention.

Some basic conclusions can be drawn from the above analysis: in the field of access to education, the education level has been increasing both in urban and rural areas of China. Although there are still some gaps between males and females, such gaps have been closing and already diminished to relatively small extent. Facts have shown that, over the past two decades, social gender inequalities in China in the field of education have been markedly improved.

Table 15: Gender-Specific Dropout Rate by Province of Children Aged 7-14 Years in China (%), 2000

Province	Male	Female	Province	Male	Female
Beijing	1.6	1.3	Anhui	1.8	2.9
Tianjin	2.8	1.2	Fujian	2.0	2.5
Hebei	1.3	1.5	Jiangxi	3.2	5.3
Shanxi	2.9	4.1	Shandong	2.1	4.3
Inner Mongolia	3.9	5.5	Henan	1.9	3.0
Liaoning	3.4	2.9	Hubei	3.6	5.5
Jilin	5.0	6.4	Hunan	2.9	3.3
Heilongjiang	3.9	5.5	Guangdong	1.0	1.5
Shanghai	2.8	3.3	Guangxi	4.1	4.9
Jiangsu	1.4	3.3	Hainan	2.3	3.1
Zhejiang	1.4	1.6	Chongqing	3.8	3.8
Sichuan	3.3	4.2	Gansu	3.0	4.3
Guizhou	3.9	7.1	Qinghai	5.7	5.4
Yunnan	6.7	9.7	Ningxia	4.2	6.0
Tibet	13.7	9.7	Xinjiang	12.1	14.3
Shaanxi	1.7	2.2			
Mean value for 3 HIPs				2.4	1.9
Mean value for 3 LIPs				3.7	5.4
Mean value for 6 minority group areas				7.5	8.4

Data sources: Calculated by using data taken from the 2000 Population Census.

3.6 Sex Ratios for Enrolled Postgraduates and Graduates

Despite the shrinking gaps between the educational attainments of men and women, we also noted that the inequalities between men and women in terms of higher education still persist, which are fairly significant. To better demonstrate this finding, we have calculated the sex ratios for the enrolled graduates and postgraduates using aggregated data for each of the provinces in the 2000 Population Census (See Table 16).

Data in Table 14 indicates that, in China, women continue to be in the minority among that proportion of the population currently receiving an undergraduate education. At the higher levels, in postgraduate education, women are seen to be even more under-represented.

- 1) The 2000 Population Census revealed that among undergraduate students enrolled in China, the sex ratio was 146, i.e. there were 146 male students for every 100 female students with the males markedly outnumbering the females.
- 2) Similarly, among Chinese postgraduate students enrolled, the sex ratio was 164, i.e. there were 164 male students for every 100 females with the males being much higher than the

- females.
- 3) Table 14 also indicates that the above phenomenon of male undergraduates and postgraduates outnumbering females occurred in most provinces and manifested basically the same trend. The only variation was in the extent to which females were disadvantaged.
 - 4) Both in the 3 HIPs and 3 LIPs, sex ratios of enrolled postgraduates and graduates were fairly high. At present, disadvantages of females in receiving high-level education have demonstrated similar patterns.
 - 5) In six ethnic minority areas, the sex ratios of enrolled postgraduates and graduates also exceeded 100. This shows that, similar to most of other areas, these had fewer opportunities for access to high-level education for females than for males.

Table 16: Sex Ratios for Enrolled Postgraduates and Graduates in the Provinces of China, 2000 (Female=100)

Province	Sex Ratio for Enrolled Postgraduates	Sex Ratio for Enrolled Graduates	Province	Sex Ratio for Enrolled Postgraduates	Sex Ratio for Enrolled Graduates
Beijing	133.65	191.04	Tianjin	122.97	129.76
Hebei	117.78	96.09	Shanxi	129.35	105.16
Inner Mongolia	105.53	100.98	Liaoning	124.50	138.34
Jilin	123.55	126.17	Heilongjiang	137.52	150.56
Shanghai	120.60	165.64	Jiangsu	156.79	178.54
Zhejiang	145.57	192.02	Anhui	210.56	309.92
Fujian	162.20	171.43	Jiangxi	208.94	192.94
Shandong	149.67	129.67	Henan	164.09	127.27
Hubei	170.10	190.87	Hunan	177.53	173.31
Guangdong	140.43	150.57	Guangxi	166.49	155.79
Hainan	150.22	314.29	Chongqing	146.71	183.06
Sichuan	149.54	181.34	Guizhou	150.24	187.80
Yunnan	133.08	185.39	Tibet	143.84	50.00
Shaanxi	164.03	182.65	Gansu	182.47	143.06
Ningxia	103.13	233.33	Qinghai	109.66	140.00
Xinjiang	89.86	168.42			
National Total	146.09	164.32			
Mean value for 3 HIPs				131.02	184.62
Mean value for 3 LIPs				168.42	153.93
Mean value for 6 minority group areas				128.91	147.92

Data sources: Calculated according to data taken from the 2000 Population Census Data for whole China and the provinces published by the State Council Population Census Office and Provincial Population Census Offices.

In the six areas, however, the sex ratios of enrolled postgraduates and graduates were lower than

both the national average and the mean figures of 3 HIPs and 3 LIPs. This indicates that, in these areas, more attention has been paid to women's receiving high-level education. However, the scale of high-level education in these areas is still too small, which is not sufficient to alter the overall trends nationwide.

Chapter Four Gender Gaps: Employment

Employment status is an important indicator reflecting the status of economic activities conducted by a population. According to the 2000 Population Census Data, the report will explore gender differences in terms of employment rate from the perspectives of employment rate, unemployment rate, sectoral structure of the employed population and occupational structure of the employed population.

4.1 Employment Rate

Prior to calculating the employment rate, the age limits of the working age population must be defined. To do this, two methods are frequently employed: one is based on the international standard, that is to regard that proportion of the population aged 15-64 as the working age population, and the other is based on the retiring age of the working age population, that is to define men aged 15-59 and women aged 15-54 as the working age population. The latter approach is more often used in Chinese research on employment rates and, also in this report, the employment rate is calculated using the second method

Employments rates obtained from three population censuses since 1982 are provided in Table 17, which shows:

Table 17: Gender-specific Employment Rate for China's Rural and Urban Areas in Selected Years (%)

Year	1982	1990	2000
National Total	86.59	87.15	81.63
Male Nationwide	91.01	90.07	85.96
Female Nationwide	81.55	83.82	76.88
Urban Total	85.73	80.49	70.20
Urban Male	90.73	84.79	77.11
Urban Female	79.75	75.45	62.81
Rural Total	92.48	89.81	89.12
Rural Male	97.66	92.23	91.62
Rural Female	86.65	87.09	86.32

Data sources: Calculated by using data obtained from the 1982, 1990 and 2000 population censuses.

- 1) Between 1982 and 2000, generally speaking, there was a decrease in the employment rate among the Chinese working age population. The national rate decreased from 87% to 82%, a drop of five percentage points.
- 2) Over the same period, both male and female employment rates also decreased by 4-5 percentage points.
- 3) The male employment rate is always some 8 per cent higher than that of women.
- 4) The employment rate for the working age population in rural China is higher than that of

urban areas¹².

- 5) Over the past 20 years, the employment rates of China's rural male and female working age population had maintained at high levels. Meanwhile, the employment rate of urban population had dropped significantly by 13 percentage points for male labor force and 15 percentage points for female labor force.

The nationwide drop of employment rate for the working age population is basically attributed to the drop of the rate for urban working age population.

- 6) Examined by regions, remarkable differences in terms of employment rate exist in different regions. Employment rates of the economically developed regions such as Shanghai were fairly low with the male employment rate below 80% and female rate between 60-65% (Table 18), whereas the male employment rates in most economically backward provinces were above 90% and female rates are around 80%. In some provinces (such as Yunnan, Sichuan, Guangxi and Guizhou, etc.), the female rates were also above 90%.

The attributions for high employment rates in relatively underdeveloped regions are mainly: first, the proportionate numbers of agricultural population are high in these areas. In rural China, the natural employment approach is applied and the laborers work for as long as they possibly can. As a result, the employment rate of the higher-age population is still kept at a higher level. Second, the youngsters in rural areas have received relatively less education and therefore, they left school at a fairly early stage and joined the labor force. As a consequence, the employment rate of lower-age-group youngsters is higher than that of cities and urban towns.

- 7) Remarkable gaps exist between 3 HIPs and 3 LIPs in terms of employment rate. The average male employment rate of Shanghai, Beijing and Tianjin was 79%, and the female rates of these regions were between 60-65% with an average of 64%. The rates of 3 LIPs of Guizhou, Gansu and Guangxi were all very high with male and female rates all over 90%. The averages of male and female employment rates of the three provinces had all reached 94%.
- 8) In the six ethnic minority areas, the average male employment rate was 92% and the female rate, 85%. But significant gaps exist among these areas. The male and female employment rates of Inner Mongolia and Xinjiang were relatively low, of which the male rate for Inner Mongolia was 89% and female rate, 72% while the male rate for Xinjiang was 89% and female rate, 73%.

As for the other four ethnic minority areas including Yunnan, Ningxia, Tibet and Guangxi were all considerably high. For example, Yunnan's rates reached 96% for males and 97% for females and those for Guangxi also reached 93% and 95%, respectively.

Table 18: Gender-specific Employment Rate by Province in China, 2000 (%)

¹² Since the nature and implications of employment by rural and urban population are completely different, and employment of urban population is certain while that of rural population is uncertain, the comparisons can only be of linear nature and cannot be certain.

Province	Male	Female	Province	Male	Female
Beijing	79.92	64.98	Zhejiang	95.14	75.95
Tianjin	78.37	60.30	Anhui	96.63	91.05
Hebei	93.30	82.77	Fujian	88.86	72.12
Shanxi	91.76	67.25	Jiangxi	90.63	80.57
Inner Mongolia	89.38	71.97	Shandong	95.98	90.04
Liaoning	84.99	70.04	Henan	96.72	94.95
Jilin	84.46	67.69	Hubei	88.49	82.31
Heilongjiang	83.06	61.48	Hunan	92.68	84.26
Shanghai	78.74	65.75	Guangdong	88.25	80.20
Jiangsu	93.57	90.59	Guangxi	93.37	94.82
Yunnan	96.59	97.01	Hainan	85.63	83.52
Tibet	93.93	89.65	Chongqing	95.62	93.60
Shaanxi	89.87	81.91	Sichuan	97.09	97.04
Gansu	93.36	90.59	Guizhou	95.36	95.95
Qinghai	89.77	83.71	Ningxia	91.46	81.72
Xinjiang	88.63	73.31			
Mean value for 3 HIPs				79.0	63.7
Mean value for 3 LIPs				94.0	93.8
Mean value for 6 minority group areas				92.2	84.7

Data sources: Calculated by using data taken from the 2000 Population Census.

4.2 Age-specific Employment Rate

In order to examine gender gaps in terms of employment rate in a more accurate manner, it is also necessary to examine the age-specific employment rates of the sexes.

Although the age limits of working age population have been defined from a statistical perspective, in reality, many people whose age outnumbers such limits are still working. To better reflect people's participation in employment, the age-specific employment rate in this section is calculated according to the real situation and such calculation is not limited in the range of working age population.

In order to more effectively present the calculations, we have produced Figure 7 based on the gender- and age-specific employment rates for the whole of China and its rural and urban areas for 1990 and 2000. Figure 7 indicates:

- 1) There was a considerably high employment rate among the working age population in China; especially at the peak employment age, the male employment rate was higher than 95% and the female rate also reached close to 90%. Such high rates are rare in other countries worldwide.
- 2) Between 1990 and 2000, the employment rate of China's working age population had decline.

This can be effectively reflected from the position of the peak employment curve disaggregated by gender for 1990 and 2000. In 1990, the employment rate of male working age population aged between 21-45 was close to 100%, and the comparable rate for females aged between 21-40 also reached as high as 90%. In 2000, the male employment rate at the peak employment age group decreased by about 3 percentage points over the 1990 figure and the comparable female rate dropped by about 5 percentage points.

- 3) Generally speaking, the female employment rate is lower than the male rate.
- 4) There is a marked difference between the age patterns of male and female employment. The manifestations are:
 - (i) The female employment rate is higher than the male in the young group aged 15-20. The higher rate of female employment in this young group is an indication that they left school and joined the labor force earlier than men, showing their disadvantage in receiving higher education.
 - (ii) After the age of 22, the average age at which males start to be employed, the employment rate for women never surpasses that of men.

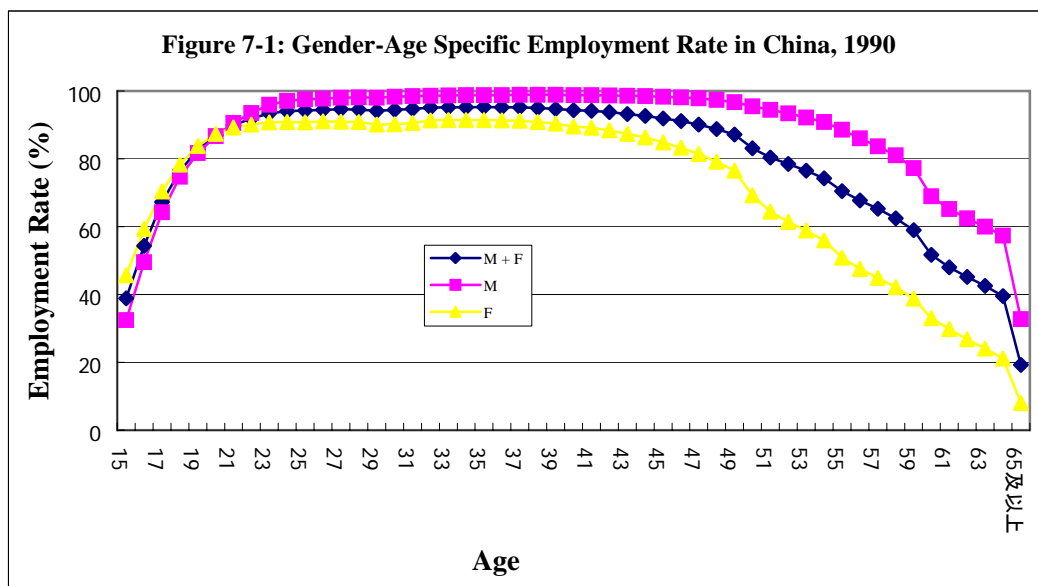


Figure 7-2: Gender-Age Specific Employment Rate in China, 2000

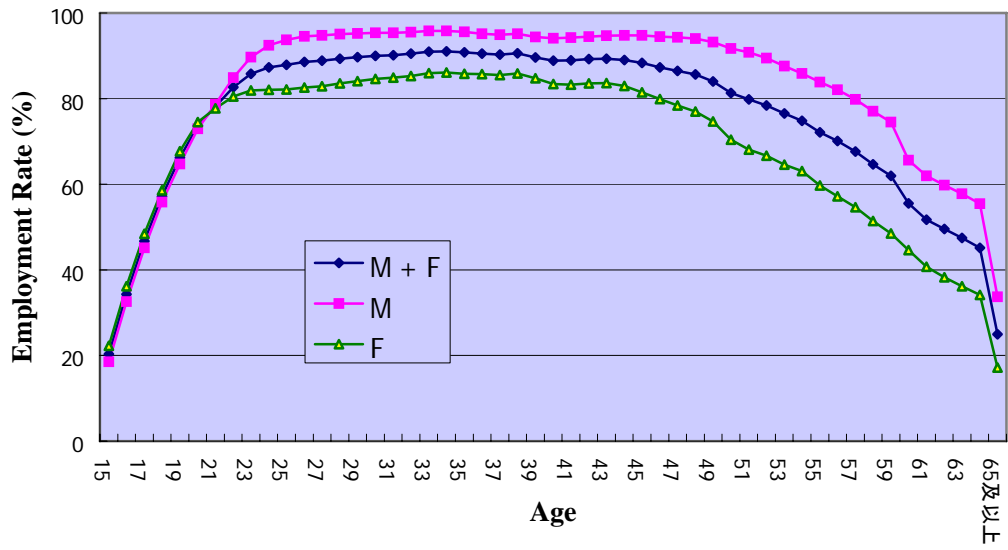
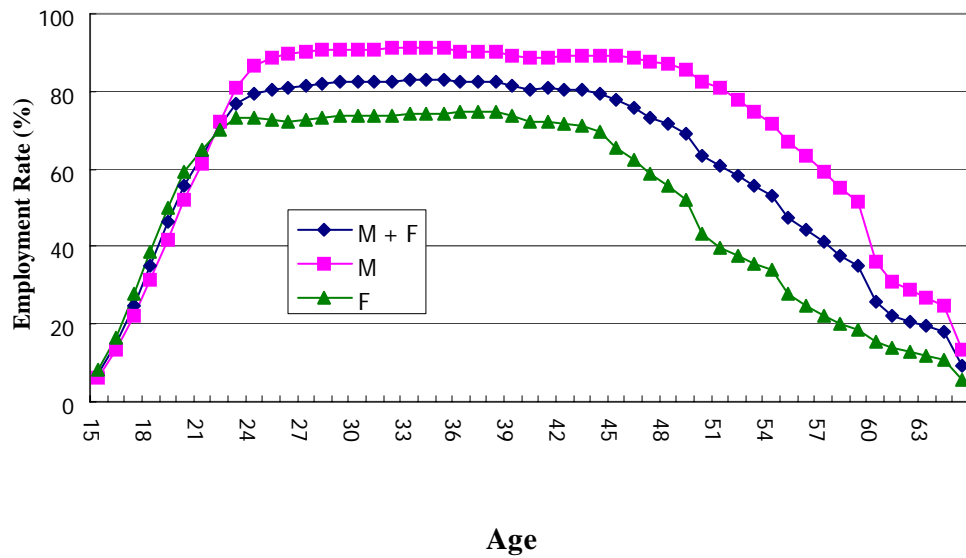
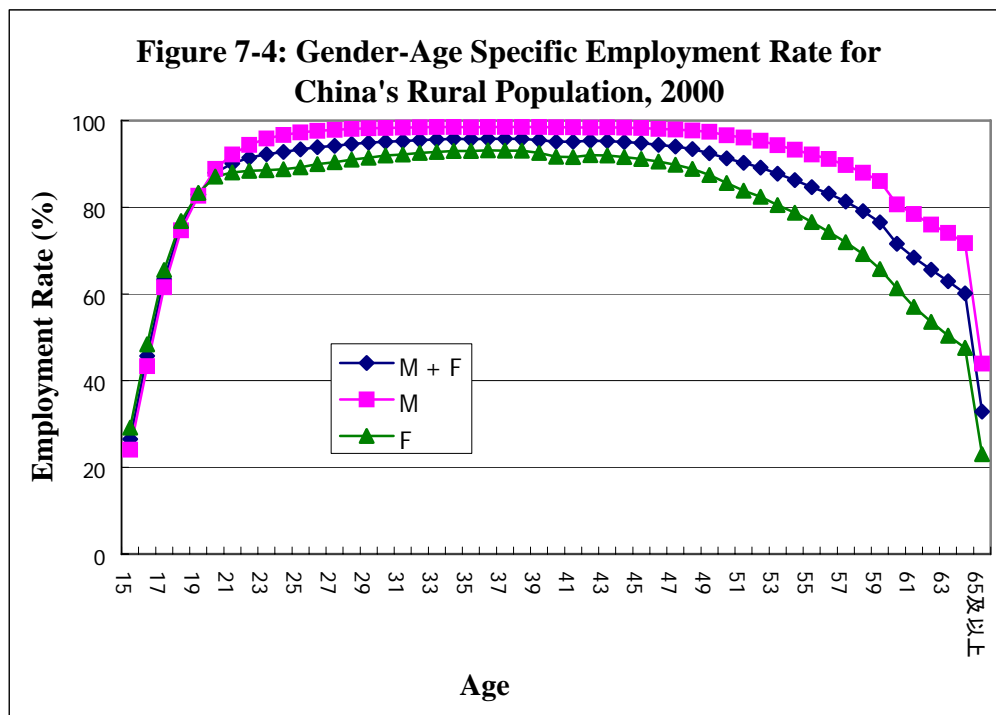


Figure 7-3: Gender-Age Specific Employment Rate for China's Urban Population, 2000





Data sources: Calculated by using data taken from the 1990 and 2000 Population Censuses.

- (iii) The employment disparities between men and women are more prominent regarding the employment of the urban middle-aged labor force. Since mid 1990s, China has experienced increasing pressure in the field of employment. Many urban people of working age have lost their jobs. Two basic characteristics can be identified from the 2000 gender-age specific employment rate curve for urban China: first, the decline in the curve for women labor force occurs five or even more five years earlier than does in the curve for men; second, the curve declines faster for women labor force than for men.

The causes of the disparities between the male and female employment rates in urban China are many and various. The main causes include: (i) gender differences regarding legal code provisions for the retirement ages of men and women, with women having to retire some five years earlier than men; (ii) increasing pressure in the urban employment situation since the mid-1990s which has placed a heavier burden upon women and put them at a greater disadvantage with regard to employment. In some urban areas, women workers in their forties, and even some in their thirties, were forced out of their jobs, were laid-off or had to retire early.

- 5) Obvious differences exist between China's urban and rural employment rates. These differences are concentrated in the following three aspects: firstly, compared with urban areas, rural China has a higher employment rate among younger age groups, which is mainly accounted for by the decreased opportunities for the rural young people, many of whom become employed after they graduate from junior middle school (some even fail to graduate); secondly, the employment of an able rural labor force has reached its peak, nearly 100% of the able men being employed, while the urban peak employment rate remains relatively low;

lastly, after reaching old age, the employment rate for the urban labor force declines rapidly, falling below 10% after the age of sixty. In contrast, the rural employment rate is still very high among the elderly, reaching some 60% around the age of 60 and even 20% after the age of 65: this is a well-established tradition passed down from older generations, and is also related to the poor status of social security in rural China. The absence of social security provisions forces the elderly rural population to work for as long as they possibly can.

4.3 Sectoral Distribution of Labor Force

Data concerning the sectoral distribution of the employed population in China is shown in Table 19, which reveals:

- 1) The sectors of agriculture, forestry and animal husbandry as well manufacturing (classified as industry in 1990) have absorbed the most labor force. In 2000, the two sectors absorbed 64% and 12% of China's labor force.
- 2) The most prominent change in the sectoral structure of the Chinese labor force between 1982 and 2000 was the decline in numbers of both men and women in the labor force concentrated in farming, forestry, animal husbandry and fisheries. The proportions in this sector fell from 74% in 1982 to 64% in 2000, with a decrease of ten percentage points.
- 3) While the labor force was declining in the farming, forestry, animal husbandry and fishery sectors, other sectors were experiencing a rise, with the greatest increase in the wholesale and retail trades and catering services (classified in 1982 as business, food and beverage services, material supply and sale and storage; in 1990 as business, public food and beverage services, material supply and sale and storage). The proportionate numbers of labor force concentrated in this sector had seen a two-fold increase from 3% in 1982 to 6.7% in 2000.
- 4) China's male and female labor force had shared almost identical overall patterns of sectoral distribution 2000 and identical changes in such patterns between 1982-2000.
- 5) Nevertheless, there were some gaps between male and female labor force in terms of sectoral distribution. A comparison between the male and female sectoral distributions has revealed that that female labor force was more concentrated in agriculture, forestry and animal husbandry, where the distribution of female labor force was 8 percentage points higher than the male distribution. This explains that more rural male laborers have migrated to engage in off-farm work while more rural females stay at home to engage in farming activities, demonstrating the gender-division pattern of "men being in charge of external affairs and women being in charge of internal affairs".

Male labor force was more distributed in the sectors of construction, public departments, political parties and mass groups, transport, post and telecommunication, etc. In these three sectors, the distribution of male labor force was higher than that of the female labor force by 4, 2 and 2 percentage points, respectively.

Table 19: Gender-specific Sectoral Composition of China's Labor Force (%) in Selected Years

Sector	1982			1990			2000		
	M&F Total	Male	Fem.	M&F Total	Male	Fem.	M&F Total	Male	Fem.
Farming, Forestry, Animal Husbandry, Fishery	73.7	70.3	78.0	72.2	69.1	76.1	64.4	60.7	68.8
Construction	2.1	3.0	0.9	1.8	2.7	0.7	2.7	4.4	0.7
Finance & Insurance	0.2	0.2	0.1	0.3	0.4	0.3	0.6	0.6	0.6
Scientific Research & Technical Services	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2
Agencies & Organizations	1.5	2.2	0.7	2.0	2.8	1.0	2.4	3.1	1.4
Education & Culture	2.4	2.7	1.9	2.3	2.5	2.2	2.6	2.4	2.8
Health Care & Sports	0.8	0.7	0.9	0.8	0.7	1.0	1.1	0.9	1.3
Transport, Post & Telecommunication	1.7	2.4	0.9	1.8	2.7	0.8	2.6	3.9	1.0
Geological Prosp. & Water Conservancy	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Manufacturing	11.8	11.7	11.9	/	/	/	12.5	12.4	12.5
Electric Power & Gas	0.3	0.4	0.2	/	/	/	0.6	0.8	0.4
Real Estate	0.5	0.5	0.5	1.0	1.0	1.0	0.2	0.3	0.2
Wholesale & Retail Trade, Catering Serv.	3.0	3.0	2.9	4.0	3.9	4.1	6.7	6.2	7.3
Mining and Quarrying	/	/	/	/	/	/	1.0	1.6	0.4
Social Services	/	/	/	/	/	/	2.2	2.3	2.0
Mining & Wood	1.6	2.3	0.7	/	/	/	/	/	/
Industry	/	/	/	13.4	13.9	12.8	/	/	/
Miscellaneous	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.2
Total	100	100	100	100	100	100	100	100	100

Data sources: Calculated by using data obtained from the 1982, 1990 and 2000 population censuses.

Note: There were changes in the sectoral classification criteria in the previous population censuses. Such changes are: 1) farming, forestry, animal husbandry and fishery (while in 1982 it was farming, forestry, animal husbandry, fishery and water conservancy); 2) construction; 3) finance and insurance; 4) scientific research and comprehensive technical services; 5) public departments, political-party agencies and social groups (in 1982 it was public departments, political parties and mass groups; 6) education, culture and arts and radio, film and television (in 1982 it was education, culture and arts and in 1990 it was education, culture and arts and radio and film. They are only slight different); 7) health, sports and social welfare (in 1982 it was housing, sports and social welfare); 8) transportation, storage and posts and telecommunications (in 1982 and 1990 it was transportation and posts and telecommunications); 9) geological prospecting and water conservancy (in 1982 and 1990 it was geological survey and exploration; 10) manufacturing (absent in 1990); 11) production and supply of power, gas and water (absent in 1990); 12) real estate (in 1982 it was housing, public utilities administration and resident services; in 1990 it was real estate administration, public utilities, resident services and consulting services); 13) wholesale and retail trade and catering services (in 1982 it was commerce, catering, goods supply and marketing and storage; in 1990 it was commerce, public, catering, goods supply and marketing and storage); 14) mining and quarrying (absent in 1982 and 1990); 15) social services (absent in 1982 and 1990); 16) mining and timber logging and transportation (absent in

1990 and 2000); 17) industry (absent in 1982 and 2000), 18) other sectors (slightly different in different years).

4.4 Occupational Structure of Labor Force

The occupational structure of labor force in China is indicated in Table 20, which shows:

- 1) From 1982 to 2000 the most outstanding characteristics of changes in the occupational distribution of China's labor force were the decline in the proportionate numbers of workers in the sector of agriculture, forestry, animal husbandry and fishery and the climb in the sector of commerce and services. In 1982 workers in agriculture, forestry, animal husbandry and fishery accounted for 72% of the total and declined to 65% in 2000, a drop of 8 percentage points. Meanwhile, the proportion of workers in commerce and services increased by 5 percentage points from 4% to 9%. This reflects the changes in China's industrial structure since the reforms and opening up.
- 2) Some gaps exist between male and female labor force in terms of occupational structure. In the occupations such as responsible staff of party and government departments and enterprises, production and transport workers, distribution of men was more concentrated while in the occupational fields such as agriculture, forestry, animal husbandry and fishery and services, the distribution of women was more concentrated. It is clear that, in terms of selection of occupations, men tend to engage in the occupations that enjoy higher social status while women engage more in the occupations with lower social status.

Table 20: Gender-Specific Occupational Composition of China's Labor Force in Selected Years (%)

Sector	1982			1990			2000		
	Total	M	F	Total	M	F	Total	M	F
Responsible staff of public departments, political and mass organizations and public service units.	1.56	2.48	0.37	1.75	2.81	0.45	1.72	2.61	0.64
Various professional and technical staff	5.07	5.56	4.44	5.31	5.29	5.35	5.85	5.16	6.69
Clerks and other staff	1.30	1.75	0.73	1.74	2.35	0.99	3.18	4.06	2.12
Businessmen	1.81	1.74	1.89	3.01	2.92	3.12	9.42	8.60	10.41
Service personnel	2.21	2.04	2.42	2.4	2.11	2.75			
Laborers in agriculture, forestry and animal husbandry	71.98	68.01	77.10	70.58	66.76	75.26	63.61	59.84	68.18
Production workers, transport workers and other relevant workers	15.99	18.33	12.96	15.16	17.72	12.03	16.16	19.66	11.91
Other unclassified workers	0.09	0.09	0.08	0.05	0.05	0.05	0.07	0.08	0.05
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Data sources: Calculated by using data obtained from the 1982, 1990 and 2000 population censuses.

4.5 Unemployment Rate

The unemployment rates obtained from the 1990 and 2000 are shown in Table 21. It should be pointed out that the definition of unemployment applied in the 1990 and the 2000 Population Censuses was not exactly the same¹³ and the comparability of the unemployment rate data from the two Population Censuses is not high. However, this data still represents the basic tract of China's unemployment rate, especially the reported unemployment rate:

Table 21: Gender-Specific Unemployment Rate in China Rural and Urban Areas (%)

Year	1990	2000
National Total	0.88	3.68
National Male	0.81	3.60
National Female	0.96	3.88
Urban Total	1.79	8.36
Urban Male	1.64	7.78
Urban Female	1.99	9.17
Rural Total	0.17	1.20
Rural Male	0.16	1.26
Rural Female	0.19	1.16

Data sources: Calculated by using data taken from the 1990 and 2000 Population Censuses.

- 1) Over the last ten years, the unemployment rate among the Chinese working age population has been increasing. The national unemployment rate for working age people rose from 0.88% in 1990 through 2.44% in 1995¹⁴, to 3.68% in 2000. A period of ten years saw a fourfold increase in China's unemployment rate.
- 2) The results of population censuses and sample surveys indicate that the unemployment rate for Chinese women (3.88 per cent) has been somewhat higher than that of men (3.60).
- 3) Unemployment rates for the male and female rural labor forces revealed by population censuses have been low. Yet this phenomenon is primarily caused by difficulties in defining the employment and unemployment of rural labor force in China. Because household employment prevails in rural areas and farmers work on their own contracted land, it is therefore difficult to define employment based on working time and the number of times they participate in work. According to the relevant requirements of the population censuses, the rural labor force with contracted land was not included among the figures for the unemployed. Hence, the rural unemployment rate attained via population census registration cannot properly reflect the actually higher unemployment situation in rural China.
- 4) Nevertheless, unemployment rate in rural China has been on the rise since 1990s.

¹³ In China, it was once believed that there was no unemployment. Even in cases of enormous employment pressure, it was only viewed in terms of people waiting to be employed. Not until the 1990s did unemployment become a widely accepted fact. In the 1990 Population Census, the unemployment population mainly referred to the urban population waiting to be employed. In the 2000 Population Census, the unemployment population included the following two types of individuals: those who had never worked and were seeking jobs, and those who had lost their jobs and were seeking jobs.

¹⁴ Results of 1995 sampling surveys on 1% population conducted by NBS.

- 5) Unemployment rate in urban China is relatively high. Ever since 1990s, urban unemployment rate has seen considerable increases. China's urban labor force unemployment rate in 1990 was 1.79% and jumped up to 8.36% by 2000. The unemployment rate in urban China can properly reflect the then unemployment levels of China's working population, which were more objective and reasonable than the officially registered unemployment rates.
- 6) Urban female employment rate was slightly higher than the male rate and gender differences in terms of unemployment rate had been expanding over time, reflecting that with employment restructuring unemployment risks for females are markedly higher than males.
- 7) Disaggregated by provinces (See Table 22), there were major gaps in the unemployment rates of different provinces. The male and female unemployment rates in Tibet, Yunnan and Shandong are all about 1%, compared with male and female rates as high as 10% in Shanghai and Liaoning.
- 8) With the few exceptions of Guangdong, Guangxi and Hainan provinces, the female unemployment rates are higher than the male rates in most provinces.
- 9) The 3 HIPs had the highest unemployment rates, which ranged from 5% to 10% for males and females. The average male unemployment rate for the three provinces was 8% and the female, 9%.

Table 22: Unemployment Rate by Province in China, 2000

Province	Male	Female	Province	Male	Female
Beijing	5.48	5.87	Zhejiang	3.16	3.52
Tianjin	8.77	10.58	Anhui	2.42	2.82
Hebei	2.18	2.57	Fujian	4.74	4.89
Shanxi	3.73	4.80	Jiangxi	3.38	3.79
Inner Mongolia	4.76	5.53	Shandong	1.61	1.81
Liaoning	8.18	11.11	Henan	2.05	2.47
Jilin	6.53	7.58	Hubei	4.59	4.73
Heilongjiang	7.67	8.73	Hunan	3.02	3.12
Shanghai	9.00	10.34	Guangdong	4.89	4.24
Jiangsu	3.15	3.39	Guangxi	2.90	2.50
Yunnan	1.34	1.30	Hainan	7.22	6.27
Tibet	0.93	0.79	Chongqing	3.43	3.80
Shaanxi	2.57	2.53	Sichuan	2.01	2.13
Gansu	1.93	1.98	Guizhou	2.05	1.75
Qinghai	3.56	3.45	Ningxia	2.73	3.73
Xinjiang	3.82	4.14			
Mean value for 3 HIPs				7.8	8.9
Mean value for 3 LIPs				2.3	2.1
Mean value for 6 minority group areas				2.7	3.0

Data sources: Calculated by using data taken from the 2000 Population Census.

In contrast, the unemployment rates were lowest in the 3 LIPs, where both male and female rates were around 2%. The average male unemployment rate for the three provinces was 2.3% and

female, 2.1%.

- 10) The unemployment rates of six ethnic minority areas were lower. The average unemployment rate of the six provinces was 2.7% for males and 3.0% for females. Among them, Inner Mongolia had relatively higher unemployment rate with the male rate at 4.8% and the female rate, 5.5%, and the rest all had lower male and female unemployment rates.

4.6 Age-specific Unemployment Rate

In order to examine the gaps between men and women in terms of unemployment, it is also necessary to examine the age-specific unemployment rate. According to the data taken from the 1990 and 2000 Population Censuses as well as the data from the 1995 sampling surveys on 1% population, the age-specific unemployment rates can be calculated for the years of 1990, 1995 and 2000. To more effectively present the calculations, we have drawn Figure 8 by using the age- and gender-specific unemployment rates in 1990, 1995 and 2000 for the whole of China and urban and rural areas. Figure 8 shows:

- 1) Due to different scopes of statistics, China's agricultural unemployment rates obtained from the population censuses have been low levels with minor gaps between males and females. China's real unemployment rate is mainly reflected as urban unemployment rate.
- 2) From the basic shape of the curve for the age-specific unemployment rate of working age population in urban China, the basic patterns of such unemployment rate are: (i) when it enters the labor age, the unemployment rate of young people is high. This is mainly because it takes time for them to find a job. After that, the unemployment rate gradually declines; (ii) after the age of 25, the unemployment rate gradually stabilizes; 3) after the age of 45 the rate again decreases.
- 3) From a comparison between men and women, the basic patterns of gender gaps in terms of unemployment rates are: (i) within the early years after the working age, the male unemployment rate is higher than the female rate. This is perhaps because men are more nitpicking about their jobs; (ii) between 25-45, the female unemployment rate has been higher than men; (iii) after the age of 45, the male unemployment rate is again higher than the female rate. During this period, some of the unemployed women completely give up their hope for employment and no longer seek for employment. Therefore, they are not registered as unemployed population from a statistical perspective, thus resulting in the decline of their unemployment rate.
- 4) According to the curve of age-specific urban unemployment rate in 2000, around the year 2000, the unemployment rate of the middle-aged labor force, especially the middle-aged female labor force was prominently high. It is clear that middle-aged women rather than the younger women face the highest unemployment risks.

Figure 8: Age-Specific Unemployment Rate in China, 1990, 1005 and 2000

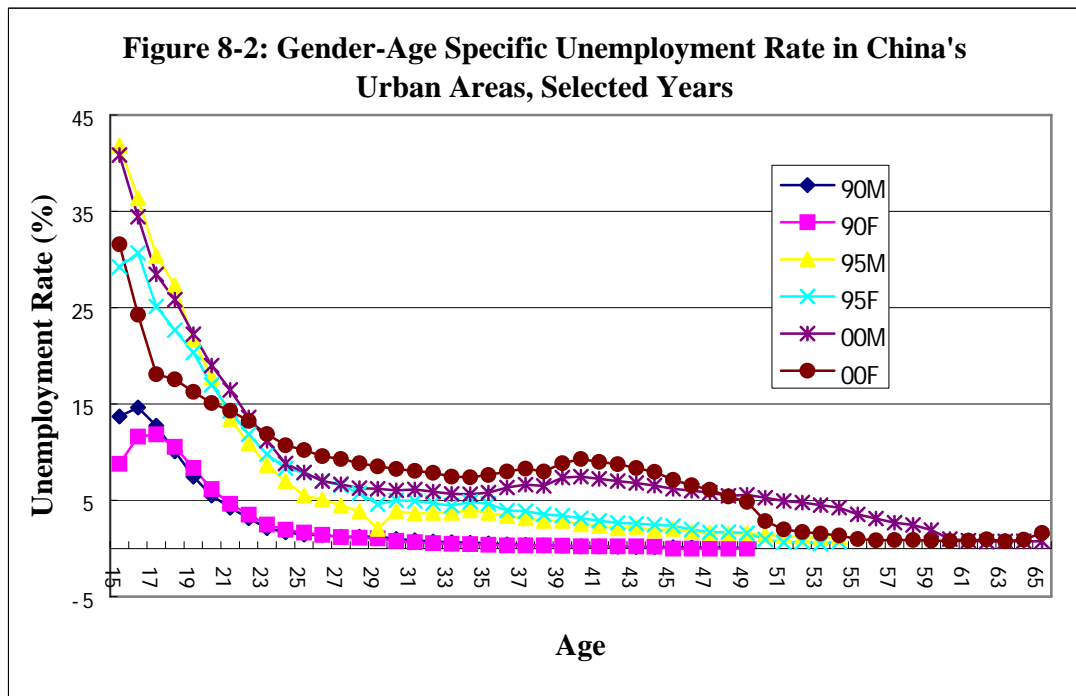
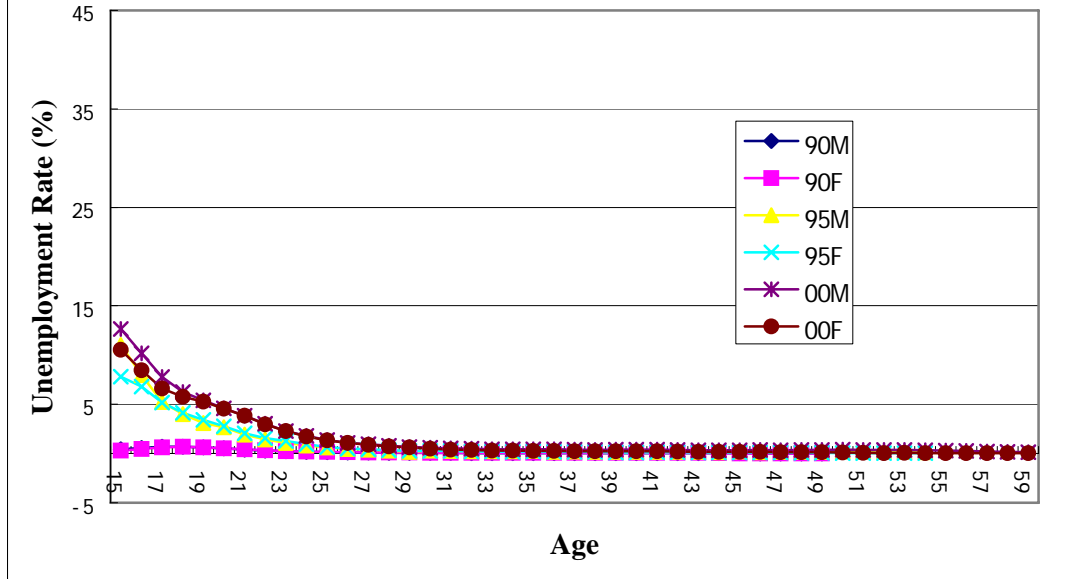


Figure 8-3: Gender-Age Specific Unemployment Rate in China's Rural Areas, Selected Years



Data sources: Calculated by using data from the 1990 and 2000 Population Censuses and 1995 sampling surveys on 1% population.

Chapter Five: Gender Gaps: Health

Using population census data, the health status of a population can be studied with average life expectancy at birth and infant mortality rate (IMR). Yet both life expectancy at birth and IMR are restrained by the quality of data, which must be selected for analysis.

Infant Mortality Rate

1) Data Quality Assessment and Data Selection

Since 1980s China has carried out three population censuses. Scholars have calculated the IMRs for different years by using data taken from the three censuses. Analysis of relevant data shows that the quality of mortality data in the early 1980s was relatively reliable in China, and little variation had been seen in the calculations of IMRs 1981 from different researchers using the 1982 Population Census data. The variation, which stands at about 3%, is indicated in Table 23.

However, by early 1990s, the quality of mortality data started to be questioned. The variation between calculations of 1989 IMRs from different researchers using the 1990 Population Census data had increased dramatically. Table 23 shows that the variation for female IMR was 10% and that for male IMR had reached as high as 17%. Therefore, it appears critical to select what type of data to examine the IMR before analyzing the status and changing trends of infant mortality rates.

Table 23: Partial Estimates of Infant Mortality Rates for 1982 and 1990 Population Censuses (‰)

Author	1982 Population Census		1990 Population Census	
	Male	Female	Male	Female
Jiang Zhenhua, etc.	35.6	33.7	--	--
Zhai Zhenwu	--	--	43.1	38.4
Li Shuzhu	36.1	34.2	32.2	36.8
Lu Lei, etc.	--	--	30.2	34.9
Huang Rongqing, etc.	38.73	36.67	25.49	29.39

Data sources: Jiang Zhenhua, et. Al, 1984: 710-711; Zhai Zhenwu, 1993:9-16; Lu Lei et. Al, 1994:52-59; Li Shuzhuo, 1994: 37-44; Huang Rongqing, et. Al, 1995:21-41.

The report has selected the following IMR data:

For the IMR in the 1982 Population Census, calculations from Huang Rongqing and others have been adopted. The reasons are twofold: (i) little variation had been seen in the IMR calculations from different researchers for this population census, and such selection will not have significant impact on the analysis findings; (ii) Huang Rongqing and others have provided age-specific rural and urban IMRs and can meet the analysis requirements of this report in terms of data format.

Due to significant variation between IMR calculations from different researchers using the 1990 Population Census, it is very difficult to select the IMR data in the 1990 Population Census. The report eventually selected the calculations from the Department of Population and Employment of NBS. The reasons are: (i) compared with relevant data in Table 23, the nationwide male and female IMRs from this calculations are “in the middle”, which are not so extreme and are easily to be accepted; (ii) the calculations are from the most authoritative national statistics agency¹⁵.

The IMR in the 2000 Population Census is calculated and provided by NBS¹⁶. The selected IMRs for China calculated by using the data from the three population censuses are shown in Table 24.

2) Outcome of Data Analysis

Since 1980s, China has seen a significant drop in infant mortality rates, which decreased from 38‰ in 1981 to 28‰ in 2000, a decrease by 25%. In the past 20 years, the decrease of infant mortality rates in China’s urban areas has clearly exceeded those of rural areas. IMR for China’s urban areas declined from 36‰ in 1981 to 13‰ in 2000 by a margin of 45%. IMR for rural areas declined from 40‰ in 1981 to 36‰ in 2000 by a margin of only 11%. The IMR in rural China is much higher than the urban rate, and the disadvantaged status of rural China has been reinforced during the past 20 years. Since the decrease of the urban rate is more significant than the rural rate, rural-urban IMR gaps were growing. In 1981, the rural rate was 1.67 times that of the urban rate and in 2000, the rural rate had reached 2.68 times that of urban areas.

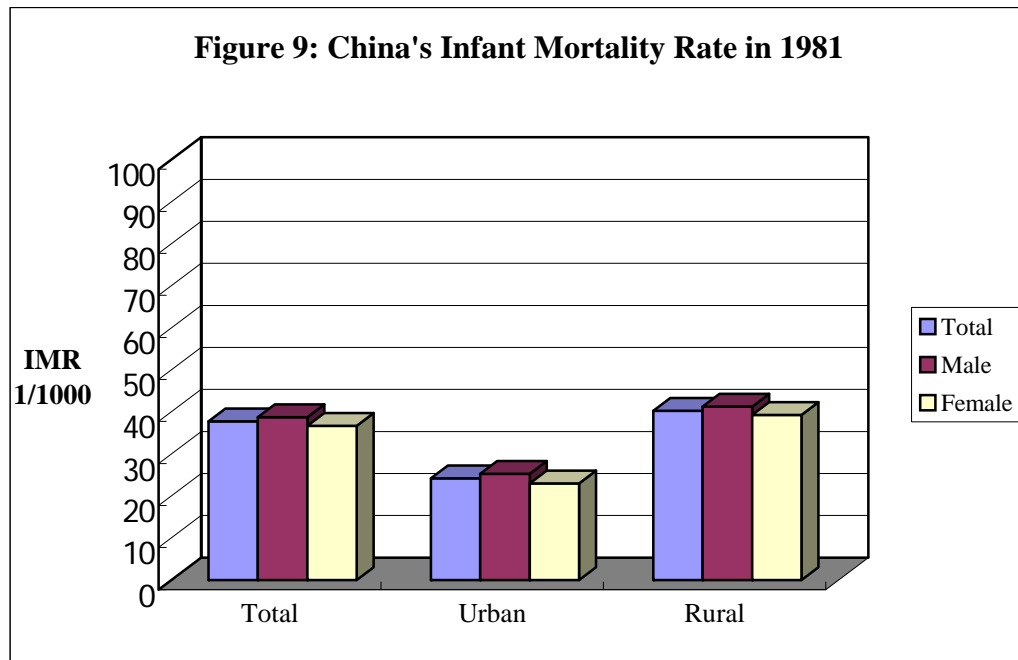
Table 24: China’s Infant Mortality Rate in Selected Years (‰)

	1981			1989			2000		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	37.74	38.73	36.67	32.89	32.36	33.48	28.41	23.92	33.75
Urban	24.16	25.27	22.96				13.32	11.55	15.38
Rural	40.27	41.23	39.23				35.72	29.80	42.87

Data sources: the infant mortality rate obtained from the 1982 Population Census is cited from (Huang R.Q., 1995, Page 21-37); the infant mortality rate obtained from the 1990 Population Census is cited from (National Bureau of Statistics, 1995, Page 232-330. The data fails to provide infant mortality rates for rural and urban areas); the infant mortality rate obtained from the 2000 Population Census is calculated and provided by NBS.

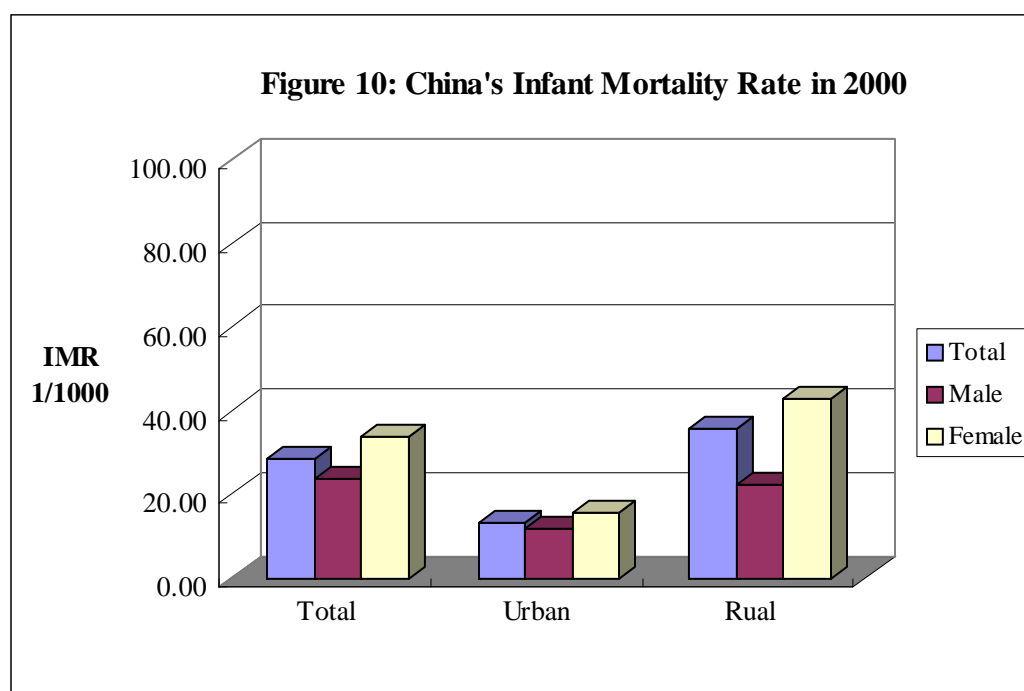
¹⁵ China’s Ministry of Health conducts annual observations on the IM and discloses IMR data on a regular basis. There is some variation between the IMR disclosed by MOH and that disclosed by NBS. Considering that the IMR data released by MOH doesn’t contain detailed categorized information and the scale of the observed sample is small, therefore, the report has selected the IMR obtained from the population censuses.

¹⁶ When calculating IMRs from the 2000 Population Census data, NBS multiplied the number of deaths directly enumerated from the census by 1.08 and obtained the gender-age specific number of deaths between November 1st, 1999 and October 31, 2000. The same approach is adopted for addressing the mortality data in calculating life expectancy.



Data sources: See Table 24.

Women are biologically at an advantage compared with men, so in a normal case, the mortality rate for female infants would be lower than that for males (Figure 9). The Chinese male and female IMRs revealed in the 1982 Census were consistent with this rule. However, in 1989 and 2000, the Chinese IMRs deviated from the above rule: the female IMR started to exceed the male IMR. In 1989, the male and female rates stood at 32.36‰ and 33.48‰, respectively, with the female rate one point higher than the male, giving rise to a phenomenon of sex ratio for the IMR being lower than 1 at 0.96; in 2000, the rates were 24‰ and 34‰ respectively in China, the female rate being 10 points above the male rate (Figure 10). The sex ratio for the IMR further declined to 0.71. Over a period of ten years, the abnormal gap between the male and female IMRs was becoming more prominent.



Data sources: See Table 24.

The abnormal phenomenon of higher female IMR than that of the male does not only exist in rural areas, but also in urban areas as well. In rural areas, male IMR had dropped by 11% between 1981 and 2000 while the female IMR had shown a rising trend by about 4 points. In 2000, the male and female IMRs for rural China were 30‰ and 43‰, respectively, those for urban China were 12‰ and 15‰ respectively, and the sex ratios of rural and urban IMRs stood at 0.70 and 0.75, respectively.

There are remarkable regional and economic differences with China's IMRs. In the year 2000, the IMRs for the regions of Beijing and Shanghai had fallen to a low level of around 4‰, while those for Yunnan Province remained as high as 70‰ (See Table 25). The regional differences in IMRs have to a large extent reflected their economic differences. The IMRs for the three HIPs have fallen to around 4‰. In 2000, the average IMR was 4.1‰ for male infants and 4.3‰ for female infants in these regions. The average IMRs for 50 HICs were only 8.71‰, which is obviously lower than the national average. As a clear contrast, the average IMRs for the three LIPs were much higher. In the year 2000, the IMRs in Guangxi, Gansu and Guizhou were 31‰, 53‰ and 66‰, respectively, which were far above the rates in the higher income regions. The average IMRs of 592 PSCs are 39.94‰ and their male rates and female rates are 35.2‰ and 45.44‰ respectively, which are all much higher than the national average. The average IMRs for the 50 LICs are 53‰, which are not only critically higher than the national average, but also much higher than the average of 592 PSCs.

Table 25: Infant Mortality Rate for Provinces in China, 2000 (‰)

Province	Infant Mortality Rate	Province	Infant Mortality Rate
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	Total	Male	Female		Total	Male	Female
Beijing	3.80	3.79	3.82	Fujian	21.77	17.74	26.59
Tianjin	4.44	4.42	4.45	Jiangxi	52.46	31.36	78.50
Hebei	18.19	15.31	21.51	Shandong	15.11	13.54	16.88
Shanxi	19.37	17.83	21.09	Henan	23.18	17.65	30.29
Inner				Hubei			
Mongolia	32.06	30.25	34.02	Hubei	19.58	17.22	22.63
Liaoning	11.16	10.90	11.45	Hunan	28.48	24.50	33.50
Jilin	17.98	17.78	18.20	Guangdong	17.16	13.20	22.37
Heilongjiang	10.96	11.59	10.28	Guangxi	31.10	22.98	41.36
Shanghai	4.40	4.23	4.59	Hainan	23.85	17.37	32.77
Jiangsu	14.53	13.28	16.02	Chongqing	21.75	21.55	21.98
Zhejiang	11.93	11.09	12.90	Sichuan	21.57	21.12	22.09
Anhui	33.47	26.78	42.07	Guizhou	66.05	58.00	74.90
Gansu	52.98	45.11	62.13	Yunnan	70.32	61.77	79.71
Qinghai	50.55	49.05	52.21	Tibet	43.01	43.67	42.34
Ningxia	27.33	27.67	26.95	Shaanxi	33.04	26.62	41.01
Xinjiang	40.10	42.41	37.64				
Mean value for 3 HIPs					4.2	4.1	4.3
Mean value for 3 LIPs					50.0	42.0	59.5
Mean value for 6 ethnic minority areas					40.7	38.1	43.7
Mean value for 592 poverty-stricken					39.94	35.20	45.44
Mean value for 50 HICs					8.71	8.54	8.93
Mean value for 50 LICs					53.04	49.11	57.76

Data sources: Calculated and provided by NBS.

Although there are remarkable regional and economic differences in terms of IMRs, it is a pervasive phenomenon that female IMR is higher than the male rate. With a few exceptions of Heilongjiang, Ningxia, Tibet and Xinjiang where the female rate was slightly lower than the male rate, female IMRs in other provinces were all way above the male rates. Among the 31 provinces, 8 had their IMR sex ratios lower than 0.7, 11 had their ratios between 0.7 and 0.9 and 8 had the ratios between 0.9 and 1.0. In a few provinces such as Jiangxi, the female IMR even more than doubled the male figure. The average IMR for the six ethnic minority areas was 38‰ for males and 44‰ for females, higher than their respective national average with the IMR sex ratio at 0.87.

Gender differences in IMR have some correlation with economic development levels. The IMR sex ratio in the 3 HIPs was higher than that of the 3 LIPs, at 0.95 and 0.71, respectively; the IMR sex ratio in the 50 HICs was higher than that of the 50 LICs, at 0.95 and 0.85, respectively.

5.2 Average Life Expectancy

1) Data Quality Assessment and Data Selection

The indicator of average life expectancy has the same problem as IMR in terms of its data quality. Prior to analyzing the trends of average life expectancy, it is also necessary to carefully select the data. Based on the same considerations as the IMR, the report has selected the average life expectancy for 1981 calculated by Huang Rongqing, etc. As for the 1989 average life expectancy provided by the 1990 Population Census, the calculations of Huang Rongqing, etc. and those of NBS are selected. The average life expectancy in the 2000 Population Census was calculated and provided by NBS.

The data for the average life expectancy in China for the years of 1981 and 1989 are indicated in Table 26 and data for 2000 is presented in Table 27.

Table 26: Average Life Expectancy in China (1981 and 1989)

	Average Life Expectancy (Years)		
	Male + Female	Male	Female
1981 Nationwide	67.67	66.21	69.12
1981 Urban	70.87	69.08	72.74
1981 Rural	66.95	65.56	68.36
1989 Nationwide	70.06 (68.55)	68.35 (66.85)	71.91 (70.49)
1989 Urban	72.77	70.7	75.05
1989 Rural	69.18	67.59	70.91

Data sources: Huang Rongqing, Liu Yan (1994):21-53. The figures on average life expectancy in the brackets are calculated by the Department of Population and Employment Statistics (1995:232-236) of NBS.

2) Outcome of Data Analysis

The two tables show:

- (i) Between 1981 and 2000, average life expectancy in China improved by 3.7 years from 67.7 years to 71.4 years. Rural and urban areas had also seen improvements in the average figure, but there were tendencies of expanding gaps between rural and urban areas. In 1981, the life expectancy gap between rural and urban areas was between 3.5-4 years; by 2000, such gap had been expanded to more than 5 years.
- (ii) Over the same period, there had been increases in the male and female life expectancy with the average male figure increased by 3.4 years from 66.2 to 69.6 and the female figure, by 4.2 years from 69.1 to 73.3. The female figure was about 0.8 years higher than the male figure.

Table 27: Average Life Expectancy for Provinces in China (Years)

Province	Average Life Expectancy	Province	Average Life Expectancy
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	Total	Male	Female		Total	Male	Female
Beijing	76.10	74.33	78.01	Shandong	73.92	71.70	74.66
Tianjin	74.91	73.31	76.63	Henan	71.54	69.67	73.59
Hebei	72.54	70.68	74.57	Hubei	71.08	69.31	73.02
Shanxi	71.65	69.96	75.36	Hunan	70.66	69.05	73.41
Inner Mongolia	69.87	68.29	80.04	Guangdong	73.02	70.79	73.27
Liaoning	73.34	71.51	76.23	Guangxi	71.29	69.07	72.47
Jilin	73.10	71.38	77.21	Hainan	72.92	70.66	73.75
Heilongjiang	72.37	70.39	76.26	Chongqing	71.73	69.84	73.89
Shanghai	78.14	76.22	80.04	Sichuan	71.20	69.25	73.39
Jiangsu	73.91	71.69	75.93	Guizhou	65.96	64.54	67.57
Zhejiang	74.70	72.50	75.26	Yunnan	65.49	64.24	66.89
Anhui	71.85	70.18	73.57	Tibet	64.37	62.52	66.15
Fujian	72.55	70.30	75.07	Shaanxi	70.07	68.92	71.30
Jiangxi	68.95	68.37	75.04	Gansu	67.47	66.77	68.26
Qinghai	66.03	64.55	67.70	Ningxia	70.17	68.71	71.84
Xinjiang	67.41	65.98	69.14				
Total	71.40	69.63	73.33				
Urban	75.21	73.11	77.51	Rural	69.55	67.94	71.31
Mean value for 3 HIPs					76.4	74.6	78.2
Mean value for 3 LIPs					68.2	66.8	69.9
Mean value for 6 ethnic minority areas					68.1	66.5	69.9
Mean value for 592 poverty-stricken					69.1	67.5	71.0
Mean value for 50 HICs					76.7	74.7	79.2
Mean value for 50 LICs					67.4	66.2	68.8

Data sources: Calculated and provided by NBS.

Remarkable differences also exist among different regions in terms of average life expectancy (See Table 27). In 2000, Shanghai had the highest average figure of 78 years while Tibet had the lowest figure of only 64 years, a gap as wide as 14 years. According to the average life expectancy of the provinces, they can be classified to four types of regions. The first type refers to those having an average figure above 74 years for males and above 77 years for females, which had reached the level of developed counties, including the three municipalities of Shanghai, Beijing and Tianjin. In 2000, the average figures in the three regions were 77 years for males and 80.8 years for females. The second type refers to the regions with the average figure between 70-72 years for males and 73-76 for females, including 10 provinces of Jiangsu, Liaoning, Hebei, Jilin, Heilongjiang, Shandong, Zhejiang, Guangdong, Henan and Shanxi. The third type covers those with the average figure between 68-70 for males and 70-73 for females, including 13 provinces of Anhui, Fujian, Inner Mongolia, Shaanxi, Jiangxi, Gansu, Hubei, Hunan, Hainan, Guangxi, Ningxia, Sichuan and Xinjiang. The fourth type involves the regions with the average figure between 62-68 for males and 64-70 for females, including 3 provinces of Guizhou, Yunnan and Tibet. In addition, Chongqing and Qinghai fall under type 4 regions in terms of their average

life expectancy for males and type 3 regions in terms of their female figure.

Differences reflected by average life expectancy are the manifestations of differences in social and economic development. There are remarkable differences in terms of average life expectancy between 3 HIPs and 3 LIPs. In the year 2000, the average life expectancy for Shanghai, Beijing and Tujian reached 78, 76 and 75 years, respectively, which are way higher than the national average (71 years). The average male and female life expectancy figures for these provinces were 75 and 78 years, respectively. The average life expectancy for 3 LIPs was 67 years for men and 70 for women, some 8 years lower than 3 HIPs. Of the 3 LIPs, life expectancy of Guangxi was close to the national average, but Guizhou and Gansu had only 66 and 67 years, which are obviously lower than the national average. The average figure for 50 HICs was 75 years for males and 79 for females, which are 6 years higher than their respective national average. The average figure for 50 LICs was 66 for males and 69 for females, 3 years and 5 years lower than their respective national average.

5.3 Summary of the Chapter

In the latter half of the 20th century, China had achieved great results in the field of population health. The data from the 5th Population Census indicate that the average life expectancy of China's population has reached 71.4 years, 5 years higher than the world's average and 7 years higher than the developing countries and regions. In some regions such as Shanghai, the average life expectancy has reached 79.7 years, the average level of the world's developed countries. However, China has a vast land and imbalanced social development among different regions, there still exist marked differences between rural and urban areas as well as between rich and poor areas in terms of health levels.

Since 1980s, China has seen a further increase in its average life expectancy and a considerable decline in its IMR. For average life expectancy, the growth of females outnumbered that of males over the 20 years between 1981 and 2000. Contrary to this, for IMR, male IMR declined by a large margin while the female rate only saw a minor drop and even a rising trend in rural areas. As a result, there was an abnormal phenomenon of higher female IMR than the male rate. After 1990s, the abnormality was getting worse. The abnormal phenomenon does not only exist in rural areas, but also in urban areas as well, and not only in economically developed regions, but also in underdeveloped regions as well, but more prominent in the underdeveloped regions. The IMR level is determined by biological, population, socioeconomic and environmental factors. In a society free of gender discrimination, due to the biological differences in children's survival, male IMR should be higher than the female rate while the higher female IMR than the male rate would otherwise reflect the gender differences in infant mortality levels.

Appendix 1: Gender Inequality Indicators by Province from 1982 Population census of China

Appendix 2: Gender Inequality Indicators by Province from 1990 Population census of China

Appendix 3: Gender Inequality Indicators by Province from 2000 Population census of China

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