

URBANIZATION IN CHINA

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INTRODUCTION

CHINA's process of urbanization followed its own peculiar pattern until the early 1980s due to the government's strict regulation of intra-country migration. During the latter half of the 1950s, the government closed the labor market and placed strict controls on the movement of people from rural to urban areas. During the next two decades China's citizens lost the freedom to choose and change their occupation and residence. These controls began to slacken from the early 1980s as the people's commune system was phased out. In the mid-1980s the labor market was virtually reconstituted, and though regulation of migration still exists, the actual pattern of population movement has increasingly begun to resemble that of other developing countries.

This paper focuses on the following two topics: the structure of China's urbanization, and changes over time in the level of urbanization. The former refers to the changes that take place in cities of various size.

I. DEFINITION OF THE URBAN AREA

As in most other countries, the definition of urban areas in China is fairly complex. It is therefore necessary for us to carefully examine the published population statistics to find out the range of cities they represent. What is peculiar about the definition of China's urban areas is that there are cities with urban status and those without it. The status of a city is vitally important for its residents because once the status of a city is recognized as urban, its residents are allowed to become holders of urban registration to whom the government is obligated to provide food, occupation, and accommodation.

Since taking power in 1949, the Chinese government has defined and redefined the definition of "city" three times. The first was in November 1955 when the State Council decided on the criteria for urban-rural zoning (see also [7]). According to the decision, cities and towns that fulfilled any of the following criteria could acquire urban status: (1) those areas with a population of 100,000 or more permanent residents, (2) those areas with a population of 20,000 or more where local administrative offices of the county level or higher were situated, (3) those areas that had a population of 2,000 or more permanent residents, 50 per cent of whom were in nonagricultural occupations, and (4) those areas with 1,000–2,000 permanent residents, 75 per cent or more of whom were in nonagricultural occupations. The deci-

sion also provided for several exceptions. Cities (*chengshi*) fulfilling criterion (1) or (2) were defined as “officially designated” cities (*jianzhishi*), while towns (*jizhen*) fulfilling criterion (3) or (4) were defined as “officially designated” towns (*jianzhizhen*).

The second time cities were defined was in December 1963 when the Central Committee of the Chinese Communist Party and the State Council issued a directive adjusting the official definition of cities and towns in order to reduce the number of designated towns and to disqualify many of the suburban areas of cities from urban status. Moreover, this directive defined cities more narrowly, and, although not explicitly pronounced in the directive, smaller-sized cities with a population of less than 100,000, with the exception of provincial capitals and other cities of special importance, were redefined as designated towns. After this directive was issued, a nearly total ban was placed on the transfer of family registers from rural to urban area.

The third change in definition took place in October 1984 when measures were taken by the Civil Service Department to ease the interpretation of the definition for cities and towns. According to the new definition: (1) those areas where local governments of the county level or higher are located are defined as urban areas irrespective of the size of their permanent resident population, (2) in rural areas, governed by village (*xiang*) authority and with a population of 20,000 or more, a densely populated location where an administrative office is situated can become a designated town if the percentage of its nonagricultural population is over 10 per cent, (3) in rural areas, governed by village authority and with a population of less than 20,000, a densely populated location where an administrative office is situated can become a designated town if the nonagricultural population is more than 2,000 people. Moreover, these measures allow the agricultural population to transfer their family registers from rural areas to officially designated towns (but not to designated cities) and allow them to take up nonagricultural jobs. The migrants who have transferred their family registers to designated towns are now under the control of city residential authority.

China’s urban and rural districts have thus been administratively separated, with the rural population placed under the control of the village authority and the urban population under the city residential authority.

A. *Expansion of Administrative Jurisdiction*

The Chinese government maintains five categories of urban population statistics (listed below). Four of these are published. It does not publish the figure for the broadest definition of urban population, category (a). (For details see also Figure 1 and Appendix Table I.)

- (a) Total population of areas under jurisdiction of officially designated cities and towns.
- (b) Total population of extended areas under municipal jurisdiction (*chengshi xingzheng diqu zongrenkou*).
- (c) Urban population (*shizhen zongrenkou*).
- (d) City district population (*shiqu zongrenkou*).

Fig. 1. Categories of Urban Population Statistics

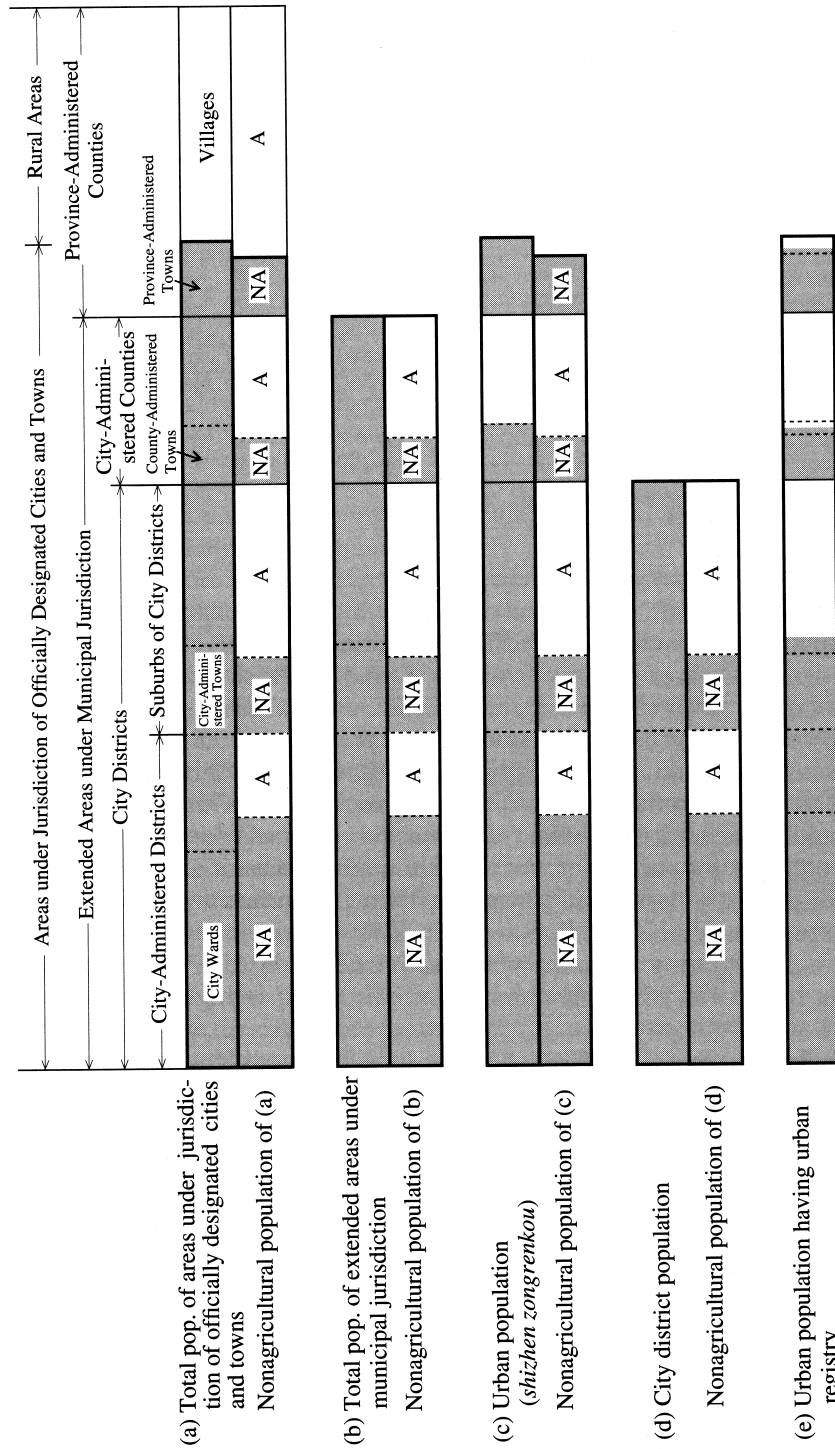


TABLE I
EXPANSION OF EXTENDED AREAS UNDER MUNICIPAL JURISDICTION IN 1983

	Extended Areas under Municipal Jurisdiction				Proportion of Extra-City Population in the Population of Extended Areas under Municipal Jurisdiction		
	Area (km ²)		Expansion Ratio	1983 Pop.	Of Which: City District Pop.	1982	1983
	1982	1983	$\left(\frac{1983}{1982}\right)$	$\left(\frac{1,000}{\text{Persons}}\right)$	$\left(\frac{1,000}{\text{Persons}}\right)$		
Wuhan	4,480	8,216	1.83	5,940	3,280	22.7	34.7
Guangzhou	11,757	16,657	1.42	6,840	3,160	44.4	53.8
Ha'erbin	1,637	6,769	4.14	3,730	2,560	—	31.4
Chongqing	9,848	22,341	2.27	13,890	2,690	59.3	80.6
Nanjing	4,718	6,516	1.38	4,560	2,170	43.0	52.4
Xi'ang	2,441	9,853	4.04	5,350	2,220	25.9	58.5
Chengdu	3,861	12,614	3.27	8,490	2,510	38.6	70.4
Qingdao	5,966	10,654	1.79	6,200	1,210	72.3	80.5

Source: [8, 1983 and 1984 editions].

(e) Urban population having urban registry.

When analyzing urban issues, choosing the index of urbanization can be highly problematic because changes in official definition since the early 1980s have rapidly expanded the area of cities. In the 1960s and 1970s, state leaders, out of policy considerations, preferred to keep the population of densely populated locations (*jizhen* or town) in the rural districts under the category of rural population although it was in fact urban. During the 1980s, however, this rural-biased policy gave way to a diametrically opposite designation of cities and towns because the idea rapidly spread that the urban area was the center of economic activity. Work began on plans for core cities. As a result, qualified towns were promoted to the status of officially designated towns, expanding suburban areas of existing cities were brought under the jurisdiction of the cities, and city jurisdiction was extended to cover neighboring counties with the introduction of a new administrative echelon called "city-administered counties" which is higher than the county echelon.

Table I gives some examples where the suburban areas have been expanded and the administrative areas extended. Chongqing is one extreme case where the population in the expanded suburban areas as well as those that fell under the city's newly extended jurisdiction came to account for 80 per cent of the city's total population.

The extension of the city's jurisdiction entailed reorganization of the administrative system, replacing the traditional two-tiered provincial government-county administration hierarchy with a three-tiered structure consisting of the provincial government, city administration, and county administration. The county that has now come under the city government's jurisdiction is called the city-administered county (*shixiaxian*). Statistics in category (b) (*chengshi xingzheng diqu zongrenkou*) show the population under extended municipal jurisdiction which in-

TABLE II
POPULATION OF YUEYANG CITY, 1990

	Total Population
Yueyang City (A)	4,784,529
City district	529,836
South district	228,070
North district	151,278
Suburb	150,488
Leiluo City	667,255
Yueyang City (B)	777,247
Linxiang County	453,662
Huarong County	769,656
Xiangyin County	637,585
Pingjiang County	949,308

Source: [3, 1992 edition, p. 295].

clude not only the population of designated cities and towns but also the whole population of city-administered counties.

This expansion of urban population through urban administrative reorganization has made population statistics complex. The situation in Yueyang City, Hunan Province, exemplifies this complexity. Table II indicates the results of the 1990 population census for the city. The table shows two Yueyang cities which I have indicated as Yueyang cities (A) and (B). Yueyang City (A) is the extended area under municipal jurisdiction. It was formerly Yueyang Prefecture but was renamed city in the mid-1980s. The city district (*shixiaqu*) is the area directly administered by Yueyang City (A). The population in Leiluo City and Yueyang City (B) is also counted as urban population. But the population in the four counties adjacent to Yueyang City (B) is not entirely regarded as urban population as far as the urban population in category (c) is concerned. Only the population in the officially designated towns in the counties is included in the urban population. From the population statistics as shown in Table II, we cannot calculate the urban population, as the statistics contain the county population residing outside of the designated towns.

It must be noted that the categories (a) through (d) include the agricultural population residing within the boundaries of urban areas. The size of the agricultural population in urban areas has grown greatly since the early 1980s.

Category (e) refers to urban population having urban registry. It must be noted that there is a small portion of the agricultural population which has urban family register. The statistics in this category are available from the year 1982.

B. *Population Statistics Based on Family Registry*

It is important to note that the published statistics for urban population do not indicate the actual number of urban residents. They merely show the population figures calculated on the basis of family registry. Population statistics are basically based on the population census which is static by nature. Changes that have resulted from migration can be obtained only through data collected by local police

stations which tally family register transfers. Although these data are incorporated into the population statistics by the statistical departments, updating is not frequent and moreover they do not cover the total figures for migrants.

The guidelines for the third census (1982) state the following [1]. The population of a city or a county is made up of:

- (i) those who reside permanently in the city or county concerned and hold registry there;
- (ii) those whose registry is outside the city or county concerned but have lived in the said city or county for one year or longer;
- (iii) those who have lived in the city or county concerned for less than a year but moved their family registry into said city or county one year or more earlier;
- (iv) those whose application for transfer of family registry to the city or county concerned is being processed at the time of the census; and
- (v) those who have residential family registry in the city or county concerned but are living abroad at the time of the census.

The statistics based on the above guidelines indicate the location of one's family registry but do not necessarily show where one actually resides. This inevitably disregards the huge temporary migrant population in urban areas. In 1992 approximately 70 million people were believed to be actually residing in urban areas as *mangliu* (drifting) population. But following the family registry principle, the majority of these people have been counted as rural population. Generally, the size of the drifting population is measured using hotel check-in cards [2, p.198]. Farmers who are employed for construction projects are counted by the government on the basis of reports from employing enterprises. The population in these categories is referred to as "temporary resident population" and is reflected in the government statistics. But there is no way of counting those temporary residents staying with relatives or friends. Thus, while the population census covers category (ii) residents, most of the drifting population is not accurately entered into urban population statistics.

How large is the differential between the permanent resident population and temporary resident population? One of the extreme examples is Shenzhen City where there has been a large-scale influx of temporary residents. As Table III shows, the size of the temporary resident population is so large that it surpasses that of the permanent resident population. However, as Table IV shows, except for the *Statistical Yearbook of Shenzhen* [6] (used as the source for Table III), most of other statistical books disregard the size of the temporary population. For this reason, statistical sources used for these two tables give a variety of figures for the 1991 population of Shenzhen City from a low of 432,000 to a high of 2,385,300.

Item (5) of Table IV gives 1,667,400, which certainly must include temporary residents. However, Table III provides 2,019,400 as the total population in 1990. The former figure is as of July 1, 1990 while the latter is as of the end of 1990; nevertheless the difference between the two is obviously too large to be acceptable even if taking the factor of accelerated migration into consideration. The only plau-

TABLE III
POPULATION OF PERMANENT AND TEMPORARY RESIDENTS, SHENZHENG CITY

	(1,000 persons)	
	1990	1991
Year-end total population	2,019.4	2,385.3
Special district as a whole (a) + (c)	1,009.8	1,198.0
1. Permanent resident population	686.5	732.2
Special district (a)	395.3	432.1
Baoan county (b)	291.3	300.1
2. Temporary resident population	1,332.9	1,653.1
Special district (c)	614.5	765.9
Baoan county (d)	718.4	887.2

Source: [6, 1992 edition, pp. 177-78].

TABLE IV
SHENZHENG CITY POPULATION STATISTICS FROM VARIOUS STATISTICAL SOURCES

	(1,000 persons)	
	Population	Source
(1) Population, end 1991, excluding county areas	432.0	[8, 1992 edition, p. 680]
(2) Population, end 1992, Shenzheng City	802.0	[8, 1993 edition, p. 691]
(3) Population, end 1991, Shenzheng City extended area	732.2	[9, 1992 edition, p. 57]
(4) Population, end 1991, city district	432.1	[9, 1992 edition, p. 57]
(5) 1990 census, Shenzheng City area	1,667.4	[10, 1992 edition, p. 374]

sible explanation is that the 1990 year-end figure, given in the *Statistical Yearbook of Shenzhen*, has a more accurate inclusion of temporary residents.

Shenzhen City is well known for a particularly large proportion of temporary residents. But other Chinese cities also have sizable temporary resident population. In sum, it needs to be remembered that statistics of permanent resident population are susceptible to gross underestimation, and cannot be used as given to determine the level of China's urbanization.

C. *The Problem of Village and Township Enterprise Population*

Village and township enterprises, which are now thriving, arose from former people's commune enterprises. In 1980 approximately 30 million people were employed in this sector. By 1992 their number exceeded 100 million, which was about the same as the number of state sector employees (including public servants). The people in this sector have already quit agriculture, but continue to be counted as part of the rural population unless they move their family registry to officially designated towns or their native towns are promoted to officially designated towns. As the above figure of 100 million is only for employees, the total population falling into this category, including dependents, most likely is around

250 million. It is clear, therefore, that the number of people having quit agriculture is greatly underestimated if it is calculated on the basis of family registration.

II. ESTIMATING THE LEVEL OF CHINA'S URBANIZATION

The World Bank's annual *World Development Report* carries in the 1991 edition urbanization rates for various countries in 1965 and 1989 (pp.264–65). For China, the report gives 18 per cent and 53 per cent for the respective years. It is however inconceivable for a country whose level of urbanization had not grown significantly until the end of the 1970s to suddenly jump to 53 per cent in a single decade. China's population stood at around 1,100 million in 1989, which would put the urban population at some 600 million that year if the World Bank report were accurate. But this totally unrealistic figure is certainly due to the bank's uncritical acceptance of China's published population statistics.

Data about urbanization rate in the 1990 and 1992 editions of the *Statistical Yearbook of China* [8] are shown in Table V. Both editions give about the same figures until 1982, but thereafter differences appear. The 1990 edition gives 51.7 per cent and the 1992 edition 26.2 per cent as their respective levels of urbanization in 1989. From the 1991 edition on, the 1990 edition figures were replaced by the same figures as in the 1992 edition. Apparently the 1990 and 1992 editions differ in the definition of the urban population. While the 1990 edition defines the urban population as the *shizhen zongrenkou*, category (c), the 1992 edition defines it as the population having urban registry, category (e). However, either of these data cannot be cited as an accurate reflection of the urbanization in China because they lack flexibility in catching the fluctuations in the movement of population. First, a large number of farmers, who are residing in the city-administered counties, are now placed under municipal jurisdictions and counted as urban population in its broadest sense (but their family registration is rural). Second, large masses of people are flowing into cities as temporary residents. Third, more and more farmers are deserting agriculture and taking up jobs at village and township enterprises. With all of the above-noted shortcomings and difficulties of Chinese population statistics in mind, I will attempt an estimation of the level of China's urbanization today using reconstructed concepts which make international comparison possible.

To begin with, we need to identify the change over time in the proportion of the agricultural and nonagricultural population within urban jurisdiction following the expansion of the area under municipal jurisdiction since 1983–84. We then need to calculate the more factual urban population as estimated based on the nonagricultural population. We will then add to this figure the number of temporary residents. In this way a more realistic urban population on a current residence basis can be estimated. As there are no official population statistics collected on the basis of people's residence, we have to make a rather bold estimation in the calculation process.

Table VI gives the proportion of the nonagricultural population within the total population of officially designated cities and officially designated towns with a

TABLE V
URBAN AND RURAL POPULATION FIGURES PUBLISHED BY THE CHINESE GOVERNMENT

(1,000 persons)

	Total Population (1992 Ed.)	Urban Population				Rural Population			
		1990 Edition		1992 Edition		1990 Edition		1992 Edition	
		Population	%	Population	%	Population	%	Population	%
1949	541,670	57,650	10.6	57,650	10.6	484,020	89.4	484,020	89.4
1950	551,960	61,690	11.2	61,690	11.2	490,270	88.8	490,270	88.8
1957	646,530	99,490	15.4	99,490	15.4	547,040	84.6	547,040	84.6
1960	662,070	130,730	19.7	130,730	19.8	531,340	80.3	531,340	80.3
1965	725,380	130,450	18.0	130,450	18.0	594,930	82.0	594,930	82.0
1970	829,920	144,240	17.4	144,240	17.4	685,680	82.6	685,680	82.6
1971	852,290	147,110	17.3	147,110	17.3	705,180	82.7	705,180	82.7
1972	871,770	149,350	17.1	149,350	17.1	722,420	82.9	722,420	82.9
1973	892,110	153,450	17.2	153,450	17.2	738,660	82.8	738,660	82.8
1974	908,590	155,950	17.2	155,950	17.2	752,640	82.8	752,640	82.8
1975	924,200	160,300	17.3	160,300	17.3	763,900	82.7	763,900	82.7
1976	937,170	163,410	17.4	163,410	17.4	773,760	82.6	773,760	82.6
1977	949,740	166,690	17.6	166,690	17.6	783,050	82.4	783,050	82.4
1978	962,590	172,450	17.9	172,450	17.9	790,140	82.1	790,140	82.1
1979	975,420	184,950	19.0	184,950	19.0	790,470	81.0	790,470	81.0
1980	987,050	191,400	19.4	191,400	19.4	795,650	80.6	795,650	80.6
1981	1,000,720	201,710	20.2	201,710	20.2	799,010	79.8	799,010	79.8
1982	1,016,540	211,310	20.8	214,800	21.1	804,590	79.2	801,740	78.9
1983	1,030,080	241,500	23.5	222,740	21.6	786,140	76.5	807,340	78.4
1984	1,043,570	331,360	31.9	240,170	23.0	707,400	68.1	803,400	77.0
1985	1,058,510	384,460	36.6	250,940	23.7	665,980	63.4	807,570	76.3
1986	1,075,070	441,030	41.4	263,660	24.5	624,260	58.6	811,410	75.5
1987	1,093,000	503,620	46.6	276,740	25.3	577,110	53.4	816,260	74.7
1988	1,110,260	543,690	49.6	286,610	25.8	552,450	50.4	823,650	74.2
1989	1,127,040	574,940	51.7	295,400	26.2	536,970	48.3	831,640	73.8
1990	1,143,330			301,910	26.4			841,420	73.6
1991	1,158,230			305,430	26.4			852,800	73.6

Sources: *Statistical Yearbook of China* [8, 1990 and 1992 editions].

population of 100,000 or less. It can be seen from this table that the defined urban area of officially designated cities has been thoroughly changed twice, in 1964 and 1983. After 1983, the area under the municipal jurisdiction of existing cities was greatly expanded. Also the criteria for the promotion of towns to officially designated cities were greatly eased. Likewise, even towns having a large agricultural population were allowed to be included in the urban area when the county they belong to was promoted to a city-administered county. This has had the effect of integrating large parts of the agricultural population into the population within municipal jurisdictions. The 1990 edition of the *Statistical Yearbook of China* apparently treated a large part of agricultural population falling under these categories (excluding the county population residing outside the towns) as part of the urban population, and the World Bank seems to have referred to the figures

TABLE VI
PERCENTAGE OF NONAGRICULTURAL POPULATION

	Officially Designated Cities	Officially Designated Towns
1953	82.9	
1961	84.7	79.8
1962	84.8	81.0
1963	86.7	82.6
1964	74.5	81.0
1965	76.6	81.3
1966	76.3	80.0
1967	75.7	84.6
1968	75.2	76.6
1969	74.1	72.9
1970	72.2	74.6
1971	73.0	72.1
1972	72.7	77.4
1973	72.5	77.3
1974	71.9	77.0
1975	70.7	76.5
1976	70.4	76.1
1977	70.0	75.5
1978	70.8	76.0
1979	69.8	77.0
1980	70.3	77.6
1981	68.6	76.9
1982	67.8	73.7
1983	60.1	72.0
1984	58.6	38.9
1985	56.7	34.4
1986	53.0	29.3
1987	50.3	26.0
1988	47.3	25.2
1989	46.8	24.5
1990	43.3	21.1
1991	45.4	24.1

Source: Calculated from [3, 1992 edition, pp. 501, 503].

calculated in this manner. These figures correspond to the definition of category (c).

We are not going to regard the above figures as those plausible for urban population. Instead we are going to use as our basis the statistics for the nonagricultural population. In all countries, total urban population is made up of nonagricultural as well as a small portion of agricultural population. Therefore, we estimate an approximate ratio of nonagricultural population to the urban population; then by applying it to the data of nonagricultural population we can calculate a more realistic urban population. My estimation of China's nonagricultural population as a proportion of total urban population is 80 per cent for officially designated cities and

70 per cent for officially designated towns. This estimation is based on various empirical surveys.

As to the size of the temporary resident population, there are conflicting estimations. This author inquired about this question at the Institute of Industrial Economics in Beijing in 1989 and was told that it was about 50 million. The seasonal migration of farmers to cities, known as drifting population, began around 1982. For two years from mid-1989 quite a few migrants went back to their villages as construction work diminished due to the government's austerity policies. With the coming of the boom years of 1993 and 1994, a vast number of farmers again rushed to the cities. My estimates of the drifting population, taking into consideration these fluctuations, are 5 million in 1982, 10 million in 1983, 20 million in 1985, 40 million in 1988, and 50 million in both 1989 and 1991. There was no increase in these latter years because a sizable migrant population went back to the countryside in 1989 and 1990 under the impact of the government's tight-money policy during that period.

Finally, let us briefly look at those working in village and township enterprises in the countryside. The figures for the numbers employed at these enterprises have been published since 1978. The number was 28,270,000 in 1979. The definition of village and township enterprises was enlarged in 1984 which instantly increased the number of employees by nearly 20 million, from 32,350,000 in 1983 to 52,080,000 in 1984. Village and township enterprises until 1983 were limited by definition to enterprises formerly managed by people's communes and production brigades (now administrative villages). But from 1984 individually-owned enterprises, cooperatives set up by farmers, and private enterprises came to be counted as village and township enterprises. Individually-owned enterprises are those run by seven or less persons including the owner while private enterprises are those with eight or more employees. Enterprises falling into these categories before 1984 were not covered by village and township enterprise statistics. Since many of the towns where township-managed enterprises existed must have been promoted to officially designated towns in and after 1984, their owners and employees were supposed to have been entered statistically into the urban population. But even in 1994, not all towns were officially designated. Moreover, the number of plural-income families has been increasing, some family members working for village and township enterprises and others doing agriculture. For these reasons, it is difficult to draw a clear line of demarcation between urban and rural population.

Despite these difficulties, I have ventured to estimate urban population by surmising that the agricultural population accounts for 20 per cent of the urban population in officially designated cities and 30 per cent in officially designated towns. (This estimation is essentially the same as the one for nonagricultural population as has already been explained in the text.)

The results of this estimation are shown in Table VII. These estimations are possible only after 1961 when figures for the nonagricultural population in cities and officially designated towns became available. The levels of urbanization thus estimated are 21 per cent in 1961, 16 per cent in 1971, 18.7 per cent in 1981, and

TABLE VII
LEVELS OF URBANIZATION, PUBLISHED AND ESTIMATED

	Urban Population (<i>Shizhen Zongrenkou</i>) (1)		Urban Population Having Urban Registry (2)		Urban Population Adjusted by Author	
	Population (1,000 Persons)	% of Total Pop.	Population (1,000 Persons)	% of Total Pop.	Population (1,000 Persons)	% of Total Pop.
1961	127,070	19.3	127,070	19.3	138,140	21.0
1962	116,590	17.3	116,590	17.3	127,470	18.9
1963	116,460	16.8	116,460	16.8	130,120	18.8
1964	129,500	18.4	129,500	18.4	128,810	18.3
1965	130,450	18.0	130,450	18.0	132,630	18.3
1966	133,130	17.9	133,130	17.9	134,360	18.0
1967	135,480	17.7	135,480	17.7	138,660	18.2
1968	138,380	17.6	138,380	17.6	136,720	17.4
1969	141,170	17.5	141,170	17.5	135,990	16.9
1970	144,240	17.4	144,240	17.4	137,650	16.2
1971	147,110	17.3	147,110	17.3	139,700	16.0
1972	149,350	17.1	149,350	17.1	144,750	16.2
1973	153,450	17.2	153,450	17.2	148,440	16.6
1974	155,950	17.2	155,950	17.2	149,860	16.4
1975	160,300	17.3	160,300	17.3	151,990	16.4
1976	163,410	17.4	163,410	17.4	154,250	16.5
1977	166,690	17.6	166,690	17.6	156,260	16.5
1978	172,450	17.9	172,450	17.9	163,260	17.0
1979	184,950	19.0	184,950	19.0	174,030	17.8
1980	191,400	19.4	191,400	19.4	181,170	18.4
1981	201,710	20.2	201,710	20.2	187,020	18.7
1982	211,540	20.8	214,800	21.1	197,110	19.4
1983	241,260	23.5	222,740	21.6	208,440	20.3
1984	330,060	31.9	240,170	23.0	232,950	22.5
1985	382,440	36.6	250,940	23.7	254,860	24.7
1986	437,530	41.4	263,660	24.5	263,040	24.9
1987	503,620	46.6	276,740	25.3	263,040	24.3
1988	543,930	49.9	286,610	25.8	305,870	28.1
1989	573,830	51.8	295,400	26.2	325,770	29.4
1990	604,470	53.3	301,910	26.4	313,230	27.6
1991	618,880	54.0	305,430	26.4	340,340	29.7
1992			323,720	27.6		

Sources: (1) Calculated from [3, 1992 edition, pp.501, 503]. Urban population statistics in [8, 1990 edition] are of the same type as this, but figures in both sources do not coincide. (2) [8, 1993 edition, p.81]. Figures for years 1961–81 are those of urban population (*shizhen zongrenkou*).

29.7 per cent in 1991. The comparable level in the government statistics for urban population is 54 per cent, and in the government statistics for urban population having urban registry it is 26.4 per cent. Obviously, the level based on urban registration is slightly underestimated as it follows the family register criteria and thus disregards the drifting population.

Wang converted family register-based statistics into residence-based statistics. According to his estimation, the level of urbanization was 29.9–30.8 per cent in

TABLE VIII
URBAN POPULATION GROWTH RATES

	Urban Population (<i>Shizhen Zongrenkou</i>)	Urban Population Having Urban Registry	Author's Estimate
1962–71	1.5	1.5	0.1
1972–81	3.2	3.2	3.0
1982–91	11.9	4.2	6.2

Source: Calculated from Table VII.

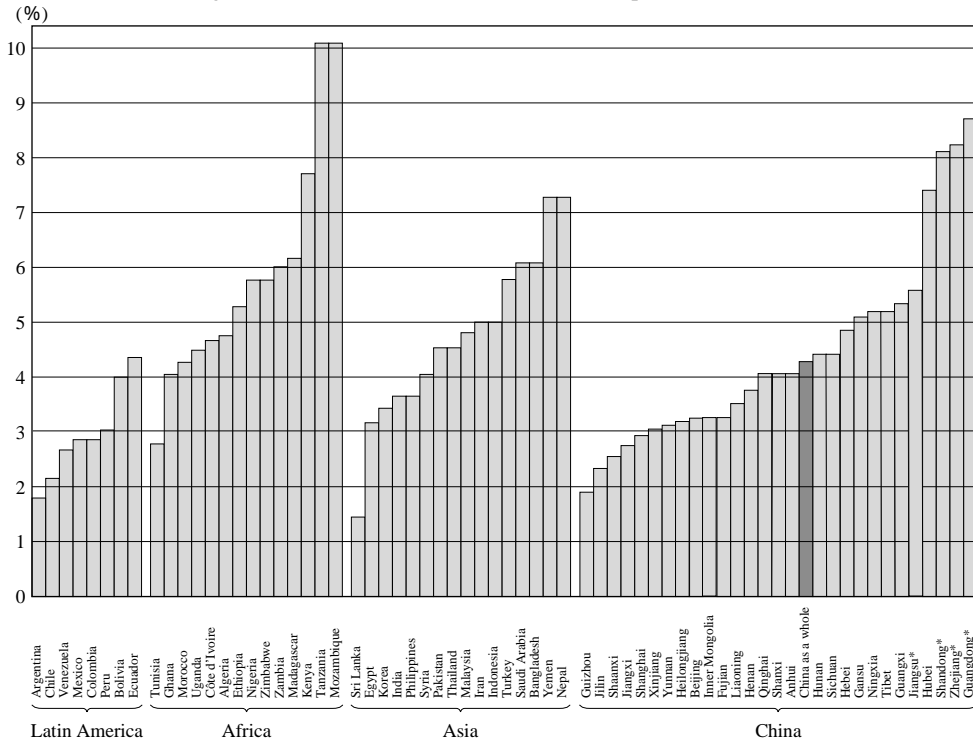
1987 [11]. The level in 1991 may be more than 30 per cent using Wang's method.

Using the three groups of urban population statistics shown in Table VII, this author calculated urban population growth rates by decade. The results are shown in Table VIII. My estimates indicate that the urban population showed close to zero growth in the 1960s, increased by 3 per cent in the 1970s, and then by 6.2 per cent between 1982 and 1991. The growth rate during the last period would be inflated by nearly 12 per cent if the government statistics for urban population is taken as a basis. But this inflated figure is unrealistic. Such rapid growth in a single decade has no precedent in economic history.

As a conclusion, this author considers it appropriate to estimate the residence-based urbanization level of China in 1991 at 30 per cent. This figure is also in accordance with Wang's estimation. Using this figure we can venture to locate China's urbanization on the international scale. The World Bank's *World Development Report* of 1993 gives 28 per cent as the average level of urbanization for low-income countries in 1991, those with a GDP per capita of U.S.\$650 or less (China and India not included). The levels for other groups are 54 per cent for lower-middle-income countries (U.S.\$650–2,520), 73 per cent for higher-middle-income countries (U.S.\$2,530–7,820), and 77 per cent for high-income countries (U.S.\$7,830 and over). China's level is slightly higher than the average for low-income countries. Considering that urbanization in China started only in the early 1980s, the fact that China exceeded the low-income country average in less than ten years portends an unusually rapid pace for urbanization in the coming years.

Turning next to a comparison of China's 6.2 per cent urban population growth rate between 1982 and 1991, the low-income countries experienced on average 5 per cent per annum urban population growth, the fastest rate of all country groups. The corresponding rates were 3.3 per cent for lower-middle-income countries and 3 per cent for higher-middle-income countries. The fastest growth was registered by Mozambique and Tanzania with 10.1 per cent, followed by Botswana, Oman, Kenya, Yemen, and Nepal. Eight out of the 127 World Bank-affiliated countries with populations of 1 million or larger registered urban population growth of 6.0–6.9 per cent. These were Madagascar, Bangladesh, Laos, Malawi, Togo, Zambia, Gabon, and Saudi Arabia (see Figure 2). The figure of 6.2 per cent for China would make it one of the highest rates in the world. Annual urban population growth of 6

Fig. 2 Annual Rate of Increase in Urban Population, 1980–91



Sources: For China, calculated from [10, 1992 edition, pp.472–73] [3, 1992 edition, p. 322]. For developing countries, *World Development Report, 1993* [12, pp. 298–99].

Note: China's urban population growth rates are calculated for the period 1980–90. The growth rate for China as a whole is slightly lower than the one calculated by the author in Table VIII, due to the differences in data used for calculation. The other growth rates in this figure are calculated on the basis of the 1990 data for the population having urban registry. Of the five upper-level Chinese provinces, those marked with asterisks are coastal provinces having high economic growth rates.

per cent or more over more than ten years is a tremendous burden on the capacity of cities to feed and care for their citizens. It is no exaggeration to say that a hyper-hyper urbanization is sweeping China today. (Figure 2 also shows urban population growth rates for China and its provinces. However, the growth rates estimated by the author in Table VIII are not comparable to the ones calculated for Figure 2 because the data used are different. Urbanization in China's provinces is discussed in Section IV.)

For three decades up to the end of the 1970s, China followed the policy of suppressing urbanization. Consequently, the level of urbanization was held down. But there can be no doubt that during the 1980s China's urbanization proceeded at the fastest pace in the world.

III. THE STRUCTURE OF CHINA'S URBANIZATION

A. *Differentiation of Officially Designated Cities and Officially Designated Towns*

In 1983 the Civil Service Department took the initiative in preparing an amendment to the official criteria for city designations, and this was promulgated in February 1986 [4]. The revised criteria for officially designated cities stipulate the following:

(a) Areas having a nonagricultural population of 60,000 or more and with a GDP of 200 million yuan or more are classified as officially designated cities; major cities in national minority districts, border areas, industrial and/or mining areas, centers of scientific and technological development, key centers of transportation, and places of scenic and historic interest can receive official city designation even if they fail to meet the first two requirements.

(b) A county with a population of 500,000 or less whose capital town has a nonagricultural population of 100,000 or more and more than 60 per cent of whose permanent resident population is engaged in nonagricultural occupations can be redesignated in its entirety as a city if its annual GDP is 300 million yuan or more.

Also, a county with a total population of 500,000 or more can be redesignated as a city if its capital town has a nonagricultural population of 120,000 or more and its GDP is 400 million yuan or more.

The autonomous regions and districts (formerly *zhuangqu*) of national minorities can be promoted to the status of cities even if their nonagricultural population is less than 100,000 and GDP less than 300 million yuan.

(c) A medium-sized city (with *shiqu* jurisdiction) whose inner-city district has a nonagricultural population of 250,000 or more and contributes 1,000 million yuan or more to GDP has the authority to administer its neighboring county or counties.

The amendment defines nonagricultural population as: farmers hired as contract workers or temporary workers hired on a long-term basis by nonprofit establishments and by enterprises belonging to the county administration; secondary and tertiary industry workers hired by town- and village-managed enterprises or cooperatives funded by farmers, and private enterprises, all of which operate in fixed locations as approved by the Administrative Bureau of Industry and Commerce; students from rural areas matriculated by urban secondary educational institutions; members of garrison forces.

The amendment's basis of statistical calculation is again family registration with the government. In 1963 the requirement for a city was raised to a population of 100,000 or more; no reference was made to the percentage of the nonagricultural population. As the average percentage of the nonagricultural population in cities was 85 per cent in the 1960s, having a nonagricultural population of 85,000 was the minimum requirement for a city. Compared with this, the threshold was greatly lowered in the 1986 criteria. As we will see later, this is the reason why the number of cities increased drastically in the second half of the 1980s.

TABLE IX
OFFICIALLY DESIGNATED TOWNS (JIANZHIZHEN), 1982

Population Scale	No. of Towns	Population (1,000 Persons)
Total	2,660	61,056
Over 100,000	24	3,003
50,000–100,000	227	15,033
30,000–50,000	412	15,742
20,000–30,000	495	12,180
10,000–20,000	707	10,402
5,000–10,000	499	3,720
3,000–5,000	177	705
Under 3,000	119	273

Source: [5, p. 87].

In the 1960s and 1970s, there were a number of areas which satisfied the requirements for official city designation but failed to be promoted to cities. They remained in the status of officially designated towns. As Table IX shows, as many as twenty-four areas fell into this category. The government's urban development policy in the 1960s and 1970s was described as "xiaojizhong dafensan" (concentrate on the small and break up the large). An anti-urban climate prevailed at the time, and this suppressed the process of promoting towns with populations of 100,000 or more to officially designated cities. Similarly, promotion to officially designated towns was also suppressed.

By international comparison, China's threshold of a nonagricultural population of 60,000 to qualify as an officially designated city seems to be rather high. In Japan the minimum population requirement for a city is 50,000 persons including farming population, 60 per cent or more of whom reside in the inner-city area. This can be translated as a threshold of 30,000 for the nonagricultural population in the Chinese setting. If the Japanese criteria were applied, many of the Chinese towns with a population of 30,000–50,000 or more would be officially designated as cities. In 1982 the average percentage of the nonagricultural population within the population of officially designated towns was 75 per cent. If towns with a population of 40,000 or more had been designated as cities, there would have been about 600 such towns in 1982.

B. *The Development of Officially Designated Cities and Towns*

Let us first take a look at the change over time in the number of officially designated cities and towns. Table X shows the number of such cities and towns as well as population per city and per town. Three groups of population figures are used. Statistics that treat the population of cities and towns separately are available only from the same sources as those for the urban population in category (c). I have shown the figures from this source for the total population and nonagricultural population, together with the population after my adjustment. My estimates are based on the calculation that the nonagricultural population accounts for 80 per

TABLE X
POPULATION PER CITY AND TOWN

(1,000 persons)

	Officially Designated Cities				Officially Designated Towns			
	No. of Cities	Population per City			No. of Towns	Population per Town		
		Per City Population	Of Which: Nonagricultural Population	Population Adjusted by Author		Per Town Population	Of Which: Nonagricultural Population	Population Adjusted by Author
1953	166	316						
1954	165	350						
1955	163	361						
1956	175	362						
1957	177	390						
1958	175	420						
1959	183	433						
1960								
1961	208	399	338	423	4,429	10.0	7.9	11.3
1962	198	389	330	413	4,219	9.4	7.6	10.9
1963	174	438	380	475	4,032	10.0	8.2	11.7
1964	169	551	411	514	2,877	12.6	10.2	14.6
1965	171	541	414	518	2,902	13.1	11.0	15.7
1966	175	537	409	511	(2,850)	(13.8)	(11.0)	15.7
1967	175	545	413	516	(2,850)	(14.0)	(11.9)	17.0
1968	175	548	412	515	(2,850)	(14.9)	(11.4)	16.3
1969	175	545	403	504	(2,850)	(16.1)	(11.7)	16.7
1970	176	560	404	505	(2,850)	(16.1)	(12.0)	17.1
1971	180	558	407	509	(2,850)	(16.4)	(11.8)	16.9
1972	181	573	416	520	(2,850)	(16.0)	(12.4)	17.7
1973	181	586	425	531	(2,850)	(16.6)	(12.8)	18.3
1974	181	595	428	535	(2,850)	(16.9)	(13.0)	18.6
1975	184	604	427	534	(2,850)	(17.3)	(13.2)	18.9
1976	187	604	425	531	(2,850)	(17.7)	(13.5)	19.3
1977	189	609	426	533	(2,850)	(18.1)	(13.6)	19.4

TABLE X (Continued)

	Officially Designated Cities				Officially Designated Towns			
	No. of Cities	Population per City			No. of Towns	Population per Town		
		Per City Population	Of Which: Nonagricultural Population	Population Adjusted by Author		Per Town Population	Of Which: Nonagricultural Population	Population Adjusted by Author
1978	191	625	442	553	2,850	18.7	14.2	20.3
1979	203	637	445	556	(2,850)	(19.5)	(15.0)	21.4
1980	217	620	435	544	2,874	19.8	15.5	22.1
1981	229	626	429	536	2,845	20.5	15.8	22.6
1982	239	625	424	530	2,819	22.0	16.2	23.1
1983	271	660	397	496	2,781	22.4	16.1	23.0
1984	295	663	389	486	6,211	21.7	8.4	12.0
1985	324	667	378	473	7,511	22.1	7.6	10.9
1986	347	665	352	440	8,464	24.1	7.0	10.0
1987	381	694	349	436	9,121	25.9	6.7	9.6
1988	432	704	333	416	8,614	27.8	7.0	10.0
1989	446	715	335	419	9,088	28.1	6.9	9.9
1990	456	741	321	401	9,321	28.6	6.0	8.6
1991	475	731	332	415	9,308	29.2	7.0	10.0

Sources: Calculated from [3, 1992 edition, pp.501, 503].

Note: The number of towns are not published for 1966–77 and 1979, but as the available figures for 1965, 1978, and 1980 are about the same, I used 2,850 as my figure for calculation.

TABLE XI
ANNUAL GROWTH RATE AND PROPORTION OF NONAGRICULTURAL POPULATION

	Growth Rate		Proportion (%)		
	Officially Designated Cities	Officially Designated Towns		Officially Designated Cities	Officially Designated Towns
1962–71	0.5	-0.6	1961	66.1	33.9
1972–81	3.0	2.9	1971	68.5	31.5
1982–91	4.8	3.8	1981	68.6	31.4
			1991	70.7	29.3

Source: Calculated from [10, 1992 edition, p. 470].

cent of the total population in officially designated cities and 70 per cent in officially designated towns.

Examining the number of officially designated towns in Table X, it can be seen that for years after 1964 there was practically a cessation in the designating of official towns following implementation of the 1963 decisions. From 1984 onward towns which had already satisfied the requirements for official town designation were promoted in rapid succession to officially designated town status. In other words, during the twenty years after 1964, towns with rapidly increasing population had not been officially designated as towns, and so their residents were not counted as part of the urban population. That period was in fact a time of latent urbanization; thus, from 1985 through 1991, when the restraints on designation were eased, this latent urbanization immediately came to the surface, and the number of officially designated towns increased by the remarkable average of 442 annually.

Looking at the size of the average city population, the nonagricultural population of officially designated cities ranged from 400,000 to 450,000 between 1964–82; this declined to 370,000–400,000 in 1983–85, and declined further to 320,000–350,000 after 1986. My estimation also shows a decline in the average size of city population, but the levels of the population size are relatively larger than the official figures. In my estimation, the average size of officially designated towns was 10,000–20,000 from 1961 to 1986. My post-1986 estimate is 10,000 or less. Here, too, the average nonagricultural population in officially designated towns has been declining.

The change over time in the nonagricultural population in officially designated cities (hereafter ODCs) and officially designated towns (hereafter ODTs) and that of the percentage of the two are shown in Table XI. The proportion of the nonagricultural population has been increasing in ODCs over the three decades, while the corresponding figures for ODTs have shown a slight decline. In the subsequent periods of active designation, the nonagricultural population grew by 4.8 per cent in ODCs compared with 3.8 per cent in ODTs. This indicates that nonagricultural population is concentrating in ODCs.

TABLE XII
DISTRIBUTION OF NONAGRICULTURAL POPULATION BY SIZE OF OFFICIALLY DESIGNATED CITIES

	City Size (Persons)						Total Nonagricultural Population Residing in Cities
	100,000 or Less	100,000– 300,000	300,000– 500,000	500,000– 1,000,000	1,000,000– 2,000,000	2,000,000 or More	
1961	4.3	19.3	12.0	20.5	15.4	28.4	100.0
1966	4.1	19.2	12.3	20.5	16.7	27.1	100.0
1971	3.8	21.0	12.0	25.5	13.2	24.6	100.0
1976	2.9	21.2	13.8	23.9	15.2	23.1	100.0
1981	3.5	20.3	12.8	21.7	15.4	26.2	100.0
1986	5.0	23.2	13.1	18.3	16.0	24.4	100.0
1991	5.6	25.1	15.1	13.2	18.5	22.5	100.0

Sources: Calculated from [10, 1989 edition, pp. 158–59] for 1961–86. For 1991, [10, 1992 edition, p. 47].

TABLE XIII
ANNUAL GROWTH RATE OF NONAGRICULTURAL POPULATION IN
OFFICIALLY DESIGNATED CITIES BY CITY SIZE

	All Cities	City Size (Persons)					
		100,000 or Less	100,000– 300,000	300,000– 500,000	500,000– 1,000,000	1,000,000– 2,000,000	2,000,000 or More
1962–71	-1.7	-3.1	-0.9	-1.8	0.5	-3.3	-3.1
1972–81	3.1	2.5	2.8	3.8	1.5	4.8	3.8
1982–91	5.1	10.0	7.3	6.9	-0.04	7.1	3.5

Source: The same as in Table XII.

C. *Proportion of Population in Cities of Different Size*

Figures showing the distribution of population in cities of different size are available for ODCs but not for ODTs, except for the year 1982 (see Table IX). Given this limitation, we will examine only the population distribution for ODCs. However a further qualification is needed. Since urban population includes a large number of farmers, we will use the nonagricultural population as the basis for our calculations. There is no problem with using the nonagricultural population to analyze the proportion of the population in cities of different size although this may involve some difficulty if it is used to analyze absolute population.

Table XII shows that the proportion of population in ODCs of 100,000 or smaller increased significantly in the 1980s. This seems to reflect the fact that the easing of ODC criteria in 1986 which qualified towns with a minimum nonagricultural population of 60,000 as ODCs enabled many ODTs to be designated as ODCs. ODCs of this size increased from 49 in 1981 to 132 in 1991.

The proportion of population in cities of 100,000–300,000 expanded the most

dramatically, from around 20 per cent in 1981 to 25.1 per cent in 1991, a leap of 5 points. The number of ODCs in this class also more than doubled from 103 in 1981 to 224 in 1991. While this was partly due to the easing of criteria, it was also attributable to the change in policy from October 1984 that permitted the rural population to move their family registries to county capitals. This contributed to the augmentation of registered urban population.

The percentage of the population in the two classes of cities with populations of 500,000–1,000,000 and 2,000,000 or more declined, with that in cities having 500,000–1,000,000 dropping the most visibly. The latter category's share dropped from 20–25 per cent during the period from 1961 through 1981 to 18.3 per cent in 1986 and further to 13.2 per cent in 1991. The number of cities in this category also fluctuated. There were twenty-eight such cities in 1981; these increased to forty-five in 1988 [10, 1989 edition, p. 159], but dropped back to twenty-eight in 1990 [8, 1991 edition, p. 23]. The number stood at thirty in 1991 [8, 1992 edition, p. 25]. It is difficult to account for this fluctuation. Some errors are suspected of the statistics. A decrease in the number of cities of this class occurs only when a city moves upward to the 1,000,000–2,000,000 class, the "upper administration level," with its nonagricultural population exceeding 1 million. The number of cities with a nonagricultural population of 1,000,000–2,000,000 increased only by three between 1988 and 1991. In contrast, the number of cities with a population 500,000–1,000,000 went from forty-five in 1988 down to thirty in 1991, a differential of fifteen. Of these fifteen, three may have been cities promoted to the upper level. But where did the remaining twelve go? It would seem that the 1988 figure is incorrect.

In spite of this questionable figure, it can be seen from Table XIII that during the 1980s the nonagricultural population in cities with less than 500,000 people (particularly those with less than 100,000) increased markedly and that though the nonagricultural population in larger cities also increased, the growth rate slowed down and even showed a minus figure for the middle-sized cities. These data however do not tell us whether population polarization has been occurring at the cost of medium-sized cities with populations of 500,000–1,000,000.

The above analysis only looks at the distribution of the nonagricultural population based on family registration. A different conclusion would likely be drawn if we considered the actually resident population including the drifting population. Also left out of the picture is the population distribution for ODTs with 3,000–60,000 people as figures are not available of this sector of the population.

IV. THE STRUCTURE OF PROVINCIAL URBANIZATION

Three general trends can be cited as characterizing the distribution of urban population in developing countries. One is the unipolar concentration of population in the primate city of many of these countries. This is demonstrated by such index measurements as the proportion of the primate city population to national urban population, the proportion of the primate city population to total national population, and the ratio of the primate city population to the population of the second

largest city. The second is the slow development of cities with populations of 20,000–100,000 people. The third trend is the formation of huge cities with populations of 10 million or more, often making them larger than those in developed countries.

An examination of the first general trend would be of no sense in China's case. With its population of 1.2 billion people (1994), it would be meaningless to compare China's primate city (Shanghai) population, 13.5 million in 1993, with the country's total population. It would indeed be generally pointless to discuss the urban population of super-sized countries like China, India, Brazil, and Indonesia in the same manner as we discuss smaller countries with millions or tens of millions of people. The Republic of Korea, for instance, had 26 per cent of its 43 million people concentrated in Seoul in 1991. Imagine 10 per cent of the Chinese population concentrated in Shanghai, China's primate city. The city would have 120 million residents, something utterly unrealistic. For this reason, I will use the thirty provincial-level administrative regions as the units for analyzing China's urbanization structure, treating the provinces as though they were so many countries.

A. *Levels of Productive Forces and Levels of Urbanization*

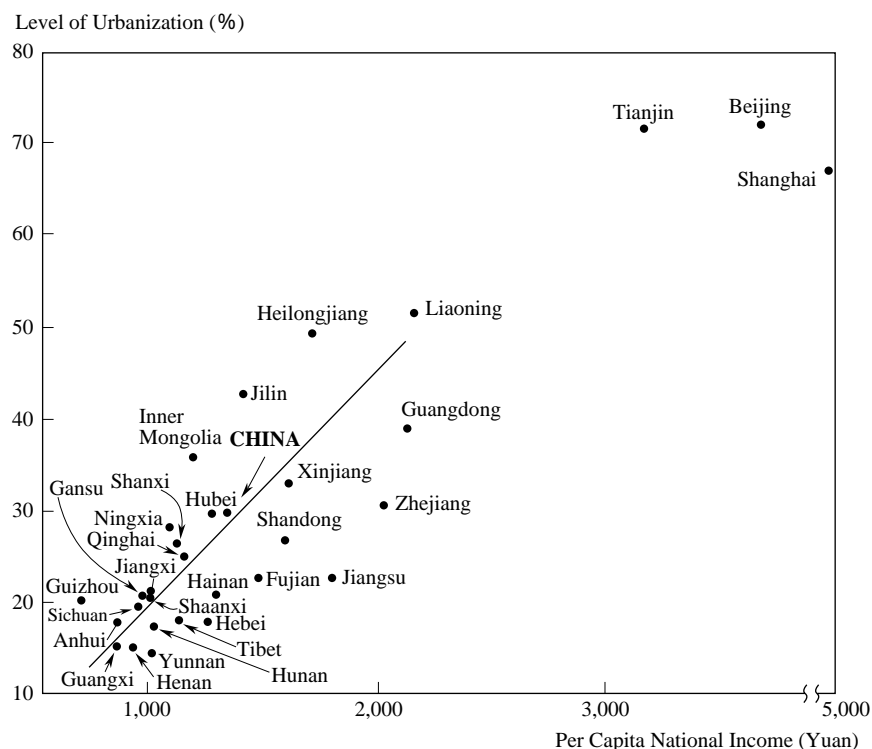
There are three categories of provincial-level administrative regions in China. These are the provinces, the municipalities under the central authority (Beijing, Tianjin, and Shanghai), and the autonomous regions. In this study, however, these are not differentiated; all are dealt with as provinces.

Figure 3 shows the relationship between local per capita national income and the level of urbanization in all provinces. The two figures are high for Beijing, Tianjin, and Shanghai, which would be expected since these cities are in themselves provincial-level administrative regions. Shanghai's figures are underestimated because of that city's extremely large suburban area. The national level of urbanization is located higher than the tendentious line because of the inclusion of the urban population of the three municipalities under the central authority. Two interesting points emerge from the information provided in Figure 3.

First, Guangdong, Zhejiang, Jiangsu, Shandong, Fujian, and Hainan show lower urbanization levels than would be expected from their respective incomes. These are coastal provinces with a good deal of foreign capital penetration, even into their rural areas. Industrialization has proceeded rapidly in these provinces, and the level of urbanization ought to be higher than the tendentious line. But Figure 3 indicates the contrary. This may be because a huge part of the agricultural population which is working in the nonagricultural sector still retains rural registry.

Second, in the Northeastern provinces of Liaoning, Heilongjiang, and Jilin, the urbanization levels are higher than would be expected from their income. These are provinces where industrial development was highly promoted during the 1950s. At the time of the communist victory, they already had relatively high levels of urbanization. The relatively low growth of per capita national income may reflect the slow growth of village and township enterprises as well as stagnant state-run enterprises during the past few years.

Fig. 3 Per Capita National Income and the Level of Urbanization, 1991



Sources: Levels of urbanization are based on the 1990 data for the population having urban registry [3, 1992 edition, p. 322]. For per capita national income, [8, 1993 edition, pp. 33, 40].

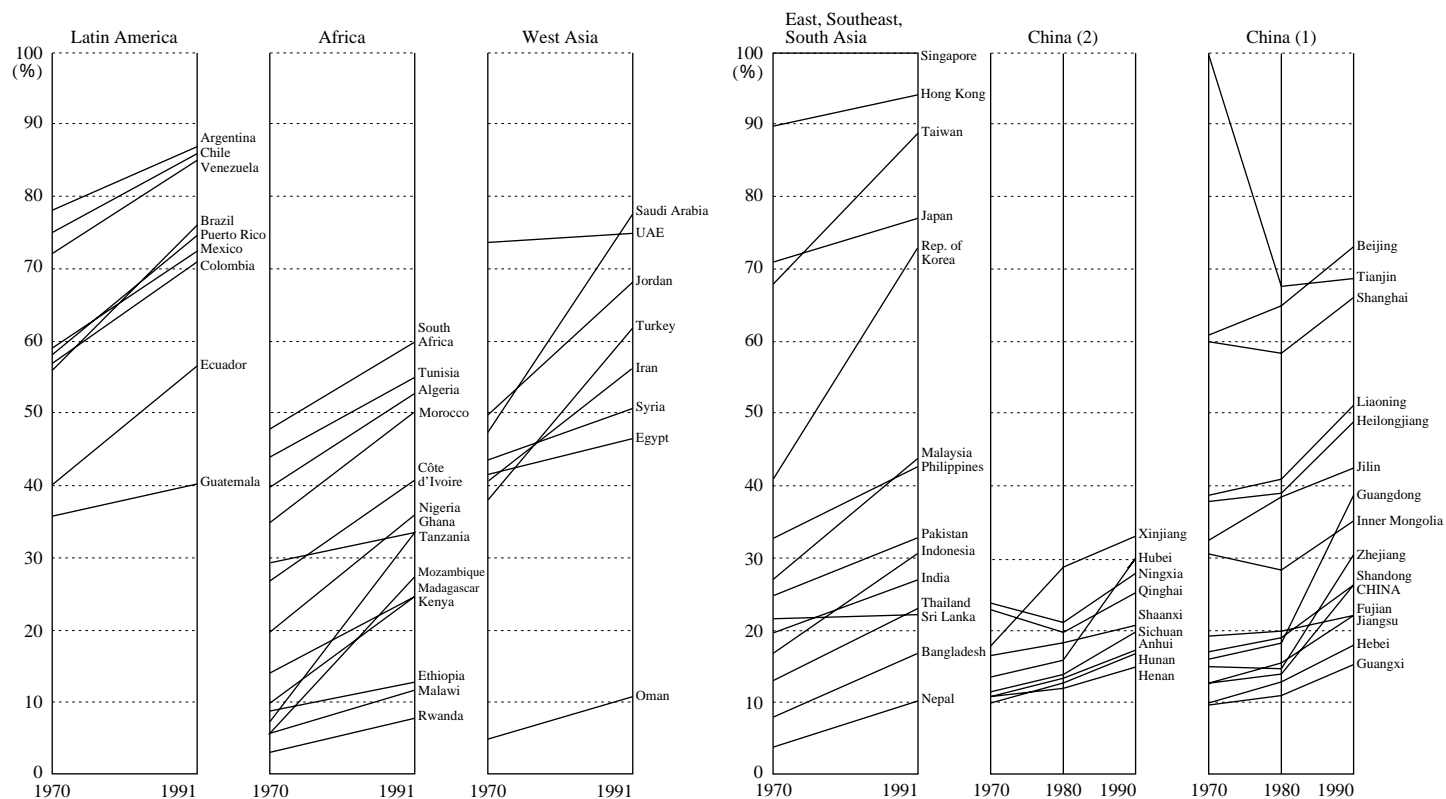
Another important point revealed by Figure 3 is the wide differences in the level of urbanization among provinces. The levels for Guangxi, Hunan, and Yunnan are around 10 per cent compared with close to 50 per cent for the three above-mentioned Northeastern provinces. The difference represents a serious development gap.

Figure 4 provides an international comparison of the levels of urbanization. For China the data for 1980 are added to show the effects of changes in China's urbanization policy which are available from around 1983. Figure 4 covers China's provinces as well as countries with populations of 1 million or more. Although there are thirty provincial-level administrative units in China, only twenty-three provinces plus China itself have been covered. To avoid the confusion of putting twenty-four lines into the same box, I have categorized them into two large groups: one includes the three Northeastern provinces, the three centrally controlled cities, and the coastal provinces; the other group is made up of the other provinces.

I have listed below a number of the conclusions that I have drawn from Figure 4.

(1) In Latin America, urbanization had already reached the 60 per cent level in

Fig. 4 International Comparison of Levels of Urbanization, 1970–91



Sources: For China, [10, 1992 edition, pp. 460, 464, 471, 472]. China's urbanization rates at the provincial level are based on the 1990 data for the population having urban registry [3, 1992 edition, p. 322]. For Taiwan, see *Taiwan Statistical Data Book* (1992), p. 17. As urban population figures are not available for Taiwan, estimation was made from the number of persons employed in urban areas. For others, *World Development Report, 1993* [12, pp. 298–99].

the 1970s while those in Africa and West Asia are still less than 50 per cent. China's provincial urbanization levels parallel those of Africa.

(2) The level of urbanization in all the countries except Sri Lanka are on upward curves, and the curves are particularly steep for countries in Latin America, Africa, and West Asia as well as for Taiwan and Korea.

(3) The level of urbanization in China remained comparatively flat during the 1970s. This attests to the presence during that time of strong administrative control over the movement of people to urban areas. The figure indicates that China embarked on full-scale urbanization only in the 1980s, starting from the low African level. Urbanization has been quite rapid for Liaoning, Heilongjiang, Guandong, and Zhejiang provinces.

This last point is important. I calculated the rates of increase for China's urban population during the 1980s and compared them with corresponding rates for other developing countries. The results are shown in Figure 2.

Figure 2 indicates that the urban population growth rates for China's provinces exhibit all of the same patterns that characterize other developing countries (with the exception of Tanzania and Mozambique). The history of urbanization in developed countries shows that an annual urban population growth rate of 3 per cent or more meant very rapid growth. If growth becomes 4 per cent or more, what a country is experiencing is hyper-hyper urbanization. Of the countries/provinces listed in Figure 2, nine Chinese provinces, seven Asian countries, and eight African countries experienced 5 per cent-plus growth. These fifteen countries had a total population of 700 million in 1991; the nine Chinese provinces accounted for 380 million. To put it differently, out of the 1 billion people living in countries that experienced hyper-hyper urbanization in the 1980s, more than one-third were Chinese people. Another three Chinese provinces had rates higher than 4 per cent. The total population of the three was 220 million. Given the current rate of population increase, it is highly likely that they would join the other provinces with 5 per cent or higher growth rates. Altogether, the population of the countries and areas undergoing hyper-hyper urbanization could total 1.6 billion or more, 40 per cent of these people, or 600 million, in mainland China.

B. *Unipolarization*

To measure the degree of unipolar concentration of population in China's provinces and in developing countries, I used the percentage of the primate city population in the total urban population of each province and country. Table XIV gives the figures for China's provinces in 1965, 1980, and 1991. I used the 1965 figures as those for 1960 are not available. The provinces and countries have been arranged in descending order according to the 1991 figures for China and the 1990 figures for the developing countries. The table reveals a number of unexpected findings.

The first is that China has extremely high levels of unipolarization if the province is taken as the unit of analysis. This can be shown by differentiating types of population unipolarization using the percentage of the primate city population in the total urban population. The following four types can be used as guidelines: 0–

TABLE XIV
PERCENTAGE OF PRIMATE CITY POPULATION IN TOTAL URBAN POPULATION

				(%)			
China	1965	1980	1991	Developing Countries	1960	1980	1990
China as a whole	5.3	4.3	3.4	Côte d'Ivoire	27	34	45
Tibet	70.0	61.0	58.0	Uganda	38	52	41
Qinghai	71.6	70.0	54.0	Zimbabwe	40	50	31
Gansu	48.6	49.1	35.2	Kenya	40	57	26
Ningxia	47.3	40.0	34.9	Zambia	—	35	25
Shaanxi	50.0	43.8	34.7	Madagascar	44	36	23
Yunnan	36.0	37.7	30.9	Nigeria	13	17	23
Hubei	52.0	42.0	28.9	Algeria	27	12	23
Guizhou	42.8	31.6	28.5	Ghana	25	35	22
Xinjiang	34.4	30.0	25.5	Tanzania	34	50	21
Shanxi	41.1	35.9	25.5	Ethiopia	30	37	29
Hainan	—	—	24.3	Chile	38	44	42
Liaoning	30.0	24.9	23.7	Peru	38	39	41
Guangdong	33.9	31.2	19.6	Bolivia	47	44	34
Fujian	24.3	22.0	19.1	Mexico	28	32	34
Jiangxi	19.7	21.2	18.3	Venezuela	26	26	25
Jilin	22.9	19.8	18.2	Colombia	17	26	21
Heilongjiang	24.3	20.6	17.8	Ecuador	31	29	21
Jiangsu	24.6	23.0	16.6	Thailand	65	69	56
Zhejiang	22.8	23.1	16.5	Egypt	38	39	37
Sichuan	25.2	20.6	16.3	Bangladesh	20	30	37
Inner Mongolia	23.5	19.3	15.9	Korea, Rep.	35	41	36
Guangxi	18.8	16.0	15.0	Syria	35	33	34
Hunan	18.9	16.2	13.3	Philippines	27	30	32
Hebei	21.6	17.7	13.0	Malaysia	19	27	22
Henan	17.7	14.7	11.7	Iran	26	28	21
Shandong	16.1	18.0	11.0	Nepal	41	27	20
Anhui	12.3	11.5	9.8	Saudi Arabia	15	18	17
.....				Indonesia	20	23	17
Tianjin	109.2	97.0	95.0	Sri Lanka	28	16	17
Shanghai	92.1	90.7	92.4	Turkey	18	24	8
Beijing	94.0	93.0	91.0	Pakistan	20	21	1

Sources: For China, calculated from [10, 1992 edition, pp. 471–77]. The figures for 1980 and 1991 were obtained by dividing primate city nonagricultural population by urban nonagricultural population. For developing countries, the figures for 1960 and 1980 are from World Bank, *World Development Report, 1986*, pp. 240–41. The figures for 1991 are from [12, pp. 298–99].

Notes: 1. The 1960 and 1980 statistics published in the *World Development Report, 1986* are “population in largest city as a percentage of urban population,” but from the 1991 edition on, the World Bank uses “population in capital city.” The sharp fall in the 1990 figures for Pakistan and Turkey may have been caused by this change in definition.

2. Tianjin City's 1965 figure of 109.2 is questionable.

10 per cent, 10–15 per cent, 15–25 per cent, and 25 per cent or more. The last type certainly represents unusual population concentration.

Using these guideline percentages, as many as ten Chinese provinces in 1991 had 25 per cent or more of their population concentrated in the primate city. The level of unipolarization was that high even when excluding Beijing, Tianjin, and Shanghai. China thus has very high levels of unipolarization even by international standards.

The second finding from Table XIV is that most of the nine provinces characterized by unusual unipolarization are poor and marginal or extremely dry regions with the single exception of Hubei. Hubei Province with its primate city Wuhan is exceptional because Wuhan has traditionally been a major trading center through which goods are shipped to all parts of China. Generally, however, the poorer the province the higher the level of unipolarization. Take the 1965 figures, for instance. That year, eight provinces had unipolarization rates of 40 per cent or more. (This compares well with the figure of only six developing countries out of the thirty-two listed in the table which had similar rates.) These show the extreme degree of population concentration in the primate city in outlying and dry provinces. The author understands that this pattern may be explained by geographical factors: the cost of siting more cities than one is prohibitively high because of water scarcity.

In 1991 there were twelve provinces with unipolarization in the 15–25 per cent range. Six were coastal provinces which experienced explosive growth during the 1980s. These provinces are where new urban infrastructure is being developed as a result of rapid economic growth. The provinces with unipolarization of 15 per cent or less are those with a high level of agricultural population.

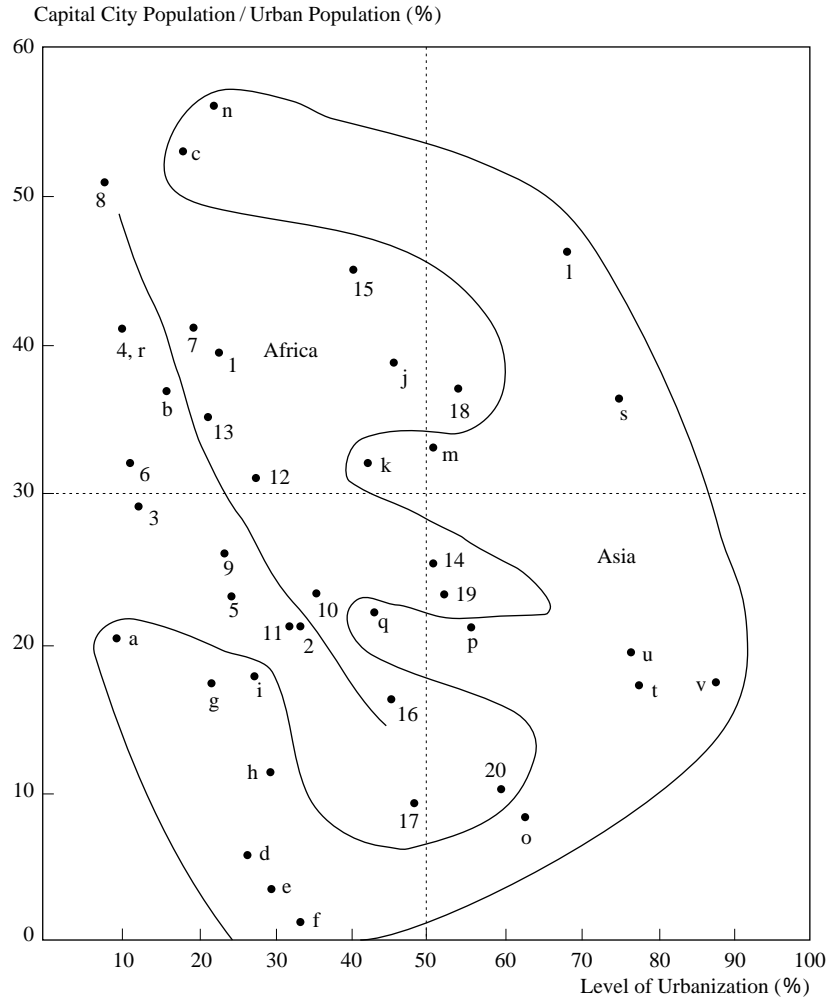
The third finding from the table is the systematic decline since 1965 in the proportion of the population concentrated in the primate cities. Although the percentage went up in 1980 in five provinces, this anomaly is within the permissible range of statistical error. This diminishing rate of unipolarization distinguishes China from other developing countries, most of which experienced increasing unipolarization between 1960 and 1980.

In the 1980s, when China's reform policies shift into high gear, there was a further decline in unipolarization. This was accompanied by the explosive expansion of cities with populations of 500,000 or less, which was analyzed earlier.

It would seem that we will need to reexamine the question of unipolarization historically. For China, the 1965 figures are of special interest. China had by then undergone only twelve to thirteen years of full-scale economic development, but in 1965 there were a number of provinces whose rates of population unipolarization were as high as or exceeded those of other developing countries known for extreme population concentration in primate cities. China's unipolarization rate may have been even higher in the 1950s than in 1965. From this it may be possible to hypothesize that the origins of unipolarization of population extend back into colonial or semi-colonial periods, and that it has gradually disintegrated as economic development has taken place following national independence.

Fig. 5 Level of Urbanization and Ratio of Primate City

A. Africa and Asia

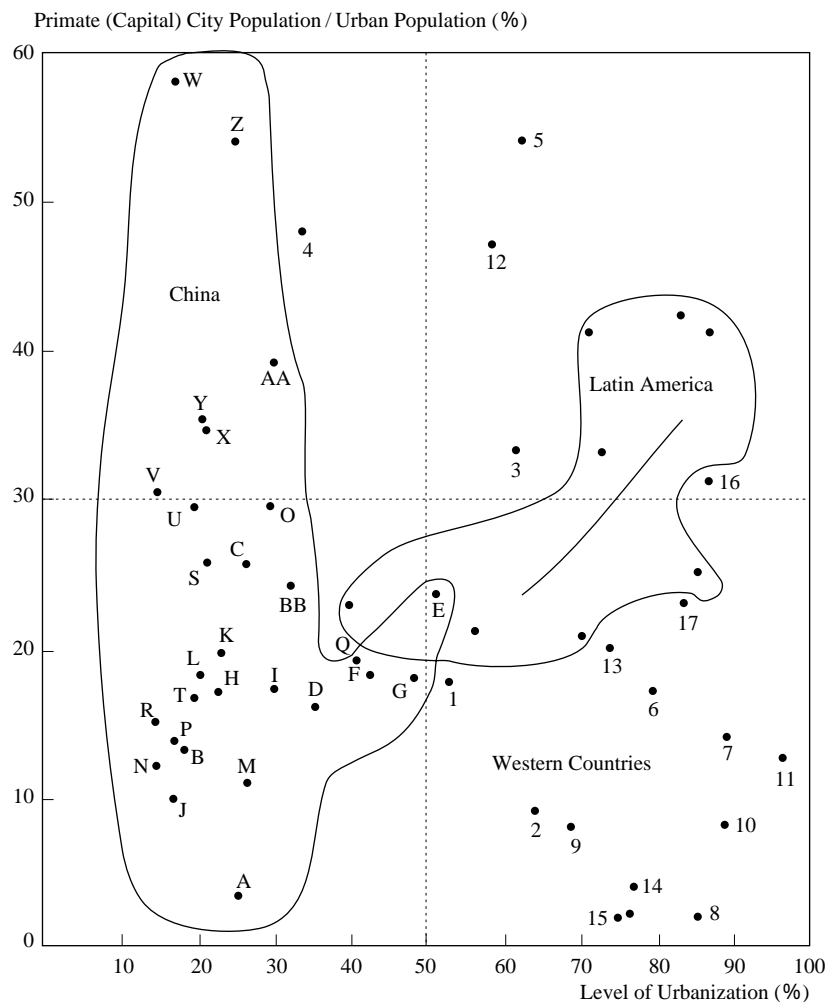


1. Mozambique, 2. Tanzania, 3. Ethiopia, 4. Uganda, 5. Madagascar, 6. Malawi, 7. Mali, 8. Burkina Faso, 9. Kenya, 10. Nigeria, 11. Ghana, 12. Zimbabwe, 13. Sudan, 14. Zambia, 15. Côte d'Ivoire, 16. Cameroon, 17. Morocco, 18. Tunisia, 19. Algeria, 20. South Africa, a. Nepal, b. Bangladesh, c. Laos, d. India, e. China, f. Pakistan, g. Sri Lanka, h. Yemen, i. Indonesia, j. Egypt, k. Philippines, l. Jordan, m. Syria, n. Thailand, o. Turkey, p. Iran, q. Malaysia, r. Oman, s. Republic of Korea, t. Saudi Arabia, u. Japan, v. Taiwan.

Sources: For China, [10, 1992 edition, pp. 471-77] [3, 1992 edition, p. 322]. For Taiwan, *Republic of China* (1991), pp. 14, 17. For others, *World Development Report, 1993* [12, pp. Note: The value for China (e) in Figure 5-A was calculated by the author. The same as A in population having urban registry.

Population to Total Urban Population, 1990

B. China, Latin America, and Western Countries



- ①. Guatemala, ②. Ecuador, ③. Peru, ④. Colombia, ⑤. Chile, ⑥. Venezuela, ⑦. Argentina, ⑧. Brazil, ⑨. Mexico, 1. Rumania, 2. Poland, 3. Hungary, 4. Portugal, 5. Greece, 6. Spain, 7. U.K., 8. Australia, 9. Italy, 10. Netherlands, 11. Belgium, 12. Austria, 13. France, 14. Canada, 15. U.S.A., 16. Denmark, 17. Sweden, A. China as a whole, B. Hebei, C. Shanxi, D. Inner Mongolia, E. Liaoning, F. Jilin, G. Heilongjiang, H. Jiangsu, I. Zhejiang, J. Anhui, K. Fujian, L. Jiangxi, M. Shandong, N. Henan, O. Hubei, P. Hunan, Q. Guangdong, R. Guangxi, S. Hainan, T. Sichuan, U. Guizhou, V. Yunnan, W. Tibet, X. Shaanxi, Y. Gansu, Z. Qinghai, AA. Ningxia, BB. Xinjiang.

calculated from *Taiwan Statistical Data Book* (1992), p.17, and *Statistical Yearbook of the* 298-99].

Figure 5-B. See also note to Table XIV. Levels of urbanization are based on the 1990 data for the

C. *Relationship between the Level of Urbanization and Unipolar Concentration*

It has generally been observed historically that the level of urbanization increases as productive forces develop. But what effect does this increase in urbanization have on the level of unipolarization? Earlier in this study, we observed that among China's provinces, areas with lower productive forces have higher unipolarization. I said that the dry climate may have something to do with this relationship. But that observation was of the period preceding the period of economic development. The question we want to take up now is the relationship between the level of urbanization and unipolarization after economic development has begun.

Figure 5 deals with this relationship. As many cases are involved, the figure is divided into two sections.

Africa is having difficulties entering onto a path of sustained economic development, and there seems to be a negative correlation between the level of urbanization and the rate of unipolarization. In contrast, there seems to be a positive correlation between the two rates in Latin America. Little correlation is found in Asia and Europe.

China's provinces provide a different picture. The levels of urbanization in all the provinces range between 15 per cent and 51 per cent (Beijing, Shanghai, and Tianjin have been excluded from the data). These provinces can be divided into two distinct groups. One group comprises provinces with urbanization levels of 15–30 per cent and unipolarization rates that range widely from 15 per cent to 58 per cent, thereby showing no correlation. The other group has urbanization levels of 30 per cent or more and seems to show positive correlation between urbanization and unipolarization levels. The three Northeastern provinces of Liaoning (E), Heilongjiang (G), and Jilin (F), as well as Zhejiang (I), Inner Mongolia (D), and Guangdong (Q) belong to this latter group. Having had a strong industrial basis originally, the three Northeastern provinces received concentrated government investment in the 1950s. Baotou, the primate city of Inner Mongolia, was equipped with a major steel mill in the 1950s which brought about a concentration of population in that city. These regions show Latin American patterns. Guangdong and Zhejiang provinces industrialized rapidly during the 1980s which seems to have been the cause for the change in their urban population patterns.

Whether the above interpretations are correct or not needs to be checked against what is in the process of taking place in the 1990s. The conclusion that can be drawn from Table XIV is that in most areas of China, the relatively strong trend toward unipolarization inherited from pre-1949 China and sustained by strong government controls on population migration in the 1970s, is being weakened in the wake of industrialization and eased restrictions on migration. But it may simultaneously be argued that, in parallel with this recent weakening trend, a new process of unipolarization is being generated by accelerated industrialization.

CONCLUSIONS

It is possible to draw the following conclusions from this study:

(1) For about a quarter of a century up until the end of the 1970s, the scale and scope of Chinese cities were determined by the quantity of grain available for rationing as well as by the government's capacity to supply homes to city dwellers. Cities were always confined into relatively small areas because of limitations on the supply of both. The published urbanization figures from the end of the 1960s through the 1970s seem to have been underestimated for two reasons: the limitations of family register-based statistics and population increase in towns within rural jurisdiction.

(2) The two decades after 1960 can be characterized as a period of government success in suppressing the rate of urban population increase through the use of strong administrative controls. When these were eased in the 1980s, hyper-hyper urbanization ensued with the urban population rate increasing at 6 per cent. This puts China in the group of developing countries experiencing the highest urban population increase rates.

(3) China's level of urbanization reached 30 per cent or more in 1991. This is several percentage points higher than the average level for low-income countries.

(4) In 1960 two-thirds of China's urban population was residing in officially designated cities and the remaining one-third was living in officially designated towns. By 1991 the ratio had shifted to 7:3 in favor of cities.

(5) Growth rates of provincial urban population were 5 per cent or more in the 1980s for nine provinces having populations of 380 million or more. These provinces experienced hyper-hyper urbanization. Three other provinces whose urban population has increased at rates between 4 per cent and 5 per cent are potentially subject to hyper-hyper urbanization. These three have a total of 220 million people. Altogether, hyper-hyper urbanization in the 1990s is likely to involve areas inhabited by more than 600 million people.

(6) The degree of unipolarization has gradually diminished during the past three decades, but levels of unipolarization are high in poor provinces, and comparable to those of other developing countries.

(7) When discussing unipolarization in developing countries, there is a need to pay attention to its antecedences in the old regimes. This is true for China too. It is possible to hypothesize that in most developing countries very high unipolarization rates may have been attained by the mid-20th century and that unipolarization is likely to gradually diminish as these countries industrialize. But to determine the validity of this hypothesis, more studies on individual countries need to be done.

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APPENDIX TABLE I
THE VARIOUS CATEGORIES OF URBAN POPULATION IN CHINA

(1,000 persons)

	Total Population of Extended Areas under Municipal Jurisdiction [Of Which: Nonagricultural Population]	Urban Population (<i>Shizhen Zongrenkou</i>) as Published in:					Urban Population Having Urban Registry*	Urban Population Adjusted by Author
		<i>Statistical Yearbook of China's Population</i> [Of Which: Nonagricultural Population]	<i>Almanac of China's Population</i> [Of Which: Nonagricultural Population]	<i>Statistical Yearbook of China</i> (1990 edition)	City District Population [Of Which: Nonagricultural Population]			
	(b)	(c-1)	(c-2)	(c-3)	(d)	(e)		
1980		191,410 [138,630]	191,410 [138,630]	191,410		191,400	181,170	
1981		201,720 [143,200]	201,710 [143,200]	201,710		201,710	187,020	
1982		211,560 [147,150]	211,540 [147,150]	211,310		214,800	197,110	
1983		241,230 [152,340]	241,260 [152,350]	241,500		222,740	208,440	
1984	497,861 [145,331]	330,060 [166,890]	330,060 [166,890]	331,360	191,155 [110,128]	240,170	232,950	
1985	554,715 [161,216]	382,440 [179,710]	382,440 [179,710]	384,460	212,277 [118,250]	250,940	254,860	
1986	607,435 [163,388]	437,530 [185,150]	437,530 [181,910]	441,030	233,147 [122,585]	263,660	263,040	
1987	628,308 [170,322]	501,010 [194,410]	503,620 [194,410]	503,620	262,309 [129,763]	276,740	263,040	
1988	678,410 [183,640]	542,490 [204,060]	543,930 [205,160]	543,690	295,452 [139,695]	286,610	305,870	

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APPENDIX TABLE I (Continued)

	Total Population of Extended Areas under Municipal Jurisdiction [Of Which: Nonagricultural Population]	Urban Population (<i>Shizhen Zongrenkou</i>) as Published in:					Urban Population Having Urban Registry*	Urban Population Adjusted by Author
		<i>Statistical Yearbook of China's Population</i> [Of Which: Nonagricultural Population]	<i>Almanac of China's Population</i> [Of Which: Nonagricultural Population]	<i>Statistical Yearbook of China</i> (1990 edition)	City District Population [Of Which: Nonagricultural Population]			
	(b)	(c-1)	(c-2)	(c-3)	(d)	(e)		
1989	695,971 [190,951]	573,830 [211,700]	573,830 [211,700]	574,940	317,622 [146,256]	295,400	325,770	
1990	717,264 [193,298]	598,080 [217,330]	604,470 [202,530]		335,428 [150,378]	301,910	313,230	
1991	727,514 [199,801]	618,880 [222,920]			346,021 [154,635]	305,430	340,340	
1992	745,928 [206,405]				383,433 [164,118]	323,720		
1993	838,587 [222,288]				429,323 [177,008]	333,510		

Sources: (b) = for 1984–91, *Zhongguo chengshi tongji nianjian* [Statistical yearbook of Chinese cities], 1985–92 editions; for 1992–93, *Zhongguo tongji nianjian* [Statistical yearbook of China], 1993 and 1994 editions. (c-1) = *Zhongguo renkou tongji nianjian* [Statistical yearbook on China's population], 1992 edition. (c-2) = *Zhongguo renkou nianjian* [Almanac of China's population], 1992 edition. (c-3) = *Zhongguo tongji nianjian* [Statistical yearbook of China], 1990 edition. (d) = for 1984–87 and 1989–91, *Zhongguo chengshi tongji nianjian* [Statistical yearbook of Chinese cities], 1985–88 and 1990–92 editions; for 1988 and 1992–93, *Zhongguo tongji nianjian* [Statistical yearbook of China], 1989, 1993, and 1994 editions. (e) = *Zhongguo tongji nianjian* [Statistical yearbook of China], 1993 and 1994 editions.

Note: Symbols (b), (c), (d), and (e) correspond to the categories in Figure 1.

* Figures for “urban population having urban registry” are available from 1982 onward. Figures for the years before 1982 are the same as those in the urban population (*shizhen zongrenkou*).