

National Education Series for Teachers: (2) Population and Migration in Our Country

Speaker: Dr GUO Chunlan

Lecturer, Department of Geography & Resource Management,
The Chinese University of Hong Kong



Date: 10 January 2024 (Wednesday)

I. Populating ancient China

1. Population evolution

Human beings diverged with chimpanzees 7 million years ago

<https://www.nature.com/scitable/knowledge/library/overview-of-hominin-evolution-89010983/>

Darwin's insight: All species are related to one another like sisters, cousins, and distant kin in a vast family tree of life. If we could travel back far enough in time, we would find common ancestors between ourselves and every other living organism.

2. Population evolution and growth

Savanna hypothesis

Recent African origin of modern humans

Tropical rainforest -- **Climate change** --> Woodland -- **Climate change** --> Savannah-C4 grass(稀樹草原) ----> Grazing animals (meat source) --(**Shifting toward bipedalism, increased brain size, gripping, language development, meat eating & other human traits**)--> Human evolution ----> Populating the world

3. Populating China

Peking Man Site at Zhoukoudian (周口店北京人遺址)

- A World Cultural Heritage Site since 1987
- 42 km SW of Beijing
- Ancient human fossils, cultural remains and animal fossils from 5 Mya to 10,000 years ago
- Over 100,000 pieces of stone tools
- Mastered fire and used chipped stone tools

- Evidence of human evolution in Asian continent from Middle Pleistocene Period (更新世) to Palaeolithic (舊石器時代)
- Originated from the North China Plain
- Lists of major migrations
 - Disaster of Yongjia (307-311)
 - An Lushan Rebellion (755-763)
 - Jingkang Incident (1126-1127)
 - Since Tang dynasty
 - Xia Jiangnan (Zhejiang, Jiangsu)
 - Jiangxi fill Huguang (Hunan, Hubei, Guangdong, Guangxi)
 - Huguang fill Sichuan
 - Since Qing dynasty
 - Chuang Guandong (Northeast)
 - Zou Xikou (西口, 張家口以西, 晉北、陝北 與內蒙交界的長城沿線各關口)

II. Population Growth in China Since 1949

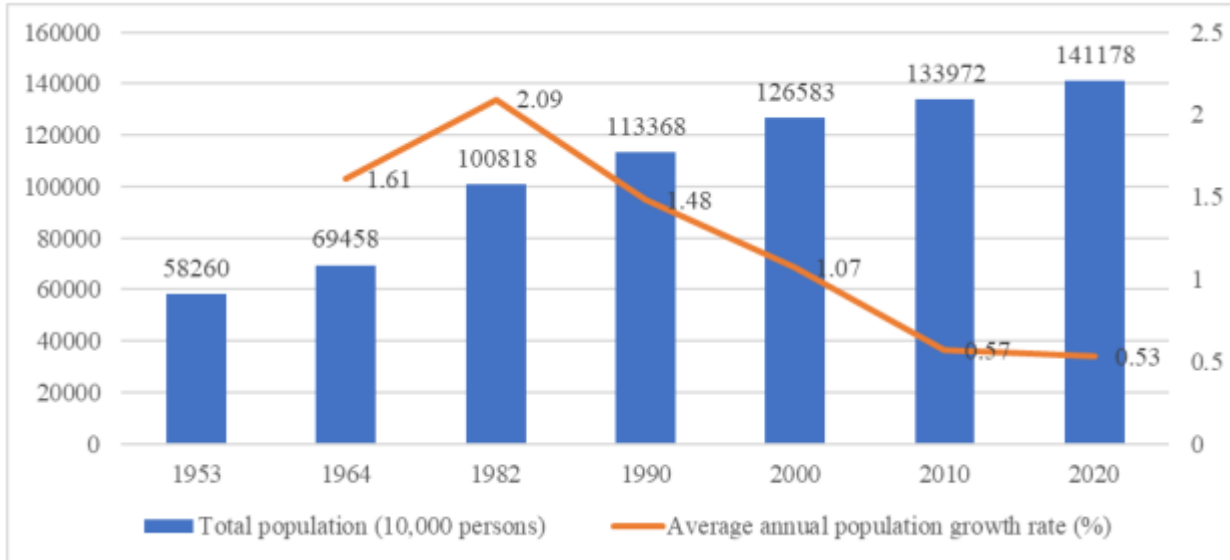
1. Basics of population in China: Large population size

- The world average density in 2023: 54 persons per km²

Rank	Country	2024 Population (As of 10/1/2024)	% of the world population	2023 Population	Growth Rate	Area (km ²)	Density (persons/km ²)
1	<u>India</u>	1,435,572,194	18.01%	1,428,627,663	0.92%	3,287,590	485
2	<u>China</u>	1,425,476,153	17.80%	1,425,671,352	-0.03%	9,706,961	151
3	<u>United States</u>	340,961,160	4.27%	339,996,563	0.53%	9,372,610	37
4	<u>Indonesia</u>	278,741,560	3.50%	277,534,122	0.82%	1,904,569	149
5	<u>Pakistan</u>	242,969,820	3.06%	240,485,658	1.96%	881,912	318
6	<u>Nigeria</u>	226,598,414	2.86%	223,804,632	2.39%	8,515,767	252
7	<u>Brazil</u>	217,073,936	2.72%	216,422,446	0.56%	923,768	26
8	<u>Bangladesh</u>	173,879,332	2.18%	172,954,319	1.01%	147,570	1,342
9	<u>Russia</u>	144,182,722	1.80%	144,444,359	-0.34%	17,098,242	9
10	<u>Ethiopia</u>	128,201,484	1.62%	126,527,060	2.52%	1,964,375	115
11	<u>Mexico</u>	128,952,124	1.62%	128,455,567	0.73%	377,930	67
12	<u>Japan</u>	122,946,735	1.53%	123,294,513	-0.54%	342,353	336
13	<u>Philippines</u>	118,269,401	1.49%	117,337,368	1.51%	300,000	399
14	<u>Egypt</u>	113,633,980	1.42%	112,716,598	1.57%	1,002,450	115
15	<u>DR Congo</u>	104,009,747	1.32%	102,262,808	3.29%	331,212	47

Source: <https://worldpopulationreview.com/countries>

2. Basics of population in China: Population growth



Source: China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

- The total population increased since 1949
- Seven censuses since 1949: 1953, 1964, 1982, 1990, 2000, 2010 and 2020
- China conducts decennial population census in years ending with 0, and the 1% population sample survey (also called “micro census”), during the inter-censal years ending with 5

3. Seven stages of population growth in China

Source: http://www.gov.cn/gzdt/2009-09/11/content_1415054.htm (In Chinese);
China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>;
<https://ourworldindata.org/grapher/projected-population-by-country>

Population in 1949: 541.67 million

Population in 1987: 1090.30 million

----> Doubled population in 38 years

Stage I (1949-1957): First rapid growth stage

- “The first baby boom”
- 105 million net population growth in 1949-1957
- High birth rate
- The death rate was decreased significantly
 - End of the wars
 - Stable society
 - Economic development and wider food security
 - Improvement in health care and hygiene

	Total population (million)	Birth rate	Death rate	Natural increase rate
1949	542	36.0%	20.0%	16.0%
1957	647	31.4%	9.2%	23.2%

The **birth rate** in a period is the total number of live births per 1,000 population during the given time interval. Example: The average global birth rate in 2016 is 18.6 ‰ equates to approximately 4.3 births per second or about 256 births per minute for the world. The birth rate of China in 2022 is 6.77 ‰.

The **death rate** in a period is the total number of deaths per 1,000 population during the given time interval. The death rate of China in 2022 is 7.37 ‰

Stage II (1958-1961): Slow growth stage

- The Great Chinese Famine: widespread famine between 1959 and 1961 caused by natural and man-made disasters
- High death rate and low birth rate
- The birth rate in 1959 was 20.9‰, and the death rate was 25.4‰
- Negative population growth was recorded in 1961

Source: http://www.gov.cn/gzdt/2009-09/11/content_1415054.htm (In Chinese)

Stage III (1962-1970): Second rapid growth stage

- Economic recovery since great famine
- Death rate declined significantly
- Birth rate rose to a high level to compensate previous low birth rate (補償性生育)
- “The second baby boom”
- The average birth rate was 36.8‰
- The death rate was under 10.0‰, and it was 7.6‰ in 1970
- 157 million net population growth in 1962-1970
- Total population reached 830 million in 1970

Source: http://www.gov.cn/gzdt/2009-09/11/content_1415054.htm (In Chinese)

Stage IV (1971-1980): First controlled growth stage

- Population entered a stage of controlled growth: Start to implement the Family Planning Policy
- Both natural increase rate and death rate declined
- But population continued to expand due to a large population base
- 135 million net population growth in 1971-1980
- Total population reached 987 million in 1980

	Total population (million)	Birth rate	Death rate	Natural increase rate
1971	852	30.7%	7.3%	23.4%
1980	987	18.2%	6.3%	11.9%

Source: China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

Stage V (1981-1990): Third rapid growth stage

- Family planning became a state policy
- Difficult to keep a low birth rate
- The birth rate increased
- “The third baby boom” caused by “the second baby boom” of the 1960s
- 143 million net population growth in 1981-1980
- The total population reached 1143 million in 1990

	Total population (million)	Birth rate	Death rate	Natural increase rate
1980	987	18.2%	6.3%	11.9%
1981	1000	20.9%	6.3%	14.6%
1987	1093	23.3%	6.7%	16.6%
1990	1143	21.1%	6.7%	14.4%

Source: China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

Stage VI (1991-2015): Stable growth stage

- Family planning has been improved and more families choose to have fewer children especially in urban areas
- Although the population continued to grow, the annual population growth declined from 14.9 million in 1991 to 8.5 million in 2015
- The total population reached 1383 million in 2015

	Total population (million)	Birth rate	Death rate	Natural increase rate
1991	1158	19.7%	6.7%	13.0%
1995	1211	17.1%	6.6%	10.5%
2000	1267	14.0%	6.5%	7.5%
2005	1308	12.4%	6.5%	5.9%
2010	1341	11.9%	7.1%	4.8%
2015	1383	12.0%	7.1%	4.9%

Source: China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

Stage VII (2016-now): Emerging low growth stage

- Population policy was changed and the effectiveness is being observed
- The birth rate and death rate were low
- Impacts by the pandemic which started in late 2019

Year	Total population (10 thousand)	Birth rate	Death rate	Natural increase rate	Net population growth (10 thousand)
2015	138326	12.0%	7.1%	4.9%	680
2016	139232	13.6%	7.0%	6.5%	906
2017	140011	12.6%	7.1%	5.6%	779
2018	140541	10.9%	7.1%	3.8%	530
2019	141008	10.4%	7.1%	3.3%	467
2020	141212	8.5%	7.1%	1.4%	204
2021	141260	7.5%	7.2%	0.3%	48
2022	141175	6.77%	7.37%	-0.60%	-85

Will China population continue to decline in the next five years?

Source: China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm> ;
<http://finance.people.com.cn/n1/2022/0117/c1004-32333012.html> (In Chinese);
http://www.beijing.gov.cn/gate/big5/www.beijing.gov.cn/ywdt/zybwdt/202301/t20230118_2903199.html (In Chinese);
<https://www.bbc.com/news/world-asia-china-64300190>

III. Changing population policy in China

- Debate on population policies in 1950s
 - A few economists saw the problem of too much population and argued for population control
 - But the prevailing view was that
 - though more people mean more food consumption “by mouth 人口”
 - more people also mean more production “by hand 人手”
 - Women having many children were praised as hero mothers
- Family planning in 1973
 - Two children per family
 - “one is not too few, two are good, and three are too many”
 - The slogan changed later to “one is the best”

More people may light work (Mao Zedong) 毛澤東：「人多好辦事」

- “One-child policy” in 1979
 - “One is enough”
 - Incentives for “one-child” family

- Social Maintenance Fee 社會撫養費: the penalty fee of the couple who violating the population polity
- 15 provinces and regions collected a total Social Maintenance Fee of RMB12.8 billion from violators in 2012
- Over 0.4 billion people were not born due to family planning 1973-2018
 - More than the population in the US
 - Population in 3 Japan

You may not know

- The “one-child policy” was not implemented in all parts of China (e.g., ethnic minority population, rural area)
- “Controlling the total population under 1.2 billion by 2000” failed
- Population reached 1.2 billion in 1995 and 1.267 billion in 2000

- Couples could have 2nd child before 2014
 - Both were the only child of their parents (雙獨二孩政策)
 - The first child was a daughter and contained agricultural hukou (1.5 child policy 一孩半政策)
- “Two child policy” since 2014
 - 2014: Selective “Two child policy” 單獨二孩
 - Allowing families to have two children if one of the parents is the single child
 - 2016: Universal “Two child policy” 全面二孩
 - Allowing all families to have two children
- “Three child policy 三孩政策” launched in May 2021
 - A couple can have three children
 - The number of births in the Mainland
 - 2014: 16.87 million (Selective “Two child policy”)
 - 2015: 16.55 million
 - 2016: 18.83million (Universal “Two child policy”)
 - 2017:17.23 million
 - 2018: 15.23 million
 - 2019: 14.65 million
 - 2020: 12.02 million
 - 2021: 10.62 million (“Three child policy”)
 - 2022: 9.56 million
 - 2023: 9.02 million

IV. Population Distribution

1. Uneven spatial distribution (binary division)

- Chinese population geographer Hu Huanyong imagined the line in 1935 and called it a “geodemographic demarcation line”.
- 1935 statistics (including Mongolia, the land of China at that time is bigger than the one of People's Republic of China)
 - West of the line
 - 64% of the land (including Mongolia)
 - 4% of the population
 - East of the line (including Mongolia)
 - 36% of the land
 - 96% of population

	East of Hu Huanyong line (42.9% of the land)		West of Hu Huanyong Line (57.1% of the land)	
	% of total population	population density (person/km ²)	% of total population	population density (person/km ²)
2000	94.21	285.18	5.79	14.18
2010	93.99	300.19	6.01	15.54
2015	93.88	314.85	6.12	15.34

Population distribution pattern of China in 2015

Source: Li et al, 2018, <https://doi.org/10.3390/su10103598> ; Xia & Lin, 2021 (in Chinese)

- Unevenly distributed with high density in the East of Hu Huanyong line and low in the West of Hu Huanyong line
 - The Hu Huanyong line coincides with the 400 mm isohyet
 - In the East
 - Plains, water networks, hills, karsts and Danxia landforms
 - Good agricultural and water resources
 - Urban and industrial development

2. Uneven spatial distribution (tertiary division)

a. Tertiary division

- **Eastern region** includes 11 provinces (municipalities): Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan.
- **Central region** includes 8 provinces: Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei and Hunan.

- **Western region** includes 12 provinces (autonomous regions, municipalities): Inner Mongolia, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Xizang, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

b. Quaternary division (since 2011, adopted by Statistic Bureau)

- **Eastern region** includes 10 provinces (municipalities): Beijing, Tianjin, Hebei, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan.
- **Central region** includes 8 provinces: Shanxi, Anhui, Jiangxi, Henan, Hubei and Hunan.
- **Western region** includes 12 provinces (autonomous regions, municipalities): Inner Mongolia, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Xizang, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.
- **Northeastern region** includes 3 provinces: Liaoning, Jilin, Heilongjiang.

Source : http://www.stats.gov.cn/ztc/zthd/sjtjr/dejtjkr/tjqp/201106/t20110613_71947.htm

Eastern

- 1.06 million km² ,11.1% of the total area
- 607 million population, 43.0% of the total population

Region	Population in 2020	% in 2020	% in 2010
Beijing	21893095	1.55	1.46
Tianjian	13866009	0.98	0.97
Hebei	74610235	5.28	5.36
Liaoning	42891407	3.02	3.27
Shanghai	24870895	1.76	1.72
Jiangsu	84748016	6.00	5.87
Zhejiang	64567588	4.57	4.06
Fujian	41540086	2.94	2.75
Shandong	101527453	7.19	7.15
Guangdong	126012510	8.93	7.79
Hainan	10081232	0.71	0.65
Total	606608526	42.93	41.05

Central

- 1.67 million km² , 17.4% of the total area
- 421 million population, 29.8% of the total population

Region	Population in 2020	% in 2020	% in 2010
Shanxi	34915616	2.47	2.67
Jilin	24073453	1.71	2.05
Heilongjiang	31850088	2.26	2.86
Anhui	61027171	4.32	4.44
Jiangxi	45188635	3.20	3.33
Henan	99365519	7.04	7.02
Hubei	57752557	4.09	4.27
Hunan	66444864	4.71	4.90
Total	462157989	32.74	34.29

Western

- 6.87 million km² , 71.5% of the total area
- 383 million population, 27.2% of the total population

Region	Population in 2020	% in 2020	% in 2010
Inner Mongolia	24049155	1.70	1.84
Guangxi	50126804	3.55	3.44
Chongqing	32054159	2.27	2.15
Sichuan	83674866	5.93	6.00
Guizhou	38562148	2.73	2.59
Yunnan	47209277	3.34	3.34
Xizang	3648100	0.26	0.22
Shaanxi	39528999	2.80	2.79
Gansu	25019831	1.77	1.91
Qinghai	5923957	0.42	0.42
Ningxia	7202654	0.51	0.47
Xinjiang	25852345	1.83	1.63
Total	382852295	27.11	26.89

Source: Major Figures on 2020 Population Census of China,

<http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>

c. Population Distribution

- Guangdong and Shandong are the most populous provinces, over 100 million each in 2020
- Ningxia, Qinghai and Xizang are the least populated provincial units, less than 5.0 million each

V. Population Structure

1. Gender structure

- **Sex ratio** is defined as the number of males per 100 females in the population
- **The rise in sex ratio from 1970 to 2000** is caused by a high sex ratio at birth
- A myth of “**missing women in China**”: the unusual shortfall of the female population resulting from cultural influences (boy preference) and government policy (family planning policy), which includes gender-selective birth or baby abandon, and underreporting of the female population
 - An estimated 20 million baby girls went “missing” from the population between 1980 and 2010

The sex ratio of births

Source: <https://www.unicef.cn/en/figure-19-sex-ratio-birth-19822017>

Source: Major Figures on 2020 Population Census of China,
<http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>

2. Age structure

- The age structure of China’s population changed with the change in fertility and life expectancy
- Increasing old dependency ratio
- Face significant population ageing in future

Index

- The dependency ratio: the ratio of population aged 0-14 and 65+ to the population aged 15-64
- The young dependency ratio: the ratio of population aged 0-14 to the population aged 15-64
- The old dependency ratio: the ratio of population aged 65+ to the population aged 15-64

Age group	1953	1964	1982	1990	2000	2010	2020
0-14(%)	36.3	40.7	33.6	27.7	22.9	16.6	17.9
15-64(%)	59.3	55.8	61.5	66.7	70.2	74.5	68.6
65+(%)	4.4	3.6	4.9	5.6	7.0	8.9	13.5
Dependency ratio(%)	68.4	79.4	62.6	49.8	42.6	34.2	45.9
Young dependency ratio (%)	61.2	72.9	54.6	41.5	32.6	22.3	26.2
Old dependency ratio (%)	7.2	6.5	8	8.3	9.9	11.9	19.7

Source: China Statistical Yearbook 2021, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

3. Demographic Window of Opportunity (DWO) 人口機會窗口

- Demographic window: a period with low fertility and mortality; low dependency ratio
- The old dependency ratio >15% since 2017

<https://data.worldbank.org/indicator/SP.POP.DPND.OL>

Phases	Under 15(%)	65 or over (%)
Traditional	>40	<15
Pre-window	30-40	<15
Early-window	25-30	<15
Mid-window	20-25	<15
Late-window	<20	<15
Post-window	<15	>15

Source: UN, 2004,

https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/2020/Jan/un_2002_world_population_to_2300.pdf

- Demographic window: the overall dependency ratio is below 400(‰)
- A demographic window in China from 2004 to 2016

4. The population pyramids of China from 1953 to 2020

Source: Major Figures on 2020 Population Census of China,

<http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf> ;

<https://www.populationpyramid.net/world/2020/>

5. Rural/urban structure

- Urban population was the (de facto) depopulation who have lived in the urban area for more than six months
- The urban population increased from 1953
- Urban population was more than rural population since 2011
- The urban population rate was 63.89% in 2020

Unit: (10000 persons, %)				
Census Years	Urban Population	Rural Population	National Population	Proportion of Urban Population to National Population
1953	7726	50534	58260	13.26
1964	12710	56748	69458	18.30
1982	21082	79736	100818	20.91
1990	29971	83397	113368	26.44
2000	45844	80739	126583	36.22
2010	66557	67415	133972	49.68
2020	90199	50979	141178	63.89

Source: Major figures on 2020 Population Census of China, <http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm>

6. Education level

- Education level is a key indicator of **population quality**

Unit: (10000 persons, %)			
Census Years	National Population	Illiterate Population	Illiterate Rate
1964	69458	23327	33.58
1982	100818	22996	22.81
1990	113368	18003	15.88
2000	126583	8507	6.72
2010	133972	5466	4.08
2020	141178	3775	2.67

Note: Illiterate population of 1964 census referred to people of 13 years old and over who could not read. Illiterate population of 1982, 1990, 2000, 2010, 2020 census referred to people of 15 years old and over who could not read.

Source: Major Figures on 2020 Population Census of China, <http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>

- Higher education
 - 1998-2015 Admission quota increased by 6 times
 - 1.08 million in 1998, admission rate 46.1%
 - 7.38 million in 2015, admission rate 92.5%
 - 1.04 million graduates in 2001
 - 5.75 million graduates in 2010
 - 6.80 million graduates in 2015
 - 8.84 million graduates in 2020
- Gross admission rate
 - 4% in 1999, 23% in 2008, 26.5% in 2011, 34.5% in 2013, 40.0% in 2015, 45.7% in 2017, and 54.4% in 2020 in China
 - 40% in 1970s to 90% in 2008 in Japan
 - 91% in South Korea
 - 82% in USA
 - 59% in UK

7. Ethnic structure: Growing ethnic minority population

- The number of ethnic minorities and their share in the total population are increasing in China as a whole

Unit: (10000 persons, %)

Census Years	National Population	Han Ethnic Group			Ethnic Minorities		
		Population	Proportion	Average Annual Growth Rate	Population	Proportion	Average Annual Growth Rate
1953	58260	54728	93.94		3532	6.06	
1964	69458	65456	94.24	1.64	4002	5.76	1.14
1982	100818	94088	93.32	2.04	6730	6.68	2.93
1990	113368	104248	91.96	1.29	9120	8.04	3.87
2000	126583	115940	91.59	1.03	10643	8.41	1.51
2010	133972	122593	91.51	0.56	11379	8.49	0.67
2020	141178	128631	91.11	0.48	12547	8.89	0.98

Source: Major Figures on 2020 Population Census of China,

<http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>

- Minority population at the provincial level in 2020
 - Guangxi, Yunnan, Guizhou and Xinjiang: over 14 million
 - Each accounting for over 10% of total minority population in China
 - Liaoning, Hunan, Inner Mongolia and Sichuan: 5-7 million
 - Guangdong, Hebei, Xizang, Qinghai, Hubei, Gansu, Ningxia and Jilin over 2 million
- The share of minority population among total population at the provincial level of the western region in 2020
 - Xizang: 87.9%
 - Xinjiang: 57.8%
 - Qinghai: 49.5%
 - Guangxi, Guizhou, Yunnan and Ningxia: 33-37%
 - Chongqing, Sichuan, Shaanxi and Gansu: less than 10%

Source: Major Figures on 2020 Population Census of China,

<http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>

- The number of Ethnic Minorities was increased in the Eastern and Western but decreased in the Central
Why?
- There was the uneven regional distribution of Ethnic Minorities in China
When comparing to the general population spatial distribution, what are the characteristics of non-Han population distribution in China? What are the causes?

The distribution of Ethnic Minorities/ Non-Han population

	2020	2010	2000
Eastern	18.1%	15.7%	13.4%
Central	11.7%	12.8%	18.4%
Western	70.2%	71.5%	68.2%
Total	100%	100%	100%

The number of Ethnic Minorities/Non-Han population by provincial level (10,000 person)

Eastern			
	2020	2010	2000
Beijing	105	80	59
Tianjian	44	33	26
Hebei	322	299	291
Liaoning	642	664	678
Shanghai	40	28	10
Jiangsu	62	38	25
Zhejiang	222	121	40
Fujian	112	80	58
Shandong	90	73	62
Guangdong	475	206	123
Hainan	158	145	136
Total	2272	1767	1508

Central			
	2020	2010	2000
Shanxi	12	9	10
Jilin	209	219	246
Heilongjiang	112	137	185
Anhui	43	40	38
Jiangxi	22	15	11
Henan	116	113	262
Hubei	277	247	658
Hunan	669	655	658
Total	1460	1435	2068

Western			
	2020	2010	2000
Inner Mongolia	511	506	493
Guangxi	1881	1711	1721
Chongqing	217	194	198
Sichuan	569	491	415
Guizhou	1405	1255	1334
Yunnan	1564	1534	1433
Xizang	320	276	246
Shaanxi	22	19	18
Gansu	266	241	223
Qinghai	293	264	236
Ningxia	259	223	194
Xinjiang	1493	1307	1143
Total	8800	8021	7654

Source: Major Figures on 2020 Population Census of China,

<http://www.stats.gov.cn/tjsj/pcsj/rkpc/d7c/202111/P020211126523667366751.pdf>

Total population

Eastern			
Region	Population in 2020	% in 2020	% in 2010
Beijing	21893095	1.55	1.46
Tianjian	13866009	0.98	0.97
Hebei	74610235	5.28	5.36
Liaoning	42891407	3.02	3.27
Shanghai	24870895	1.76	1.72
Jiangsu	84748016	6.00	5.87
Zhejiang	64567588	4.57	4.06
Fujian	41540086	2.94	2.75
Shandong	101527453	7.19	7.15
Guangdong	126012510	8.93	7.79
Hainan	10081232	0.71	0.65
Total	606608526	42.93	41.05

Central			
Region	Population in 2020	% in 2020	% in 2010
Shanxi	34915616	2.47	2.67
Jilin	24073453	1.71	2.05
Heilongjiang	31850088	2.26	2.86
Anhui	61027171	4.32	4.44
Jiangxi	45188635	3.20	3.33
Henan	99365519	7.04	7.02
Hubei	57752557	4.09	4.27
Hunan	66444864	4.71	4.90
Total	462157989	32.74	34.29

Western			
Region	Population in 2020	% in 2020	% in 2010
Inner Mongolia	24049155	1.70	1.84
Guangxi	50126804	3.55	3.44
Chongqing	32054159	2.27	2.15
Sichuan	83674866	5.93	6.00
Guizhou	38562148	2.73	2.59
Yunnan	47209277	3.34	3.34
Xizang	3648100	0.26	0.22
Shaanxi	39528999	2.80	2.79
Gansu	25019831	1.77	1.91
Qinghai	5923957	0.42	0.42
Ningxia	7202654	0.51	0.47
Xinjiang	25852345	1.83	1.63
Total	382852295	27.11	26.89

Minority population

Eastern			
	2020	2010	2000
Beijing	105	80	59
Tianjian	44	33	26
Hebei	322	299	291
Liaoning	642	664	678
Shanghai	40	28	10
Jiangsu	62	38	25
Zhejiang	222	121	40
Fujian	112	80	58
Shandong	90	73	62
Guangdong	475	206	123
Hainan	158	145	136
Total	2272	1767	1508

Central			
	2020	2010	2000
Shanxi	12	9	10
Jilin	209	219	246
Heilongjiang	112	137	185
Anhui	43	40	38
Jiangxi	22	15	11
Henan	116	113	262
Hubei	277	247	658
Hunan	669	655	658
Total	1460	1435	2068

Western			
	2020	2010	2000
Inner Mongolia	511	506	493
Guangxi	1881	1711	1721
Chongqing	217	194	198
Sichuan	569	491	415
Guizhou	1405	1255	1334
Yunnan	1564	1534	1433
Xizang	320	276	246
Shaanxi	22	19	18
Gansu	266	241	223
Qinghai	293	264	236
Ningxia	259	223	194
Xinjiang	1493	1307	1143
Total	8800	8021	7654

- Most of ethnic minorities are in Western China
- Hu Huanyong line is not applicable to explain the spatial distribution of ethnic minorities
- The percentage of ethnic minorities in Eastern China increased significantly
 - Migrate to the east (same trend and direction with the total population)
- The percentage of ethnic minorities in Central China decreased significantly
 - Move out (same trend and direction with the total population)

VI. Population movement

1. Population movement before 1978

a. Tight control by hukou system (household registration system 戶籍制度) and planned economy system

- Planned economy system 計劃經濟制度(工作限制)
 - Grain coupon system 糧食副食品定量供應(生活必需品限制),票證制度
 - Danwei system 單位制度:國家、單位、個人
 - Housing system 住房分配制度(居住限制)
 - People's Communes 人民公社和街道委員會制度(監管)
- Personnel file system 人事檔案制度(人才流動)

b. Invisible wall between rural and urban China

- Household registration (hukou, 戶口)
 - **Functions:** population registration and management; resource distribution; population migration regulation; population control and crime management
 - Categories
 - Non-agricultural population 非農業人口
 - Agricultural population 農業人口
 - **Places**
 - Local 本地戶口
 - Non-local 外地人口
 - Leave the community where the hukou was registered

Questions:

- Non-agricultural population = urban population?
- Agricultural population = rural population?

c. Hukou system in China

- The non-agricultural hukou meant a list of social welfare/subsidies in the planned economics :
 - Education
 - Employments
 - Housing
 - Public health
 - Others
- Transferring hukou from agricultural to non-agricultural type was a big success for rural young people. The major approach included:
 - Be admitted to an university
 - Joining the army
 - Being employed in urban area
 - Others

d. Encourage migration

Encourage urban to rural migration

- Early stage of China's industrialization and urbanization
- Increased by ~8% during the 30 years
- Cultural Revolution period: Going to the mountains and countryside 上山下鄉

Encourage east to west migration: Large-scale "Third Front" construction 三線建設

- Time period: from 1964 to 1972
 - 3rd FYP 1966-1970: national defense and Third Front construction
 - 4th FYP 1971-1975: steel, military and basic industries
- The central government made two major decisions on regional development

- Implementing the Third Front construction to achieve a strategic shift of the industrial distribution
- Developing independent industrial systems in various regions

What is the Third Front (a geo-military concept)?

- First front: Coastal large cities, close to the potential war fronts
- Second front: Adjacent areas of coastal large cities
- Third front: 13 provinces and autonomous regions in Northwest and Southwest China

2. Population movement after 1978: Agricultural reform

- Agricultural reform: from collective agricultural production system/ production team system to household-based farming system
- The household-based farming system reform was instituted in December 1978
- By the end of 1986, 94.4% of the farm household had adopted the new household-based farming system/ household responsibility system (家庭聯產承包責任制，也稱大包干、包產到戶).
 - First round of farmland contract for 15 years (about 1983-1997)
 - Second round of farmland contract for 30 years (about 1998-2027)

“We divide land to households and this is signed by each household head. If implemented, each household guarantees to complete the quota of state grain contribution and will not ask money or grain from the state anymore. If failed, **our officials would accept death penalty or being jailed in prison** without any complaints. Members guarantee to raise our children to 18 years old.”

Figure: The contract of household-based farming agreed in Xiaogang Village in Fengyang County, Anhui Province 安徽鳳陽縣小崗村 https://www.sohu.com/a/259831886_394566

Rural households can manage their own production to achieve:

- the contract quota given by the state according to the production contract
- the needs of the households
- extra output can be sold to the state at a higher price or the local market

Effects of the reform

- Higher productivity
- Increasing the number of surplus rural labourers
- Increase the rural household income (expanded sources and increased quantity)

3. Population movement after 1978: Economic reform

Stage 1: 1978-1984

- **Economic reforms began in agriculture** (household responsibility system)
- The country was opened to foreign investment for the first time Deng Xiaoping created a series of special economic zones for foreign investment in 1979
 - Shenzhen, Zhuhai, Shantou, Xiamen, and Hainan (1988)
- China further opened 14 coastal cities to overseas investment in 1984: Dalian, Qingdao, Tianjin and other 11 cities
 - These regions became engines of national economic growth
- Economic reforms since 1978 in China were also known domestically as reform and opening-up 改革開放

Panasonic entered mainland China in 1978

Coco Cola entered mainland China in 1979

Hitachi entered mainland China in 1979

Stage 2: 1985-1997

- A notable development was the **decentralization of state control**
- Deng Xiaoping **reopened the Shanghai Stock Exchange# in 1990** which was closed by Mao 40 years earlier
- Privatizations began to accelerate after Deng Xiaoping's southern tour (鄧小平 南巡) in 1992
- **The private sector** (民營企業) surpassed the state sector in the share of GDP for the first time in the mid-1990s

#The Shanghai Stock Exchange was established in 1891

Stage 3: 1998-2005

- Despite Deng's death in 1997, reforms continued under his handpicked successor, Jiang Zemin and Zhu Rongji, who were ardent reformers
- In 1997 and 1998, large-scale privatization occurred
- **Reforms in state owned enterprises (SOEs)**: between 2001 and 2004, the number of SOEs enterprises decreased by 48%
- Government reduced tariffs, trade barriers and regulations and reformed the banking system
- In 2001, China joined the **World Trade Organization**
- In 2005, China surpassed Japan as the secondlargest economy in the world

Stage 4: 2006 - present

- In 2013, China established Shanghai free trade zone
- In 2018, China established Hainan Free Trade Port
- Expanding private sectors (民營企業)
- The top 10 enterprises in the private sector
 - Huawei 華為 (Computer, Communication & Other Electronic Equipment)
 - Jingdong 京東 (Internet and related services)
 - Hengli 恆力 (Petroleum, coal and other fuel processing industry)
 - Zhengwei 正威 (Non-ferrous metal smelting and calendaring industry)
 - Alibaba 阿里巴巴 (Internet and related services)
 - TenCent 騰訊 (Internet and related services)
 - Biguiyuan 碧桂園 (Real estate)
 - Vanke 萬科 (Real estate)
 - Lenovo 聯想 (Computer, Communication & Other Electronic Equipment)
 - Zhongnan 中南 (Real estate)
- GDP (no.2 in 2020) and GDP per capita (no.80 in 2020) rapid growth in the past 40 years

Source: World Bank, <https://data.worldbank.org/country/CN>

- **Rural migrant workers 農民工** : the temporary (non-hukou) migrant who have left their agricultural household registration location (rural area) to work at another county level place (cities) for at least half year

Time	Initiation	Name in Chinese
1958	Regulation on <i>Hukou</i> registration in the People's Republic of China	中華人民共和國戶口登記條例
1982	Measures of Detaining and Repatriating Floating and Begging People in the Cities	城市流浪乞討人員收容遣送辦法
1985	Rural laborers are allowed to work in some jobs in cities without the urban <i>hukou</i> if they can secure their food. They want to apply temporary residence permit in cities	自理口糧; 暫住證
2003	Measures on Repatriation of Urban Homeless Beggars without Income	城市生活無著的流浪乞討人員救助辦法
2010	A new residential permit (<i>juzhuzheng</i>) to replace the previous temporary residential permit (<i>zanzhuzheng</i>)	居住證代替暫住證
2014	Opinions about further promoting hukou reform from the State Council Replace the traditional hierarchical urban-rural hukou status with a universal resident <i>hukou</i> status	關於進一步推進戶籍制度改革的意見 取消農業非農業二元戶口登記

VII. Changing migration patterns

- Before economic reforms, north and west areas are top destinations of migration
- After economic reforms, Beijing, Shanghai, Guangdong, Zhejiang, Tianjin, Fujian and Jiangsu are top destinations of migration
 - Peacocks fly to the southeast area (孔雀東南飛)

Changing migration patterns: Post pandemic

Before the COVID-19 pandemic

The rate of increase of residential residence of the nine cities in the Guangdong-Hong Kong-Macao Greater Bay Area in this recent 10 years				
City	Number of residential residence (ten thousand) in 2008	Number of residential residence (ten thousand) in 2018	Growth	Growth rate
Guangzhou	1018.20	1490.44	472.24	46.38%
Shenzhen	876.83	1302.66	425.83	48.56%
Zhuhai	148.11	189.1	40.99	27.68%
Foshan	595.29	790.57	195.28	32.80%
Dongguan	694.98	839.22	144.24	20.75%
Huizhou	392.71	483.00	90.29	22.99%
Zhongshan	251.09	331.00	79.91	31.83%
Jiangmen	414.27	459.82	45.55	11.99%
Zhaoqing	380.29	415.17	34.88	9.17%

After the COVID-19 pandemic

The rate of increase of residential residence of cities in 2022			
City	Number of residential residence (ten thousand) in 2022	Growth rate in 2022	Growth rate in 2021
Changsha	1042.1	18.2	18
Hangzhou	1237.6	17.2	23.9
Hefei	963.4	16.9	9.5
Xian	1299.59	12.29	20.3
Nanchang	653.81	10.06	18
Wuhan	1373.9	9.01	120.12
Zhengzhou	1282.8	8.6	12
Qingdao	1034.21	8.54	15
Jinan	933.6	7.86	9.4
Chengdu	2126.8	7.6	24.5
Ningbo	961.8	7.4	12.4
Nanjing	949.11	6.77	10.34
Suzhou	1291.1	6.32	8.8
Hohhot	355.11	5.55	4.14
Taiyuan	543.5	4.4	7.2
Lanzhou	441.53	3.1	2.49
Quanzhou	887.9	2.9	6
Xiamen	530.8	2.8	10
Shijiazhuang	1122.35	1.88	-3.74
Wuxi	749.08	1.13	1.2
Chongqing	3213.34	0.91	3.5
Xining	248	0.44	0.76
Beijing	2184.3	-4.3	-0.4
Tianjin	1363	-10	-13.6
Shanghai	2475.89	-13.54	1