ANALYSING CHINA'S CENSUS REPORT

AN INSIGHT INTO DEMOGRAPHIC SHIFTS AND TRENDS

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Summary Findings

- For the 7th census conducted in 2020, 1st November 2020 was decided as a reference point. It was carried out by over 7 million officers operating through 6,79,000 census agencies opened across all administrative divisions.

- As per the 2020 census, Guangdong and Shandong remain the most populous provinces, continuing the trend of the 2010 census. China's eastern provinces accounted for almost 40% of its total population, followed by western provinces (27.12%) and central provinces (25.83%).

- The sex ratio (number of males per 100 females) in Jilin and Liaoning is below 100, whereas other provinces have registered a sex ratio closer to the national average of 104.99, with only 3 provinces having sex ratio above 110.

- Coastal provinces such as Shanghai, Guangdong and Zhejiang have a larger share of working age population due to more economic opportunities. Similarly, Northeastern provinces of Heilongjiang, Jilin and Liaoning also have a dominant working age population, indicating these provinces still hold some economic value in terms of employment.

- The share of elderly population has increased in all provinces over the last three censuses. Sichuan, Liaoning and Chongqing have a higher proportion of elderly population compared to other provinces, especially eastern provinces which have a lower share than national average of 13%.

- In the 2000 census, China had an average literacy rate of around 92% which increased to 97% in 2020. Except a few, most provinces have a literacy rate above 90% since the 2000 census.

- Throughout all three censuses, Tibet has had the lowest literacy rate amongst all provinces. It also has the lowest urbanization rate as only 35% of its population lives in urban areas, which has doubled in the last 20 years (18 % in 2000). Other provinces such as Yunnan, Guizhou, Gansu and Henan also have only half of its population living in urban areas, which is well below the national average of 63%.

The <u>China Census dashboard</u> illustrates several dimensions of China's demographic structure at the provincial level. The dashboard summarises data for the last three censuses conducted in 2000, 2010 and 2020. It helps analysts understand broad national and provincial trends in China's demographics and thereby, identify important provinces and factors responsible for driving national demographic trends. The dashboard covers growth in total population, age and gender composition, levels of educational attainment, ethnic composition and level of urbanization across 31 provinces over the last 30 years.

Introduction

The decadal census of China reveals several key insights about its evolving demographic structure, ranging from growth in population to patterns of urbanization. The 7th census report was published in May 2021 by the National Bureau of Statistics (NBS), which provides information about different aspects of China's demographic composition between 2010 and 2020. China has carried out seven censuses so far, beginning with the first one in 1953. Since the 4th census in 1990, the mammoth exercise has been carried out every 10 years.

For the census in 2020, 1st November 2020 was decided as a reference point. It was carried out by over 7 million officers operating through 6,79,000 census agencies opened across all administrative divisions. For the first time, census authorities used technologies such as QR codes and big data to collect information which also enabled census officials to abide by COVID protocols and avoid infections. Ning Jizhe, Commissioner of NBS mentioned that as a result of these methods, census results were more accurate and had a low calculation error of 0.05% (around 0.7 million people), compared to global standards of 3%.

The decade from 2010 to 2020 was crucial for China's demographic structure as it saw the end of the 'One child policy' in 2016 which slowed China's population growth over the last four decades. It produced a decline in the country's population in 2022. Furthermore, concerns about an increase in the dependent population, especially the elderly population, continue to persist. The ageing population in China places a greater burden on the government for providing social security. This trend is clearly visible from the images below which show that the bulge is gradually shifting upwards (towards elderly population) as China's demographic dividend continues to worsen. It also means that the size of China's working age population is on the decline, which can have major implications for China's labour market. Combined with China's slowing economic growth rate throughout this decade, the effect of a waning demographic dividend is a major challenge for policymakers in China. Thus, the census results are critical not only for the economy but also for China's overall development policies and progress.
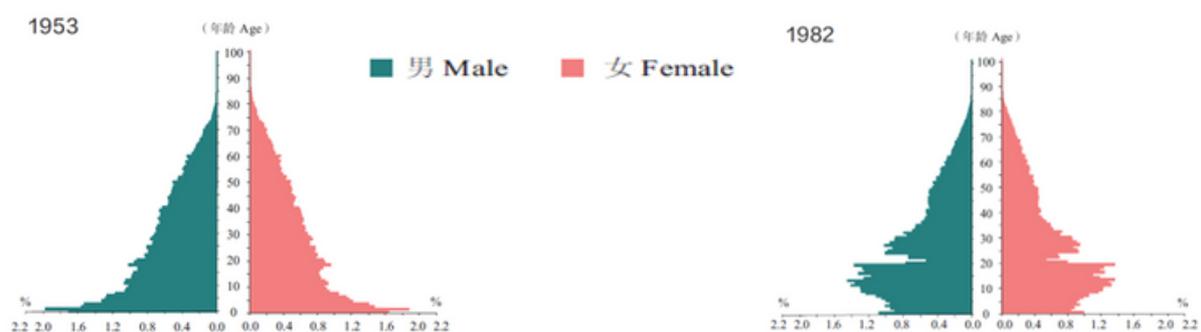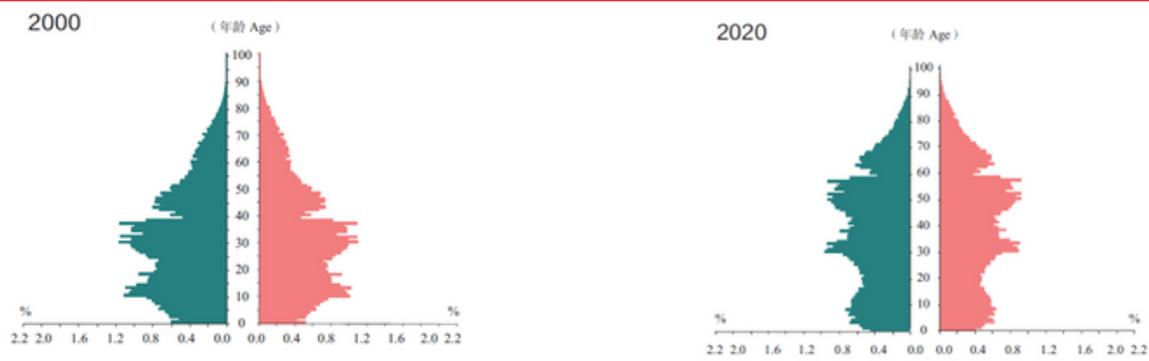
Source: 2020 population census of China (National Bureau of Statistics

Changes in Provincial Population

The 1980s witnessed the beginning of economic reforms in China which shifted the focus of development to eastern provinces. As a result, provinces like Sichuan and Hunan in the South, which were some of the most populous provinces as per 1990 census, produced a slowdown in their population growth over the next three decades. On the other hand, China's coastal provinces in the east like Guangdong, Shandong and Jiangsu witnessed a rapid growth in population during the same period. For instance, Guangdong had a population of 62 million in 1990 which doubled in 2020 to 126 million. On the other hand, Sichuan, which was once one of the most populous provinces, witnessed its population increase by less than 10% in the last 40 years. **As per the 2020 census, Guangdong and Shandong remain the most populous provinces, continuing the trend of the 2010 census.** As a result, **China's eastern provinces accounted for almost 40% of its total population, followed by western provinces (27.12%) and central provinces (25.83%).** On the other hand, provinces in Northeast China: Liaoning, Jilin and Heilongjiang have registered negative growth rate in population from 2010 to 2020 which also reduced their contribution to China's total population (6.98%). It also reflects the pattern of migration from China's hinterland to coastal regions.

There have also been changes in the number of family households compared to collective households. In general, there has been an increase in the number of family households across all provinces, as China moved away from the collective economy. Along with this transition, large scale migration for better economic opportunities has caused separation of families and thus, fragmented family units could have been counted as separate families. As a result, the average size of household families has declined in the last four decades. As per the 2020 census, most provinces had an average family size between 2 to 3 which is closer to the national average of 2.62. Thus, the changes in provincial population confirm the transition from joint families to nuclear families, a transition that has been taking place in Chinese society as a result of the 1978 economic reforms.

Gender and Age Composition

The 2020 census data revealed that males accounted for 51.24% of the population and females accounted for 48.76% of the population. The skew in favour of males is also visible at the provincial level over the years, except in Jilin and Liaoning. **Hence, the sex ratio (number of males per 100 females) in these provinces is below 100, whereas other provinces have**

registered a sex ratio closer to the national average of 105.07, with only 3 provinces having sex ratio above 110. Similarly, all provinces had sex ratios above 100 according to both 2010 and 2000 censuses. During the same period, national sex ratio has gradually decreased from 106.74 in 2000, which indicates higher growth rate of female population than male population. If this trend continues over the next few decades, China will soon have a roughly equal population of males and females.

In terms of age-wise distribution of population, most provinces follow the national trend of a growing dependent population vis-à-vis working age population. **Coastal provinces such as Shanghai, Guangdong and Zhejiang have a larger share of working age population due to more economic opportunities. Similarly, Northeastern provinces of Heilongjiang, Jilin and Liaoning also have a dominant working age population, indicating these provinces still hold some economic value in terms of employment.** Although their working age population share has declined over the years, it is still above the national average. On the other hand, inland provinces such as Henan, Sichuan and Guizhou have comparatively smaller working age populations as people from these provinces have migrated to the east in search of better employment opportunities. Overall, all provinces registered a lower percentage of working age population in 2020 compared to the 2010 census. It confirms the pattern of declining working age population and growing dependent age population in China.

Further, the increase in China's dependent population, especially the elderly population (65+) is also visible across provinces. **The share of elderly population has increased in all provinces over the last three censuses. Sichuan, Liaoning and Chongqing have higher proportion of elderly population compared to other provinces, especially eastern provinces which have a lower share than national average of 13%.** It is interesting to note that provinces where non-ethnic communities are a majority have a larger share of child population than other provinces. Provinces such as Tibet, Xinjiang, Qinghai, Guizhou, Guangxi and Ningxia have a higher share of child population than other provinces. Shanghai has the lowest share of child population in 2020, followed by the three Northeastern provinces of China.

Educational opportunities

In terms of literacy rate, most provinces have a very high literacy rate of above 95%. **In the 2000 census, China had an average literacy rate of around 92% which increased to 97% in 2020. Most provinces had a literacy rate above 90% since the 2000 census, except for a few exceptions. Throughout all three censuses, Tibet had the lowest literacy rate among all provinces.** Although Tibet's literacy rate has improved from 68% in 2000 to 79% in 2020, it still hampers China's national literacy rate. Considering the higher child population in Tibet, lower literacy rate could be a major concern for Tibet in the coming years. Other than Tibet, less developed provinces like Qinghai, Gansu and Guizhou also have a larger illiterate population than the national average. However, these provinces, along with Yunnan and Inner Mongolia have shown great improvement in their literacy rate over the last 20 years.

The educational attainment of populations in different provinces is another important indicator of educational opportunities and upward social mobility. **Urban provinces like Beijing, Tianjin and**

Shanghai have more people with a junior college degree or above, than people in primary schools. This is an indicator that the child population has drastically reduced in these provinces and this trend has persisted throughout all three censuses. On the other hand, provinces such as Sichuan, Guizhou, Tibet and Qinghai have more children in primary schools than other provinces which indicates that these provinces will soon catch up with the average literacy rate. In most provinces, population at the junior secondary level has constituted the largest share. From 2000, the share of population attending primary schools has been reducing in most provinces as against the increase in share of population attaining higher educational levels. This is clearly reflected by the increase in population that has attended at least junior college. Thus, China's higher educational services seems to have improved access to education over the years, albeit the trend of declining working age population would mean that its higher education system might face some new challenges in terms of employability and affordability.

Urbanization in provinces

The rate of urbanization in China can be explained through the changes in urban population of different provinces. Municipal provinces such as Beijing, Tianjin and Shanghai have the highest share of urban population compared to its rural population. Amongst these, Shanghai has the highest share of urban population in all three last censuses. On the other hand, eastern provinces like Zhejiang, Guangdong and Jiangsu which had a comparatively low share of urban population in its total population during the 2000 census, have shown the biggest improvement in the last 20 years. As these provinces are also some of the most populous provinces in China, rapid increase in urban population in these provinces have also contributed largely to improving urbanization rate of China from 36.22 % in 2000 to 63.89 % in 2020.

On the other hand, inland provinces in China are still dominated by rural population. Amongst them, **Tibet has the lowest urbanization rate as only 35 % of its population lives in urban areas, which has doubled in the last 20 years (18 % in 2000). Other provinces such as Yunnan, Guizhou, Gansu, Henan also have only half of its population living in urban areas, which is well below the national average.** Interestingly, Liaoning, which ranks low in other parameters, has a very high urban population (72.14 % in 2020) compared to other developing provinces.

Han population in China

The 2020 census report suggests that China has 91.11 % of Han population out of its total population, which has marginally decreased over the years (93.94 % in 1953, 91.51 % in 2010). **Majority of provinces have the dominance of Han population, except for Tibet and Xinjiang. Even for other autonomous regions designated for minorities - Ningxia, Inner Mongolia and Guangxi, Han population is in majority.** In Tibet and Xinjiang, share of Han population has marginally increased over the years, but non-Han population still dominates the demographics in these provinces. In eastern and other developed provinces, Han population remains dominant with provinces such as Shanxi, Jiangsu, Shandong and Shaanxi where non-Han population accounts for less than 1 % of total population. However, no provinces have shown any significant changes in Han population over the last three censuses which indicates that the changes in the dynamics of ethnic population are in accordance with total population growth rates at the provincial levels.

About the Authors

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