

## Executive Summary

We estimate China's human capital stock and describe its distribution and dynamics at the national and provincial levels from 1985 through 2018. A variety of human capital indices are constructed and reported.

In addition to the traditional education-based metrics, we apply the widely used Jorgenson-Fraumeni income-based approach (hereinafter referred to as "J-F method"), which provides a more comprehensive measurement of human capital. We present both education-based and J-F measures for males and females, and by rural and urban areas.

The following notes define terms and measures used through this report:

- Unless otherwise specified, the monetary values are measured in 1985 RMB.
- Average annual growth rates across years are calculated based on the simple average of annual growth rates.
- Real provincial-level human capital is calculated by adjusting with reference to the relevant provincial living-cost-adjustment index (LCI) and the Consumer Price Index (CPI) with 1985 as base year and Beijing as base province.
- We use the term "nation" and "mainland" interchangeably to refer to the 31 provinces (autonomous regions and municipalities) of the mainland China, excluding Hong Kong, Macau, and Taiwan.
- Due to data availability, the estimates of physical capital stock are updated only to 2017.

For more details, refer to the comprehensive China Human Capital

Report 2020.

All the data and results are available at the China human capital database and are free for public use. The data can be downloaded at:

<http://humancapital.cufe.edu.cn/rlzbzsxm.htm>;

<http://cedcdata.cufe.edu.cn/cedc/metadata/list.html>

## **The Main Findings of the 2020 Report**

### A. Human Capital at National Level

#### I) Traditional Human Capital Measures

1. In 2018, the average age of the labor force at the national level was 38.4 years. The five provinces with the oldest labor force were Heilongjiang, Liaoning, Jilin, Chongqing, and Hunan, and the five provinces with youngest labor force were Guangdong, Xinjiang, Hainan, Guizhou and Tibet.
2. In 2018, the average years of school of the labor force at the national level was 10.4. The five provinces with highest years of school were Beijing, Shanghai, Tianjin, Jiangsu and Liaoning, and the five provinces with the lowest years of school were Gansu, Guizhou, Yunnan, Qinghai and Tibet.
3. In 2018, the proportion of the labor force with high school education or higher was 39.8%, with 20.7% in rural areas and 52.7% in urban areas.
4. In 2018, the proportion of the labor force with college education or above was 19.2%, with 5.4% in rural areas and 28.6% in urban areas.

#### II) The Jorgenson-Fraumeni (J-F) Based Human Capital Measures

5. The J-F measure of China's nominal total human capital reached 2613.7 trillion yuan in 2018, with 2288.0 trillion yuan (87.5%) in urban areas and 325.7 trillion yuan (12.5%) in rural areas.
6. Nominal human capital per capita was 2286 thousand yuan in 2018, 3130 thousand yuan for urban residents and 790 thousand yuan for rural residents. Average human capital for male was 2835 thousand yuan and for female was 1660 thousand yuan.
7. In 2018, the five provinces with highest human capital stock were Shandong, Guangdong, Henan, Jiangsu and Hebei, and the five provinces with lowest human capital stock were Gansu, Hainan, Ningxia, Qinghai and Tibet.
8. The five provinces with highest human capital per capita were Beijing, Shanghai, Tianjin, Zhejiang and Anhui, and the five provinces with lowest level were Tibet, Xinjiang, Yunnan, Gansu and Qinghai.
9. The five provinces with highest average labor force human capital were Beijing, Shanghai, Tianjin, Zhejiang and Anhui, and five provinces with the least were Hunan, Hainan, Yunnan, Gansu and Qinghai.
10. In 2018, the proportion of aged 0-15 among non-retired people at the national level was 22.7%, and the proportion of their human capital accounted for 51.0% of total human capital.
11. In 2018, the proportion of the population aged 25-45 to the total labor force was 55.7% at the national level, and their human capital accounts for 66.1% of the total labor force human capital.
12. China's total real human capital in 2018 was 11.2 times its level in 1985, having grown at an average annual rate of 7.8%. The average annual growth rate during the decade 2009-2018 was 9.0%.

13. From 1985 to 2018, rural human capital grew at an average annual rate of 3.0%, and urban human capital grew at 10.3%; while during the decade 2009-2018, the growth rate was 10.8% for urban areas but only 1.9% for rural areas. This decline in the average annual growth of rural human capital largely reflects China's rapid urbanization.
14. Urban human capital surpassed the rural human capital in 1993 and has remained higher since then.
15. Human capital per capita grew from 43.4 thousand yuan to 448.6 thousand yuan, at an average annual rate of 7.3% over the period 1985-2018 and at a rate of 9.0% over the years 2009-2018.
16. The average annual growth rate of human capital per capita during the period of 1985-2018 was 6.4% for urban and 4.9% for rural areas. For the years 2009-2018 the growth rates were 8.2% and 5.0%, respectively.

#### B. Human Capital in Hong Kong and Taiwan

17. In 2018, the average age of labor force was 39.0 years in Hong Kong and 39.5 years in Taiwan.
18. In 2018, the average years of school of the labor force were 12.4 years in Hong Kong and 13.7 years in Taiwan.
19. In 2018, the proportion of the labor force with high school education or above was 76.1% in Hong Kong and 88.2% in Taiwan.
20. In 2018, the proportion of the labor force with college education or above was 43.3% in Hong Kong and 56.0% in Taiwan.
21. In 2018, the proportion of aged 0-15 among non-retired people was 17.9% in Hong Kong, and they human accounted for 21.6% of total human capital in Hong Kong.

22. In 2018, the proportion of aged 0-15 among non-retired people was 17.0% in Taiwan, and they accounted for 20.4% of total human capital in Taiwan.
23. In 2018, the proportion of the population aged 25-45 to the total labor force was 55.7% in Hong Kong, and they accounted for 68.1% of total labor force human capital.
24. In 2018, the proportion of the population aged 25-45 to the total labor force was 55.0% in Taiwan, and they accounted for 72.9% total labor force human.
25. In Hong Kong, the average annual growth rate of J-F based total human capital and human capital per capita between 1997 and 2018 was 6.4%. Over the years 2009-2018, the rates were 4.9% and 5.2%, respectively.
26. In Taiwan, during 1997-2018, the average annual growth rate of J-F based total human capital was -0.9%, and for human capital per capita it was -0.6%; while over the years 2009-2018, the rates were -1.5% and -0.7%, respectively.