Incomplete Catching Up: Income among Yi, Manchu and Han People in Rural China, 2002–2018

Björn A. Gustafsson1 and Yudan Zhang2

1Department of Social Work, University of Gothenburg, Gothenburg, Sweden, and Institute for the Study of Labour (IZA) Bonn, and 2Business School, Beijing Normal University, Beijing, China

Corresponding author: Björn A. Gustafsson, email: bjorn.gustafsson@socwork.gu.se

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Abstract

This paper explores household income per capita for the rural Yi and Manchu ethnic minority groups and the Han majority using data from the China Household Income Project 2002, 2013 and 2018. The disparity between total per capita income for the Yi and Han populations narrowed, while the average per capita income for the Manchu population remained relatively similar to that of the Han population. Decomposing total income to its sources shows that the rapid increase in agricultural income among the Yi was a main reason why the disparity in income, compared to the two other ethnic groups, narrowed. Nevertheless, reliance on agricultural income among the Yi was reduced as wage employment and migration increased. The Manchu group and the Han group also experienced rapid increases in wages and self-employment income. The aggregated value of transfers from the public sector was similar for all three ethnic groups.

Keywords: rural China; ethnic minorities; Yi; Manchu; Han; income disparity

China’s population comprises 55 officially recognized ethnic minorities as well as the Han majority. Taken together, and according to the 2020 Census, ethnic minorities make up 8.9 per cent of the population, or 125 million inhabitants. Until now, little has been written about disparities in income between ethnic groups and even less about how such disparities have changed. This paper focuses on rural residents from two of the largest ethnic minorities in China: the Yi, which has a population of approximately 9 million people who mostly live in south-west China, and the Manchu group, which has a population of about 11 million people who mostly live in north-east China. Both ethnic groups have a very long history, their own culture, language and religion and were officially
recognized as ethnic minorities in the 1950s. The paper also covers rural residents from the Han majority group.

This study centres on research questions such as how the median household total income for the rural Yi and Manchu ethnic groups compares to that for the rural Han ethnic group, and how such disparities developed from 2002 to 2018, a period of rapid growth for the average income in rural China. Further, the paper explores what can be understood from the disparities in household total income per capita between the two ethnic minorities and the Han majority, and also the changes in these disparities.

The current study is based on household data from 14 provinces taken from the rural surveys of the China Household Income Project (CHIP) for 2002, 2013 and 2018. These data make it possible to work with a comprehensive definition of household income. To study levels and changes, we break total household income per capita down into six sources. We then decompose the source “net transfers” into subcomponents.

This paper makes two main contributions to the literature on income and ethnicity in China. This study is, to the best of our knowledge, the first investigation that has focused on household income among the Yi and Manchu ethnic groups, each of which has as many members as the total number of inhabitants in several countries.1 The few existing studies on income and ethnicity in China have typically focused on the observed situation during one single year. We contribute to the very small number of studies that investigate changes over time in the income disparities between ethnic minorities and the ethnic majority in China. It can also be noted that our last year of investigation, 2018, is more recent than years covered by previous studies.

The Literature on Income and Poverty Disparities between Ethnic Minorities and the Han Majority in China

Surprisingly, little research has aimed to map and understand disparities in income and poverty among ethnic groups in contemporary China.2 Alongside notable works on different aspects of ethnic minorities by Colin Mackerras3 and Ajit Bhalla and Shufang Qiu,4 Bhalla and Dan Luo compare poverty and exclusion among ethnic minorities in Jammu and Kashmir in India and Xinjiang in China and conclude that despite differences in the political regimes, the socioeconomic situation of minorities is similar in those regions.5

One reason for the scarcity of research on ethnic income and poverty disparities in China is the lack of rich microdata covering ethnic minorities and the Han majority. Some authors, such as Xiaogang Wu and Guanye He who studied 18 minorities and the Han majority, use the 2005 Census sample survey to investigate disparities in earnings among different ethnic groups.6 Wu and He analysed log monthly earnings among full-time workers in non-agricultural (rural as well as urban) activities and stressed the differences found across the ethnic minorities. For example, the Korean minority were better off economically than were the Han. A second category, including the Mongol, Hui, Manchu, Bai and Dai groups, showed no differences to the Han majority once spatial and demographic characteristics were accounted for. Nevertheless, some other minorities were disadvantaged to varying degrees compared to Han people.7 Relatedly,

1 For example, Azerbaijan, Austria, Belgium, Czech Republic, Greece, Honduras, Hungary, Portugal and Sweden.
2 In as early as 1914, Dittmer (1918) had collected household data on 100 Han and 95 Manchu households living in a suburb of Beijing, reporting no difference in median household income between the two categories.
4 Bhalla and Qiu 2006.
5 Bhalla and Luo 2017.
6 Wu and He 2016.
7 Ibid. Gustafsson and Yang 2017 also use the 2005 sample survey to draw similar conclusions. A third example of a study of earnings among ethnic groups that uses the 2005 sample survey is Cherng, Hasmath and Ho 2019.
Bente Campos and colleagues used data collected during 1993–2011 for the China Health and Nutrition Survey, which covered full-time workers aged 16 to 65, and treated ethnic minorities as one combined category. Their results indicated that once length of education and some variables entered the earnings function, ethnic minority status had a negative and significant coefficient in the urban survey but not in the rural one. This suggests that urban minority workers, as a category, fare worse than their Han counterparts with the same characteristics, while a similar pattern could not be found among rural workers. Results from other studies indicate that Uyghur workers in an urban setting fare particularly badly in comparison to Han workers with the same characteristics.

Other research draws on data from the rural surveys of the CHIP. For example, an early investigation by Björn Gustafsson and Shi Li analyses the income disparity between rural persons living in minority households as an aggregate and the Han majority in 1988 and 1995. The authors report a widening ethnic income disparity across the two years. This development could be attributed to the more rapid income growth in the eastern part of China, which in turn could be linked to China’s policy to open up the eastern region of the country first. However, evidence indicates that this income gap did not continue to grow in 2002.

In the third round of CHIP data collection, referring to 2002, ethnic minority respondents were asked to indicate to which ethnic group, out of a limited number of specific minorities, they belonged. This information enabled research to be conducted into how the larger ethnic minorities in rural China were faring. Gustafsson and Sai Ding aggregated the information at the village level and reported a substantial variation in mean income and mean wealth across the investigated ethnic groups. For example, the average household income in Manchu villages was slightly higher than that in Han villages, which in turn was considerably higher than the average income in villages inhabited by each of the Yi, Zhuang and Miao ethnic minorities located in south-west China. Industrialization, agricultural production inputs, the stock of human capital in the labour force, the wage level in the local labour market and indicators of path dependency were all found to be linked to the average income level of a village. For example, by 1980 all Manchu villages surveyed had access to electricity, whereas two-thirds of Han villages and only one in five Yi villages had access to electricity. Location was the single most important circumstance working against a favourable economic situation for villages inhabited by several minorities.

Another study by Gustafsson and Ding based on the 2002 CHIP data uses information on household income for each of the years of 2000, 2001 and 2002 to explore poverty in a dynamic setting. The results show that, based on the National Bureau of Statistics (NBS) “low-income line” of 869 yuan a year, almost one-third of ethnic minorities experienced poverty at least once during the three years, while the corresponding proportion among the ethnic majority was only approximately half as high. Nevertheless, most of the poor individuals in rural China belong to the ethnic majority. Emily Hannum and Meiyan Wang and, separately, Carlos Gradin use CHIP data to study differences in poverty between ethnic groups and show similar pictures. Xiaomin Liu and Lidan Lyu also use data from the 2002 CHIP survey as a baseline when analysing the level of development up to 2013 in their study of households living in atypical ethnic

8 Campos, Ren and Petrick 2016.
9 Li 2021.
10 Gustafsson and Li 2003. Bhalla and Qiu 2006 uses the same data for the same years to map ethnic disparities in education and health.
11 Ding 2007.
12 Gustafsson and Ding 2009a.
13 Gustafsson and Ding 2009b.
14 Hannum and Wang 2012; Gradin 2015.
minority areas which treats ethnic minorities as a single category.\textsuperscript{15} Their results indicate a disparity to the disadvantage of the ethnic minorities whose average income decreased from 2002 to 2013.\textsuperscript{16}

There are also studies on income and poverty among Chinese rural ethnic minorities and the Han majority that have used household data collected from one or a few regions in China. Gustafsson and Ding analyse Ningxia Hui Autonomous Region using 2006 data and find that the Hui population fared worse than the Han majority for length of education and household per capita wealth.\textsuperscript{17} However, there was no gap in the average disposable income between the Hui and Han groups; poverty rates were also very similar for the two ethnic groups. This paradox was attributed to members of Hui households earning more income off the farm than their Han counterparts. This illustrates that, to some extent, certain ethnic minorities can specialize in different economic activities better than the Han majority can. Based on investigation data from 2013 to 2015, Ding and Jun Yan analysed the effect of proficiency in Mandarin Chinese on off-farm employment in rural ethnic areas.\textsuperscript{18} They found that 32 per cent of the rural minority labour force in ethnic areas could not communicate in Mandarin, but the probability of gaining off-farm employment increased by 52 per cent for those who could master the language.

Gustafsson, Hasmath and Ding produced a 2021 study based on the China Household Ethnic Survey, which collected data for ethnic minorities and Han households in seven regions in Western China in 2011 but which did not cover Yunnan, where the majority of Yi people live, or Liaoning, where most of the Manchu live.\textsuperscript{19} The findings of their study can be summarized as follows. Ethnic-related gaps in household income vary widely in the rural areas of the seven regions studied but in the main favour the non-ethnic majority. Considerable heterogeneity exists with regard to the behaviour and economic situation among China’s ethnic minorities. Poverty is a large problem for several of China’s rural ethnic minorities. Proficiency in Mandarin and economic situation are positively related. Recent pro-rural policies have produced mixed results for ethnic inequalities. Ethnic minorities are less likely than Han people to migrate from rural to urban areas, where ethnic disparities exist in the labour market.

The Yi and the Manchu

According to the 2020 Census, there are 9.8 million persons classified as Yi living in the People’s Republic of China (PRC), which is an increase of 1.9 million from the 2000 Census. A majority (5.1 million) of these individuals live in Yunnan province, where, after the Han, they constitute the second largest ethnic group and make up 11 per cent of the provincial population. There is also a concentration of Yi people in Guizhou province, which is home to a million Yi individuals. The Liangshan Yi Autonomous Prefecture, 在南彝族自治州 in the south-western part of Sichuan is home to 2.9 million Yi people, who constitute over 90 per cent of the Yi living in the province. The Yi make up 54 per cent of the autonomous prefecture’s population and in nine of its counties they represent an absolute majority.\textsuperscript{20}

Bimoism (Bimojiao, 毕摩教) is the indigenous religion of the Yi. It takes its name from the bimo, the black-clad shaman-priests who perform important rituals in Yi language from sacred scripts. Even today, Bimoism has a powerful influence over the Yi people.\textsuperscript{21} The core idea of

\textsuperscript{15} Liu, Xiaomin, and Lyu 2020.
\textsuperscript{16} Different from Liu, Xiaomin, and Lyu 2020, we cover a larger area of rural China and focus on two specific ethnic minorities. Furthermore, we use the CHIP data for 2018 and break down income according to sources.
\textsuperscript{17} Gustafsson and Ding 2014.
\textsuperscript{18} Ding and Yan 2021.
\textsuperscript{19} See, e.g., Gustafsson, Hasmath and Ding 2021.
\textsuperscript{21} Wang 2018.
Bimoism is to respect one’s ancestors and nature, which, in terms of economic activities, emphasizes agriculture and restraint in business. The Liangshan Yi Society is famous in China because Chinese ethnologists have determined that it is one of the few remaining examples on earth of a slave society that came into being between the primitive and feudal society stages according to Morgan, Engels, and Marx.\(^\text{22}\) Relatively much has been written on this particular, concrete manifestation of a historical phase.\(^\text{23}\) Xinrong Ma studied the Yi migrant workers from Liangshan who work in the co-ethnic brokerage system in the manufacturing sector of the Pearl River Delta area of China.\(^\text{24}\)

Although the Chinese state has recognized the Yi as an ethnic group since the early 1950s, the group still presents as a heterogeneous category in terms of language and culture.\(^\text{25}\) Many people classified as Yi speak one of six mutually unintelligible variants of the Yi language, which is a sub-branch of the Tibeto-Burman branch of the Sino-Tibetan family. The ancient Yi script can be traced back to at least the Eastern Han dynasty (25–220 AD).\(^\text{26}\) The modern Yi script (诺苏补玛) is a standardized syllabary derived from the classical script by the local government. It was only made the official script of the Liangshan dialect in 1980.\(^\text{27}\)

In 2020, China’s Manchu population numbered, according to the census, 10.4 million people, making it the fifth largest ethnic minority in the PRC. There are 5.1 million Manchus living in Liaoning province, where they make up 12 per cent of the population, and 2.3 million Manchu people in Hebei province. The Manchu minority is the single largest ethnic minority in both provinces, as well as in Heilongjiang and Beijing. The Manchu living in these four provincial-level units make up 91 per cent of the total Manchu population.

The Later Jin dynasty (1616–1636) and the Qing dynasty (1636–1912) were both established and ruled by the Manchus. After ruling over the Han majority for more than 270 years, the Manchus were inevitably influenced by the Han.\(^\text{28}\) However, the difficult history of the later episodes of the Qing dynasty somehow made the legitimacy of the Manchu group questionable. For years, many Manchu people chose to conceal their Manchu status and reported themselves as being Han. The 1980s, however, saw a reversal of this concealment, which led to the large increase in number of persons being reported as of Manchu ethnicity (rather than an increase in birth rates), from 4 million in the 1982 Census to 9 million in the 1990 Census.\(^\text{29}\) In the 2000s, however, there are signs that Manchu workers in Beijing, despite having more years of schooling, do not enjoy the same level of job opportunity or wages as their Han counterparts.\(^\text{30}\)

Historically, the upper-class ruling Manchus were followers of Tibetan Buddhism (藏传佛教), similar to the Han population, while ordinary Manchurians believed in shamanism (萨满教). However, in contrast to the important influence of Bimoism on the Yi people, shamanism gradually lost its importance for the Manchu people after 1949. The Manchu language is a sub-branch of the Manchu-Tungus family of Altaic languages and was one of the official languages of the Qing dynasty.\(^\text{31}\) In written form, it uses its own alphabet, written vertically from top to bottom, with the columns proceeding from left to right. Today, however, the Manchu language is not commonly used, and the vast majority of Manchus speak only Mandarin. Often, the Manchu people are described as a much Sinicized ethnic group (similar to

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\(^{22}\) Harrell 2001b, 93.  
^{23}\) See, e.g., Harrell 2001a; 2001b; Heberer 2014.  
^{24}\) Ma, Xinrong 2018.  
^{25}\) Harrell 1995.  
^{26}\) Ma, Xueliang 1989.  
^{27}\) Both the ancient Yi script and the modern Yi script are used by Yi people living in different areas (Pu 2013).  
^{28}\) Zhang 2005.  
^{29}\) Bai 2005; 2008.  
^{30}\) Hasmath 2008.  
^{31}\) Zhang 2005.
the Han), and many Manchus marry out of their ethnic group, a fact consistent with the slight reduction (0.26 million) in the number of people who were recorded as Manchu in the censuses between 2000 and 2020.

Data and Assumptions

This study is based on data from rural samples taken from the 2002, 2013 and 2018 rounds of the CHIP. The three study samples were drawn as subsamples from the larger samples administered by the NBS and used to derive official household statistics on rural China. The information was collected by enumerators who visited the sampled households several times over the course of a year and recorded various sources of income. The data also include answers to questions designed by the research group and put to household members shortly after the end of the measurement year.

The rural provinces sampled in CHIP have, to some extent, varied across its different waves. To reach a high level of comparability across the years, we use data from the 14 provinces that were sampled in 2002, 2013 and 2018. Our data thus refer to rural households in the following provincial-level units: Beijing, Liaoning, Jiangsu, Shandong, Guangdong (all in east China), Shanxi, Anhui, Henan, Hubei, Henan (central China) and Chongqing, Sichuan, Yunnan and Gansu (all in the west of China).

Ethnic status is recorded by the CHIP for each household member sampled. Only a few studies of Chinese households with members of mixed ethnicity exist. One example is Hannum, Cherng and Wang, who used the 2000 Census to investigate junior high school attainment among children of mixed-ethnicity parents. In our analyses, we require that all members of a particular household belong to the same ethnic group out of the following three groups: Yi, Manchu and Han. Based on this information, we exclude from the analyses others with minority status (unless Yi and Manchu), as well as ethnically mixed households. Table 1 reports the size of the nine samples.

As discussed above, most of the Yi households and respondents in the sample live in Yunnan province, and a majority of the Manchu people live in Liaoning province.

In the online supplementary material https://doi.org/10.1017/S0305741022001576, we describe the characteristics of the samples of the three ethnic categories and the total samples. There are some striking differences between the ethnic groups. In each year, the Yi has the youngest population, and the Manchu the oldest, with the Han in the middle. Owing to falling birth rates, increasing longevity and outmigration of mainly young adults from rural areas, the mean age of all three categories increased by six years from 2002 to 2018. The Yi group has, on average, a lower level of education, although the gap narrowed somewhat during the period. Almost all Yi live in mountainous regions far away from a city, while this is not the case for the two other ethnic groups.

There are also several differences between the three ethnic groups in terms of employment, which are further documented in the online supplementary material. In 2002, the proportion involved in wage employment was highest among the Han group. Those proportions increased from 2002 to 2013 and again in 2018. The Yi and Manchurian groups have higher proportions of individual employment in farming. Finally, a large proportion of the rural population, particularly among the Han, has experienced migration.

Describing Income by Ethnicity and Year

We now describe how total household income per capita is distributed and varies in Yi, Manchu and Han households in 2002, 2013 and 2018. "Household income" can be received in the form of money, in kind, or is the estimated value of production consumed by the household. We define total household income per capita as the sum of the income from six components: 1) agricultural

32 Hannum, Cherng and Wang 2015.
income (all income from farming, forestry, animal husbandry and fisheries. The value of self-consumption was calculated by market price); 2) earnings from wage employment (formally or informally hired workers); 3) business income originating from family non-agricultural activities (for example, from a household member running a restaurant, shop or by providing a transportation service using own vehicle); 4) income from migration (a sum of wages earned by family members who have migrated for a period of shorter than six months and remittances brought or sent back by family members who have worked away from their township for longer than six months); 5) net transfers (a balance between transfers received and such paid); and 6) other incomes (including income from properties and imputed rent of owner-occupied housing). In the analyses, we follow what is now the common practice in studies of the distribution of household income by attributing this household income to each member of a household and thereafter use individuals as the unit of analysis.

Given our data and the abovementioned definitions, we find the growth in median total income per capita was most rapid between 2002 and 2013, when the growth rate (seen over the three ethnic groups combined) was 9 per cent per annum. Between 2013 and 2018, growth slowed down to 5 per cent per annum; as a consequence, the growth rate computed for the entire period from 2002 to 2018 was 8 per cent per annum.

Figure 1 shows Cumulative Density Functions (CDFs) for total household income among individuals for each of the three ethnic groups. The figure has three parts, one for each of the years investigated, and each contains one horizontal line that indicates the median income. There is also a vertical line that indicates the present official poverty line for rural China, which was set at 2,300 yuan per person/per year at the 2010 constant price (1,522 yuan in 2002, 2,736 yuan in 2013 and 2,995 yuan in 2018 at the current price). We will now comment on which conclusions can be drawn from the figures and the corresponding statistics derived from the income variables and reported in Table 2 and in the online supplementary material. Table 2 also reports one measure of income inequality within each of the ethnic groups, i.e. the ratio between incomes received by the 90th percentile of individuals who have the highest income and the 10th percentile who have the lowest income.

A very clear ranking between the three ethnic groups can be seen in 2002. The Manchu group had the highest income and the Yi the lowest, with the Han being in the middle position. During that year, as many as 51 per cent of the Yi individuals were living in a household with an income lower than the official poverty line. This number can be compared with 21 per cent of the Han and 11 per cent of the Manchu group. The median income of the Yi people was only 59 per cent of the median income of the Han people in 2002.

33 We use this definition in most of the tables except when reporting poverty, when we follow the NBS practice of not including the value of imputed rent in owner-occupied housing.
34 Stiglitz, Sen and Fitoussi (2009), in an influential report commissioned by the French government, stressed that the median is preferable to the mean value in social reporting. This is because it better expresses the situation experienced by a typical individual, while the value of the mean can be influenced by, e.g., individuals with a high value.
Looking at the figure for 2013 and comparing it with the one for 2002, the most striking change is the rapid increase in the overall income levels between those two years. This increase is biggest for the Yi and smallest for the Manchurians. The proportion of individuals with income below the official low-income line decreased very rapidly among the Yi and decreased among the Han group but remained similar to the previous level among the Manchu ethnic group. Another noticeable change is that income inequality among the Han and Manchu groups increased, while this was not the case among the Yi ethnic group. Thus, in two of the three ethnic groups, rapid income growth was not equally shared among its members during the period 2002 to 2013. Our results are consistent with those of Hisatoshi Hoken and Hiroshi Sato, who report that income inequality in rural China increased from 2002 to 2013.35

Finally, when looking at the figure for 2018, it can be seen that the curves for the three ethnic groups are closer to each other than was previously the case. Although the median income of the Yi minority increased more rapidly than the median income of the Han population, in 2018 it was 17 per cent lower than the corresponding figure for the majority group.

Breaking Down Income by Ethnicity and Year

We now examine the importance of the various income sources for each of the three ethnic groups and the changes in their level of income. We do this by studying the mean values of various income sources.
In rural China, households typically receive income from several sources. From Table 3, we can see that in 2002, agricultural income was the single largest source for all of the three groups. The reliance on agricultural income was particularly great among the Yi, for whom as much as four-fifths of the mean total household per capita income originated from agriculture. Somewhat less extreme, at 56 per cent, was the reliance on agricultural income among the Manchu households. In contrast, for the Han group, income from agriculture made up no more than 35 per cent of the average household income per capita in 2002.

During the period under study, China’s agriculture policy underwent several large changes which contributed to the growth in farmers’ incomes. Rural taxes and fees were reformed, as was the system of agricultural pricing. Agricultural income was also affected by changes in the volume and composition of output. As documented in the online supplementary material, agricultural income among the Manchu group grew by only 1 per cent per annum during the period 2002–2018; the

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**Table 2: Income by Ethnicity 2002, 2013 and 2018 – Key Statistics**

<table>
<thead>
<tr>
<th>Year</th>
<th>Han</th>
<th>Yi</th>
<th>Manchu</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty rate (%)</td>
<td>21.5</td>
<td>50.8</td>
<td>11.4</td>
<td>21.6</td>
</tr>
<tr>
<td>Mean</td>
<td>4,984</td>
<td>2,885</td>
<td>6,121</td>
<td>4,990</td>
</tr>
<tr>
<td>Median</td>
<td>3,944</td>
<td>2,338</td>
<td>5,531</td>
<td>3,961</td>
</tr>
<tr>
<td>P90/p10</td>
<td>4.88</td>
<td>3.84</td>
<td>4.21</td>
<td>4.88</td>
</tr>
<tr>
<td>Number of observations</td>
<td>21,249</td>
<td>231</td>
<td>528</td>
<td>22,008</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty rate (%)</td>
<td>8.2</td>
<td>10.5</td>
<td>10.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Mean</td>
<td>13,476</td>
<td>9,961</td>
<td>12,075</td>
<td>13,412</td>
</tr>
<tr>
<td>Median</td>
<td>10,311</td>
<td>7,221</td>
<td>9,171</td>
<td>10,211</td>
</tr>
<tr>
<td>P90/p10</td>
<td>6.44</td>
<td>4.16</td>
<td>5.98</td>
<td>6.45</td>
</tr>
<tr>
<td>Annual growth rate of median from 2002 to 2013 (%)</td>
<td>9.1</td>
<td>10.8</td>
<td>4.7</td>
<td>9.0</td>
</tr>
<tr>
<td>Number of observations</td>
<td>27,394</td>
<td>397</td>
<td>206</td>
<td>27,997</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty rate (%)</td>
<td>5.7</td>
<td>4.1</td>
<td>9.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Mean</td>
<td>16,829</td>
<td>14,186</td>
<td>17,621</td>
<td>16,818</td>
</tr>
<tr>
<td>Median</td>
<td>13,104</td>
<td>10,890</td>
<td>12,387</td>
<td>13,071</td>
</tr>
<tr>
<td>P90/p10</td>
<td>6.23</td>
<td>3.58</td>
<td>5.83</td>
<td>6.18</td>
</tr>
<tr>
<td>Annual growth rate of median from 2013 to 2018 (%)</td>
<td>4.91</td>
<td>8.56</td>
<td>6.20</td>
<td>5.06</td>
</tr>
<tr>
<td>Annual growth rate of median from 2002 to 2018 (%)</td>
<td>7.8</td>
<td>10.1</td>
<td>5.2</td>
<td>7.8</td>
</tr>
<tr>
<td>Number of observations</td>
<td>29,197</td>
<td>296</td>
<td>239</td>
<td>29,732</td>
</tr>
</tbody>
</table>

Source: Authors’ computations.
Note: The poverty rate refers to the percentage under the official poverty line.

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36 The means for total household income are reported in Table 2. We do not break down the median income as some income components are received by relatively few households.
37 For details, see Tao and Qin 2007; Yu and Jensen 2010.
Table 3: Income by Components and Ethnicity, 2002 and 2018

<table>
<thead>
<tr>
<th>Mean value</th>
<th>Amount, yuan per annum</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Han</td>
<td>Yi</td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income per capita</td>
<td>4,984</td>
<td>2,885</td>
</tr>
</tbody>
</table>
| Wage/salary                         | 1,238      | 319      | 1,081     | 1,222     | 24.8  | 11.1     | 17.7      | 24.5
| Income from agricultural activities | 1,749      | 2,048    | 3,451     | 1,800     | 35.1  | 71.09    | 56.4      | 36.1 |
| Non-agricultural business income    | 612        | 60       | 5,286     | 603       | 12.3  | 2.1      | 8.6       | 12.1 |
| Income from migrants                | 713        | 172      | 400       | 697       | 14.3  | 6.0      | 6.5       | 14.0 |
| Net transfers                       | 345        | 1,918    | 366       | 343       | 6.9   | 6.6      | 6.0       | 6.9 |
| Other                               | 328        | 954      | 296       | 325       | 6.6   | 3.3      | 4.8       | 6.5 |
| Number of observations              | 21,249     | 231      | 528       | 22,008    | 100   | 100      | 100       | 100 |
| 2018                                |            |          |           |           |       |          |           |
| Income per capita                   | 16,829     | 14,186   | 17,621    | 16,818    | 100   | 100      | 100       |
| Wage/salary                         | 5,977      | 2,492    | 5,173     | 5,936     | 35.5  | 17.6     | 29.4      | 35.3 |
| Income from agricultural activities | 2,410      | 7,106    | 4,164     | 2,474     | 14.3  | 50.1     | 23.6      | 14.7 |
| Non-agricultural business income    | 1,579      | 375      | 4,159     | 1,605     | 9.4   | 2.6      | 23.6      | 9.5 |
| Income from migrants                | 2,105      | 1,253    | 924       | 2,081     | 12.5  | 8.8      | 5.2       | 12.4 |
| Net transfers                       | 2,057      | 1,771    | 1,488     | 2,047     | 12.2  | 12.5     | 8.4       | 12.2 |
| Other                               | 2,702      | 1,190    | 1,712     | 2,675     | 16.1  | 8.4      | 9.7       | 15.9 |
| Number of observations              | 29,197     | 296      | 239       | 29,732    | 100   | 100      | 100       | 100 |

Source: Authors’ computations.
Notes: Sample weights applied. Prices as of 2018. Individuals are the unit of analysis.
corresponding figure for the Han group was 2 per cent per annum. As other income sources increased more rapidly, the relative share of agricultural income in the total mean income decreased to 24 per cent in 2018 among the Manchu group and to as little as 14 per cent among the Han majority. In contrast, agricultural income among the Yi grew by 8 per cent per annum during the same period. Agricultural income still constituted as much as 50 per cent of the group’s total income in 2018. From this information, we can conclude that if the rapid growth in agricultural income among the Yi had not taken place, the gap in average total income with the Han would not have narrowed. Nevertheless, it is true that slightly more than half (55 per cent) of the income growth among the Yi from 2002 to 2018 came from income sources other than farming.

The main reason for the rapid growth in income during the period under study is that income sources outside of farming increased as economic life in rural China underwent huge and rapid changes. For example, e-commerce was introduced and expanded very quickly. From 2007 to 2021, the internet penetration rate in rural China increased from 6 per cent to 59 per cent. Online retail sales in rural China increased from 0.9 trillion yuan in 2016 to 1.7 trillion yuan in 2020. However, this development might not necessarily have benefited ethnic minorities more than it did the Han majority. Online retail sales in the eastern region accounted for 80 per cent of total sales in 2020. In a study of data gathered from Taobao villages existing in 2017, Min Liu and colleagues conclude that rural e-commerce was strongest in the less-developed areas of China’s most developed regions.

It is definitively the case that many more rural household members took up wage employment than was previously the case. Our data show that among the Manchu group, average wage income grew by 10 per cent per annum between 2002 and 2018 and became the single most important income source for this ethnic group. In 2018, waged income was even more crucial for the Han majority, making up 36 per cent of the average total income for this group. Despite a very rapid rate of increase – but starting from a very low base – the corresponding proportion among the Yi was only 18 per cent in 2018.

The growth in rural, non-agricultural business income has also been a significant change. Among the Manchu group, as much as 24 per cent of the mean total income in 2018 originated from this source. In contrast, the corresponding proportion among the Yi was as low as 3 per cent (of a lower) total income. The Han households held a position in the middle, with 9 per cent of mean total income stemming from non-agricultural business income.

A third change, the increased level of rural–urban migration, especially among young adults, also made a huge impact on household income in rural China during the period. Many migrants sent or brought money back to their original household. Measured over the entire period from 2002 to 2018, average migration income among Han households grew by 7 per cent per annum; at the end of the period, Han households received 13 per cent of their average total income from migration. This can be compared to 9 per cent among the Yi and no more than 5 per cent among the Manchu households. This is consistent with previous research that has shown that Yi and Manchu populations are less likely to migrate than the Han. Furthermore, Anthony Howell has shown that, taking into account the negative effect of migration on agricultural production,

39 MOFCOM 2021.
40 Liu, Min, et al. 2020. A Taobao village, named after Taobao, China’s largest e-commerce platform, is an aggregation of e-commerce vendors in a rural area larger than a minimum level.
41 Ma, Xueliang 1989 and Long 1993 point out the low reliance on off-farm self-employment among the Yi in earlier periods.
42 See Ding 2006; Gustafsson and Yang 2015.
remittances from migrants have widened the income gap between Han households and ethnic minority households.43

We find that increased wage employment, increased non-agricultural business and migration, together with increased income from farming, are all important reasons why, in 2018, the rural households of all three ethnic groups received a much higher average total income than they did in 2002. Although these factors explain a large part of the picture, additional factors deserve to be mentioned. The decomposition scheme we apply (see the preceding section) includes the component “net transfer,” which records income flows, positive as well as negative, that are not compensation for specific work or goods. The public sector and (to a lesser extent) other households are the source of such income flows. Table 3 shows that in 2018, all three ethnic groups on average received larger sums in transfers than they spent. From the perspective of observers familiar with high-income countries, it is remarkable that since early 2006, almost no rural households in China have paid agricultural taxes. In Table 3, we can also see that “net transfer” has increased relatively rapidly. As one can claim that this source is more affected by public policies than are other sources, this source should be examined in more detail.

Some differences across the three ethnic groups reported in Table 4 for 2018 deserve comment. Han households, followed by Manchu households, were receiving larger amounts of pension than Yi households. This pattern is understandable, as the Yi are on average younger than the Han. In contrast, Yi households received larger amounts of cash subsidies for agricultural support than the other two groups. This is consistent with the fact that agricultural activities are more important among the Yi than they are among Manchu and Han. The larger amounts of social assistance (including dibao 低保) received by the Yi is consistent with their lower average household income. Our data show that, in 2018, the Yi received on average 0.9 per cent of their total income from dibao, compared to 0.3 per cent among the Han and 0.2 per cent among the Manchu households.

Taken together, the information in Table 4 shows that net transfers were roughly the same for all three ethnic groups. This is consistent with Sato and Yanzhong Wang’s report based on 2011 data from seven rural regions with large population shares of ethnic minority households and Han households.44 Table 4 also shows that the value of the resources that flow between households owing to physical needs or as ceremonial gifts for events such as marriages and funerals still plays a role in rural China. Such sources account for 5 per cent of the total income.

Why has the income of the Yi increased so rapidly although still remains lower than the income of the Han and Manchu? We can find clues by looking at the results of the decomposition of income by sources. First, the Yi people have benefited much from China’s poverty alleviation and development policies. Yunnan, where 80 per cent of the Yi respondents of the survey live, has received over 10 per cent of the central government’s poverty alleviation funds.45 One of the key steps in these policies is to develop local agriculture with government-subsidized loans and firm subsidies and also support for crop cultivation.46 As a consequence, the ways in which the Yi people farm have changed, and their income from agriculture has, as we have seen, increased rapidly. In addition, the rise in tourism has created another growing income stream for the Yi. Over 70 per cent of the Yi in our sample live in ethnic minority autonomous areas (shaoshu minzu zizhi zhou/qu/xian 少数民族自治州/区/县). For example, in the Chuxiong Yi Autonomous Prefecture 楚雄彝族自治州, sampled in our data, tourism revenue contributed 115 per cent of the growth in regional GDP from 2014 to 2018.47

43 Howell 2017.  
44 Sato and Wang 2021.  
46 Zuo 2016  
47 Authors’ computation based on the Yunnan Statistical Yearbook 2015; 2019.
Table 4: Components of Net Transfers per capita, 2018
4a: Mean Values by Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Amount in yuan</th>
<th>Percentage of mean income per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Han</td>
<td>Yi</td>
</tr>
<tr>
<td>Income per capita</td>
<td>16,829</td>
<td>14,186</td>
</tr>
<tr>
<td>Net transfers per capita</td>
<td>2,057</td>
<td>1,771</td>
</tr>
<tr>
<td>Transfer income</td>
<td>2,673</td>
<td>2,132</td>
</tr>
<tr>
<td>Pension</td>
<td>1,044</td>
<td>85</td>
</tr>
<tr>
<td>Reimbursements from public sector (e.g. for healthcare expenditures)</td>
<td>374</td>
<td>627</td>
</tr>
<tr>
<td>Dibao and other income-tested transfers</td>
<td>256</td>
<td>499</td>
</tr>
<tr>
<td>Transfers from other households</td>
<td>826</td>
<td>778</td>
</tr>
<tr>
<td>Other</td>
<td>173</td>
<td>142</td>
</tr>
<tr>
<td>Transfer expenditures</td>
<td>-616</td>
<td>-360</td>
</tr>
<tr>
<td>Number of observations</td>
<td>29,197</td>
<td>296</td>
</tr>
</tbody>
</table>

Notes: Yuan at 2018 value. Individuals are the unit of analysis.
Summary and Discussion

This paper examines household income per capita among the rural Yi and Manchurian ethnic minority groups and the rural Han majority using data from the CHIP for the years 2002, 2013 and 2018. To our knowledge, this is the first study that has focused on the income situation of these two ethnic minority groups, both of which have a population that is similar in size to the total population of, for example, several middle-to-large EU countries.

The figures and tables illustrate what is widely known: the total income per capita has increased rapidly in rural China. Income growth was particularly rapid between 2002 and 2013 and less rapid from 2013 to 2018. During the entire period, the gap between the median incomes of the Yi and rural Han narrowed. However, in 2018, the Yi fared worse compared to the Han in regard to median total household income per capita. In contrast, we report that the median income among the Manchu was, and has remained, closer to that among the Han majority. We also show that income inequality within the Han and the Manchu ethnic groups, but not within the Yi group, increased between 2002 and 2013. This means that, within the Han majority and the Manchu minority, the gains from the rapidly increasing incomes were not equally shared during those years.

This process of the incomplete catching up of income for the Yi ethnic group, compared to the Han majority, during the period from 2002 to 2018 contrasts with results reported by Gustafsson and Li.\textsuperscript{48} Those authors showed that, between 1988 and 1995, the average income for rural ethnic minorities increased at a slower rate than for rural Han ethnic majority. It is likely that a deep-seated reason for the different development of ethnic income disparities is that the spatial income differences in rural China have begun to narrow. Our data show that, in 2002, the average income per capita was 2,226 yuan in the western region of China, or 49 per cent of that in the eastern region. At the same time, the average income per capita was 2,598 yuan in the central region, or 58 per cent of that in the eastern region. Over a period of 16 years, China has experienced high economic growth. Along with the opening-up policies and the relaxation of rural-to-urban migration, regional income disparities in rural China actually became smaller. Our data show that, in 2018, the average income per capita in the western region was 12,715 yuan, an increase of 60 per cent of the average income in the eastern region. In 2018, the per capita income in the central region was 15,053 yuan, which was 71 per cent of that in the eastern region. Thus, future research should further investigate

\textsuperscript{48} Gustafsson and Li 2003.
how spatial income differences in rural China have narrowed during the preceding decades and what this means for inequality in rural China.

To understand how household income has changed for the three ethnic groups, we broke total income down into six different sources. We further decomposed net transfers into subcomponents. We found several large differences between the three ethnic groups regarding the importance of those income sources. This illustrates that in rural China, Yi, Manchu and Han households specialize in different economic activities to some extent. Agricultural income plays a larger role in Manchu and Yi households than it does in Han households. We also report that the rapid increase in agricultural income among the Yi was a main reason why the gap between the median incomes of the Yi and the two other ethnic groups narrowed. Nevertheless, the reliance on agricultural income among the Yi has reduced as incomes from other sources have rapidly increased, a development also experienced by the Han and Manchu groups. Here, we refer to increased income from wage employment and migration. For the Manchu in particular, and to some extent the Han, the rapid growth in median total household income was also the result of increased income from self-employment.

We also show that the value of transfers from the public sector to all three ethnic groups was relatively similar at the aggregate level in 2018. On the one hand, Han households receive larger amounts of pensions than do the two minority groups. However, in contrast, the Yi households receive larger amounts of cash subsidies for agricultural support and larger amounts of social assistance (including dibao) than do the other two ethnic groups.

We end this study by expressing the hope that it will stimulate future research on ethnicity and income in China. Rather importantly, there is a need for better data. While China’s statistical yearbooks contain tables on the incomes of people living in ethnic minority areas, the relationship between those areas and the ethnic minority population is far from perfect. First, at the aggregate level, approximately the same number of Han people as ethnic minority people live in areas that are officially classified as ethnic minority areas. Second, there are many ethnic minority persons living outside of those minority areas. While the data used in the current paper do not have such a limitation, the numbers of Yi and Manchurian households were rather limited in the surveys we analysed. This limitation renders the related estimates less precise and limits the kinds of analyses that are meaningful.

Supplementary material. To view supplementary material for this article, please visit https://doi.org/10.1017/S0305741022001576.

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Conflicts of interest. None

References


Björn A. GUSTAFSSON is professor emeritus, department of social work, University of Gothenburg, Sweden, and research fellow, Institute for Labour Economics (IZA), Bonn, Germany.

Yudan ZHANG is a PhD candidate at the Business School, Beijing Normal University. She studies income disparities and ethnic minorities in China.