Where Are the Surplus Men? Multi-Dimension of Social Stratification in China's Domestic Marriage Market

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Abstract

As the most populous country and the fastest growing economy for decades, China has experienced unprecedented socioeconomic transformations in the last several decades, including demographic changes like hugely skewed sex ratio and deteriorating social inequality. This research thus intends to map out how social stratification structures the domestic marriage market in different dimensions in the context of rapidly rising social inequality and skewed sex ratio. Using the China 2010 Census data, we investigate the sex ratio among never married men and women over age 15. We focus on social stratification in the following dimension: regional difference, urban/rural divide, educational attainment, and ethnicity. We found men who are from rural areas, having no education, and who are ethnic minority are disadvantaged in the marriage market. We have concerns particularly for uneducated, ethnic minority men from migrant-sending Southwest and South provinces, including Yunnan, Guizhou, Sichuan, Chongqing, Hunan, Guangxi and Hainan.

Introduction

As the most populous country and the fastest growing economy for decades, China has experienced unprecedented socioeconomic transformations in the last several decades. Among numerous challenges China is and will be faced with, the hugely skewed sex ratio is the Sword of Damocles over the Chinese society, which has significant implications on the marriage market and many other social issues. Meanwhile, social inequality is reported to have severely deteriorated when the socialist system has been transiting into the market economy. This research thus intends to map out how social stratification structures the domestic marriage market in different dimensions in the context of rapidly rising social inequality and skewed sex ratio.

Using the China 2010 Census data (both data from the entire population and the ten percent sample), we investigate the sex ratio among never married men and women over age 15. We focus on social stratification in the following dimension: regional difference, urban/rural divide, educational attainment, and ethnicity.

Hypotheses

We state our hypotheses along the four dimensions of social stratification in China.
1) Rural areas are more likely to have an excess of never married men.
2) Provinces that are less economically developed are more likely to have an excess

of never married men.
3) There is more likely to be an excess of never-married among the uneducated group of men other than among better-educated group of men.
4) There is more likely to be an excess of never-married among ethnic men other than Han men.

Data and Methods

We use the aggregate level data from the China 2010 China Census. First, we report the sex ratio of never married men and women by province and rural/urban residence. Second, we display this sex ratio by education attainment and rural/urban residence. Third, we analyze it by ethnicity. Finally, we discuss how the interplay of these multidimensions of social stratification affects certain social groups in a cumulative way in the domestic marriage market.

Preliminary Results

Regional Difference and Rural/Urban Divide

In Figure 1, we can find that in urban China, among never married men and women aged 15 years or older, the variation in sex ratio by province is small. The national average is 1.20 and most provinces have the sex ratio around 1.20. Only very few provinces have more balanced ones, including Hebei, Shandong, Henan and Tibet. However, the situation is different in rural China as displayed in Figure 2. There are more variations and the sex ratios are largely above 1.40. There are even nine provinces with sex ratios of never married men and women close to or above 1.6: Inner Mongolia, Zhejiang, Hunan, Guangxi, Hainan, Yunan, Guizhou, Sichuan and Chongqing.

We speculate the following reasons for Inner Mongolia and Zhejiang which are a little different from other provinces. Inner Mongolia is an ethnic autonomous, prairie province next to Beijing, and much of the rural economy is involved with cattle raising. It is likely that many young women would rather move to nearby urban area rather than living in the rural areas attending cattle. Zhejiang is a little unique. On the one side, it is one of the top in-migration destinations as shown in Table 1. On the other side, this province is famous for its large number of business men who are mostly from rural areas, conducting domestic and international trade. For the migrant workers in the rural Zhejiang, they may have to wait to go back to their home provinces to get married and also may not be attractive to local women as spouse candidates due to their relatively low socioeconomic status. For those moving around for trade businesses, they may have to wait for long time to establish themselves before marriage.

For Yunan, Guizhou, Sichuan and Chongqing, they belong to the Southwest block of China which is economically less advanced. They are all top out-migration regions (Table 1), have large remote, isolated mountain areas, and are also minority

concentrated regions in China. Hunan, Guangxi and Hainan are three important out-migration provinces surrounding Guangdong province, which has the most advanced economy and is also the largest migrants' destination in China. Hunan and Guangxi also have relatively large isolated, mountain areas. These three economically less developed provinces also have relatively high ethnic proportion with Guangxi as the ethnic autonomous region hosting the largest ethnic minority, Zhuang.

Migration can affect the issue of surplus single men in complicated ways. For economically less developed regions, many men and women, mostly young peasants, move out to other provinces for work opportunities. Therefore, those with no education or limited education are not competent in the market economy. Many of them are left behind in their rural villages with no extra income. These men are thus in a very disadvantaged status in the marriage market. But the situation is different for women. On the one side, they can move to economically more advanced regions or cities to find a job. On the other side, following the norm of hypergamy, they can migrate to marry men with better economic conditions in other provinces. This marriage migration will further skew the sex ratio of the unmarried in poor regions. However, due to data limitation, this research does not differentiate marriage migration from labor migration.

Migration can also affect sex ratio in the destination region. For example, some local fabric factories may have more female workers, while construction sites may have more male workers. Again, there probably will be more female migrant workers who marry local residents than male migrant workers. This will affect the local marriage market and it is also likely it may affect urban and rural areas differently.

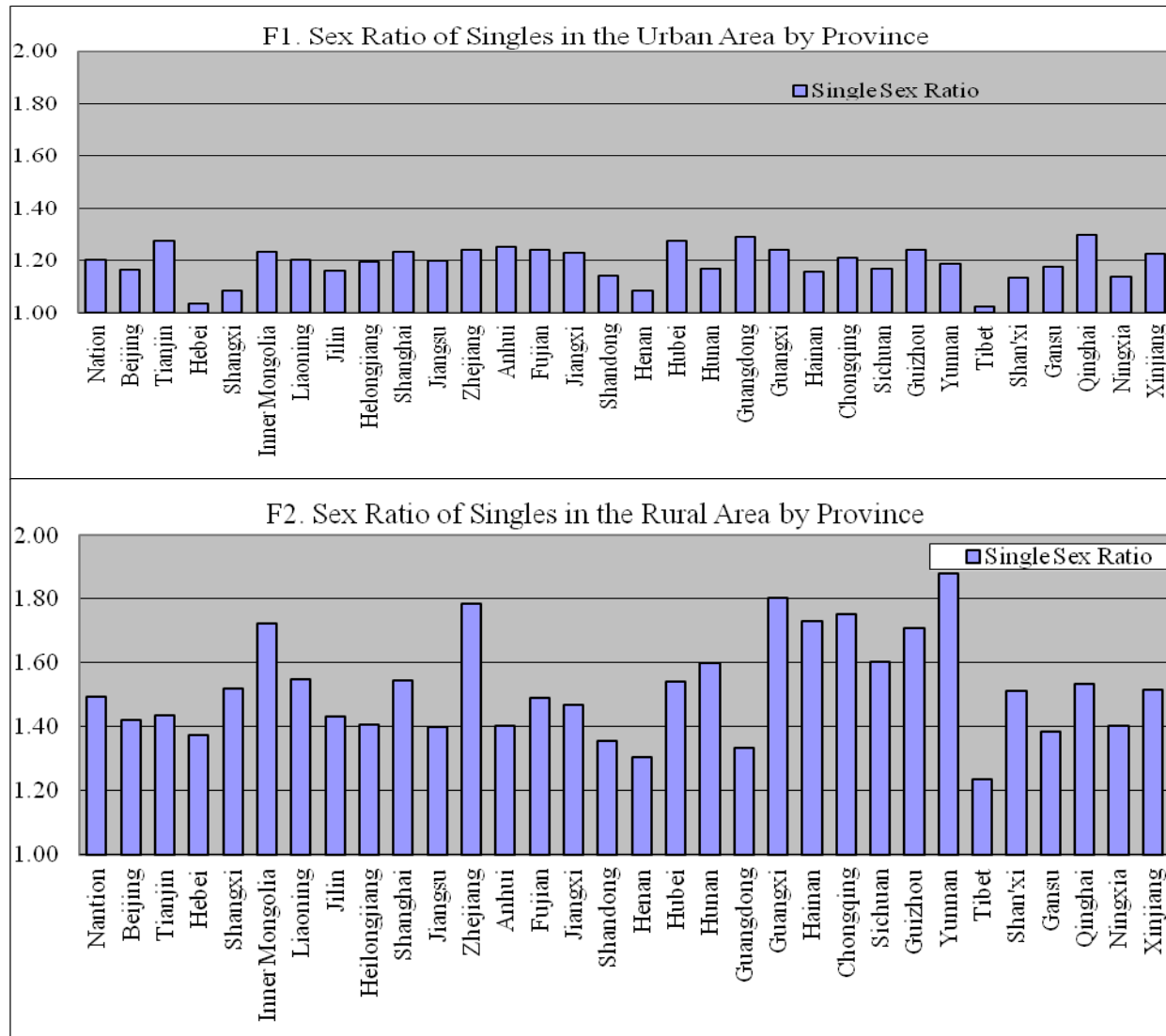Table 1. Top Migrants Sending and Destination Provinces, 2010 Census (10% population).

Province	Local Born, but residing in other provinces		Local Residents born in other provinces		Net Migration	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Main out-migration provinces						
Anhui	2,011	38%	129	2%	1,882	35%
Jiangxi	1,202	28%	102	2%	1,100	26%
Chongqing	699	27%	127	5%	571	22%
Hunan	1,589	26%	91	1%	1,498	25%
Sichuan	2,042	25%	174	2%	1,868	23%
Guizhou	832	25%	119	4%	713	21%
Hubei	1,256	24%	177	3%	1,079	21%
Henan	1,929	21%	110	1%	1,819	20%
Guangxi	886	20%	102	2%	784	18%
Main in-migration provinces						
Beijing	81	4%	839	45%	-758	-41%
Tianjin	89	8%	264	23%	-176	-16%

Shanghai	118	5%	1,010	45%	-892	-40%
Zhejiang	498	9%	1,276	24%	-778	-14%
Guangdong	230	2%	2,231	23%	-2,001	-21%
Xinjiang	101	5%	361	17%	-260	-12%

Note: Frequencies are in 1,000. The denominators are current residents in the local province. We did not include those born in the same province, but moving to other parts of the province.

F1. Sex Ratio of Singles in the Urban Area by Province

F2. Sex Ratio of Singles in the Rural Area by Province

Singles by Educational Attainment in Urban and Rural China

In Table 2, we show population composition and proportions of single men and women by age group (20-49), educational attainment and rural/urban residence. The overall patterns are similar for urban and rural residents, except that urban men and women tend to marry later than their rural counterparts. After mid thirties, almost every rural resident is married and it is not until 40 for urban residents; the exception is poorly educated men in rural areas. It is clear that rural uneducated men face an even more challenging situation than their urban counterparts. In analyses not reported here, in their 40s, about 40 percent of rural men with no education are still single and 30 percent urban without education are single. However, the number of men with no education is not substantial and it is highly rare in the urban areas.

Table 2. Population composition and proportions single, by age group, urban/rural divide, educational attainment, and sex , 2010 Census (10% population).

|	Urban						Rural					
Age	< high school		high school		some college +		< high school		high school		some college +	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Population composition by age group, urban/rural divide, educational attainment, and sex												
20-24	29% [a]	29%	24%	22%	47%	49%	71%	75%	19%	15%	10%	10%
25-29	35%	36%	25%	23%	40%	41%	82%	87%	12%	9%	6%	5%
30-34	41%	44%	27%	26%	32%	31%	87%	92%	10%	6%	3%	2%
35-39	49%	54%	25%	24%	26%	22%	91%	96%	7%	4%	2%	1%
40-44	55%	61%	24%	22%	22%	17%	92%	97%	6%	3%	1%	0%
45-49	49%	56%	30%	30%	21%	14%	87%	95%	12%	5%	1%	0%
Proportions single by age group, urban/rural divide, educational attainment, and sex												
20-24	79% [b]	59%	89%	77%	97%	94%	71%	49%	87%	80%	96%	93%
25-29	34%	17%	44%	27%	55%	41%	29%	14%	36%	28%	56%	45%
30-34	12%	5%	14%	8%	15%	11%	14%	4%	11%	8%	14%	11%
35-39	5%	2%	6%	3%	5%	4%	9%	1%	5%	2%	5%	4%
40-44	3%	1%	3%	2%	2%	2%	6%	0%	2%	1%	2%	2%
45-49	2%	1%	2%	1%	1%	1%	5%	0%	1%	0%	1%	1%

Note: a means that among all urban men between 20 - 24 years old, 29% have less than high school education.

b means that among all urban men between 20-24, 79% are still single.

F3. Percentage of Single Men and Women by Education and Age Group, Urban.
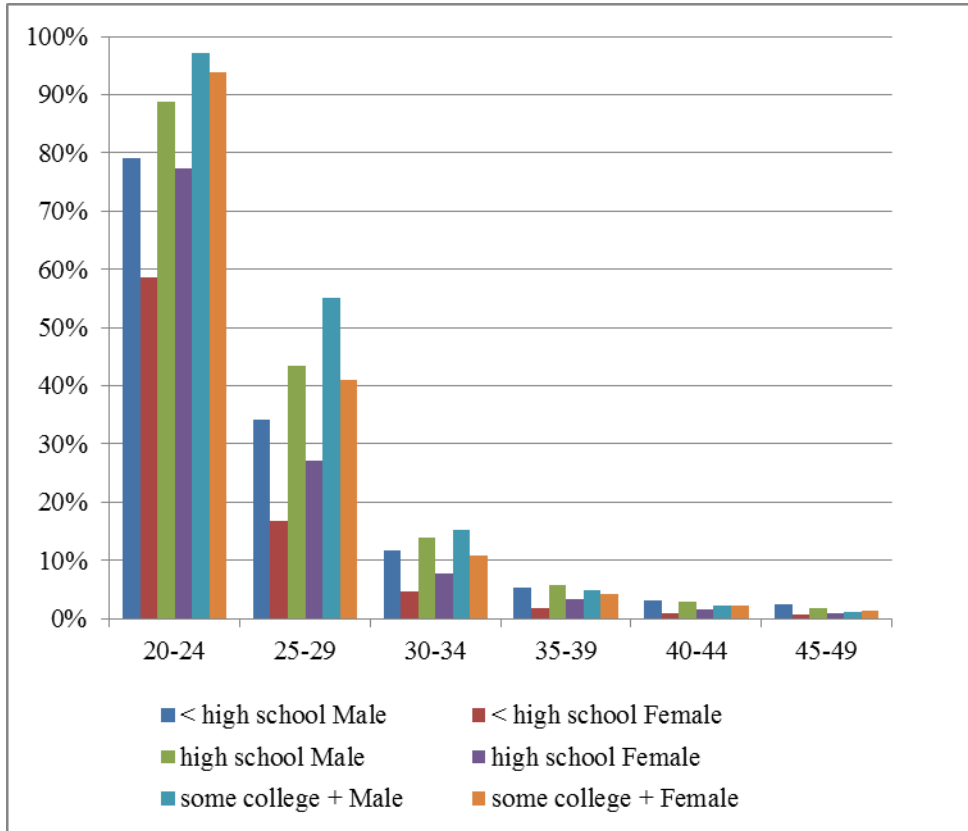
F4. Percentage of Single Men and Women by Education and Age Group, Rural.
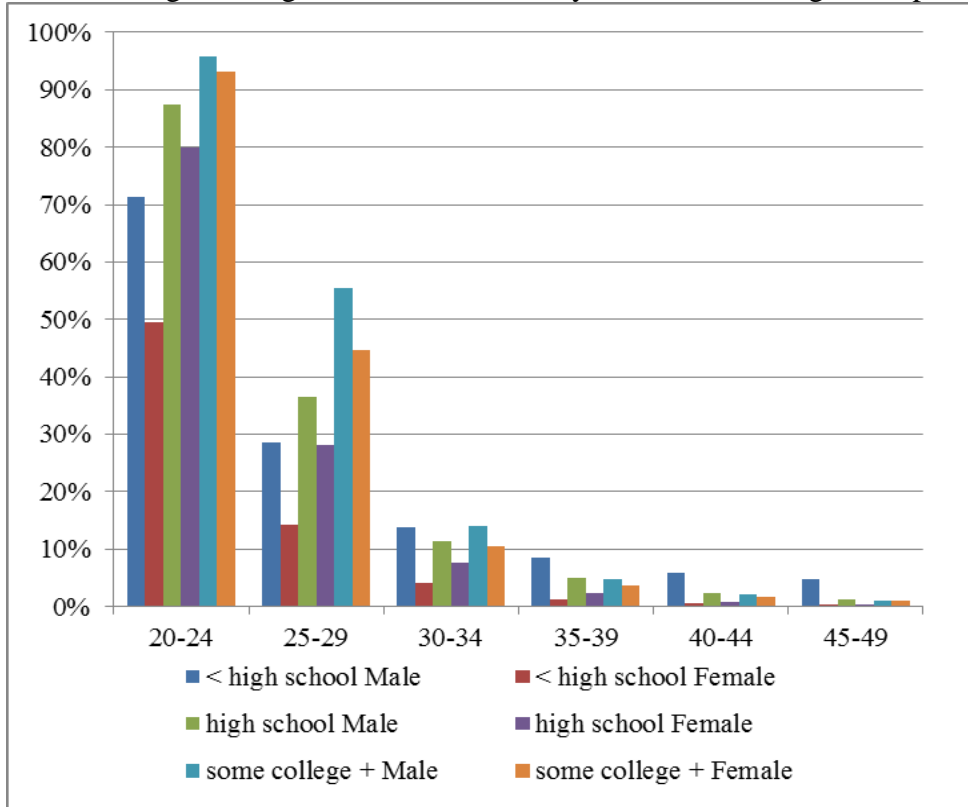
Ethnic Devide in the Marriage Market

Showing that men from rural area, with no education and from certain provinces experience difficulties in finding a spouse, we further explore how ethnicity devides men in the marriage market. In Table 3, we show all the ethnic groups, whose sex ratios among unmarried pouplaiton over age 15 are close to or over 1.6. Colum 1 shows the popualtion size of each ethnic group from the entire population data, while all other colums show data of the over age 15 population from the ten percent populaiton data. Zhuang is the largest non-Han ethnic group in China with the population over 16 million. Hmong, Yi, Dong, Buyi, Yao, Hani and Li all have a population over 1 million. The other ethnic groups have a much smaller size. All these ethnic minorities are concentrated in Southwest and South China, including Yunan, Guizhou, Sichuan, Chongqing, Hunan, Guangxi and Hainan. They usually reside in remote, rural, mountain areas of these provinces. Hunan, Guangxi and Hainan all share borders with Guangdong province, which is a clear out-migration destination for these three provinces. For Yunan, Guizhou, Sichuan and Chongqing, these provinces are also close to Guangdong, though they don't share borders.

Table 3. Sex Ratio among overall and never married ethnic population aged 15 and older, China 2010 Census.

Ethnicity	Total	Men	Women	Sex Ratio	Single Men	Single Women	Sex Ratio
National	1,332,810,869	52,943,450	52,598,793	1.01	13,072,317	9,720,483	1.34
Han	1,220,844,520	48,802,885	48,507,316	1.01	11,920,296	8,925,446	1.34
Zhuang	16,926,381	627,865	625,110	1.00	177,526	109,410	1.62
Hmong	9,426,007	334,242	327,071	1.02	91,723	56,726	1.62
Yi	8,714,393	315,729	313,678	1.01	92,322	58,009	1.59
Dong	2,879,974	111,110	104,971	1.06	29,118	17,153	1.70
Buyi	2,870,034	101,605	103,705	0.98	27,114	17,176	1.58
Yao	2,796,003	101,177	96,540	1.05	30,830	18,948	1.63
Hani	1,660,932	63,714	61,548	1.04	19,488	9,953	1.96
Li	1,463,064	57,161	53,821	1.06	23,183	13,536	1.71
Lisu	702,839	27,274	27,019	1.01	8,230	4,424	1.86
Lahu	485,966	19,522	19,116	1.02	6,562	3,133	2.09
Wa	429,709	16,685	16,556	1.01	5,822	3,351	1.74
Shui	411,847	15,132	14,788	1.02	4,401	2,726	1.61
Jingpo	147,828	5,067	5,826	0.87	1,523	840	1.81
Bulang	119,639	4,615	4,282	1.08	1,593	817	1.95
Maonan	101,192	3,887	3,653	1.06	1,159	641	1.81
Nu	37,523	1,416	1,432	0.99	485	290	1.67
Jinuo	23,143	965	929	1.04	288	149	1.93
Deang	20,556	713	784	0.91	162	100	1.62
Dulong	6,930	286	292	0.98	127	60	2.12

In Table 4, we further present proportions of illiterate men and men with only a primary school education of the above ethnic groups. The national illiteracy rate for men is less than three percent while almost half of the 19 ethnic groups have the

illiteracy rate close or above ten percent for their men. On average, about one fourth of men have only elementary school education in China. However, all these ethnic groups have the proportion above 30 percent and the highest is 64 percent for their men.

Table 4. Percentage of Poorly educated individual of selected ethnic groups

Ethnicity	No Education		Elementary School	
	Male	Female	Male	Female
Nation	2.76%	7.33%	26.58%	31.01%
Han	2.53%	6.98%	25.55%	30.15%
Zhuang	2.19%	7.42%	32.62%	39.86%
Hmong	5.78%	14.97%	44.76%	47.44%
Yi	9.59%	19.19%	53.87%	53.69%
Dong	3.33%	10.20%	36.47%	41.95%
Buyi	5.97%	18.57%	44.38%	45.63%
Yao	3.73%	9.84%	41.24%	46.90%
Hani	9.27%	20.15%	54.54%	53.37%
Li	3.75%	9.41%	30.58%	31.92%
Lisu	13.55%	23.42%	56.98%	54.86%
Lahu	13.14%	18.52%	64.24%	60.56%
Wa	10.18%	17.40%	58.79%	57.96%
Shui	6.34%	20.25%	46.21%	48.21%
Jingpo	6.27%	12.34%	55.28%	53.96%
Bulang	10.53%	18.20%	59.96%	57.16%
Maonan	2.14%	6.49%	35.20%	41.40%
Nu	11.79%	18.37%	46.87%	46.96%
Jinuo	6.64%	11.61%	41.76%	40.22%
Deang	13.95%	24.47%	59.15%	54.81%
Dulong	11.92%	20.42%	42.74%	41.65%

F5. Percentage of Poorly educated individual of selected ethnic groups
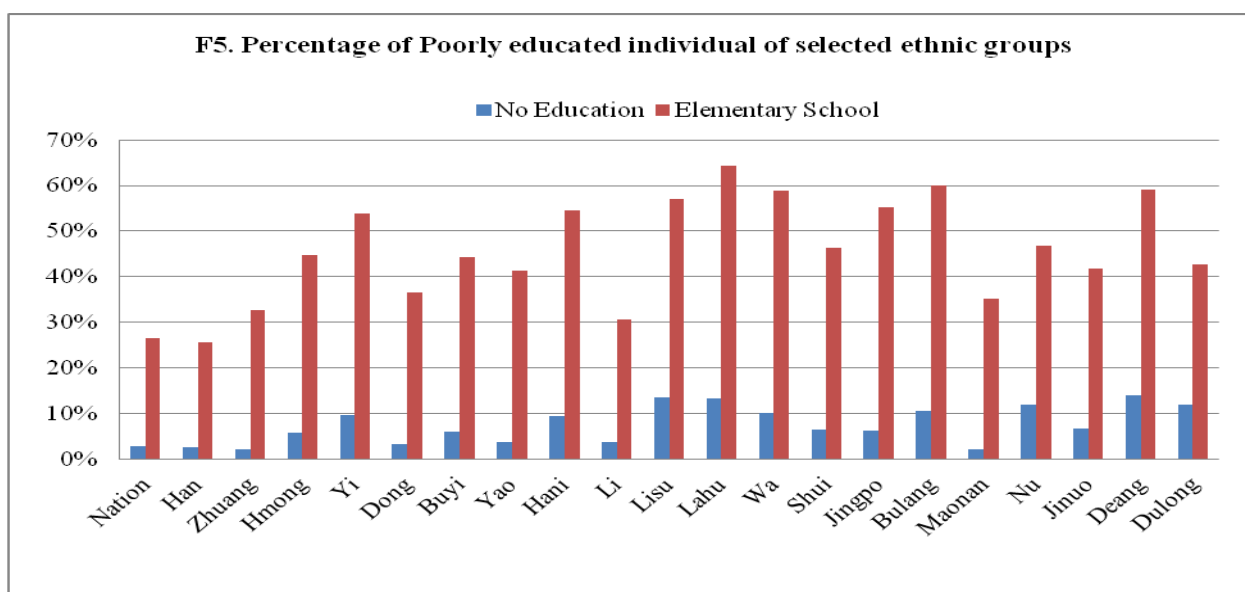
We also list sex ratios of these ethinc groups between ages 15 and 49 in Table 5. Many ethnic groups have higher sex ratios than the Han Chinese or national average. The sex ratio imbalance can partially explain the surplus unmarried men among the ethnic minority in these provinces. However, a more convincing explanation is that many minority women in these area migrate to the neighboring/nearby Guangdong province, the economic engine in China, for work or marriage, or both.

Table 5. Sex ratio of ethnic groups by age.

Age	Total	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Total	1.05	1.08	1.01	1.01	1.04	1.05	1.04	1.04
Han	1.05	1.09	1.01	1.01	1.04	1.05	1.04	1.04
Hmong	1.07	1.09	1.00	1.04	1.05	1.07	1.04	1.05
Yi	1.05	1.07	1.02	1.04	1.05	1.07	1.05	1.02
Zhuang	1.05	1.10	1.04	1.05	1.08	1.11	1.10	1.08
Buyi	1.03	1.05	0.96	0.99	1.04	1.05	1.05	1.04
Dong	1.11	1.14	1.06	1.06	1.08	1.08	1.08	1.07
Yao	1.09	1.10	1.05	1.09	1.14	1.16	1.12	1.08
Tujia	1.06	1.03	0.98	0.99	1.02	1.07	1.08	1.08
Hani	1.08	1.17	1.06	1.08	1.08	1.09	1.07	1.05
Li	1.07	1.03	1.06	1.11	1.15	1.15	1.10	1.09
Lisu	1.02	1.01	1.01	1.08	1.08	1.08	1.04	1.03
Wa	1.01	1.00	0.98	1.05	1.09	1.08	1.03	1.03
Lahu	1.04	1.06	1.03	1.08	1.11	1.11	1.06	1.04
Shui	1.08	1.09	1.00	1.02	1.08	1.08	1.06	1.06
Jingpo	0.93	1.04	0.90	0.92	0.93	0.91	0.88	0.88
Bulang	1.05	0.98	1.05	1.09	1.12	1.12	1.13	1.10
Maonan	1.09	1.04	1.01	1.09	1.12	1.21	1.19	1.17
Nu	1.02	1.03	1.06	1.03	1.04	1.09	1.09	1.10
Deang	0.95	1.11	0.88	0.90	0.96	0.89	0.97	1.02
Dulong	0.94	0.92	1.02	0.85	0.91	0.99	0.85	0.99
Jinuo	1.03	1.16	1.03	1.08	1.07	1.07	0.99	0.99

Discussion and Tentative Conclusion

Using the aggregate level data from the China 2010 Census, we map out how region, rural/urban residence, education and ethnicity can disadvantage men in the marriage market in the context of rising social inequality and skewed sex ratio. Further, these factors can work in a cumulative way to further disadvantage certain groups of men. We therefore have concerns particularly for uneducated, ethnic minority men from migrant-sending Southwest and South provinces, including Southwestern provinces of Yunnan, Guizhou, Sichuan and Chongqing, and Southern provinces of Hunan, Guangxi and Hainan. It is likely that women from these disadvantaged, remote, rural regions where uneducated men or disadvantaged ethnic men are concentrated, migrate to other places for either job or marriage. In the future research, it is urgent to understand the migration dynamics of single, young women, such as the purpose, route and destination.