Ethnic Stratification in China's Labor Markets: Evidence from Xinjiang Uyghur Autonomous Region in 2005 [†]

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Abstract

This paper analyzes a sample from the 2005 mini-census data to examine ethnic inequalities in labor markets, with a special focus on how ethnic inequality varies by different employment sectors. Results show a clear disparity between Han and Uyghur in employment segregation by sector: more than 70 percent Uyghur in Xinjiang, compared to only 35 percent of local Han Chinese, are engaged in agricultural work; within the non-agricultural sector, Uyghur are nonetheless more likely to work in government agencies/institutions than both Han locals and (rural) migrants, and also more likely to become self-employed. Furthermore, Han-Uyghur income gap is negligible in government/institution, and increases with the marketization of employment sector. In other words, the income disparity is the largest among self-employed, followed by employees in private enterprises and then by employees in public enterprises. Han migrants in economic sector particularly enjoy income advantages and *hukou* registration has no effect on income except in government/institutions. The overall income disadvantages of Uyghur mainly come from within-sector difference rather than sector segregation. We conclude that the pattern of ethnic stratification is a mixed result from the market force that tends to enlarge ethnic inequality and government efforts in promoting ethnic equality.

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Xiaogang Wu and Xi Song

Introduction

Three decades of dramatic economic and social changes in China have inspired social scientists to assess the impact of these changes on the welfare of different social groups. A large body of literature on Chinese social stratification in the 1990s has dealt with changing inequalities among those who possessed political capital and human capital, notably under the framework of the market transition debate (e.g., Nee 1989, 1996; Bian and Logan 1996; Szelenyi and Kostello 1996; Walder 2002; Wu and Xie 2003; Xie and Hannum 1996; Zhou 2000). Despite the fact that 55 ethnic minorities have historically trailed Han Chinese by a variety of socioeconomic indicators (Poston and Shu 1987), scholars on Chinese stratification have rarely paid attention to how ethnic minorities fare in a rapidly changing society (but see Hannum and Xie 1998; Zang 2008). Such an omission is mainly due to two factors: on the one hand, ethnic minorities that consist of only about 9 percent of national population are much heterogeneous within themselves (i.e., 55 different groups) and most of them are concentrated in the remote rural regions of China. Most survey data available cannot afford a break-down analysis between specific pairs of ethnic groups (e.g., Bhalla and Qiu 2006; Gustafsson and Li 2003; Hasmath 2008; Hasmath, Ho and Liu 2009). On the other hand, while the large-scale population census data suggest the possibility of analyses on a variety of ethnic groups, information on income and other labor market characteristics are typically not available (Maurer-Fazio, Hughes and Zhang 2009).

The issues of changing ethnic stratification since economic reform is theoretically appealing to scholars concerned with how the institutional transition from state-planned

economies to market economies have impacted the welfare of Chinese ethnic minorities, although we are less willing to frame the question under the market transition debate. Under the state socialist regime, the Chinese government has implemented policies favoring disadvantaged groups such as women and ethnic minorities, who were protected in access to educational and job opportunities by the state (Sautman 1998). Since the market reform, the state gradually retreated from the economic sphere and gave place to a competitive mechanism of labor market. Due to a lack of appropriate regulations, gender and ethnic discriminations stuck out all over in China's emerging labor markets.[1] Trends in ethnic stratification are further complicated by regional inequality: growing regional and rural-urban disparities may have edged ethnic minorities to more disadvantaged positions, whereas government strategy designated to develop western ethnic regions provides new economic opportunities and mobility chances for minorities (Hannum and Xie 1998; Postiglione 1992; Zang and Li 2001). Nevertheless, no empirical analysis has been conducted on the trend in ethnic earnings inequality in the course of China's economic transition.

China's economic miracle over the past decades has been accompanied by the dramatic increase in income inequality. At a fixed price in 1978, the GDP per capita increased by 5.8 times in 2000 and 8.8 times in 2005, with an annual growth at about 9 percent (National Bureau of Statistics 2006), whereas the Gini coefficient, a common measure of income inequality, also increased from 0.317 in 1978 to 0.449 in 2005 for the nation as a whole (Wu 2010). In the context of ethnic reawakening in post-Mao era and the growing ethnic conflicts and separatism around the world (Calhoun 1993; Gladney 1995, 2004), whether ethnic minorities are winners or

[1] In the limited literature on gender inequality, scholars have not reached consensus (Shu and Bian 2003; Cohen and Wang 2008).

losers in the economic boom have far more important implications for political stability and national unity in China' border regions. Apart from political and religious origins, the recent ethnic riots and violence in Tibet (in 2008) and Xinjiang (in 2009) are believed to be deeply rooted in social and economic relations of Han Chinese with Tibetan and Uyghur people, who strongly felt being left behind in China's booming economy since economic opportunities are increasingly seized by Han locals and migrants from other provinces (Gilley 2001; Hillman 2008).[2]

Many scholars and commentators have attributed the ethnic events to the failure of Chinese ethnic policies. In Han Chinese point of view, the preferential treatments towards ethnic minorities and discriminations against Han Chinese within ethnic autonomous regions, as well as large investments and fiscal transfers from the central government did not quench the ethnic hatred or produce peaceful coexistence as expected (He 2009). In ethnic minorities' point of view, Chinese government did not commit to protecting their rights and the Han Chinese turned out to be the main benefactors of the economic growth (Yee 2003). Moreover, Chinese government's political suppression and Han in-migration were often blamed for aggravating ethnic conflicts in the border regions such as Xinjiang and Tibet (Becquelin 2000; Koch 2006).

[2] The Tibetan riots were a series of riots and demonstrations in the Tibetan Autonomous Region and adjacent Tibetan-inhabited areas in March, 2008. Tibetans attacked non-Tibetan ethnic groups and 19 death tolls were reported according to official Xinhua News agency. The violence in Urumqi of Xinjiang on July 5, 2009 was even more brutal. It was the first time that Han Chinese fought back the attacks from Uyghurs on a large scale. In this event, 197 people died, with 1,721 others injured and many vehicles and buildings destroyed.

Therefore, a systematic examination of ethnic stratification in the context of China's rapid economic growth and further liberalization since the 1990s is called for.

In this paper, we focus on Xinjiang, a case well representing China's trajectory of economic development and escalating ethnic conflicts.[3] We analyze a sample from the 2005 population mini-census of Xinjiang to examine labor market inequality between Uyghur and Han Chinese in the Uyghur Autonomous Region. We pay special attention to the role of rural-urban divide, sector segmentation, and population migrations associated with economic reforms that are observed in the rest part of China in shaping ethnic inequality in Xinjiang.

Economic Development, Population Migration and Ethnic Preferential Policies in Xinjiang

Xinjiang Uyghur Autonomous Region is located in the northwestern border area of China and covers one sixth of the country's total territory. Rich in natural resources and inhabited by 47 ethnic groups, it is composed of Forty-seven ethnic groups: 39.6 percent of them are Han Chinese and 45.9 percent are Uyghurs (Information Office of the State Council 2003). The Han Chinese people are mainly concentrated in the north part whereas Uyghurs dominate the south part (see Map 1).

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[3] Compared to remote and isolated Tibetan Autonomous Region, the economic development level in Xinjang approaches to the national average, where the Han group represents about 40 percent (vs. 2.8 percent in Tibet) and the Uyghurs account for 46 percent of the territory's population. In view of the sizable Han population and urbanized economies in the Northern part, Xinjiang provides a good case to examine how the economic transform, the workplace, labor markets and population migration and thereby affect ethnic stratification.

[Map 1 about Here]

Figure 1 plots the trends of economic growth in Xinjiang since 1978 with respect to two indicators: GDP per capita and annual economic growth rate against China's national averages. Unlike other border regions where minorities are concentrated, Xinjiang's economy has been performing quite well, especially since the mid-1990s. The fiscal transfer from the central government increased from 5.91 billion RMB *yuan* in 1996 to 18.4 billion RMB *yuan* in 2001, as a part of national strategy to facilitate the development of western regions (Information Office of the State Council 2003). Despite economic development designed to quell ethnic unrest, it does not seem to have enhanced national solidarity (Koch 2006).

[Figure 1 about Here]

Unlike other provinces in China, Xinjiang has long been a vast territory with a sparse population, an overwhelming of who were national minorities since ancient times. Among them, over 70 percent were Uyghurs and less than 7 percent were Han people according to historical records. In the early years of PRC (i.e., 1950s-1960s), for military security and economic development reasons massive migration into Xinjiang organized by the Xinjiang Production and Construction Corps elevated the proportion of Han Chinese from 7 percent to over 40 percent within the three decades before the economic reform started in 1978. As shown in Figure 2, the population of Han Chinese slightly declined in the 1980s because the sent-down educated youth during the Cultural Revolution has returned and also the one-child policy has been implemented much more harshly among Han Chinese than among ethnic minorities. From 1980 to 1985, the population of Uyghur had increased by 530,000 while Han increased only by 39,000 (China Compendium of Statistics, 1949-1985). The 1990s have witnessed the surging internal migration across provinces, not only to coastal areas such as Guangdong, Shanghai, Zhejiang, but also to

the border region like Xinjiang (Liang and Ma 2004). These migrants, unlike the state-organized migrants, are mainly driven by growing economic opportunities brought by the national development strategies on the western regions (Information Office of the State Council 2003). During 1995 to 2004, the increase of Uyghurs in Xinjiang was 1,180,000 whereas the increase of Han reached up to 1,480,000 (National Bureau of Statistics 2005).

[Figure 2 about Here]

As elsewhere in China, our discussion of migration in reform-era Xinjiang cannot go referring to its institutional dimension – the impact of the household registration (*hukou*) system (Chan and Zhang 1999; Liu 2005; Solinger 1999; Wang 2004; Wu and Treiman 2004, 2007).). Since its installation in 1955, *hukou* has been employed as an important administrative means of controlling migration, distributing resources and determining life chances in state socialist China.[4] During the economic reform, the household registration system, albeit losing its effectiveness to some extent, continues to play as the main criterion to allocate government subsidies, welfare, and employment opportunities to local urban permanent residents. Migrant employees with rural *hukou* status, regardless of their occupations, are classified as "peasant-workers" (*ming gong*), a synonym of underclass, who are entitled to few labor rights and benefits and subject to severe discriminations (Solinger 1999). The large-scale migration from rural to

[4] Under the *hukou* system, all households had to be registered in the locale where they resided and also were categorized as either "agricultural" or "non-agricultural" (synonymously, "rural" or "urban") households (Chan and Zhang 1999: 821-22). The majority of the population was bottled up in the countryside and entitled to few of the rights and benefits that the socialist state conferred on urban residents, such as permanent employment, medical insurance, housing, pensions, and educational opportunities for children (Wu and Treiman 2004).

urban areas in the reform-era has not dismantled the socialist segregation policy set by the household registration system.

As one of the important destinations of interprovincial migration since the 1990s, Xinjiang also experienced initial economic development driven by rural non-farm laborers outside the urban formal employment system. Empirical analyses (Zhang and Wu 2010) suggested that inequality between local residents and migrant workers in urban China are mainly due to segregation among different sectors and occupations, to which *hukou* status has created an entry barrier. In a more marketized sector, migrant workers earnings disadvantages compared to local residents tend to be smaller or even non-existent.

For a long period of time, the Chinese government was quite sensitive to the ethnic tension and conflicts caused by the inflow of Han and thus implemented a series of socioeconomic policies to protect minorities' rights with respect to family planning, college admission, job recruitment and promotions, and representation in the legislative and government bodies (Sautman 1998). Under the leadership of Hu Yaobang, the late General Secretary of the Communist Party from 1981 to 1987, some special policies were formulated and strictly carried out in the 1980s towards ethnic minorities, known as Xinjiang Six Principles, namely, 60 percent quotas should be reserved for minorities (Uyghurs) in college admission, job recruitment and army enlist. Law enforcement is also more lenient towards Uyghurs if they committed the same crimes as Han people. Such state designated policies have worked quite well in that government imperatives could be executed effectively in economic spheres during the 1980s. However, with the deepening of the economic reform, the situation in Xinjiang started changing, especially in labor markets. In the pursuit of high economic growth, Chinese government no longer spares no effort to promote ethnic equality while grants more autonomy to the enterprises in the market in

recruiting and paying employees. With the waning effectiveness of government policies that favor minorities on the one hand and restrict migrants on the other hand, not only do minorities face intensified competitions from local Han Chinese but their predicament is further exacerbated by massive inflow of migrants from other provinces.

Market Reforms and Ethnic Inequality: Research Hypotheses

As China progresses further towards economic marketization since 1992, the private sector, including self-employment, has experienced an exponential growth. These sectors to a large extent are responding to the market in hiring workers; even the state-owned enterprises have gained more autonomy and become more profit-oriented while less dependent on government administrative regulations (Wu 2002). Employers hired their workers based on their characteristics related to productivities such as skills, languages, and work habits, all of which might have created incentives for discriminations in the labor market (Allport 1954; Arrow 1974, 1998; Becker 1957). Apart from within-sector inequality based on individual merits, as we mentioned before *hukou* status create entry barrier for some sectors. Although rural residents have been allowed to move into cities, without an urban citizenship they are denied opportunities of decent jobs in public sectors under most circumstances. Considering the differences of languages and living habits between Han and Uyghurs and the main distinctness between Han locals and Han migrants as *hukou* status, we therefore hypothesize:

Ethnic inequalities between Han and Uyghurs are mainly derived from within-sector difference, whereas disparities between Han migrants and local Han people are mainly from sector segregation.

We further differentiate sectors to approximate the degree of the state intervention in promoting ethnic equality. The six sectors (government/institutions, state-owned enterprises, private enterprises, self-employment and agriculture) form a continuum of decreasing state influence. With shrinkage of state-owned enterprises and a rapid expansion of private enterprises, the inequality patterns from such sectoral comparison can also help to shed lights on temporal trends of ethnic inequality in China. Therefore, we proposed the second hypothesis:

Ethnic inequality between Han and Uyghurs increases in the sector where the state intervention is weaker.

In the following analysis, we will examine sector segregation, and earnings differentials among Uyghurs, Han locals and Han migrants.

Data, Variables and Methods

We use a sample from Xinjiang population mini-census data in 2005 and restrict the analysis of ethnic Han Chinese and Uyghurs aged from 16 to 59. Compared with survey data typically limited in certain areas of Xinjiang, this is a region-wide representative sample with large sample size (N=22,581). Compared with the population census data, the 2005 mini-census for the first time collect information on income, work unit type (ownership) and employment status (employer, employee and self-employed).

Since we focus on labor market stratification between Han Chinese and Uyghurs, we exclude other ethnic groups and divide Han Chinese into locals and migrants. Han locals refer to those who report their nationality as “Han” and are registered within Xinjiang, whereas Han migrants refer to those registered in other provinces, including both rural and urban *hukou*. Since 99% of Uyghur in China living in Xinjiang province, our sample does not include Uyghur

migrants and we also exclude a few cases (less than 1%) of migrant people with other minority identities.

The key dependent variables are sector attainment and monthly earnings. We code work sector into 6 categories: non-agricultural (government/institution, state enterprises, private enterprises, self-employed), and agriculture sector. As mentioned earlier, they form a continuum varying in the extent of influence by state ethnic policy.

Other independent variables include education, gender, age, and *hukou* status. Education is measured in 4 levels (1=primary school or below, 2=junior high school, 3=senior high school, and 4=college or above). Gender is coded as a dummy variable (male=1) and so is *hukou* status (urban=1). Age is a continuous variable. To control regional variations in development, we also collect county-level GDP and include them in the models predicting income.

Table 1 presents descriptive statistics by three subgroups for the full sample and also for agricultural and non-agricultural samples.

[Table 1 about Here]

In the following analysis, we will first look at the ethnic income disparities in agricultural and non-agricultural sector and then focus the analysis on sector attainment and ethnic income gap across different sector among the non-agricultural labor forces. Linear regression models with fixed effects, multinomial logit models are employed. To demonstrate the contribution of sector segregation and within sector differentials to overall income inequality, we use Brown decomposition methods (Brown 1980; Liu et al 2001 2004; Sung 2001).

Results

Table 2 presents the results from OLS regression of logged income on selected variables. In the full sample (Models 1 and 1a), we see that, controlling for other factors, Han migrants indeed surprisingly earn higher than Han locals, whereas Uyghurs earn much less than Han locals. Even after including the county GDP in the model, such a large income disparity among three groups did not change.

[Table 2 about Here]

The disparities might be reflecting rural-urban inequality as elsewhere in China, since Uyghurs are more likely to engage in the agricultural sector than Han. Indeed, according to Table 1, more than 70 percent Uyghurs in Xinjiang but only 35 percent of local Han Chinese are engaged in agricultural activities. Therefore, we further divide the sample into agricultural and non-agricultural parts (Models 2 and 2a, Model 3 and 3a). Uyghur were even more disadvantaged in agricultural sector than in non-agricultural work. Migrants showed a greater edge in non-agricultural sector than in agricultural sectors.

Within the non-agricultural sector, we aggregate 5 types of employment sector: government/ institution, public enterprise, private enterprise and the self-employed. Table 3 present the multinomial logit models on sector attainment among three groups. Results show that, compared to Han locals, Han migrants are much less likely to work in government/institutions and more likely to work in private enterprises, and urban *hukou* holders are more likely to work in government/institutions and less likely to work in the private sector or as the self-employed (as indicated by the negative coefficients). On the other hand, Uyghurs are more likely to work in government/ institutions and also become self-employed. The high representative of Uyghurs in government/institutions can be attributed to government preferential policies still at work but

only in the sector that the state has direct control or influence on hiring. Majority of Uyghurs were excluded from access to employment opportunities in enterprises and self-employment becomes a refugee for those who could not find a waged job and face competition from rural migrants.

[Table 3 about Here]

Such distinctive patterns of sector segregation have important implications for us to understand ethnic income inequality in Xinjiang. To differentiate between sector segregation effect and the effect of within-sector discrimination, we first substitute the characteristics from Uyghur group into the estimated equation for Han people in multinomial logit model and obtained hypothetical probabilities of being in each sector for each Uyghur. We then decompose the disparity between Han locals and Uyghurs into parts of observed difference and hypothetical difference to show how much of the income inequality originate from sector segregation or within sector difference. Similar methods can be replicated to compare Han migrants with Han locals.

Results in Table 4 show that, income disparities between Han locals and Uyghurs are derived mainly from within-sector differences rather than sector segregation. The within-sector difference can explain 103.95% of the total income differential, which in reverse suggests that, overall, sector segregation does not contribute to the income inequality between Han locals and Uyghurs; moreover, current sector distribution of Uyghurs has offset part of their income disadvantages. In contrast, the income difference between Han locals and migrants is less than 1/4 (≈0.079/0.335) of the difference between Han locals and Uyghurs. The total income differentials were mainly caused by sector segregations since Han locals are engaged in sectors with higher average earnings, namely, government/institutions and state-owned enterprises.

Despite the overall income disadvantage of Han migrants, the negative figure -8.69% suggests that within sectors, Han migrants received higher payments than Han locals.[5] The negative figure

[5] The group mean decomposition follows

$$\overline{\ln Y^H} - \overline{\ln Y^U} = \underbrace{\sum_{j=1}^{J} p_j^U (\bar{x}_j^H - \bar{x}_j^U)\beta_j^H}_{\text{(I)}} + \underbrace{\sum_{j=1}^{J} p_j^U (\alpha_j^H - \alpha_j^U) + \sum_{j=1}^{J} p_j^U \bar{x}_j^U (\beta_j^H - \beta_j^U)}_{\text{(II)}}$$
$$+ \underbrace{\sum_{j=1}^{J} \overline{\ln Y_j^H}(p_j^H - \hat{p}_j^U)}_{\text{(III)}} + \underbrace{\sum_{j=1}^{J} \overline{\ln Y_j^H}(\hat{p}_j^U - p_j^U)}_{\text{(IV)}}$$

where a bar over a variables denotes the mean value, superscripts *H* and *U* refer to Han locals and Uyghurs, respectively. The term p_j^U (or p_j^H) is the observed proportion of Uyghurs (or Han locals) in sector *j*, and the term $\hat{p}_j^U$ represents the hypothetical proportion of Uyghurs in the sample who would be in sector *j* if Uyghur faced the same distribution of employment sector as Han locals, in other words, when no sector segregation existed. Part I of the model captures explained differences in within-sector income, whereas Part II is the unexplained within-sector income differentials. Part III and Part IV represent, respectively, the explained and unexplained portions of sector segregations. In order to estimate the term $\hat{p}_j^U$, we introduced a model of multinomial logistic regression to capture the sector structure of Uyghur without segregations. The probability may be defined as

of unexplained part of within sector differentials, -116.71%, indicates that the higher income of Han migrants is resulted from some unobserved reasons and cannot be attributed to the variables included in the models.

[Table 4 about Here]

Finally, we examine in Table 5 how Han-Uyghur income gaps vary across different employment sectors. Results show that, as expected, the gap is negligible within government/institution, and increases with the marketization of employment sector. In other words, the income disparity is the largest among self-employed, followed by employees within private enterprises and then by employees within public enterprises. Other things being equal, Uyghurs earn 3.5 percent less in government/institutions, 12 percent less in public enterprises, 16.4 percent less in private enterprises, 29 percent less in self-employment, than Han locals. The coefficients are highly significant except for that within the government/institutions ($p<0.001$). Hausman test (not reported here) further shows that the differences among coefficients across sectors are also highly significant ($p<0.001$). Therefore, owing to the weakening regulations of government in market sectors, government calls for ethnic equality turn out to be less effective in

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$P_{ij} = prob(y_i = sector_j) = e^{x_i'\gamma_j} \Big/ \sum_{k=1}^{j} e^{x_i'\gamma_j}$, $i = 1,...N; j = 1,...,J$ where x_i is a vector of the exogenous variables commonly used in income determination. Estimates of the parameters of this model are obtained by using Han observations, and the Uyghur data (i.e., characteristics) are then substituted into the estimated equations, producing for each Uyghur a predicted probability of belonging to each sector. These predicted probabilities of being in each sector are summed over observations to produce the predicted sector distribution of Uyghur, $\hat{p}_j^U$. Indeed, the estimation method of multinomial logit model is the same as we used in Table 4.

these sectors compared to the public sectors. If the Chinese labor market is moving towards a more liberalized and less regulations, we could expect to observe an even severe ethnic inequality in the near future.

[Table 5 about Here]

On the other hand, Han migrants in economic sectors enjoy income advantages, by 10.3 percent, 12.4 percent, and 9.7 percent in public enterprises, private enterprises, and self-employment, respectively. The evidence may reflect the selectivity of Han migrants moving to Xinjiang for economic reasons. Interestingly, unlike what have been reported elsewhere in China, income discrimination against rural *hukou* does not exist in Xinjiang except in the government/institution sector.

Summary and Conclusion

To summarize, in this paper we examined income attainment for Han and Uyghurs in Xinjiang based on the analysis of a sample from the population mini-census in 2005. We paid particular attention to ethnic disparities among Han locals, Han migrants and Uyghurs, and how they vary by different employment sectors. Results show that overall income disadvantages of Uyghur compare to Han locals came mainly from within-sector difference rather than sector segregation. The gap is larger in agricultural sector than in non-agricultural sector. Within non-agricultural sector, Uyghurs are more likely to enter government/institutions than Han Chinese and earn about the same as Han locals. This reflects the effectiveness of Chinese government's effort in implementing preferential policies to promote ethnic equality. However, ethnic inequality exists and tends to enlarge in sectors where the state influence declines and market efficiency law comes into operation. Han locals are more likely to enter public enterprises and Han migrants are

more likely to enter private enterprises and Uyghurs, if they are not able to enter government, would flock to self-employment. Within public enterprises, Uyghurs are confronted with competitions from Han locals, and within private and self-employment sectors, they enter into rivalry with Han migrants. It is therefore not surprising that Uyghurs felt frustrated with the increasing economic opportunities taken away by Han people.

Should the government preferential policies be blamed for? Our results show that they are implemented quite well in government/institutions but less effectively in more marketized sectors. We conclude that the pattern of ethnic stratification in Xinjiang is a mixed result from the market force that tends to enlarge ethnic inequality and government effort in promoting ethnic equality. To reduce the ethnic tension and share economic opportunities, alternative policy measures should be proposed to protect minorities from labor market discrimination.

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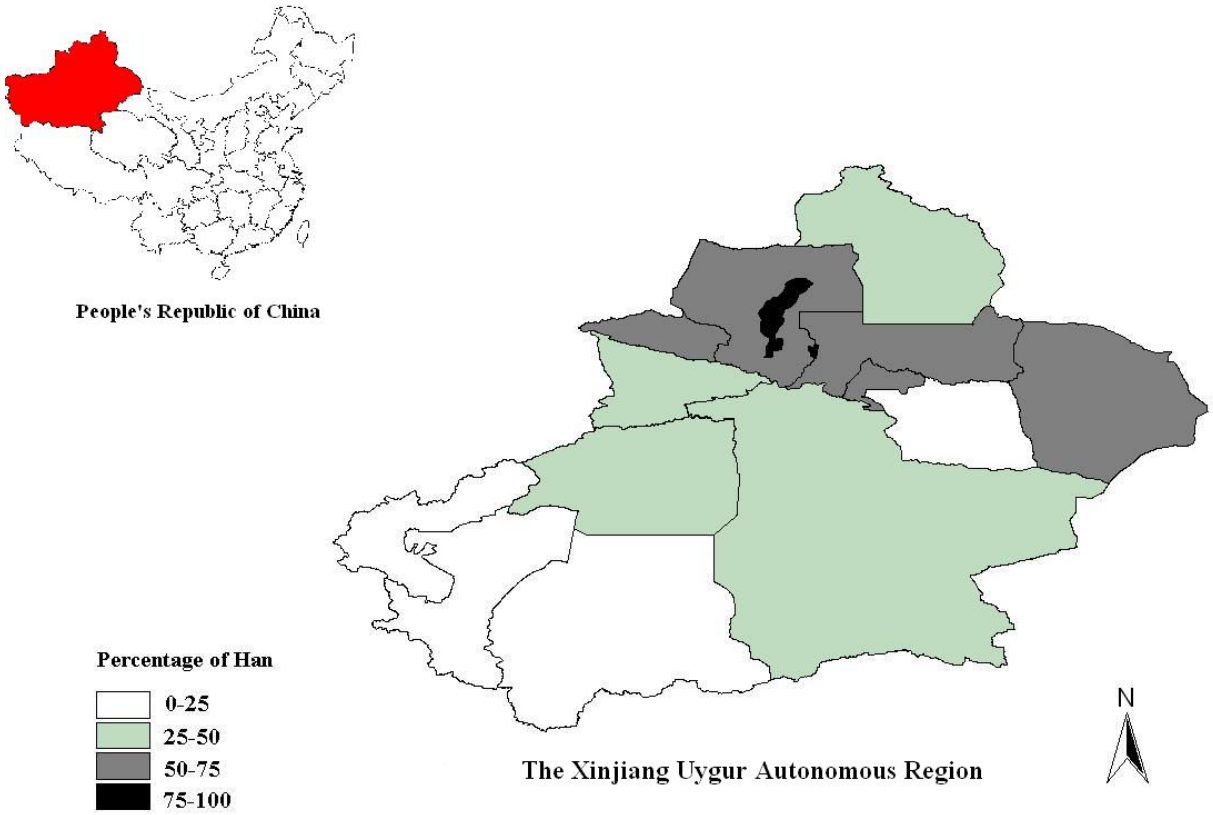
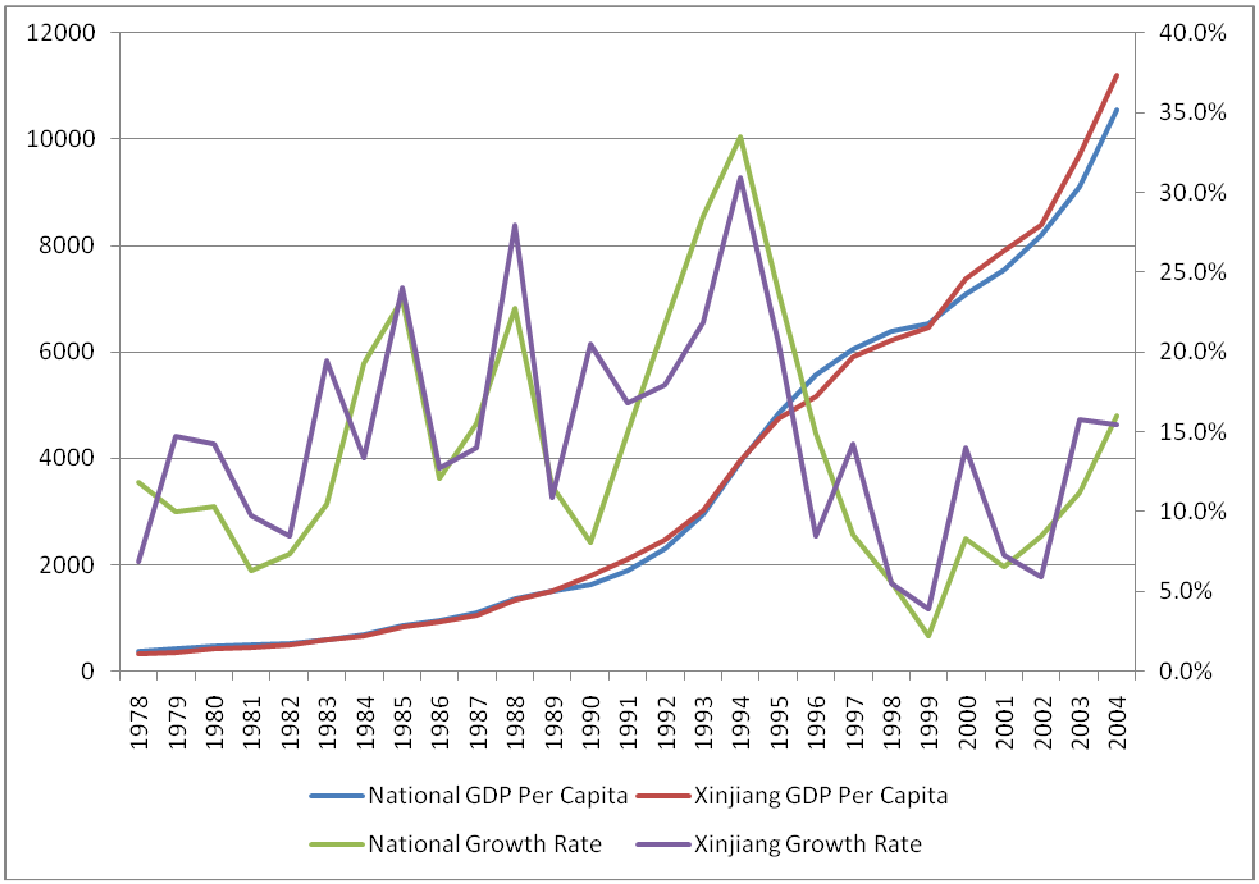
Map 1 The Percentage of Han Chinese Population by Prefecture, Xinjiang, 2005



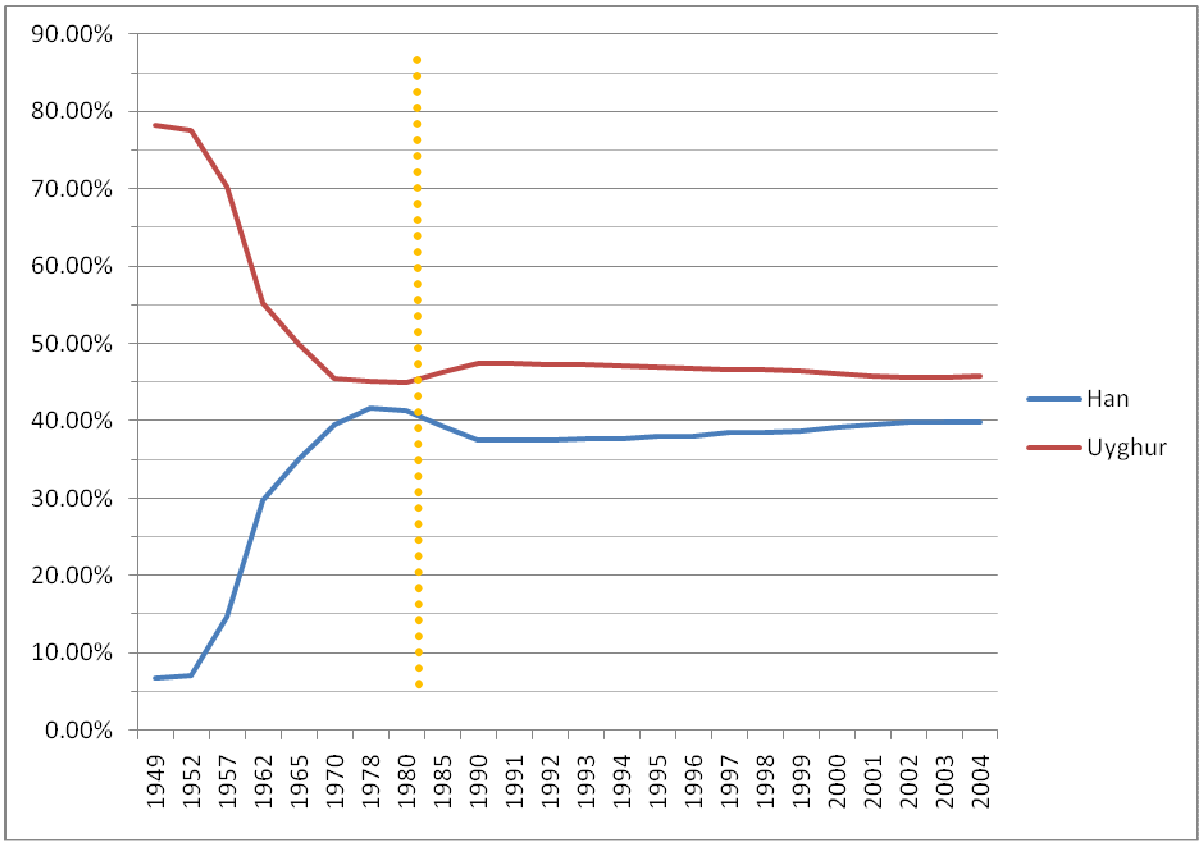
Data source: Xinjiang Statistical Yearbook

Figure 1. Economic Growths by Year 1978-2004



Data source: China Statistical Year Book; Xinjiang Statistical Yearbook

Figure 2. Changes of Ethnic Composition in the Population, 1949-2004



Data source: China Statistical Year Book; Xinjiang Statistical Yearbook; China Population Statistical Year Book; China Compendium of Statistics, 1949-1985

* The yellow line denotes year 1982 when the central government carried out a family planning program towards Han people.

Table 1 Descriptive Statistics aged 16-59, Xinjiang, 2005

Full Sample	Han locals	Han migrants	Uyghur
Monthly income	853.4	896.4	380.0
	(616.4)	(623.5)	(395.5)
Age	37.8	34.3	33.3
	(8.4)	(8.5)	(11.1)
Male	56.0	61.1	57.6
Education			
primary and below	14.5	30.3	44.5
junior high school	41.8	44.0	39.5
senior high school	21.6	15.1	7.8
college or above	22.1	10.6	8.2
Urban *hukou*	65.3	25.8	17.4
N	9580	2385	10616
Agricultural Sample			
Mean income	543.8	603.3	246.2
	(477.5)	(468.6)	(229.6)
Mean age	39.2	35.8	33.4
	(9.1)	(8.6)	(11.5)
Male	53.5	51.2	55.1
Education (%)			
primary and below	29.5	45.2	52.7
junior high school	60.4	48.0	42.3
senior high school	9.3	6.9	4.3
college or above	0.8	0.0	0.7
Urban *hukou* (%)	26.6	4.4	2.2
N	3306	248	7571
Non-agricultural Sample			
Monthly income	1016.6	930.4	712.5
	(618.9)	(630.3)	(509.1)
Age	37.1	34.1	33.2
	(7.9)	(8.5)	(9.8)
Male	57.3	62.3	63.8
Education			
Primary and below	6.6	28.6	24.2
junior high school	32.0	43.5	32.4
senior high school	28.0	16.1	16.5
college or above	33.4	11.8	26.9
Urban *hukou*	85.7	28.3	55.3
Sector distribution			
government Institutions	27.9	6.7	37.4
state-owned enterprises	34.8	20.7	11.1
self-employed	24.9	50.9	45.6
private enterprises	12.4	21.8	5.9
N	5,310	1,683	2,558

Data source: 0.5% sample of 2005 mini-census; Figures in parentheses are standard deviation.
People who answered their work type as "Other sectors" (3.2%) were incorporated to private enterprises. Those who answered as "Others" (7.4%) were treated as self-employed.

Table 2 OLS Regression of Logarithm of Income on Selected Variables, Xinjiang, China, 2005

	Full sample		Agricultural Sample		Non-agricultural Sample	
Ethnic (Han local [omitted])	Model 1	Model 1a	Model 2	Model 2a	Model 3	Model 3a
Han migrants	0.388***	0.365***	0.153***	0.148***	0.254***	0.250***
	(0.014)	(0.017)	(0.038)	(0.037)	(0.016)	(0.019)
Uyghurs	-0.520***	-0.519***	-0.709***	-0.713***	-0.254***	-0.232***
	(0.010)	(0.010)	(0.014)	(0.013)	(0.013)	(0.015)
Male	0.198***	0.191***	0.146***	0.144***	0.200***	0.190***
	(0.008)	(0.009)	(0.011)	(0.011)	(0.011)	(0.012)
Age	0.047***	0.046***	0.034***	0.035***	0.055***	0.054***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)
Age^2*100	-0.055***	-0.054***	-0.041***	-0.043***	-0.063***	-0.060***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.006)
Education (primary or below [omitted])						
junior high school	0.119***	0.114***	0.017	0.021	0.211***	0.207***
	(0.010)	(0.011)	(0.013)	(0.012)	(0.017)	(0.018)
senior high school	0.415***	0.389***	0.089***	0.085***	0.499***	0.489***
	(0.015)	(0.016)	(0.025)	(0.024)	(0.019)	(0.022)
college or above	0.813***	0.849***	0.266***	0.243***	0.818***	0.848***
	(0.016)	(0.017)	(0.066)	(0.062)	(0.019)	(0.022)
Urban *hukou*	0.403***	0.362***	0.157***	0.150***	0.170***	0.127***
	(0.011)	(0.012)	(0.021)	(0.020)	(0.014)	(0.016)
County-level GDP (billion)	--	0.026***	--	0.047***	--	0.014***
		(0.001)		(0.002)		(0.002)
Constant	4.886***	4.854***	5.292***	5.187***	4.864***	4.832***
	(0.050)	(0.051)	(0.063)	(0.060)	(0.072)	(0.080)
N	22,548	19,744	11,109	10,938	11,438	8,805
R-squared	0.530	0.516	0.315	0.371	0.350	0.346

Data source: 0.5% sample of 2005 mini-census.
Figures in parentheses are standard errors;
*p<0.05; **p<0.01; ***p<0.001

Table 3 Multinomial Logit Models Predicting Employment Sector Attainment in Xinjiang, Non-agricultural Sample 2005

	Base category =Public Enterprise		
	Government/Institution	Private Enterprise	Self-employed
Ethnicity (Han locals [omitted])			
Han migrants	-1.032***	0.346***	-0.179***
	(0.080)	(0.068)	(0.052)
Uyghur	1.457***	-0.020	0.693***
	(0.063)	(0.080)	(0.052)
Urban *hukou*	0.163**	-0.184***	-0.392***
	(0.056)	(0.052)	(0.037)
Male	-0.127***	-0.016	-0.023
	(0.031)	(0.040)	(0.029)
Age	-0.191***	-0.158***	-0.104***
	(0.028)	(0.031)	(0.023)
Age^2*10	0.029***	0.017***	0.010**
	(0.004)	(0.004)	(0.003)
Education (primary or below [omitted])			
junior high school	-0.512***	0.080	0.502***
	(0.075)	(0.062)	(0.046)
senior high school	0.437***	0.066	0.131*
	(0.070)	(0.068)	(0.052)
college or above	1.899***	-0.058	-1.050***
	(0.068)	(0.077)	(0.072)
Constant	1.817***	2.268***	2.369***
	(0.503)	(0.542)	(0.416)
Likelihood Ratio		4283.49	
N		9456	

Data source: 0.5% sample of 2005 mini-census, Xinjiang.
Figures in parentheses are standard errors;
*p<0.5; **p<0.01; ***p<0.001

Table 4 Decomposition of Ethnic Income Differentials, 2005

	Local Han* vs. Uyghur[6]		Local Han* vs. Han Migrants	
	Difference	%	Difference	%
Total income differential	0.335	100.00	0.079	100.00
Within-sector	0.348	103.95	-0.007	-8.69
Explained (I)	0.058	17.24	0.085	108.02
Unexplained (II)	0.290	86.71	-0.092	-116.71
Between-sector	-0.013	-3.95	0.086	108.69
Explained (III)	0.021	6.12	0.046	58.72
Unexplained (IV)	-0.034	-10.07	0.039	49.97
Total explained (I+III)	0.078	23.36	-0.046	166.74
Total unexplained (II+IV)	0.256	76.64	0.124	-66.74

Data source: 0.5% sample of 2005 mini-census, Xinjiang.

[6] In these pairs of comparisons, the decompositions of sector income effect are based on categories with asterisk* (as weights).

Table 5 Fixed-Effect Regression, Non-farm Sample 2005

DV=Log(income)	Government Institutions	Public Enterprises	Private Enterprises	Self-employed
Ethnicity (Han locals [omitted])				
Han migrants	0.030	0.099***	0.120**	0.093*
	(0.035)	(0.029)	(0.040)	(0.038)
Uyghur	-0.036	-0.128***	-0.179***	-0.349***
	(0.020)	(0.033)	(0.053)	(0.044)
Urban *hukou*	0.228***	0.013	0.056	0.045
	(0.031)	(0.031)	(0.041)	(0.031)
Male	0.067***	0.166***	0.250***	0.222***
	(0.015)	(0.018)	(0.034)	(0.028)
Age	0.043***	0.030***	0.035**	0.055***
	(0.006)	(0.007)	(0.011)	(0.009)
Age^2*10	-0.003***	-0.004***	-0.004**	-0.007***
	(0.001)	(0.001)	(0.002)	(0.001)
Education (primary or below [omitted])				
junior high school	0.007	0.071*	0.081	0.141***
	(0.070)	(0.030)	(0.049)	(0.033)
senior high school	0.193**	0.209***	0.159**	0.201***
	(0.069)	(0.034)	(0.056)	(0.041)
college or above	0.362***	0.361***	0.288***	0.248***
	(0.069)	(0.038)	(0.065)	(0.065)
County	Controlled	Controlled	Controlled	Controlled
Occupation	Controlled	Controlled	Controlled	Controlled
Industry	Controlled	Controlled	Controlled	Controlled
Constant	6.189***	6.130***	5.316***	4.022***
	(0.400)	(0.492)	(0.426)	(0.621)
N	2619	3203	1261	2307
R-squared	0.444	0.570	0.470	0.479

Data source: 0.5% sample of 2005 mini-census, Xinjiang.
Figures in parentheses are standard errors.
*p<0.5; **p<0.01; ***p<0.001