

Affirmative Inaction: Education, Language Proficiency, and Socioeconomic Attainment Among China's Uyghur Minority

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Abstract: This study finds that the Mandarin proficiency is partially responsible for the gap in socioeconomic inequality between the Han majority and the Uyghur Muslim minority. Multiple sources of evidence show that Uyghur Muslims share equal educational attainment as the Han majority, but are noticeably less fluent in Mandarin than the Han majority. Using data from the 2012 China Labor-Force Dynamics Survey (CLDS), we find that Mandarin proficiency can significantly improve occupational attainment and income. In other words, holding other factors equal, if ethnic minorities speak better Mandarin, they would have better chances to improve their socioeconomic status.

This paper examines the relationship between education and socioeconomic attainment among China's ethnic groups, particularly between the Han majority and the Uyghur minority. While accepting the view that ethnic inequality in occupational attainment leads to ethnic inequality in income,

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we challenge the conventional wisdom that in China, ethnic inequality in occupation and income is a result of unequal access to education. Instead, we will show that the affirmative action policy in language education is partially responsible for the immobility or inaction in socioeconomic attainment.

Our analysis will focus on the difference between the Hans and the Uyghurs for several reasons. First, the Uyghurs demonstrated one of the largest gaps in Mandarin language education with the Hans in several existing surveys.¹ Second, the Uyghurs are one of the most politically sensitive groups that have been advocating independence and its status has a more direct impact on China's ethnic policy than other ethnic groups. Third, the advancement of survey research in China makes it possible to draw a representative sample of the Uyghur population in Xinjiang in the 2012 China Labor-Force Dynamics Survey (CLDS). This unprecedented survey allows us to closely examine the relationship between the respondents' education, Mandarin language proficiency, and socioeconomic attainment.

In the following, first we will review the relationship between education and socioeconomic attainment in the existing literature. Second, we will discuss how China's ethnic policy, particularly language policy, is likely to affect this relationship. Third, we will use survey data to examine ethnic stratification in education and socioeconomic attainment. In conclusion, we will discuss the importance of language education in improving ethnic equality and its tradeoffs.

Education and Socioeconomic Attainment

Scholars believe that there is a strong and positive relationship between education and socioeconomic attainment (Blau and Duncan 1967; Featherman and Hauser 1978; Treiman and Ganzeboom 2013). Education can bring the socially disadvantaged groups to the same starting line and allow them to compete freely with the rest of society. In the United States, for example, the proponents of Affirmative Action programs support the quota system in higher education that guarantees the opportunities for the disadvantaged groups, such as African Americans in college admission (Kellough 2006; Bankston 2010; Moses 2010). Once these disadvantaged groups have a college education, they will enjoy the same competitiveness in the labor market.

Critics of China's ethnic policy argue that ethnic inequality is partially the result of inequality in educational attainment for the disadvantaged minority groups (Bovingdon 2010: 345; World Uyghur Congress 2010). Others show that the better educated minority groups, such as the Mongolians and the Koreans, are economically more equal to the Han majority than the less educated minorities, such as the Tibetans and the Uyghurs (Mackerras 2004a). Wu and Song (2014) find that ethnic minorities in China did well in the labor market as long as they had the same level of education as the Han majority (p.163). An earlier analysis of occupational attainment in

Xinjiang by Hannum and Xie (1998) showed that the increasing ethnic gap in job attainment from 1982 to 1990 could be explained mainly by educational disparities between Han Chinese and ethnic minorities. They argued that continued educational expansion among minorities, combined with equal access to professional occupations contingent on education, would help narrow down the gap in professional occupational attainment between the Han majority and ethnic minorities.

In sum, as long as the disadvantaged groups receive adequate education, it is believed that their competitiveness will improve, resulting in better social and economic conditions. Accordingly, government policy should thus focus on how to improve opportunities for equal education and let the market take care of the rest.

Ethnic Policy in China

Before we engage our readers in the discussion of the current conditions of ethnic equality, it is necessary to provide an overview of China's ethnic policy as a background of the empirical analysis. Although 91.6 percent of China's population belongs to the Han majority in the 2010 sixth population census,² the remaining 8.4 percent consists of fifty-five diverse ethnic groups living in 60 percent of the country's territory with abundant natural resources. These ethnic minority regions are geographically and strategically important as the security buffer zones between China and its neighbors (Wu and He 2016a).

The official policy in China grants autonomy to ethnic regions, although many outside observers and dissidents do not believe so.³ There are five ethnic minority Autonomous Regions, including Xinjiang Uyghur, Xizang Tibetan, Ningxia Hui, Guangxi Zhuang, and Inner Mongolia. In addition, there are many ethnic minority autonomous prefectures embedded in the Han regions throughout the country (Wu and He 2016b working paper, Leibold 2013).

In these minority regions are the state-sponsored affirmative action programs, such as the quota system for minority officials in the local governments. Studies have found preferential policies for minority groups with relaxed family planning restrictions, tax benefits, more tolerance of artistic expression of nudity, and quota in higher education and employment. (Goldstein 1989, 1997, 2004; Gladney 1996, 1998, 2004; Mackerras 2004a; Goldstein et al. 2006; Tang and He 2010). As Hannum and Wang (2010) pointed out, minority preferential policies are especially prominent in education. Chinese policy makers have supported the establishment of minority boarding schools and affirmative action policies for matriculation into colleges and universities, and subsidies for minority students. University admissions quotas reserve slots only for minorities at universities, and minorities can be accepted with lower entrance scores on the Unified Examination for University Entrance (*gaokao*) (Clothey 2005: 396). In addition to these benefits, national minority institutes

and universities have been established that are dedicated specifically to the higher education of minority students (Clothey 2005: 396).

Some of these ethnic groups are better integrated than others, such as the Mongolians, the Koreans, the Manchus, the Huis, and some of the southwestern groups. Other less integrated groups, such as the Tibetans and the Uyghurs, have demonstrated separatist tendencies (Mackerras 2004a, 2004b; Wu and He 2016a). Critics of China's ethnic policy blame the problems in Tibet and Xinjiang on harsh political control, economic exploitation by discriminatory hiring practices, and ethnic cultural cleansing by massive influx of Han migration into Xinjiang and Tibet and forced Mandarin education (Dwyer 2005; Teague 2009; Barnett 2010; Bovington 2010; Zang 2012).

One of the most frequently mentioned sources of rising ethnic tension in Xinjiang is economic inequality between the Han majority and ethnic minorities. It is believed that ethnic minorities have less access to education and high dropout rates, partly due to the family's need for labor and partly due to their reluctance to be forced into learning Mandarin (Bovington 2010). Consequently, ethnic minorities are less competitive in the labor market, more likely to stay in agricultural work and other low paid occupations, and receiving less income than the Han majority (Wu and Song 2014).

In short, observers seem to attribute ethnic inequality to China's discriminatory ethnic policy, particularly in the less integrated regions in Xinjiang and Tibet. The key to solving the problem, according to these observers, is to grant more freedom to these minority groups by allowing them to carry on their own cultural traditions and by eliminating Han chauvinism.

Language Policy and Ethnic Inequality

While many critics take China's Han cultural chauvinism for granted and condemn China for ethnic cleansing and forcing minority students to speak Mandarin, a closer look at the education policy in minority regions reveals that China's language policy is far from being too restrictive compared to the practices of many European and Japanese colonial regimes (Fishman 1974; Wiley and Wright 2004). The Chinese constitution has two provisions concerning the bilingual language policy: Article 4 states that each ethnic group has the freedom to use and develop its own language and writing system, while Article 19 states that the national government will promote a common language to be used throughout the country. Hannum and Wang (2010) pointed out that local and regional governments shape how the bilingual policy is implemented, and the local governments make their decisions based on whether there is a well-established writing system in the ethnic language and whether the particular ethnic group is a majority in the local area.

There are significant practical challenges in implementing the bilingual policy. Human and economic resources constrain the implementation

of the bilingual policy. Local schools in China often do not have enough Mandarin speaking teachers. Anecdotal examples show that during visits to schools outside the capital cities of Lhasa in Tibet and Urumqi in Xinjiang, it is common to see students learning math in Tibetan or Uyghur languages (Tang and He 2010; Tang 2015). In these schools, ethnic languages, not Mandarin, are the languages of instruction (Clothey 2005; Ma 2007: 15). In contrast, in many other multiethnic countries, such as the United States and Australia, English is the language of instruction in public schools and ethnic languages are taught as the second language (Lo Bianco 1987; Tollefson 2013; Tang 2015).

In addition to the shortage of Mandarin speaking teachers, another important reason for minority regions' failure to implement Mandarin education is the problem of bureaucratic turf war. For example, in China's Education Law, all schools are required to use Mandarin as the language of instruction, while the Ethnic Autonomy Law encourages the use of ethnic languages in education (Tang and He 2010).

The failure to teach Mandarin is likely to create a serious barrier to minority students' socioeconomic attainment in an economic environment dominated by the Mandarin speaking population (Hannum and Chergn 2014). Due to their Mandarin language deficiency, minority students are already disadvantaged when they graduate from high school. They typically spend at least one extra year in college to catch up with their Mandarin proficiency (Clothey 2005), further falling behind their Han counterparts. In the labor market, they face the same difficulty getting well-paid jobs due to language deficiency, resulting in a growing income gap between the Mandarin speaking and non-Mandarin speaking populations. Such a gap caused by market bifurcation suggests that affirmative action in language policy can lead to affirmative inaction or immobility in improving one's socioeconomic status.

The difficulties faced by the minorities on the labor market due to language deficiency are hardly surprising. Many studies have shown the importance of language in career advancement in other societies, (Liu 2015; Liu and Pizzi 2016) and China should be no exception. Analyses for the United States, Canada, Australia, the United Kingdom, Israel, and Germany show that fluency and literacy in the dominant language are important reasons for explaining immigrants' labor market success (Rivera-Batiz 1990; Chiswick 1991; Dustmann 1994; Chiswick and Miller 1995, 2010; Chiswick, Cohen, and Zach 1997; Berman, Lang, and Sriniver 2003; Dustmann and Fabbri 2003). Focusing on China's internal migrants, not necessarily ethnic minorities, Gao and Smyth (2011) also showed that there are considerable economic returns to speaking standard Mandarin in China's urban labor market. However, when it comes to ethnic equality in economic outcomes, the importance of Mandarin proficiency is almost overlooked. Protecting cultural heritage by learning ethnic languages becomes a more important discussion in promoting equality between the Han majority and ethnic minorities.

The problem of socioeconomic inequality between the Hans and the minorities was further worsened in the past three decades of China's market reform since the mid-1980s, particularly during the abolishment of government job assignment and the opening of the labor market (Wu and He 2016a).

Traditional state-controlled job assignment policy has been replaced by employers' autonomy in hiring decisions based on economic efficiency and profitability. Job security (the "iron rice bowl") has been replaced by labor contract, which can only be renewed with satisfactory performance. The private sector has taken over the public sector as the main force in absorbing laborers, who are facing market competition based on individual credentials and skills, rather than the traditional practice of the preferential quota system. Mandarin deficiency will obviously hurt one's chance of job hunting or even opening one's own business when market competition and profitability are important determinants of economic success and even survival.

The above discussion leads to several hypotheses regarding the difference between the Han majority and the Uyghur minority. As we mentioned in the beginning of this article, our analysis will focus on the Uyghur minority because of its distinctive language and cultural heritage, its geographic importance and political sensitivity, and the availability of survey data.

1. Educational attainment is likely to be equal between the Han majority and the Uyghur minority due to the affirmative action policy;
2. The Uyghur minority is expected to acquire less Mandarin proficiency than the Hans even when they have the same amount of education as a result of the affirmative language policy;
3. The Hans are likely to enjoy higher socioeconomic status than the Uyghurs, as expected by the critics of China's ethnic policy; and
4. Mandarin proficiency is likely to improve the Uyghur minority's socioeconomic attainment in a market environment that emphasizes individual qualifications.

Data

This study draws data from the 2012 China Labor-Force Dynamics Survey (2012 CLDS) conducted by the Center for Social Science Survey at Sun Yat-Sen University in Guangzhou, China (<http://css.sysu.edu.cn>, accessed February 20, 2016). The multi-stage stratified probability proportional to size sample includes 16,253 respondents in 370 villages and neighborhoods (*juweihui*) in 151 cities and counties in twenty-nine provinces.⁴ The twenty-nine provinces and autonomous regions were first divided into six groups according to size and geographic regions. The counties, county-level cities and county-level urban districts within each group were then randomly selected based on their GDP rankings (primary sampling unit [PSU]). The

number of PSUs in each geographic group is determined by the ratio of its labor force to the total number of the national labor force. Within each PSU, villages and urban neighborhoods (secondary sampling unit [SSU]) were randomly selected according to their GDP rankings and the proportion of migrant population. Finally, households were randomly selected within each SSU and all of the family members 15 years and older were interviewed.⁵ The resulting sample is representative of the national labor force that takes into consideration some of the most important factors, including geographic region, economic development, population size, urbanization, migration, and ethnic background. Such sampling representativeness is crucial in drawing conclusions about the actual education and employment conditions in the country and among different ethnic groups.

For the purpose of this study, we will use the subsample of working people ($n = 8,839$). This subsample includes 422 randomly selected Uyghur respondents. This group is large enough to be compared to the Han respondents in meaningful statistical analysis. We will use a post-stratification weight variable in our analysis to prevent any potential biases in the sample. After using the post-stratification weight, the sample distribution matches the population distribution in the 2010 Population Census of China.⁶

Education and Language Proficiency

We begin by comparing the average level of education among the two ethnic groups (Uyghur and Han). Our first hypothesis is that education is fairly equal between the Han and the Uyghur groups. This is a result of the state-sponsored affirmative action policy.

Education is measured by the actual years of education reported in the 2012 labor survey. The weighted sample mean for the working people is 8.5 years, 8.5 years for the Han group, and 8.4 for the Uyghurs. In a *t*-test, the difference between the two groups is not statistically significant, as shown in Table 1A. Overall, the gap between the Han majority and the Uyghurs is very small.

Such a controversial finding of ethnic equality in education is perhaps a surprise for many people who are accustomed to believe the existence of ethnic discrimination in education in China. Yet this finding is further supported by other evidence, including the 2010 China General Social Survey (CGSS) conducted by Renmin University and the 2010 Population Census. In the national random sample of 10,192 of the CGSS, the Uyghur and Han respondents scored an identical 6.9 years' average education (weighted). In the 2010 Population Census, the average was 8.8 years for the Han group, and 8.0 years for the Uyghur people, and the difference is less than 0.8 years.⁷ The fact that the Hans do not stand out in comparison to the Uyghurs is indicative of the likely outcome of China's affirmative action policy emphasizing

Table 1

Educational and Language Differences Between Han and Uyghur in China (weighted)

Ethnicity	Mean	Std. Err.	T-test (against Han)
A. Education (in year)			
Average	8.511	0.046	
Han	8.509	0.469	
Uyghur	8.363	0.175	-0.145(0.181)
B. Mandarin proficiency (0–1)			
Average	0.654	0.004	
Han	0.666	0.004	
Uyghur	0.109	0.016	-0.557(.016)***

*** $p < 0.001$.

Source: China Labor-force Dynamics Survey 2012 (working people).

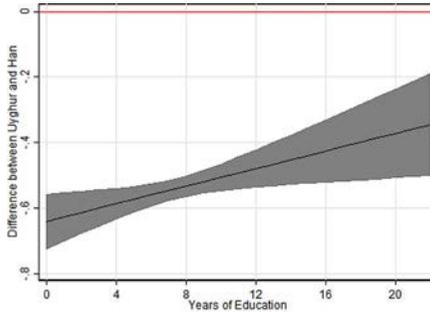
equal access to education, at least among these two groups. This finding is consistent with Wu and He (2016a), as they found ethnic minorities did quite well in educational attainments “because of the long-standing favorable policies towards ethnic minorities adopted by the Chinese government” (p. 11).

Second, we compare the level of Mandarin proficiency between the two groups. In the 2012 labor survey, the interviewers were asked to evaluate the respondents’ Mandarin fluency, ranging from 5) very fluent (coded 1), 4) fluent with some accent (coded 0.75), 3) not very fluent (coded 0.5), 2) listening comprehension but cannot speak (coded 0.25), to 1) cannot understand and cannot speak (coded 0). The weighted average scores on this 0–1 scale are 0.666 for the Hans, but only 0.109 for the Uyghurs, as shown in Table 1B. If the Hans are 100, the Uyghurs are only at 16 (0.109/0.666*100). In other words, while the levels of education among these ethnic groups are almost identical, the Uyghurs fall far behind in Mandarin proficiency.

Such a gap is also supported by the above mentioned 2010 CGSS. In that survey, Mandarin proficiency is only 20 percent among the Uyghurs when the Han average is 100 percent, while the two groups share the same average level of education (6.9 years). Further, in a 2006–2007 Chinese Ethnicity Survey of 1,598 high school students in Tibet and Xinjiang, Tang and He (2010, Figure 1) found that when the year of schooling is controlled, Chinese-language exposure was 100 among the Han students, 99 percent for Hui students, 98 for Mongolian students, but only 100 percent for Uyghur students and 98 percent for Tibetan students.

Similarly, the Uyghurs’ Mandarin proficiency falls behind the Hans at each level of formal education in the 2012 labor survey. In Figure 1, we show

Figure 1. Gap in mandarin proficiency between Han and Uyghur controlling education.



Notes: The figure plots the Han-Uyghur difference in mandarin proficiency conditioned by education. Zero on the Y-axis means no gap in Mandarin proficiency between the two groups. The upper bound of the difference between Uyghur and Han is -0.557 when education year is 0. The lower bound of the difference is -0.501 when education year is 22. They are different but only by 0.056. In other words, as education increases, the Uyghurs' Mandarin proficiency improves only slightly but is still significantly below the Hans' level. Age, gender, urbanization, income, party member, and migrant status are controlled. The shaded area represents the 95 percent confidence intervals. See the numeric results of the conditional effect regression in Appendix A. *Source:* 2012 China Labor-Force Dynamics Survey (working people).

the interactive coefficient between the Han-Uyghur dummy and education years based on an ordinary least square (OLS) regression on Mandarin proficiency. As the year of education increases, the Uyghurs' Mandarin proficiency only improves slightly, but still significantly below the Han average. Again, these findings demonstrate the relatively weak impact of education on improving the Uyghur respondents' Mandarin proficiency.

The above findings support our second hypothesis, namely, the linguistically distinctive Uyghurs are far less proficient in Mandarin than the Han majority. Together with the evidence supporting the first hypothesis that the Uyghurs share equal educational attainment as the Han majority, at least measured by the average year of education, the findings in this section suggest a very interesting contrast: The Uyghurs are likely to be just as educated as the Hans, but they spend most of their time being educated in their own language.

Mandarin Proficiency and Socioeconomic Attainment

In this section, first we will compare occupational attainment between the Han majority and the Uyghur minority group. Then, we will examine the impact of Mandarin proficiency on occupational attainment and income. The hypotheses that we want to test are that the Hans enjoy a higher degree of socioeconomic status than the Uyghurs (Hypothesis 3); and that language

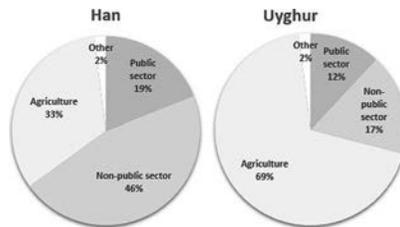
proficiency plays a favorable role in improving the socioeconomic conditions for the Uyghurs (Hypothesis 4).

Occupational attainment can be measured by the respondents' reported type of work in the public, private, and agricultural sectors. In the 2012 labor survey, the respondents were asked whether they worked in the public sector including the party-state, nonprofit organizations and state-owned enterprises, nonpublic and nonagriculture sector, such as private, collective, foreign and individual firms, or in agriculture. The comparisons between the Hans and the Uyghurs are presented in Figure 2.

In the small percentages of the public sector where affirmative action can be more effectively implemented, the gap between the two ethnic groups is relatively narrow, with 19 percent Han and 12 percent Uyghur represented in their labor forces, respectively (Wu and Song 2014). In the nonpublic and nonagriculture sector where market competition plays a more important role, 46 percent Han labor force and 17 percent Uyghurs worked in this sector. Similarly, in the agricultural sector that is considered by sociologists as relatively low on the occupational prestige ladder (Duncan 1961; Stevens and Featherman 1981; Nakao and Treas 1994), most of the Uyghurs (68 percent) and only 30 percent of the Hans got stuck there. These numbers suggest that the Uyghurs were falling way behind the Hans in occupational attainment.

The second way to measure job attainment is by looking at the respondents' job promotion. Higher frequency is a sign of more work skills and labor market competitiveness, and therefore, more upward mobility. We created a promotion measure based on the respondents' self-reported job title change in the 2012 labor survey (see Note 5 of Figure 3 for more details). According to this measure, while the weighted average promotion of Han people was 0.31 levels, it was only 0.1 for the Uyghurs. Once again, the Uyghur workers were trailing behind their Han counterparts in labor mobility.

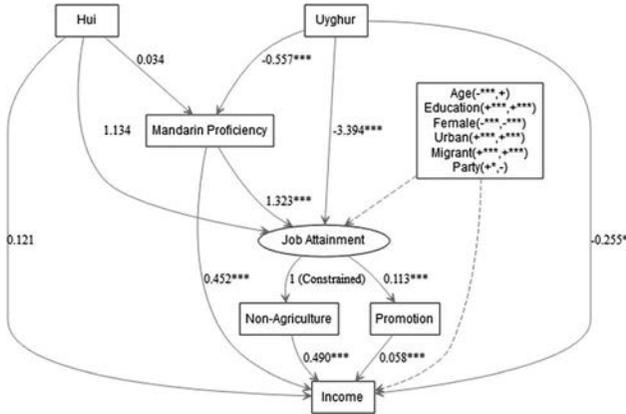
Figure 2. Job type by ethnicity (Han and Uyghur, weighted %).



Notes: Public sector includes Party and government organizations, nonprofit (*shiyi*) and state-owned companies; Non-public sector consists of collective, private, foreign and individual firms. $N = 8,823$ (Han) and 297 (Uyghur).

Source: 2012 China Labor-Force Dynamics Survey (working people).

Figure 3. The structural equation model of the effect of language on socio-economic attainment. * $p < 0.05$, *** $p < 0.001$.



Notes: 1) The oval shape denotes the latent variable, the rectangular boxes indicate the observed variables, and the control variables are grouped together in one box. The arrows point to the dependent variables. The solid lines represent the explanatory effects between the independent and dependent variables, and the dotted lines suggest the control effects. The numbers are the regression coefficients. 2) The coefficients for the controls are omitted, but the directions and significance levels for labor mobility and income are, respectively, shown in the parentheses. For example, the coefficients of the control variable age are $-.055$ for labor mobility and 0.001 for income; the former is statistically significant at $p < .001$ level, and the latter is not statistically significant; and they are labeled as “age (-***, +)”. 3) Income is the natural log of the respondents’ 2011 annual income in 10,000 *yuan*. 4) Nonagricultural job is a binary variable coded 1 if a respondent has a nonagricultural job and 0 if in agriculture. 5) Job promotion is an index of one’s upward and downward job changes, ranging from “staff (1),” “killed-low (2),” “skilled-middle (3),” “skilled-high (4),” “administrative-low (5),” “administrative-middle (6),” “administrative-high (7),” “Party-low (8),” “Party-middle (9),” to “Party-high (10).” The respondent received 1 point by moving up one level, 2 if moving up two levels, -1 if moving down one level, and so on. We combined all of the upward and downward scores to form the job promotion variable. For respondents who started with a nonagricultural job, we added 1 to their promotion scores since they were already promoted once from agricultural job to nonagricultural job. The resulting variable ranges from -5 to 10 in the working people sample. 6) Mandarin proficiency is measured on a 0–1 scale based on the interviewers’ assessment. It is coded as 0 = can’t understand and can’t speak, 0.25 = listening comprehension but can’t speak, 0.5 = not very fluent, 0.75 = fluent with some accent, and 1 = fluent. 7) The provincial dummies are controlled but not shown. 8) See Appendix C for further details. Source: 2012 China Labor-Force Dynamics Survey (working people).

As a consequence of the gap in job attainment, there is a large gap in income between the two groups. In the working people subsample of the 2012 labor survey, the weighted average Han individual income was 30,422 *yuan* for 2011, but it was only 12,958 *yuan* for the average Uyghur.

As shown in the later multivariate analysis in Figure 3, this gap continues to exist even when other factors, such as education, age, gender, and regional difference, are controlled.

In short, there is a significant gap in socioeconomic conditions between the Hans and the Uyghurs, measured either by nonagricultural job, job promotion, or by individual income. Next, we will test whether Mandarin proficiency has anything to do with such gaps.

In a multivariate analysis, we examine the impact of Mandarin proficiency in socioeconomic attainment. We apply the structural equation model (SEM) to test the relationship between language proficiency, job attainment, and income. The SEM method can enable us to deal with a complex statistical model where multiple variables are involved and some of them can be both dependent and independent variables simultaneously. For example, job attainment can be predicted (dependent variable) by language proficiency, and in the meantime, it can be treated as an independent variable to predict income. The other advantage of the SEM method is its ability to handle the two measures of occupational attainment (promotion and nonagricultural work) in the same equation. First it will predict the two measures' shared common factor of job attainment (latent variable) by language proficiency, and then examine the separate effects of the two occupational measures on income.

Figure 3 describes the structure of the SEM analysis. In this model, we test the effects of Mandarin proficiency on the latent job attainment variable and then on the respondents' income. To rule out the possibility that it is the Uyghur ethnic origin instead of language proficiency that leads to the gap in occupational attainment, we also control for the direct effects of the Uyghur ethnic origin on both occupational attainment and individual income, as compared to the Han majority. Further, we compare the Huis with the Uyghurs; both are Muslims. The inclusion of the Huis will serve as a control group in order to show that the socioeconomic gap between the Uyghurs and the Hans is not due to religion but the lack of Mandarin proficiency. We expect that, with less language proficiency, the Uyghurs should show less occupational attainment, and also lower income level than the Hans. In contrast, the Huis are expected to show no significant difference from the Hans in both aspects, since their language proficiency is at about the same level as the Hans. For example, Mandarin proficiency in the 2012 labor survey was .70 for the Huis, .67 for the Hans, but only .11 for the Uyghurs.

To gain a robust understanding of the impact of language proficiency in job attainment and income, we need to control for the other individual level traits, including age, education level, gender, urbanization, migration, and the Communist Party membership. Furthermore, we will include the provincial dummies in order to control for potential regional level differences.

Figure 3 shows the unstandardized coefficients of the SEM analysis, which are based on the respondents who have jobs, since both job promotion and

nonagricultural job make sense only for those who are working (see Appendix B for descriptive statistics). The solid lines represent the causal relationships of interest. The numbers and the asterisks show the coefficients and their statistical significance. The dotted lines indicate the control variables. The coefficients of the control variables and the provincial binaries are omitted (see Appendix C for a full numeric version of the SEM model).

First, when the nonagricultural job variable is held constant, job promotion still receives a positive and significant effect (.113) from the latent job attainment variable, and both nonagricultural job and promotion positively and significantly contribute to individual income. These results support the validity of applying the SEM model and the necessity to account for these variables together rather than separately. As shown in Figure 3, both nonagriculture and promotion are connected to job attainment, and both of them have positive and significant effect on individual income. Leaving any of them out of the model may underestimate the variance in job attainment.

For the variables that can affect the respondents' socioeconomic status, the most important findings are that the effects of Mandarin proficiency on occupational attainment and income are both positive (1.326 for job attainment and 0.453 for individual income) and statistically significant at $p \leq .001$. In other words, language proficiency improved one's job attainment as well as one's income. These effects are robust even when the effects of age, education, gender, urbanization, migrant status, party membership, and geographic location are controlled. These findings emphasize the important role of language proficiency in improving the respondents' socioeconomic conditions.

The findings in Figure 3 further explain the socioeconomic gap between the Uyghur and the Han. As expected, the Uyghurs possess less Mandarin proficiency than the Hans (coefficient = -0.557). Comparatively, the Huis are also a Muslim minority as the Uyghurs but their Mandarin proficiency is no different from the Han people (statistically insignificant coefficient of .034). Thus, their job attainment and income show no difference from the Han people (statistically insignificant coefficients of 1.134 and 0.121). Again, these results are robust when a series of variables, including age, education, gender, urbanization, migrant status, party membership, and geographic location are controlled.

The careful reader may notice that language proficiency does not explain everything about the Uyghurs' low levels of job attainment and income in comparison to the Hans. As shown by the unstandardized regression coefficients in Figure 3, after controlling for language proficiency, the Uyghurs' occupational attainment still falls behind that of the Han's (coefficient = -3.394), implying the influence of some other undetected factors, for example, policy discrimination. However, the negative impact by these undetected factors is actually smaller than the effect of language

proficiency. To make the two effects comparable, we standardized the coefficients by dividing them by twice their standard deviations (Solt and Hu 2015). Then, the standardized effect of language proficiency on social mobility is 3.961 [$1.323/(2 \times .167)$] and the standardized effect of the undetected factors on job attainment is only -2.116 [$-3.394/(2 \times .802)$], which is about half of that by language proficiency.

Similarly, standardization further amplifies the impact of language proficiency (.452) on income, as compared with the direct effect of Uyghur ethnicity ($-.255$) in Figure 3. The standardized effect from Uyghur ethnicity to income is -1.170 [$-.255/(2 \times .109)$]. The standardized effect from language proficiency to income is 3.937 [$.452/(2 \times .574)$], more than three times stronger than the effect of Uyghur ethnicity. These comparisons suggest that language proficiency plays a greater role in increasing ethnic minority's occupational attainment and income than other undetected factors.

In sum, the findings in this section support the last hypothesis (Hypothesis 4) that language proficiency can promote one's socioeconomic status, particularly for the Uyghur minority. Socioeconomic status is measured as a latent variable based on nonagricultural job and job promotion, as well as by income. The language effect remains robust when influences from multiple variables and relations are controlled in the SEM analysis.

Conclusions and Discussion

Through analyzing the available survey data, the four hypotheses are supported. Hypothesis 1 is supported by the findings that educational attainment between the Han majority and the minorities is fairly equal. Hypothesis 2 is supported by the findings that Mandarin proficiency in the linguistically distinctive Uyghur ethnic group is significantly lower than the Han majority. Hypothesis 3 is supported by the findings that the Han majority demonstrated greater occupational attainment than the Uyghur minority no matter whether occupational attainment is measured by nonagricultural work or by job promotion. Finally, Hypothesis 4 is supported by the findings that language proficiency significantly promotes job attainment and income, and the language effects are independent of other factors, such as education, age, gender, urbanization, migrant status, political party membership, ethnic origin, religion, and geographic location.

The above findings suggest a disconnection between education and socioeconomic attainment among the minorities, particularly among the Uyghurs. While the Uyghurs are just as educated as the Han majority, minority education is not automatically translated into socioeconomic attainment as expected due to their Mandarin deficiency. The Uyghurs' socioeconomic conditions can be effectively improved when their Mandarin proficiency is improved.

We realize that such conclusion is controversial both on empirical and political grounds. Empirically, people with anecdotal examples and stories

may want to challenge the findings, such as the equal educational attainment between the Hans and the Uyghurs. They are likely to tell stories about how the Han schools get more funding and resources than the minority schools, and how successfully the all mighty authoritarian state in China has forced the minorities to speak Mandarin. While these anecdotes are likely to be true, our findings about equal educational attainment and about the Uyghur's Mandarin deficiency are based on several surveys that relied on scientific methods of drawing probability samples. Such evidence is likely to be more reliable than any individual stories and personal travel experiences in the minority regions.

Politically, those who are already critical of China's ethnic policy are likely to be even more furious with such conclusion that implies further implementation of Mandarin education. While it is undeniable that Mandarin education will hurt ethnic language education and cultural tradition, our findings also show very clearly that the lack of Mandarin education is negatively impacting the Uyghurs' job attainment and thus their income and social status. The social and economic gap between the majority and the Uyghurs is causing growing ethnic tension. Ultimately, it is a tradeoff between keeping minority cultural tradition and language education and improving their economic conditions by emphasizing language integration.

Ideally, there does not have to be a tradeoff and ethnic minority students can be fluent in both Mandarin and their own languages. In order to achieve such bilingual balance, Beijing has to promote more Mandarin education that is often viewed as culturally invasive. More mandarin education will also require additional investment in teacher training in many minority regions that can be economically challenging for a country like China that is still at the lower middle level in per capita income. At least in the near future, it is not easy to reach a bilingual balance without facing more political and economic difficulties.

Notes

1. See, for example, the 2012 China Labor-Force Dynamics Survey (<http://css.sysu.edu.cn/>, retrieved February 20, 2016), the 2010 Chinese General Social Survey (<http://www.chinagss.org/index.php?r=index/index&hl=en>, retrieved February 23, 2016), and the 2006–07 Chinese Ethnicity Survey (Tang and He 2010).

2. See http://wenku.baidu.com/link?url=53s4ua9yye7BMTzN65ZSIgwXC-RS5HIaeqtr8EdTYFAAuthEtE89N0W_RDIXqL92xPw3IV7DRhQnp5ulEZAXJ7yRp5bYt7T-fINhIQsJVm (retrieved May 28, 2016).

3. See, for example, the website of Human Rights House Network's pro-Tibetan independence argument (<http://humanrightshouse.org/Articles/18853.html>, retrieved May 28, 2016), and the pro-Uyghur independence organization the World Uyghur Congress' webpage at <http://www.uyghurcongress.org/en/?p=488> (retrieved May 28, 2016).

4. Only Hainan, Tibet, Macau, and Hong Kong are not included in the sample.

5. See China Labor-Force Dynamics Survey 2012 Sampling Design at <http://css.sysu.edu.cn/Data/List?type=%E4%B8%AD%E5%9B%BD%E5%8A%B3%E5%8A%A8%E5%8A%9B%E5%8A%A8%E6%80%81%E8%B0%83%E6%9F%A5> (retrieved November 14, 2015).

6. The sample is adjusted (weighted) according to the 2010 population census data. The weight variable is constructed by calculating the probabilities of sampling at the levels of county/city, village/residential council, household, and family average labor force. The weighted sample represents China's national labor force. For more information about the survey weight, see Liang and Hao (2013).

7. The 2010 Sixth Population Census of China contains information about education for both the Hans and the Uyghurs. For each ethnic group, we have information about the number of people in each level of education, including illiterate, elementary, middle school, high school, junior college, college, and post graduate. We converted these levels into years by assigning 0 year to illiteracy, 6 years to elementary school, 9 years to middle school, 12 years to high school, 14 years to junior college, 16 years to college, and 18 years to post-graduate education. We then calculated the average educational years for each group. For the Han group, the population aged 6 and above was 1,140,804,980, in which 53,726,722 were illiterate, 317,175,239 had elementary education, 482,244,975 had middle school education, 176,525,992 had high school education, 64,353,701 had junior college education, 42,822,692 had college education, and 3,955,659 had post-graduate educations. The average years of education for the 6 and older Han population was then $\frac{53726722*0+317175239*6+482244975*9+176525992*12+64353701*14+42822692*16+3955659*18}{1140804980} \approx 8.782$ years. Similarly, the average years of education for the Uyghur people were $\frac{312376*0+3705107*6+3741470*9+586636*12+382935*14+178129*16+4566*18}{8911219} \approx 7.994$ years. See Tables 2–2, *Tabulation of the 2010 Population Census of People's Republican of China*, <http://www.stats.gov.cn/tjsj/pcsj/rkpc/6rp/indexch.htm> (retrieved June 5, 2016).

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Appendix A

Gap in Mandarin Proficiency Between Han and Uyghur Controlling Education (OLS regression coefficients)

	Mandarin proficiency
Uyghur	-0.641*** (0.042)
Education (year)	0.013*** (0.001)
Uyghur* Education (year)	0.013** (0.005)
Income (log)	0.053*** (0.004)
Age	-0.006*** (0.000)
Female	0.015** (0.007)
Party member	0.036*** (0.011)
Urban residency	0.114*** (0.008)
Migrant	0.084*** (0.009)
Constant	0.709*** (0.022)
Observation	8221
Adj. R^2	0.352

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Notes: Standard errors in parentheses. This is the full model of Figure 1. See Appendix B for further details of the variables.

Source: Chinese Labor-Force Dynamics Survey 2012 (working people).

Appendix B

Summary Statistics for the Variables in Figures 1 and 3 and Appendices A and C

	Observations	Mean	St. D.	Min	Max
Income (log)	8311	0.562	1.040	-5.30	6.40
Nonagriculture	8851	0.666	(binary)	0	1
Promotion	8851	0.311	0.775	-5	10
Mandarin proficiency	8839	0.654	0.298	0	1
Hui	8851	0.007	(binary)	0	1
Uyghur	8851	0.021	(binary)	0	1
Education (year)	8851	8.511	3.743	0	22
Age	8851	39.722	11.371	16	64
Female	8851	0.409	(binary)	0	1
Party member	8851	0.093	(binary)	0	1
Urban residency	8851	0.270	(binary)	0	1
Migrant	8851	0.100	(binary)	0	1

Note: Income was the 2011 individual income in 10,000 *yuan* before the logarithmic transformation.
Source: China Labor-Force Dynamics Survey 2012 (working people).

Appendix C

Structural Equation Model of the Effect of Language on Social Mobility

Direct effect	Indirect effect			
	INCOME	MOBILITY	MANDARIN	
Mandarin	0.452*** (0.057)	1.323*** (0.167)	Hui	0.034 (0.039)
Hui	0.121 (0.122)	1.134 (0.655)	Uyghur	-0.557*** (0.016)
Uyghur	-0.255* (0.109)	-3.394*** (0.802)	Constant	0.666*** (0.04)
Education	0.048*** (0.004)	0.118*** (0.013)	Obs.	8839
Age	0.001 (0.001)	-0.055*** (0.004)	Latent effect	
Female	-0.421*** (0.025)	-0.504*** (0.075)	NONAGRICULTURE Mobility	PROMOTION 1 0.113*** (constrained)
Party	-0.018 (0.040)	0.919*** (0.208)	Constant	1.169 0.212** (0.070)
Urban	0.149*** (0.037)	4.984*** (0.383)		
Migrant	0.247*** (0.043)	1.706*** (0.188)	Obs.	8839 8839
Nonagriculture	0.490*** (0.034)			
Promote	0.058*** (0.016)			
Constant	-0.101 (0.149)		Log-Pseudo likelihood	-1456840000
Obs.	8299			

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$.

Notes: Standard errors in parentheses. The provincial binaries are included in the equations but not shown. See Appendix B for further details of the variables.

Source: China Labor-Force Dynamics Survey 2012 (working people).