Ethnic Minority Disadvantages in China's Labor Market?

ABSTRACT

This article estimates wage differentials between ethnic minorities and the Han majority in China from 1989 to 2006. Interviews with minority actors and observations with various enterprises are included. While Han-minority wage differentials estimated with regression analysis show little evidence for minority disadvantages, both quantitative and qualitative evidence looking at the process of minority labor acquisition and retention finds that minorities are disadvantaged in the job search process. The article assesses potential factors for disadvantages in China's labor market such as discrimination, social network capital and working culture.

KEYWORDS

Asia; China; Ethnic Minorities; Labour Market

A decade after market reforms commenced in 1978, the Communist Party of China (CPC) abandoned its job assignment system. In effect, the CPC shifted from a system of jobs guaranteed for life (*tie fan wan*) in government departments, state-owned enterprises (SOEs) and collective-owned enterprises (COEs)[1] to a system where individuals were urged to create jobs for themselves and to seek employment in the emerging private sector. These changes further initiated new patterns of employment behavior in urban China: the growth of part time, temporary, and seasonal employment; the increased prominence of joint-venture[2] foreign firms; and the adoption of new non-standard employment practices. In short, whereas previously the state played a dominant and active role in providing secure jobs for the individual, the onus started to shift to the individual to find employment within parameters that fitted market conditions of wages and experiences, whilst negotiating new occupational categories.

In general, the majority of the available literature suggests that ethnic minorities may not be faring well since the termination of the job assignment system. For example, using census data in 1982 and 1990, Hannum and Xie (1998) focus on the effects of market reforms on the differences in occupational attainment between Hans and various ethnic minorities in the

Xinjiang Uyghur Autonomous Region. Their study finds a gap in occupational attainment between Hans and minorities, widening further between the two base years. They also suggest that the wage differential between Hans and minorities could be explained by education. Gustafsson and Shi (2003) examine survey information from 19 provinces in 1988 and 1995 to discern aggregate differences in rural incomes between Hans and ethnic minorities. They find there is an income gap of 19.2 percent between Hans and ethnic minorities in 1988, which increased dramatically to 35.9 percent in 1995. Using 1988 Chinese Household Income Project (CHIP) data, Johnson and Chow (1997) discover that in all specifications across urban and rural areas, there is a significant, negative coefficient on the minority variable. In rural areas, minorities receive wages that are approximately 19 percent less than the Han population while in urban areas, the corresponding figure is approximately 4.5 percent. Likewise, using CHIP data, Li (2003) looks at wage differentials in 1995 and finds that ethnic minorities make 9 percent less than the majority Han group. Follow-up work by Yang (2005) and Appleton, Song and Xia (2005), however, yield inconclusive evidence. Yang, studying changes in returns to education using CHIP data from 1988 and 1995, finds that across almost all specifications, coefficients on the minority variable are generally insignificant. Appleton, Song and Xia examining the 1988, 1995, 1999 and 2002 CHIP dataset, find that in every year except 1995 the coefficients on the minority variable are insignificant. In addition, they propose that urban workers from ethnic minority groups experience faster increases in wages than their Han counterparts from 1990 to 2002.

This study seeks to augment the existing literature in three ways. First, given that the labor market in China has undergone a substantial transformation because of massive rural to urban migration over the past decade, this study is one of the first papers to provide an up-to-date picture of urban labor market conditions for ethnic minorities using a survey conducted in 2004 and 2006. Secondly, most studies on this topic focus on the poorer Western or minority autonomous regions, this paper highlights the ethnic minority experience in the relatively developed urban areas of the Eastern coastal provinces. Lastly, a mixed-qualitative/quantitative methods approach is adopted, which seldom is the case for studies of this nature on ethnic minorities in China. Our approach is initially to analyze quantitatively wage differentials, and then we seek further insight into the labor acquisition process for ethnic minorities by focusing on qualitative indicators in the job search and hiring process.

To preview the findings, analysis of the China Health and Nutrition Surveys (CHNS) data finds that the difference in wage outcomes between the Han majority and ethnic minorities can be explained by differences in education and job type. Once these factors are controlled for, the wage differential disappears. However, the CHNS data cannot explain why minorities are sorted into jobs that provide lower compensation than Hans. Thus we turn to the qualitative data that indicate that ethnic minorities face a different job matching process than the Hans due a combination of discrimination, lack of social network capital, and differences in working culture.

DATA

The quantitative part of our analysis uses the CHNS dataset from 1989, 1991, 1993, 1997, 2000, 2004 and 2006. The CHNS uses a multistage, random cluster process to draw sample across nine provinces. For our purpose, the CHNS dataset has advantages over the frequently used CHIP dataset for the following two reasons. First, the CHIP only covers households with official registration *(hukou)* while the CHNS data includes households irrespective of their *hukou* status. Given that many minorities could be rural-urban migrant workers and these migrant workers rarely receive urban *hukou*, they would be excluded or under-represented from CHIP's sampling scheme. Moreover, CHNS data is a more accurate reflection of national demographics – ethnic minorities comprise approximately 8 percent of the CHNS sample in urban areas and 15 percent in rural areas, whereas in the CHIP data the composition of minorities ranges from 4 to 5 percent. Notwithstanding, CHNS does have some drawbacks. Given the sample size of minorities in the CHNS, we cannot distinguish possible differential treatment across the 55 recognized ethnic minority groups in China. Therefore, the regression analysis effectively estimates the average ethnic minority experience potentially overlooking heterogeneity across minority groups.

In the CHNS sample utilized, attention is first restricted to individuals who are older than 15 years of age. For the analysis of wage differential, the sample is further restricted to non-farmers who have earned a positive wage[3] and who are not self-employed.[4] In total, the sample for wage differential includes 16,877 observations. Table 1 presents the summary statistics of our sample. According to the summary statistics described in Table 1, between the years 1991 and 2000 there is an 8-17 percent deficit in monthly compensation between ethnic Han and ethnic minority workers.[5] The difference in compensation is consistent with the discrimination reported by past

studies. However, the difference in income could be explained by differences in education, hours worked or urban versus rural residence, so a statistically controlled investigation is necessary. By examining the sample across many years, a more comprehensive statistical picture can be provided.

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In order to further understand the potential barriers ethnic minorities face in labor acquisition, a qualitative sampling was conducted in 2007. The qualitative sample includes 59 semi-structured interviews with ethnic minorities in Beijing, Shanghai and Shenzhen. The interviews collected data on their experiences in the urban labor market, notably about their job search strategies and workplace interactions. A typical interview lasted approximately 40-50 minutes. Ethnic minority groups represented in the sample include Hui, Uyghurs, Mongolians, Tibetans, Manchus, Koreans, Zhuang and Miao. Responses were analyzed using emergent theme coding, whereby each response was coded into as many themes as the statements warranted. Emerging themes from semi-structured interviews were reinforced by in-depth field observations of hiring practices of 12 enterprises of various sizes in the above three cities, who have employed and/or currently employ ethnic minorities.

EMPIRICAL SPECIFICATION

The first question we would like to answer is whether ethnic minorities experience a wage penalty in the urban labor market. Mincer's (1974) wage equation is first used in our wage differential analysis: $\ln(y_{it}) = \alpha + \beta M_i + \gamma S_{it} + \lambda X_{it} + \delta_t + \mu_{it}$ where y_{it} is the hourly wage of individual i at year t , M_i is an indicator variable indicating whether individual i is an ethnic minority, S_{it} measures years of formal schooling individual i have received at year t , X_{it} is a vector of covariates such as experience, the quadratic term of experience, and province dummies. δ_t is a vector of year dummies and μ_{it} is an error term.[6] An ordinary least squares (OLS) estimation of the Mincer wage equation provides an estimate of ethnic minority disadvantages in the labor market in terms of the percent difference in income a minority worker receives relative to a Han worker, holding other factors fixed such as education and experience.[7]

In our analysis, we are particularly interested in the change of β_t, the vector of coefficients on ethnic minority status over time. Therefore, our regression specification can be rewritten by including the full interaction term between year dummies and ethnic minority status as below[8]:

$$\ln(y_{it}) = \alpha + \sum_{t=1991,..2006} \beta_t (M_i \times \delta_t) + \beta_0 M_i + \sum_{t=1991,..2006} \gamma_t (S_{it} \times \delta_t) + \gamma_o S + \lambda_t X_{it} + \delta_t + \mu_{it}$$

----- Equation 1

In this specification, the net effect of being ethnic minority in year t would be characterized by $(\beta_o + \beta_t)$. .

In addition to the basic estimate of the wage differential for ethnic minority workers, the study also examines how ethnic minority disadvantages differ by the sector of the economy. We also estimate the coefficient of the interaction term between minority status and education to see whether minority members face different returns to education.[9] We follow this specification in order to obtain comparable estimates to prior literature on ethnic minorities in China.[10]

REGRESSION RESULTS

Table 2's Columns 1 and 2 present the main results of Equation 1 – the coefficient on ethnic minorities wage differential over the year controlling for education, experience, experience squared, gender and type of work unit. [11][12] After controlling for these factors[13] the data shows little systematic bias between Hans and ethnic minorities in urban areas. In fact, we find that the hourly wage of ethnic minorities in urban areas was 12.8 percent higher than their Han counterparts in 1989. By 1991, this wage differential has dissipated – the wage difference between Han and ethnic minorities was mostly negative, but not significantly different in the remaining years of our sample. Similarly, we find no evidence of wage differentials in rural areas. Smaller bonuses and fewer hours worked (due to underemployment, different working norms and/or access to different jobs) could account for the disconnection between differences in monthly compensation in Table 1 and the lack of difference in hourly wages in Table 2. Table 1 illustrates that ethnic minorities work between 2-5 percent fewer hours in 1997, 2000, and 2004, accounting for part of the differences in monthly compensation.

**** TABLE 2 AROUND HERE ****

In Tables 3 and 4, we examine potential ethnic minority disadvantages in the labor market by analyzing the log of hourly wages for workers in SOEs and COEs and private enterprises across the years of the sample. We separate wages from bonuses due to the fact there could be greater discretion in bonus determination – since bonus awards could permit more subjective biases.

Table 3 yields almost entirely insignificant results except for those minorities who work at a SOEs in 1997. This year is significant since labor retrenchment (*xiagang* policy) at SOEs was officially launched. Table 3 suggests that the wages of ethnic minorities are more severely affected during the period of mass layoffs.

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Despite the parity in terms of hourly wages, the results presented in Table 4 show that ethnic minorities as a group are disadvantaged in terms of the bonuses they receive. Echoing the results in Table 3, we find that minorities who work in SOE in 1997 receive lower bonuses compare to their Han counterparts. Though we should be careful to point out that the disadvantages observed in bonus awards are largely limited to workers in SOEs; and that the deficit is statistically significant only for two of the years in the sample. The penalty in bonuses could be due to the greater discretion in bonus determination, since bonus awards could permit more subjective biases. However, given that there is little discretion in the setting of bonuses at SOEs within a given workgroup, the penalty is more likely due to the fact that ethnic minorities are sorted into jobs where bonuses are lower or less common. Consistent with this interpretation, in regression results reported in Appendices 1 and 2, minorities who reside in the urban environment are less likely to work for SOEs and more likely to work for smaller firms.

**** TABLE 4 AROUND HERE ****

Evidence that it is type of job that matters can also be seen from Table 5 where the interaction term between minority status and education can be interpreted as the impact of minority status on the rate of return from schooling. Consistent with our other estimates, there is no evidence that ethnic minorities are rewarded any differently for their education in terms of how much they receive for hourly wages or for bonuses. An additional year of education yields 3 percent higher

hourly wages and 12 percent higher bonuses for the Han majority, while minorities receive the same benefits for each additional year of education.[14] However, consistent with Table 4, once factors such as education and experience are held fixed, Table 5 illustrates that minorities as a cohort earn significantly smaller bonuses than their Han counterparts. Furthermore, since Table 5 shows that jobs associated with higher education levels are the ones that yield higher bonuses, one can infer that it is within these relatively higher skilled jobs where the disadvantaged sorting into lower bonus jobs occurs.

**** TABLE 5 AROUND HERE ****

Further evidence about the job sorting of minorities can be seen from Table 6's Panel A and B. In Panel A, when we expand our sample to include farmers and all individuals who are older than 15 years of age regardless of their employment status[15], minorities are more likely to be employed. But once we exclude farmers in Panel B, regressions show that minorities may be less likely to have a job in recent years (results are consistently negative but insignificant). Appendix 3 shows that this difference is due to the fact that minorities are 40 percent more likely to be working as a farmer and thus less likely to interact in the formal labor market. Among those who are currently unemployed, CHNS also asks whether they are actively seeking a job. Appendix 4, shows that when looking at all unemployed individuals between the ages of 15 to 65, minorities may also be less likely to be seeking a job, though the results are insignificant.[16]

**** TABLE 6 AROUND HERE ****

In sum, there is very little significant evidence for discrimination against ethnic minorities in terms of wages.[17] However, we do find that ethnic minorities were affected more when SOEs commenced retrenching workers in the late 1990s. While there is little evidence for discrimination in hourly wages, the evidence suggests that ethnic minorities are disadvantaged in the job matching process whereby minorities are more likely to be sorted into jobs with lower bonus awards and are more likely to be under and unemployed.

WHAT ARE THE MAJOR POTENTIAL BARRIERS ETHNIC MINORITIES REPORT IN LABOR ACQUISITION?

Akin to empirical studies looking at the general population in the Eastern coastal provinces' urban areas, this study has confirmed there is also a rising statistical meritocracy in the labor market for ethnic minorities. What is significant however is that the qualitative findings provided a mixed message: ethnic minorities interviewed believed they were at a disadvantage compared to their Han counterparts in the *process* for obtaining employment – which may not necessarily be captured in tables of statistical labor market outcomes. Coded interview narratives and field observation yielded three major themes: discrimination, lack of social network capital and an inability to fit within the working culture.

Discrimination

Discrimination on the basis of ascriptive factors such as one's appearance – denoting ethnic minority status – is generally regarded as a source of economic inefficiency and social injustice. Therefore, ascriptive discrimation challenges both the precepts of neo-classical economics (Arrow, 1998; Becker, 1957) but also the normative principles of equality of opportunity espoused in theory by China's legal and public policy frameworks.[18] The neoclassical economic model's view that the market is driven by impersonal exchange is incomplete since it underplays the social and psychological elements that are involved (see Arrow, 1972, 1998). When it comes to the employment of labor, direct personal relations both between employee and employer as well as among employees are involved, which has the potential to add a discriminatory element. In this regard, to fully examine discrimination in the labor market in China it is useful to consider its statistical and exclusionary dimensions.

The theory of statistical discrimination assumes that employers have imperfect information. In practice, statistical discrimination may occur at each stage of the hiring and promotion process, as an employer may fail to fully assess the relevant occupational abilities of a member of an ethnic group and makes generalized assumptions about the value of their human capital. Consider the following example of an employer perceiving ethnic minority status as a proxy for lower quality of human capital. The hiring manager of A Company, a technology and consumer goods corporation with revenues of over US $13 billion, expressed less enthusiasm for hiring

Uyghurs due to the manager's perception of the group member's low productivity. Paraphrasing the discussion:

> *[E]thnicity should not be an issue when it comes to hiring … [however] for some ethnic groups, especially from Xinjiang [referring to Uyghurs], there might be a problem fitting into our company … we had a Uyghur who worked in the company and they got rid of him because he was a poor worker … why hire another Uyghur?*

In this situation, A Company's hiring manager concluded that particular members of an ethnic group may have either higher or lower productivity than other workers with a similar qualification. Ethnicity is therefore transformed into a proxy signaling potential future productivity by members of the same ethnic group, with hiring patterns adjusted accordingly.[19]

Another avenue for statistical discrimination arises when an employer undervalues an ethnic minority's formal qualifications. While educational attainment may signal to an employer one's potential abilities and promise (see Spence, 1974), this signaling may be disjointed with the presence of China's preferential treatment in education for ethnic minorities. Since the beginning of the modern liberalization process in 1978, the CPC has sought to actively increase educational opportunities and expand access for ethnic minority students, providing special assistance at all levels of education. One such measure is to provide preferential treatment in university admissions. This usually equates to lowering minimum requirements for the National University Entrance Examination (scored out of 900), which is a mandatory exam for all students to enter university. A highly selective university such as Beijing University or Tsinghua University may lower its threshold from its normal requirement of a score of 850 (99.98 percentile), while other universities may lower the threshold from their normal requirements of 600 (85.31 percentile). Some universities may set ratios between ethnic minorities and Han applicants for their incoming class. For instance, the Central University for Nationalities in Beijing allocates spots to ensure every ethnic minority group is represented each year, to the extent that on several occasions minimum university entrance scores are lowered additionally to ensure that the least represented ethnic groups are admitted (see Hasmath, 2009).

This kind of preferential treatment may signal to employers that ethnic minorities may be less productive or of lesser talent (Coate and Loury, 1993). In the enterprises observed, it was agreed

that ethnic minority candidates may not be the most qualified given the presence of preferential treatment in education. This was more acute and explicit in enterprises with a predominance of professional workers – a pattern that echoes the findings in Table 5 – which shows that workers with higher educational levels are the ones who are most likely to get paid a bonus, and that it is precisely in jobs with bonuses where we find a disadvantage for ethnic minority workers. For example, at E Company, a computer IT enterprise in Shanghai, ethnic minority employees were recruited after demonstrating proven experience at previous employment and were in the same position and salary structure at the point of employment of recent non-minority graduate recruits. According to Wang, a personnel executive at E Company, minority (potential) employees were screened to ensure that they were highly skilled and demonstrably productive. While Wang was unable to cite specific policies that produced preferential treatments for minorities in education, he believed it was riskier to hire a minority candidate versus a non-minority candidate directly upon graduation given the prevalence of what he perceived as widespread preferential treatments.[20] In fact, Coate and Loury (1993) make the point that the increased statistical discrimination created by preferential treatments could do more harm than the benefit of greater access to education, paradoxically making minorities worse off.

Demonstrating exclusionary discrimination can be a more difficult proposition than statistical discrimination given its predominantly anecdotal nature. Exclusionary discrimination occurs when a member of an ethnic minority group is impeded at a potential or current position due not to their capacity, but an external barrier that artificially inhibits their growth" (Abella, 1984). In interviews, minority respondents articulated frustration with the hiring process regarding queries into their "home" province, although they were native locals. It appears that employers often raise these questions as though it is part of the assessment calculus to determine their productive value and suitability for a particular job. For instance, in conversation with Ms. D, an ethnic minority who graduated with an advance degree in economics from one of China's most recognized universities, she discusses her experiences during the job search. Upon graduation, Ms. D applied to 20 positions in both government and private enterprises – of which she received three interviews and one offer, which she accepted. While her skills and human capital in terms of education did not appear to be the subject of any employer queries during the interview process – she was in the top 99.98 percentile on the National University Examination and had highly competitive marks – her background became the subject of interest. Notwithstanding the

fact that she was a second-generation local (and legal) resident, potential employers wondered about her ethnicity and her "home" town. Her ethnicity and family background was reaffirmed through the *dangan*, a life and career dossier, which contains autobiographic information, work appraisals and schooling results. While Ms. D did experience a good outcome in the employment market, it is important to note that her ethnic and family background was of interest to potential employees. The behavior exhibited by employers had a strong potential for impeding her chances of being hired on the basis of capacity and enters the realm of a case of potential exclusionary discrimination.

Though it is unusual to see job postings reading "minorities need not apply" – as Gilley (2001) and CECC (2008) report – the prevalence of ethnic discrimination may be a matter of linguistics. Lacking a "standard" Mandarin pronunciation can be a marker of difference that potentially increases the odds for exclusionary discrimination in China (see Hasmath, 2008). Evidence to this effect was offered by various accounts of interviewees' life experiences and anecdotal evidence from their extended families or ethnic minority friends. For example, one Mongolian interviewee recalled a situation where she received an interview for a service-oriented job. A few minutes into the interview, the potential employer bluntly remarked that her non-local accent immediately ruled her out for the position. Other accounts – though less dramatic – corroborated a significant theme: recruiters feared that their potential customers could not completely understand their non-local (minority) accent. While ethnic minorities as an aggregate may have higher human capital in terms of education (see Table 1)[21], some may lack the distinguishable local linguistic markers. Chiswick and Miller (2002) point out that in situations where communication skills are important a lack of fluency will effectively reduce one's potential productivity in the workplace. This has the consequence of restricting many ethnic minorities in China to a cycle of under-employment or to work with co-ethnic minorities (in often lower paying and 'low status' positions) with whom they share a linguistic commonality.

Lack of Social Network Capital

With the abandonment of the job assignment system, a different set of rules and practices emerged for securing employment. Commonplace strategies amongst interviewees was the use of open market job search methods such as direct application, media tools (e.g. newspapers

advertisements, online job search engines), employment centers and using one's *guanxi*[22] or social network capital. In fact, the latter can be one of the most successful strategies for obtaining a job. Jean, an ethnic Mongolian, described how she obtained her position as an accountant in a prominent SOE:

> *Through a friend [who at the time was working for the SOE], I heard they were looking for a new accountant. I asked my friend to send the job information [as the job was not advertised]. It looked perfect for me. I sent my friend my CV, and she advocated on my behalf for the position. A few weeks later, I spoke to the manager in person, and I was offered the job. I have been at this job for two years now.*

Jean's position was not advertised on the open market. A combination of luck (the right place at the right time) and social connections provided an entry point into her position at the SOE. In fact, according to a study by Bian (1997), approximately two-thirds of his mainly Han interviewees found their current jobs by using their social network connections, comprising of family, friends and acquaintances. While Jean's narrative is one of success, less than 10 percent of the ethnic minorities interviewed for this study found jobs through *guanxi*, potentially suggesting major differences in minority and non-minority experiences. This lack of *guanxi* could explain the discrepancy in job allocations between Han and ethnic minorities.

Although the significance of *guanxi* in the reform era is under heavy debate (see Nee, 1996; Hanser, 1997)[23], word-of-mouth exchanges about job openings, and/or providing the initial introduction to a potential employer, is still an effective method in the job search process. The labor market in China is still full of "institutional holes." The formal mechanisms are insufficient to connect potential employers with job searchers. For instance, employers, particularly private firms, do not necessarily hire in large numbers through open market oriented methods since these channels are controlled by CPC officials who lack incentives to take active roles in collecting and diffusing employment information. Moreover, employers and job seekers are biased against these channels, believing that only undesirable jobs would be advertised. In this environment, *guanxi* becomes the primary mechanism to match seekers to jobs, bringing with it the possibility that the most suitably qualified may not be the best connected. More alarmingly, when the job search process fails, attitudes towards the job search and an overall economic marginalization of

the ethnic minorities may disadvantage the performance of the future generations (see Portes, 1998).

Inability to Fit within the Working Culture

The predominance of informal contacts in hiring strategies maintains homogeneity at the organizational level and strengthens the power of non-minorities to steer and shape the working culture.[24] Working culture includes patterns of informal social behavior such as communication, decision making and interpersonal relationships – which is often dictated by the dominating group's values, assumptions and norms (see Martin, 1992). In all enterprises under observation, a monoculture reflecting the standpoint of the numerical majority Han members was the reality. For example, in D Company – a small technology enterprise in Shanghai with 79 employees and the largest percentage of non-minorities (21.5 percent) observed throughout the study – the minority workers affirmed they were not alienated from the firm's working culture even though they normally spoke the local dialect of Shanghainese to each other instead of the Mandarin dialect used by the Han majority. These workers are representative of those interviewees in our sample who perceived that they did "fit in" to the working culture of their place of employment. These minority workers who felt they did "fit in" represent approximately 50 percent of our sample and reported greater opportunities for advancement within their current company.

The interview narratives suggest that a supportive relationship with one's supervisor plays an important role in encouraging ethnic minorities to perceive a sense of belonging with the working culture. Support can take the form of performance feedback, career guidance and the provision of assignments that promote the ethnic minority worker's development. Sunny an ethnic Uyghur working in one of China's major banks articulated her experiences with her supervisor this way:

> *I think my boss is confused by my ethnicity. I have lived here for most of my life, but yet he seems to think that I am somehow different. It is not something that I think about every day, but I do have a feeling that he does see me differently. He does not treat me the way he treats the others [employees]. He talks to the others [employees] a lot. Me, he is very direct with his instructions. I don't feel I have a lot of support from my boss.*

Identifying differential treatment in a working culture is a contentious proposition since minority and non-minority groups often perceive the same working environment differently (see Kossek and Zonia, 1993). Both groups may live in different perceptual spheres within the organization and thus often have conflicting perceptions about the working environment and their ability to participate in the working culture. With this caveat in mind, for Sunny the lack of support by her supervisor has caused her to consider moving to another position, even though this may mean accepting a lower wage.

While more case studies are needed to further assess these differences in China, acknowledging that the working culture of an organization can play a role in perpetuating the ethnic minority disadvantages in the nation is a crucial step. The next step is to assess steps to create a positive working culture that is inclusive of both minorities and non-minorities. Of course, those who do experience differential treatment in the working culture and who seek to bring about change must do so within a structure of inequality that may respond with denial and resistance. This has the possibility of further compounding the ethnic minority disadvantages in the labor market.

CONCLUSION

What is striking to observe in this study is the initial gulf in the results between the wage outcomes and the process of ethnic minority labor acquisition. Summary statistics suggest that there may be discrimination, an 8-17 percent difference in monthly compensation, between Hans and minorities. However, a controlled investigation – factoring education, experience and gender – yields results that suggest that there is little systematic wage bias between both groups.

Notwithstanding these outcomes, documented ethnic minority disadvantages were found throughout the job acquisition and retention process – and were observed both in the quantitative and the qualitative methods. At the onset, ethnic minorities' formal qualifications have a tendency to be undervalued given the prevalence of preferential treatment for this cohort in education. This seemingly signals to employers that minorities maybe less qualified. A situation further compounded by a crowded labor market where an employer has numerous "safer" Han labor options. This is consistent with the finding from the statistical analysis that it is within the job search and matching process where a minority disadvantage can be statistically detected.

Furthermore, ethnic minority disadvantages were found in the social domain due to their demonstrable deficit of social network capital requisite in the hiring and promotion process. Less than 10 percent of minorities interviewed for this study found a work placement utilizing their social network connections. This is contrast to the estimated two-thirds of Hans in other studies who found work placements via social network connections. The disjoint between non-Han and Han experiences are likewise experienced in the working culture of organizations observed. Only half of the 59 interviewees perceived that they did "fit in" with the working culture at their current placement, with many reporting that they are still perceived as "outsiders". The fact that the inability to "fit in" impedes advancement is troublesome given that the majority of this cohort perceive they have low odds of workplace advancement.

In this unpropitious background, if minorities continue to perceive widespread disadvantages in the job search and workplace environment, it may lead to long-term labor market withdrawal. The concern is that despite their preferential treatment in higher education, the returns on public investment on ethnic minority education will not be realized. Insofar as the preferential treatment leads to greater discrimination, the preferential treatment could paradoxically make things worse.

NOTES

[1] Collective-owned enterprises (COEs) are also known as township and village enterprises (TVEs).

[2] China requires foreign companies to forge joint ventures with domestic firms in order to enter the domestic market. This has an intended tendency to transfer technology and expertise to the domestic partner(s).

[3] Since individuals report their monthly earnings and work hours per week, hourly earnings – a main variable of analysis – are imputed.

[4] Since the main interest is discrimination and not the wage gap between Han and non-Han minorities, individuals who earn a piece-rate wage or self-employed individuals are excluded. Presumably, the earnings of piece-rate wage earner and self-employed individuals are a reflection of their ability and effort, which would not encompass components of discrimination.

[5] Minorities earn significantly less under a t-test at a 5 percent level in 1991, 1993, 1997, 2000; the differences are insignificant at the 5 percent level in the other years.

[6] Various economic studies looking at USA's black/white wage gap track the ratio of the wage of the fiftieth percentile of blacks to the wage of the fiftieth percentile of whites, $W(P^{50})_{black}/W(P^{50})_{white}$. This strategy was not used in this study for two reasons. First, CHNS is a panel data with one province added only after 1997 because of sample attrition. Therefore, any changes of median wage could be due to a sample selection issue and not from measured changes of discrimination. Second, this approach does not take into account the diversity of ethnic minority experiences which would be lost by only considering the median.

[7] The basic assumption of OLS is that the explanatory variables are uncorrelated with the error term, μ_i. However, as Liu (2008) points out, this assumption may be false in the Mincerian equation. A case in point: individual ability, which could be a determinant of wage, is missing from Mincer's equation. Further, ability is likely to be correlated with education and inheritance biasing estimates of β. Very few studies include proxies because it is difficult to obtain reliable data on ability.

[8] A paper by Liu (2008) has shown that return to education in China has changed dramatically in the past 15 years; therefore, we also include full interaction terms between education and year

dummies. In addition, we have also run the regressions separated by year of survey. We find that for the coefficient on experience, $(\text{experience})^2$, females remain quite stable over the years.

[9] In regressions not reported here, considerations whether the disadvantages differ for ethnic minority men versus ethnic minority women were analyzed. There were no significant differences.

[10] The regression specification used has the limitation that it presumes that ethnic minorities and the Han majority get the same returns to their observable attributes such as education or experience, even though it is possible that experience or education by ethnic minorities are systematically devalued. We can capture this by including interaction terms between the ethnic minority indicator and variables like education, but a commonly used and more comprehensive method used in the literature is to use a Blinder-Oaxaca decomposition (Blinder, 1973; Oaxaca, 1973). The decomposition essentially runs separate regressions for the Han majority, and for ethnic minorities of log wages on the explanatory variables. The Oaxaca decomposition yields nearly identical coefficient estimates for both Hans and non-Hans suggesting that our specification is appropriate.

[11] Note: these are OLS estimates for ease of interpretation. There is potentially a concern for selection bias by focusing on individuals who have wages. However, estimates on minorities can potentially be biased if the magnitudes of selection bias are different among Hans and ethnic minorities. Regressions show that the probability of being employed for minorities and non-minorities are not statistically significant (see Table 6 for example) suggesting bias is minimal and therefore a two-stage model is unnecessary.

[12] Experience is not reported in the survey. Thus, it is imputed using age minus seven minus years of schooling, as is standard practice in the literature.

[13] Data detailing the number of children were not available. Not controlling for children could be confounded since ethnic minorities are treated differently (to the point of exemption) under China's one-child policy. However, if more children could lead to lower wages for women as suggested by Waldfogel (1998), this may lead to estimates that overstate bias. Since bias was not found, this strengthens the null finding.

[14] The fact that the interaction term between minority status and education level is insignificant also implies that there is no systematic difference in the ethnic penalty between minorities with high education levels and those with low education levels.

[15] Unlike the sample in Table 5, we expand to include farmers in Table 6 Panel A.

[16]In the CHNS survey, all interviewees are asked whether they are currently employed or not. If they are not currently working, the follow-up question is whether they are actively seeking a job or not.

[17] It should be acknowledged the lack of significance in many of the variables of interest could be due to the relatively small sample sizes (after eliminating farmers from the dataset) and the correspondingly relatively large standard errors, rather than a lack of discrimination. However, the fact that many of the coefficients go in opposite directions, and that even aggregating the data over many years still returns mostly insignificant results suggests that little first order discrimination exists.

[18] For instance, China's latest employment law – which came into effect in 2007, along with the the 1995 version – denounces workers' discrimination on the basis of ethnic identity with claims that, "laborers enjoy equal right of employment and selection of jobs" and "laborers shall not be discriminated against because of their ethnicity or religious beliefs". It is also worthwhile to note, both versions of the employment law seek to fulfill China's commitments to the International Labor Organization's Discrimination (Employment and Occupation) Convention 1958, ratified in 1995.

[19] One can postulate that the frequency of this practice may increase during periods of surplus labor, where the employer has the luxury of selecting from a wider pool of candidates.

[20] This was a common theme among the companies observed: there was an awareness of preferential treatments for ethnic minorities, though little was known about the rationale and scope of preferential minority policies.

[21] The difference is marginally significant for the sample as a whole ($t(1570) = -1.42$, $p=0.15$) with similar patterns in both urban and rural settings.

[22] The term *guanxi* literally means relationship, and is used to refer to social connections between and among people.

[23] Most arguments about the decline of *guanxi* in the market reform era points out that a shift from a planned economy to a market oriented one would mean changes in the effectiveness of social network capital in the job search process. In theory, in a market economy employers who are profit driven will seek to hire those who have high productivity and high human capital, thus reducing the role of *guanxi*. This may not necessarily be the case as numerous cases in market economies continue to illustrate that social connections play a very important role in the hiring process (see Granovetter, 1983).

[24] It is worthwhile to note recruitment agencies and headhunters are becoming more involved in the hiring process of managers and professionals in China. Ployart et al. (2006) suggest that the most effective matches by agencies and headhunters are individuals who they are familiar with in terms of their educational background, experience and working culture fit. This practice may potentially increase the homogeneity in an organization and its working culture – not to mention increasing the potential for ethnic minority disadvantages.

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Table(s)

Table 1: Descriptive Statistics for CHNS 1989-2006 (excluding farmers)

	Han Sample			Minority Sample		
1989	N	Mean	Std Dev	N	Mean	Std Dev
Age	2642	34.46	11.57	209	33.29	9.66
Female	2642	0.41	0.49	209	0.35	0.48
Years of Education	2626	8.39	3.54	209	8.42	3.54
Experience*	2626	19.07	13.04	209	17.87	10.79
Monthly Earning	2620	102.84	125.92	206	117.97	133.54
Hourly Wage	2464	0.65	1.41	182	0.60	1.10
Bonus	2642	199.13	400.61	209	112.44	180.36
Hours Work Last Wk	2597	49.57	9.94	205	49.15	8.48
Urban	2642	0.49	0.50	209	0.32	0.47
Self Employed	2616	0.07	0.26	209	0.13	0.34
Work at SOE	2617	0.51	0.50	209	0.58	0.49
Work at COE	2617	0.40	0.49	209	0.28	0.45
Work at Private	2617	0.07	0.25	209	0.12	0.33
1991						
Age	2680	34.44	11.06	199	34.80	10.92
Female	2680	0.43	0.49	199	0.38	0.49
Years of Education	2674	8.80	3.36	198	9.10	3.27
Experience	2674	18.64	12.33	198	18.51	11.45
Monthly Earning	2672	114.30	67.26	199	106.65	50.32
Hourly Wage	2651	0.56	0.35	198	0.54	0.45
Bonus	2680	275.19	474.34	199	197.82	363.88
Hours Work Last Wk	2658	49.04	8.10	198	48.76	7.14
Urban	2680	0.49	0.50	199	0.39	0.49
Self Employed	2662	0.06	0.23	199	0.04	0.20
Work at SOE	2666	0.53	0.50	199	0.67	0.47
Work at COE	2666	0.37	0.48	199	0.26	0.44
Work at Private	2666	0.08	0.27	199	0.04	0.20
1993						
Age	2452	35.27	11.07	202	33.84	9.74
Female	2452	0.41	0.49	202	0.40	0.49
Years of Education	2436	9.09	3.25	200	9.29	3.09
Experience	2436	19.22	12.11	200	17.63	10.46
Monthly Earning	2426	176.57	173.72	201	153.81	122.72
Hourly Wage	2358	0.92	2.65	194	0.74	0.58
Bonus	2452	452.16	863.75	202	237.28	361.59
Hours Work Last Wk	2379	48.62	8.40	194	48.85	9.60
Urban	2452	0.49	0.50	202	0.39	0.49
Self Employed	2438	0.04	0.20	202	0.04	0.21
Work at SOE	2436	0.51	0.50	202	0.65	0.48
Work at COE	2436	0.39	0.49	202	0.23	0.42
Work at Private	2436	0.08	0.27	202	0.11	0.31

1997						
Age	2536	35.75	10.94	174	33.90	11.08
Female	2540	0.42	0.49	174	0.41	0.49
Years of Education	2496	9.50	3.10	171	9.47	2.77
Experience	2493	19.28	11.92	171	17.57	11.21
Monthly Earning	2527	446.65	331.85	174	384.38	284.13
Hourly Wage	2451	2.48	2.13	166	2.25	2.05
Bonus	2540	531.46	1025.91	174	225.31	481.13
Hours Work Last Wk	2464	44.69	11.65	166	42.63	10.26
Urban	2540	0.49	0.50	174	0.41	0.49
Self Employed	2523	0.06	0.24	173	0.07	0.25
Work at SOE	2504	0.50	0.50	173	0.63	0.48
Work at COE	2504	0.31	0.46	173	0.17	0.37
Work at Private	2504	0.17	0.37	173	0.18	0.39

	Han Sample			**Minority Sample**		
2000	N	Mean	Std Dev	N	Mean	Std Dev
Age	2525	36.74	11.00	192	35.01	11.03
Female	2527	0.40	0.49	192	0.44	0.50
Years of Education	2510	10.11	3.10	188	10.11	2.90
Experience	2508	19.63	11.79	188	17.98	11.38
Monthly Earning	2504	656.40	690.89	190	568.61	613.86
Hourly Wage	2412	3.70	6.11	179	2.95	2.30
Bonus	2527	620.62	1273.77	192	425.11	717.77
Hours Work Last Wk	2431	44.82	12.03	181	43.93	9.61
Urban	2527	0.49	0.50	192	0.28	0.45
Self Employed	2500	0.08	0.28	191	0.04	0.20
Work at SOE	2486	0.47	0.50	187	0.57	0.50
Work at COE	2486	0.24	0.43	187	0.12	0.33
Work at Private	2486	0.26	0.44	187	0.30	0.46
2004						
Age	1776	39.41	10.70	161	39.99	10.06
Female	1777	0.41	0.49	161	0.36	0.48
Years of Education	1774	10.54	3.02	161	10.92	2.78
Experience	1773	21.87	11.59	161	22.07	10.35
Monthly Earning	1774	879.85	819.46	160	986.55	1264.68
Hourly Wage	1735	4.92	6.34	159	5.67	7.76
Bonus	1777	1065.67	2679.91	161	624.11	1262.11
Hours Work Last Wk	1738	46.17	13.76	160	44.71	14.20
Urban	1777	0.52	0.50	161	0.32	0.47
Self Employed	1765	0.07	0.25	161	0.09	0.29
Work at SOE	1710	0.51	0.50	156	0.64	0.48
Work at COE	1710	0.14	0.34	156	0.01	0.11
Work at Private	1710	0.36	0.48	156	0.35	0.48

2006						
Age	1890	40.67	10.59	194	40.59	10.51
Female	1891	0.41	0.49	195	0.33	0.47
Years of Education	1891	10.74	3.25	195	10.50	3.30
Experience	1890	22.93	11.66	194	23.07	11.01
Monthly Earning	1889	1150.22	1526.98	195	1071.39	1123.55
Hourly Wage	1851	6.13	8.89	190	6.19	9.28
Bonus	1891	1161.31	3214.10	195	842.52	1980.27
Hours Work Last Wk	1853	46.68	13.42	190	46.99	15.07
Urban	1891	0.50	0.50	195	0.29	0.45
Self Employed	1879	0.09	0.28	195	0.10	0.30
Work at SOE	1814	0.45	0.50	188	0.50	0.50
Work at COE	1814	0.12	0.32	188	0.05	0.23
Work at Private	1814	0.43	0.49	188	0.45	0.50

Note: Data from China Health and Nutrition Survey (CHNS). Sample only include individuals above 15 at the time of work and non-farmer observations.
* Experience is imputed using the standard method in labor economics literature. experience = age-7-years of education.

Table 2: Coefficient on Minority Wage Differential Over Time

	Urban	Rural
	(1)	(2)
(year==1989)*Minority	0.128	-0.035
	(0.071)*	(0.066)
(year==1991)*Minority	-0.041	0.044
	(0.072)**	(0.076)
(year==1993)*Minority	-0.028	-0.096
	(0.093)	(0.078)
(year==1997)*Minority	-0.101	0.068
	(0.099)	(0.083)
(year==2000)*Minority	-0.076	-0.029
	(0.09)	(0.083)
(year==2004)*Minority	0.006	0.177
	(0.113)	(0.092)*
(year==2006)*Minority	-0.056	0.114
	(0.126)	(0.089)
Observations	8270	8543
R-squared	0.78	0.71

Note: Standard errors are clustered at the individual level.
* significant at 10%; ** significant at 5%; *** significant at 1%. Regressions also control for gender, year of education, interaction term between education and year dummies, experience, (exp)2, type of work units, provincial dummies and year dummies.

Table 3 : Ethnic Penalty of Log Hourly Wage by Economic Sector

	(1) 1989	(2) 1991	(3) 1993	(4) 1997	(5) 2000	(6) 2004	(7) 2006
SOE	-0.035	-0.013	-0.07	-0.109	-0.047	0.068	-0.032
	(0.065)	(0.028)	(0.046)	(0.054)**	(0.061)	(0.062)	(0.069)
COE	0.179	0.008	0.032	0.215	-0.131	-0.336	0.056
	(0.109)	(0.077)	(0.089)	(0.126)*	(0.136)	(0.437)	(0.180)
Private Enterprise	0.17	0.078	-0.119	0.057	-0.133	0.107	0.037
	(0.148)	(0.265)	(0.212)	(0.132)	(0.097)	(0.107)	(0.084)

NOTE: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. All regressions include provincial fixed effect and control for education, experience, gender, $(exp)^2$ and urban vs rural. All regressions include only individuals who are at least 15 years old and the non-farmers.
Each coefficient reported is from a separate regression.

Table 4: Ethnic Disadvantage for Log Bonus Awards by Economic Sector

	(1) 1989	(2) 1991	(3) 1993	(4) 1997	(5) 2000	(6) 2004	(7) 2006
SOE	-0.392	-0.458	-0.224	-1.311	0.184	-0.524	-0.204
	(0.244)	(0.238)*	(0.282)	(0.375)***	(0.376)	(0.408)	(0.452)
COE	-0.32	-0.721	0.033	-0.921	1.855	1.702	1.793
	(0.404)	(0.466)	(0.515)	(0.692)	(0.849)**	(2.409)	(1.240)
Private Enterprise	0.235	-0.093	0.634	-0.415	0.07	0.373	0.795
	(0.164)	(0.783)	(0.510)	(0.452)	(0.422)	(0.466)	(0.351)**

NOTE: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. All regressions include provincial fixed effect and control for education, experience, gender, $(exp)^2$ and urban vs rural. All regressions include only individuals who are at least 15 years old and the non-farmers.
Each coefficient reported is from a separate regression.

Table 5: Determinants of Earning and Return on Education (excluding farmers)

	Urban		Rural	
	(1) log (Hr wage)	(2) log (bonus)	(3) log (Hr wage)	(4) log (bonus)
Minority	0.031	-0.524	-0.049	-0.665
	(0.081)	(0.444)	(0.074)	(0.331)**
Minority*Education	-0.006	0.002	0.007	0.046
	(0.007)	(0.040)	(0.007)	(0.033)
Education (year)	0.035	0.158	0.022	0.089
	(0.002)***	(0.012)***	(0.003)***	(0.014)***
N	8018	8674	7927	8946
R-squared	0.78	0.17	0.72	0.13

NOTE: * significant at 10%; ** significant at 5%; *** significant at 1%.
Standard errors in parentheses. All regressions include provincial fixed effect and control for experience,$(exp)^2$, gender and type of work units . All regressions include only individuals who are at least 15 years old and the non-farmers.
Each coefficient reported is from a separate regression.

Table 6 Panel A : Probability of Having a Job (including farmers)

	(0) All Years	(1) 1989	(2) 1991	(3) 1993	(4) 1997	(5) 2000	(6) 2004	(7) 2006
Minority	0.149	0.175	0.005	0.031	0.256	0.29	0.296	0.054
	(0.064)**	(0.160)	(0.131)	(0.137)	(0.127)**	(0.124)**	(0.122)**	(0.117)
N	19950	2607	2772	2651	3016	3294	2844	2766

Table 6 Panel B: Probability of Having a Job (excluding farmers)

	(1) All Years	(2) 1989	(3) 1991	(4) 1993	(5) 1997	(6) 2000	(7) 2004	(8) 2006
Minority	-0.089	-0.073	-0.108	-0.256	0.004	-0.049	-0.069	-0.049
	(0.070)	(0.180)	(0.149)	(0.150)*	(0.140)	(0.146)	(0.137)	(0.129)
N	15831	1830	2044	2024	2309	2622	2538	2464

NOTE: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. This is restrict to only urban population. All regressions include provincial fixed effects. In Column (1), year fixed effects are also included

Appendix 1 : Ordered Probit Model of Firm Size on Minority Status

Minority	-0.187
	(0.066)***
Education (year)	0.044
	(0.005)***
Experience	0.023
	(0.004)***
$(\text{Experience})^2$	0.000
	(0.000)***
Female	-0.034
	(0.028)
N	8400

Note: The dependent variable, firm size, is divided into 3 categories. 1 = 0 - 20 people; 2 = 21-99 people; 3 = 100 people and above; * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. All regressions include province fixed effect and year fixed effect.

Appendix 2: Probit Model of Working at a SOE

Minority	-0.189
	(0.079)**
Education (year)	0.153
	(0.006)***
Experience	0.039
	(0.004)***
$(\text{Experience})^2$	0.000
	(0.000)***
Female	-0.053
	(0.030)*
Constant	(2.648)
	(0.111)***
N	8574

Note: Dependent variable is 1 if individual works at a SOE; * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. All regressions include province fixed effect and year fixed effect.

Appendix 3 : Probit Model of Working as a Farmer

Minority	0.393
	(0.157)**
Education (year)	-0.131
	(0.012)***
Age	-0.002
	(0.004)
Female	-0.152
	(0.083)*
N	8711

Note: The dependent variable equals to 1 if individual is a farmer. * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. All regressions include province fixed effect and year fixed effect.

Appendix 4: Probability of Seeking a Job

	(0) All Years	(2) 1991	(3) 1993	(4) 1997	(5) 2000	(6) 2004	(7) 2006
Minority	-0.145	-0.578	-0.115	-0.444	0.225	-0.261	0.135
	(0.101)	(0.463)	(0.305)	(0.311)	(0.237)	(0.188)	(0.223)
Education (year)	-0.074	-0.061	-0.081	-0.112	-0.089	-0.057	-0.071
	(0.007)***	(0.028)**	(0.024)***	(0.021)***	(0.016)***	(0.014)***	(0.015)***
Age	-0.05	-0.077	-0.059	-0.057	-0.044	-0.043	-0.053
	(0.002)***	(0.011)***	(0.007)***	(0.007)***	(0.005)***	(0.004)***	(0.004)***
Female	-0.16	0.061	-0.126	-0.127	-0.062	-0.314	-0.251
	(0.042)***	-0.158	-0.128	-0.118	-0.094	(0.086)***	(0.095)***
Constant	0.041	1.107	1.403	1.651	0.758	1.196	1.753
	(0.150)	(0.486)**	(0.399)***	(0.382)***	(0.321)**	(0.273)***	(0.302)***
N	11137	1511	1483	1650	2493	2488	947

NOTE: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. The question about job seeking was not in the survey in 1989.
All regressions include provincial fixed effects. In Column (1), year fixed effects are also included. Regressions restrict to only unemployed individuals who are between 15 and 65.