Discrimination in Ethnic Minority Earnings? Evidence from Urban China

Introduction

Discrimination against minorities in China by the Han majority is almost an assumed phenomenon in contemporary China. Many minorities themselves report difficulties in obtaining jobs or fitting in at the workplace due to their status (see Hasmath 2011a; Hasmath and Ho forthcoming). Yet, recent studies of urban minorities in China have generally not found a significant earnings gap between minorities and the majority Han. There are several explanations for this apparent puzzle. The first is that the discrimination that minorities perceive is largely irrelevant to the amount of actual earnings they receive. The second is that minorities adopt compensatory strategies to discrimination, utilizing alternative pathways to succeed. The third possible explanation is that the discrimination is real, but had not been adequately identified due to methodological issues in previous studies.

A review of summary data and several different regression specifications detailed in this article reveal that many minorities do not appear to suffer significant wage differentials with Han workers. However, among 'outsider minorities' groups, the results are consistent with a finding of significant wage discrimination. This observed wage gap is tempered by the fact that these specific minorities appear to exert extra effort, utilizing minority preferences and a meritocratic system, to obtain higher levels of education and secure more stable public sector jobs. This finding has a number of implications for the study of minorities in China and the general theories of minority responses to dominant discrimination.

Literature Review

The literature on the determinants of urban minority wage earnings contains a significant puzzle that has not yet been resolved in the existing literature. Much of the early literature on minority earnings focused on rural earnings and found that rural minorities are generally poorer than the majority Han population, although this is mainly attributed to their geographic clustering in areas of extreme poverty. Quantitative studies on minorities in urban areas has generally found no significant difference in earnings between the Han and minorities. However, qualitative survey work has found minorities reporting significant levels of discrimination against them both during their job searches and at work. There does not exist a clear theoretical expectation as to how these findings could simultaneously be true, suggesting that new theory-building about urban minority earnings determination is necessary.

Much of the early literature on the subject of ethnic minorities in the labour market tended to focus on the experiences of minorities in rural or peri-rural China. Most scholars found that minority earnings were much lower than Han earnings. However, scholars have been split on whether minorities faced systemic discrimination or whether minorities tended to be located in places with particularly poor job and education

prospects.[1] Hannum and Xie (1998) inferred that systematic biases toward minorities were present in their study of minorities in Xinjiang. They found that minorities generally were less able to obtain education, which hurt their job prospects. Controlling for geography and education, minorities also had significant earnings differences in several occupational fields, a fact that they attributed to persistent discrimination against minorities.

Other authors, focusing more on econometric research, argue that rural minorities are poor primarily due to their geographic circumstances. [2] Gustafsson and Shi (2003) found that while minority incomes have grown more slowly than majority incomes, this gap disappeared when comparing majority and minorities in the same area – the problem is that minorities live in areas experiencing less economic growth. Gustafsson and Sai (2009a) concluded, based on their study of rural poverty rates, that minorities are much more likely to enter poverty due to their disadvantageous geographic position, but are equally likely as Han to exit from poverty once they have suffered a poverty shock. In a separate study, Gustafsson and Sai (2009b) also found that minority villages tend to be equally well situated as Han villages in the North and East, but particularly poorly located in the West and South. Given the bleak economic prospects for many minority villages, long-distance migration becomes economically attractive. However, due to cultural and language barriers, such migration was observed at a lower rate than would be expected given their level of poverty.

The debate between geography and discrimination as the primary reason why minorities have lower earnings could potentially be resolved by examining the situation of minorities in urban areas. If urban minorities, who generally share the same geographic locations as many Han residents, obtain similar earnings, then likely discrimination against minorities is not serious enough to materially affect earnings. The existing research, while generally finding that earnings are at parity between the majority and the minorities, should be considered tentative due to weaknesses in the data available to the authors. Appleton et al. (2005) in a wide-ranging study of urban earnings determinants, found that ethnic minority status affords a modest earnings premium for workers, although the focus of their work was not in investigating minority status so the robustness of the finding is questionable. Yang (2005), in an investigation of returns to education in urban environments, did not find any linkage between ethnicity and earnings, although again the author's interest was not in exploring this relationship.

Other, more recent research has generally reinforced the finding that minorities residing in urban areas do not suffer a significant earnings penalty. Cao (2010) using geographic data, observed that the urban-rural income disparities in Xinjiang were primarily driven by the concentration of minorities in poor areas, implying that minority

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[1] It is possible that both are true – endowment and treatment effects need not be mutually exclusive.

[2] Historically Han settlers gradually pushed out minorities from relatively central areas to increasingly more remote periphery and unproductive lands. At the same time, the dominant Han saw those living in peripheral areas as "other," whatever their cultural and historical linkages to the Han, which heightened the development of minority consciousness on both sides of the ethnic divide. These two processes created a legacy in which many official minorities in China found themselves in poor, undeveloped areas at the start of Communist era, a status that was generally unchanged at the end of it. Arguably, these same processes have continued through the reform period, especially in Xinjiang and Tibet, generating significant tension between Han and local minority groups (see Harrell 1996; Hsu and Hasmath 2007; Hasmath 2014).(Harrell 1995)(Harrell 1995)(Harrell 1995)(Harrell 1995)

income is determined, at least in part, by geography. Using an econometric approach with data collected from the CHIP surveys, Hasmath and Ho (forthcoming) did not find a statistically significant relationship between minority status and income in urban areas. Shi and Sai (2013) concluded, through their study of the Hui and Han in Ningxia, that Hui earned the same or perhaps even slightly more than the Han once controlling for geography.

While not directly contradicting these authors, Maurer-Fazio et al. (2007) found that male minority participation in the labour force was equal between working age male minorities and male Han, but substantially lower among minority women as compared to Han women. Moreover, in another study, Maurer-Fazio (2012) found significant evidence of discrimination against certain ethnic groups (although not among others) in in job-board posting responses, suggesting that discrimination, if it does exist, may be at a more granular level than simple minority vs. majority distinctions.

Additionally, more qualitative research on minorities in urban areas report that minorities still face ongoing access barriers and discrimination issues in the job market. Bian (2002a) found that social networks plays an important role in job search success, and that minorities typically lack key connections to obtain highly sought after jobs. Zang (2008)'s analysis of state-sector workers found a significant penalty for Hui minorities in Lanzhou in obtaining coveted public sector jobs. Huang (2008)'s research echoes Bian (2002a)'s finding on the importance of social networks. Hasmath (2011) has found, via interviews that minorities tend to self-select into poorer jobs in large urban areas, particularly minorities that Han employers view as "troublesome" due to expected and perceived discrimination by employers. Overall, the qualitative literature on minority earnings differs substantially in its conclusions relative to the wide-scope econometric work.

In sum, existing literature on rural minorities find that they are generally poorer than rural Han residents, although the extent to which this is a result of geographic clustering in areas of extreme poverty is debatable. The literature on minorities in urban areas generally did not find that minorities are specifically at an earnings disadvantage relative to Han residents (and in fact may have some type of earnings premium). However, few of these studies rigorously incorporated demographic data to estimate whether ethnicity is masking age, experience, or educational differences that have, in other contexts, found to determine salary levels.[3] Moreover, anecdotal and interview work has found that minorities have perceived discrimination in the job market and employers have expressed wariness about hiring minority workers. Thus, a puzzle has emerged as to why qualitative and non-wage research is at odds quantitative work? Much research remains to be done to identify the specific factors that explain how and why urban minorities achieve the observed equal earnings as compared to Han workers. The next section outlines some hypotheses as to why these discrepancies exist and examines some of the implications of the proposed explanations.

Theory Building

[3] The Hasmath and Ho (forthcoming), and Li and Sai (2013) articles did use relatively sophisticated methodological approaches to understanding salary levels. However, the available demographic variables in both studies were somewhat limited due to the weaknesses in the datasets available to the authors.

There exist a number of possible explanations for why minorities report significant disadvantages relative to the Han, yet most econometric studies find that minorities suffer little to no earnings penalty in the job market. These hypotheses also could potentially vary between different subgroups of minorities, particularly among 'outsider minorities' that often face the most reported discrimination. The three most likely explanations for the puzzle posited in the previous section are:

1. While both employers and minority employees perceive discrimination, the actual impact of the discrimination, in terms of labour market outcomes, is minimal.
2. The discrimination felt is real, which then forces compensating strategies (alternate career paths, increased educational attainment) that result in little end difference in measured salaries.
3. The discrimination is real, and the results finding similar salary levels are based on failure to fully incorporate demographic differences between the Han and minority populations.

If the first explanation were true, it would imply that while subtle discrimination may still be commonplace, systematic discrimination is not so serious that it materially affects the lives of urban residents. The central and local governments' various programs to assist minorities in reaching parity with the Han can therefore be seen at least as a qualified success, although its ongoing usefulness would then be questionable. If the second explanation found support in the data, it would imply that while certain channels of success are blocked off for minorities (whether via lack of opportunity to build a strong social network or otherwise), other, more merit-based channels, such as the education system, remain open, a finding consistent with minority experiences in other national contexts (see Collins 1983; Hasmath 2012; Raijman and Tienda 2000). If this compensatory strategy found support in the data, it would suggest that government preferences for minorities remain essential in allowing minorities to achieve pay parity with the Han. The third explanation, if supported by the data, would suggest that systemic discrimination remains a serious problem for even urbanized minorities to such an extent that even minority preferences cannot overcome the damage they pose to the careers of minority workers. From a public policy perspective, this would imply that, new, stronger government measures would be necessary to help minorities achieve equality with the Han.

One complicating factor to this model is that the impact of minority status may vary across minority type. Much research has been done on Han perception of minorities; many minorities that are considered non-threatening to the Han (such as Hui and Zhuang) seem to suffer from less discrimination while those that are culturally the farthest from the Han and most easily identifiable as different suffer more Han prejudice (Blum 2001). Other urban minority groups may effectively be able to 'pass' as Han both physically and culturally and therefore would be expected to suffer a much lower rate of discrimination in the job market. The next section tests these hypotheses and the variation between 'outsider' and average minorities with summary demographic statistics and finds support for both the hypothesis of compensatory behavior and the no discrimination hypotheses.

Summary Statistics

Summary statistics, based on a representative sample of urban residents in the Western region of China, provide evidence that is generally in favour of both the no significant earnings difference and also can support the model of compensatory behavior among minorities. The summary statistics finds no support for the contention that minorities discover less job market success.

Data Source and Analysis Issues

Data to investigate the question of minority earnings in urban areas was gathered by the 2011 Chinese Academy of Social Science (CASS) sponsored China Household Ethnicity Survey (CHES). The survey administrators selected seven provinces in which minorities were heavily represented – Inner Mongolia, Hunan, Guangxi, Guizhou, and Qinghai. Within these provinces, local areas were selected that were drawn from the National Bureau of Statistics' (NBS) Urban Household Survey pools, with an attempt to choose areas that contained both significant number of Han residents and also areas that contained significant numbers of minorities. Therefore, the CHES survey is not a simple random sample meaning that population sample weights are needed to correct for potential overrepresentation of certain subgroups. The sample weights used in the following analysis are primarily derived from the 2010 census figures.

When employing the weights, non-biased estimation of true population parameters is possible. However, because the weights (and underlying census data) are differentiated based on Han and minority status and not further refined by specific minority group, comparisons between individual minority groups should be interpreted with care. Additionally, several of the variables have specific definitions that are important to keep in mind when interpreting the results. The sample includes both urban residents and rural to urban migrants (rural *hukou* holders). Outsider minorities were defined as minorities that maintain significantly different patterns of cultural practice from the Han, which include Tibetans and Turkic minority groups. Percent has professional job is coded based on whether the respondent indicated they had a typical white-collar job. Percent has government job is determined by whether the respondent works for a state-run or collective-run work unit or whether they work under some other ownership structure.

The summaries of the data in the following section do offer some interesting results, suggesting that minorities may overachieve relative to Han residents, although the returns to overachievement in salary terms are unclear.

Summary Statistics

Table 1 indicates that minorities are generally not disadvantaged on most demographic measures, particularly 'outsider minorities'. However, whether these favourable demographic characteristics translate into expected payoffs in household income is a question best resolved in a regression context.

** TABLE 1 AROUND HERE **

<u>Individual Statistics</u>

The summary statistics reveal some surprising population characteristics. On the individual working age population statistics level, age, percent male, percent working and percent males working generally seems to be equal across all demographic subgroups. However, minorities and especially 'outsider minorities' tend to have a much higher percentage of women working. Both subgroups of minorities are also more likely to have a professional job (categorized as management or office work) and are more likely to work for a state-run work unit.[4] 'Outsider minorities' are almost 35 percent more likely to work for such a unit than a working-aged Han. Average years of education was also higher among minorities, particularly 'outsider minorities', than amongst Han workers. These work choice and education statistics generally support the conclusion that minorities adopt a compensatory strategy, choosing career paths in which official systems of merit governing employment and education offer more possibilities than paths that rely upon informal social network connections.

The liminal position of 'outsider' minorities becomes even clearer when examining language statistics. 'Outsiders' are much more likely to have a high degree of proficiency in their own language and a much lower proficiency with Mandarin. However, minorities, and 'outsiders' in particular, are much more likely to have urban *hukous*. This statistic implies that a much lower percentage of minorities are rural migrants who have moved to the cities. As discussed in Gustafsson and Shi (2009b), minorities, particularly minority groups with large cultural and language differences with the Han majority, are less likely to migrate to cities. This reality raises the possibility that Han migrants from rural areas, coming from areas with lower educational and job experience opportunities, lower the salary and education averages compared to the largely non-migrant minority population. However, even when excluding agricultural *hukou* holders from the calculation, the educational gap largely remains, meaning that large numbers of Han migrants are only a partial explanation to why minorities pursue education for longer than Hans. However, the theory that minorities are compensating for closed off opportunity pathways by pursuing alternative, more formal channels of success is consistent with this data.

Household Statistics

Minority and Han households do not show a significant amount of difference in household statistics – the largest gap is generally between 'outsider' minorities and the rest of the population.[5] All subgroups have a similar household size; 'outsider' groups have a slightly larger household size but the difference is not statistically significant. One of the most striking results of the summary statistics is the large gap in household income and income per working aged household member between 'outsider minorities' and Han. Outsider families earned over 33 percent more per household than Han families and over 35 percent more per working aged household member. Other minorities earned more than the Han as well, although the gap was narrower than the Han-'outsider minorities' differences. These statistics are likely at least partially explained by the significant

[4] This includes state-owned or urban collective-owned work units.

[5] For the purposes of this analysis, the head of household's minority classification determines the household's minority value.

differences in job type and education levels highlighted above. Nonetheless, this finding, if true, would cut strongly against dominant images of minorities as being poor and disadvantaged relative to the Han. The basis for these minority advantages can partly also be seen in the data regarding households' family background.

The household head's father's education levels tend to be higher for minorities and especially 'outsider minorities'. Minorities' fathers also are more likely to have had a professional job. 'Outsider minorities' fathers were a whopping 72 percent more likely to hold a professional job as compared to the Han, suggesting that the education and job choice preferences have been consistent over a long time span. A similar pattern is visible in the data on the spouse's father's education and job type. There are two possible explanations for these observed results. The first is that urban minorities, especially 'outsider minorities', gained significant employment and educational advantages in an earlier period, and social capital inertia have maintained these advantages over time.[6] The second, and in the author's view, more likely scenario, is that opportunity pathways for minorities have been relatively fixed in the last two generations. More formal and official routes to success, in which non-discretionary government preferences and merit plays more of a role, likely have and continue to be an attractive job strategy for minorities.

All of these findings provide evidence that could support both a no earnings gap hypothesis and a compensatory response to lower earnings potential. However, the finding regarding minority job choice and educational attainment would lean towards acceptance of the compensatory response explanation. A regression approach would better help understand which of the hypothesized processes is at work, a test undertaken in the next section.

Regression Results

To construct a useful regression test, there are several important points to consider. Income in the survey was measured at the household level[7], but many of the variables of interest are at the person level. To account for this, the demographic information is taken from the head of household (defined as one of the two chief income earners, either the husband or wife), who in this survey is usually male. However, we also account for the possibility that spousal or other family member contributions may be an important component of household income in the regressions that follow. Households were marked as minority if anyone in the family was coded as a minority.[8]

To estimate earnings, we employ a variation on a Mincer wage equation (see Mincer and Jovanovic 1979; Johnson and Chow 1997; Heckman et al 2003). Mincer wage equations use aspects of human capital to predict wage outcomes. However, our

[6] The importance of social capital transference as part of intergenerational transfers in China is not a well-studied concept, so there is no strong empirical investigation that would inform the likelihood of this possibility. Nevertheless, given the generally liminal position of minorities in China over time, such a scenario seems unlikely. See Bian (2002b) who attempts to investigate these issues.

[7] The income measured only includes earned income and does not include things like rent or transfer subsidies. Analyses of these other types of income would rely upon a much wider set of factors and logics than there is space in this piece to investigate.

[8] We also examined whether coding the household head as a minority only if the household head had minority status impacted the results. Doing so slightly changed some of the coefficients but did not change any of the substantive results.

dataset only contains income at the household level, so, as described above, we treat the household as one unit with the human capital characteristics of the chief income earner and then control for the presence of other income earners in the household. While not an ideal approach, our wage equation is robust to specification changes in accounting for extra wage earners within the household and therefore lends confidence to the approach.

Given these considerations, our wage equation has the following form:

$$\ln(Y) = \beta_0 + \beta_1 S + \beta_2 E + \beta_3 E^2 + \beta X + u$$

In this equation, Y is income[9], S is years of schooling, E is experience, and E^2 is the quadratic term of experience. X is the vector of independent variables of interest and u is the error term. Work experience is calculated as $age - years\ of\ school - 6$, and so indicates the years of potential experience in the job market. Minority status, years of schooling, experience and experience squared are therefore all included in the regression. Other independent variables that have shown relevance in previous work entered into the regression include whether the household head is married, the number of dependents (both young and old), is male, party status, and is fluent in Mandarin. Number of working aged people in the household is also included and helps account for the influence of the spouse or other income earners' salary on household income. Head of household's father's education level is also added into the regression based on the discussion of Table 1.[10] The results of a regression on log of household income with these independent variables and provincial dummies are shown in Table 2.

** TABLE 2 AROUND HERE **

The results of this regression are somewhat curious. While the coefficient on all minorities is negative and nears significance at the .10 level, we cannot reject the null hypothesis of no effect of minority status on income. Nor is the coefficient substantively that impactful: a change from minority to Han status increases predicted income by only 6%. Therefore, as similar to what has been found in several previous studies, minority status does not appear to be a statistically significant predictor of earnings. However, outsider minorities considered alone does appear to have a statistically significant and negative association. Being an outsider minority is associated with a 21% lower income, *ceteris paribus.* So there does not appear to be, based on this regression, a uniform impact

[9] One of the practical problems in estimating the Mincer wage equation is that there exists some subset of households that earn a wage of zero, and taking the log of zero results in categorizing such potential household's earnings as missing in most statistical programs. There are a number of possible solutions to this problem, but all are fraught with interpretability or bias issues. Therefore, zero earning households are excluded from the regressions in this section. The results should therefore be seen as the expected earnings of a head of household *conditional* on the household having any earned income. The authors regressed the key independent variables on a dichotomous variable indicating whether a household had any earnings, and found no effect for the minority variable and the coefficient to be substantively insignificant, suggesting that the exclusion of the zero earnings cases does not unduly bias the results presented in this section. However, a useful follow-up to this work could explore what types of households are likely to participate in the job market.

[10] The mean of both the husband and wife's mother's education level also had a significant gap between majority and minority but the statistic is highly collinear with that of either spouses' father's education level and is therefore excluded.

on household income of being a minority, but rather the impact is differentially felt depending on minority type. Most of the rest of the control variables are significant and have the expected sign. Years of schooling also proved to be significant, with each year of additional education increasing salary outcomes by about 6%. Experience and experience squared are significant and the signs are in line with expectations. Interestingly, there also appears to be no penalty for female heads of households on household income. The fluency in Mandarin coefficient is hard to interpret. It is positive and in the expected direction for all minorities. However, the sign reverses when narrowing the regression to only outsider minorities. Party status and number of working aged in household do not appear to have any independent impact, nor does the occupation of the household head father.

The likely explanation to some of these oddities is that the labour force in China has become bifurcated based on whether the worker came of age during the reform era or not. As has been documented elsewhere, workers that came of age during the Cultural Revolution generally lacked educational opportunities and the types of jobs many were able to acquire (state-owned factories and similar) eroded and disappeared during the reform era. As a result, many of these workers have ended up in forced retirements or in low-paying subsistence jobs despite having many years of experience. Table 3 compares the coefficients of the regression subset at over and under the age of 45 (45 year olds would have been 18 in 1979). Additionally, to better understand whether some of the results are driven by compositional effects, several key independent variables are entered into the regression iteratively.

** TABLE 3 AROUND HERE **

As with the previous regression, the minority coefficient remains statistically and substantively insignificant. As can be seen in the iterative process of adding regressors, wage income appears to be determined by some combination of party status, education, and father's status, while for those over 45, the regression is consistent with a finding that only experience determines wage level.

The particular way in which an age gap may be manifested are rooted in the history of China. Education was highly politicized and, with respect to upper level education, generally unavailable during the late Maoist period, so education was probably not a differentiating factor for many from the Cultural Revolution period. Also, during the Cultural Revolution, a wealthy class background would have been considered counterrevolutionary and harmful to career prospects, [11] so the finding of insignificance on the variable of father's parent's occupation is perhaps not surprising. After 1979, a generation that relied upon their parents for job opportunities and other occupational benefits arose (see Bian and Ang 1997). Moreover, party status and educational opportunities have a stronger impact on household incomes than for previous generations.

[11] Despite the official discrimination against those whose parents had high class backgrounds, many families still managed to ensure their children received a high-quality education through the transmission of social capital (see Unger 1982; Hasmath 2011b). So the effect of having high-class parents is perhaps ambiguous, as is consistent with the finding of no result in the regression.

As in the previous regressions, minority status remains only marginally significant and the substantive impact remains small, ranging from an estimated 6-9% wage penalty.[12]

These general results hold when investigating outsider minorities except that their outsider status still predicts a much lower household income. Table 4 below shows the regression results of 'outsider minorities' versus Han.

** TABLE 4 AROUND HERE **

Across all demographic categories, the coefficient on minority status is negative and statically significant, with the coefficient being somewhat larger for those over 45. 'Outsider minority' households appear to suffer about a 30% wage handicap. Some caution is needed in interpreting these results, however. While sample weighting was employed, the weighting was based on the probability of a minority household being selected in a given area, not a *specific* minority group household. Nonetheless, the coefficients other than outsider minority generally accord with the results in Table 3, including along the control variables, giving some confidence that the bias induced by using the more general weights is not too serious.

These econometric analyses, taken as a whole, suggest that most minorities, particularly non-'outsiders', do not suffer serious wage differentials as compared to similarly-situated Han workers. However, 'outsiders' are more likely to suffer an income earning gap given similar demographic characteristics. Given this finding, it would therefore be rational and consistent with the results of Table 1 to pursue extra education as a compensatory strategy for 'outsider' minorities, particularly given the structure of government preferences for minorities in higher education. Overall, the finding that most minorities do not appear to have a significant wage difference is consistent with the hypothesis of no discrimination. The finding that 'outsiders' do have a significant earnings gap that is compensated by higher observed efforts to obtain education and government jobs is consistent with the compensatory response hypothesis.

Conclusion

In general there does not appear to be a significant wage gap between Han and average minority households a difference in wages does appear to exist between Han and outsider minorities. The wage differential is partially tempered by the minority compensatory responses to obtain more education and select more meritocratic jobs. Existing literature had not come to a consensus as to why qualitative studies found significant self-reported discrimination while econometric studies had not found an earnings gap between minorities and their Han counterparts. This disagreement suggests three potential explanations: (1) the discrimination is more perceptual than existential; (2) minorities compensate by utilizing alternative pathways to success to bring their average earnings to parity with Han earnings; and (3) the econometric studies included misspecified models or inadequate data.

[12] As noted in the previous section, this conclusion is conditional on a household having any earned income. Interestingly, Han minority head of households were much more likely to report no earned income (16% of those under 45) than minorities (8% of those under 45). This suggests that minorities may not suffer serious difficulties in obtaining jobs either.

Using summary statistics and regression techniques, this work finds that for general minorities, no significant wage gap appears to exist. For 'outsider minorities', the existence of pay discrimination is consistent with the findings of this report. Moreover, as summary statistics reveal, outsider minorities are also the groups that have adopted the largest observed compensatory strategy by increasing their level of educational attainment and finding more meritocratic jobs. From a public policy standpoint, these results would suggest that minority preferences should probably be more narrowly targeted at the neediest minorities and reduced if not eliminated for many minority groups. It seems likely that many minorities, in the subgroup not experiencing significant discrimination, are able to use their minority status to increase their educational attainment and boost their future potential earnings despite not suffering serious levels of discrimination. However, for the 'outsider groups', these preferences may be essential in reaching salary parity with the Han.

In a larger sense, these results suggest that minorities seem to be reacting strategically to pay differentials; they are not passive receptors of wage disadvantages but seek alternative pathways and strategies to achieve success in the job market. This finding should serve as a useful reminder to others debating how best to assist minorities in reaching equality with the dominant groups. Moreover, the unintended consequences of less-than-careful targeting of minority preferences are also an important result of this work. The lack of effective targeting likely hurts both the dominant ethnic group and needy minority groups. The dominant ethnic group members that are deprived of opportunities while the truly needy minorities are put in a perilous political position as popular support for preferences erode when the dominant society perceive that many minorities who are not needy are taking advantage of the system.

While eliminating wage differentials between ethnic groups is an ideal worthy of pursuing, minority preferences and alternative opportunities remain an important tool in the hands of governments seeking to reach ethnic group equality. This work highlights the progress that has been made in urban China, the important work still to be done, and the care with which public policy should react to these changes.

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Table 1: Summary Statistics of Minority and Non-Minority Groups

			Breakdown by Minority Type	
	Han	**Minority**	**"Outsider Minorities"***	**Other Minorities**
Individual Charateristics of Working Aged Respondents				
Age	43	41	39	41
% Male	0.51	0.48	0.46	0.48
% Working	0.72	0.74	0.78	0.73
% Male Working	0.79	0.80	0.82	0.80
% Female Working	0.64	0.68	**0.74**	0.67
% Has Professional Job	**0.52**	**0.60**	**0.68**	**0.58**
% Has Government Job	**0.47**	**0.55**	**0.63**	**0.54**
Fluent in Own Language	*n/a*	0.31	**0.73**	**0.25**
Fluent in Mandarin	0.54	0.54	0.42	0.56
% Urban Hukou	0.90	0.88	**0.97**	0.87
% Party Members	0.30	0.35	0.33	0.35
Average Years of Education	10.8	11.6	**13.2**	11.3
Household Characteristics				
Family Size	3.1	3.2	3.3	3.2
Household Income	27526	34517	40559	33675
Income Per Working-Aged Member	14050	16972	20237	16492
Husband's Father's Education**	2.3	2.5	2.9	2.5
% Husband's Father Had Professional Job	0.25	0.29	**0.42**	0.25
Wife's Father's Education Level**	2.4	2.6	2.8	2.6
% Wife's Father Had Professional Job	0.17	0.25	0.33	0.23
n	3975	2994	2448	2545

n/a = not asked
* "Outsider" Minorities include Tibetan, Uigher, and Kazahk

** Larger Number = More Education

Bold indicates statistic is of interest

Table 2: Minority vs. Han Regression on Log of Household Income

	(1) All Minorities		(2) Only Outsiders	
Variable [10-90 Percentile Range]	**Coefficient**	**Pr > |t|**	**Coefficient**	**Pr > |t|**
Minority [0-1]	-0.06	0.18	**-0.24**	**0.02**
Number of Working Aged in HH [1-3]	-0.08	0.47	-0.11	0.37
Female [0-1]	0.13	0.03	0.12	0.04
Years of School [7-15]	**0.06**	0.00	**0.06**	0.00
Experience [12-42]	**0.03**	0.02	**0.04**	0.02
Experience^2	**-0.001**	0.03	**-0.001**	0.03
HH Father Had Professional Job [0-1]	0.06	0.43	0.05	0.51
Fluent in Mandarin [0-1]	0.16	0.06	-0.15	0.10
Party Member [0-1]	-0.01	0.93	-0.03	0.74
Province Dummies Available Upon Request				
R Squared	0.19		0.20	
N	1580		1067	

Independent Variable = Ln(Household Income) [9.49-11.37]

Bold indicates statistic of interest

Table 3: Minority vs. Han Regression on Log of Household Income By Age

(A) Age < 45

Variable [10-90 Percentile Range]	(1) Coefficient	Pr > |t|	(2) Coefficient	Pr > |t|	(3) Coefficient	Pr > |t|	(4) Coefficient	Pr > |t|
Minority [0-1]	-0.09	0.08	-0.08	0.05	-0.08	0.14	-0.06	0.24
Number of Working Aged in HH [1-3]	0.03	0.63	-0.03	0.08	-0.06	0.48	-0.04	0.65
Female [0-1]	0.29	0.00	0.16	0.07	0.15	0.05	0.09	0.25
Years of School [7-15]	**0.11**	**0.00**	**0.09**	**0.01**	**0.08**	**0.00**	**0.06**	**0.00**
Experience [12-42]	0.03	0.19	0.04	0.02	0.04	0.08	0.04	0.12
Experience^2	-0.001	0.40	-0.001	0.00	-0.001	0.14	-0.001	0.20
HH Father Had Professional Job [0-1]	.	.	**0.14**	**0.07**	**0.12**	**0.09**	**0.11**	**0.15**
Fluent in Mandarin [0-1]	.	.	.	.	0.08	0.29	0.10	0.24
Party Member [0-1]	.	.	**.**	**.**	.	.	**0.21**	**0.01**
Province Dummies Available Upon Request								
R Squared	0.28		0.27		0.28		0.30	
N	1033		872		860		837	

(B) Age ≥ 45

Variable [10-90 Percentile Range]	(1) Coefficient	Pr > |t|	(2) Coefficient	Pr > |t|	(3) Coefficient	Pr > |t|	(4) Coefficient	Pr > |t|
Minority [0-1]	-0.02	0.76	-0.07	0.32	-0.08	0.29	-0.07	0.37
Number of Working Aged in HH [1-3]	-0.13	0.19	-0.14	0.29	-0.14	0.28	-0.20	0.20
Female [0-1]	0.16	0.01	0.10	0.05	0.10	0.05	0.10	0.07
Years of School [7-15]	0.03	0.13	0.04	0.12	0.04	0.14	0.04	0.15
Experience [12-42]	**0.08**	**0.30**	**0.14**	**0.03**	**0.15**	**0.03**	**0.13**	**0.04**
Experience^2	**-0.001**	**0.18**	**-0.002**	**0.01**	**-0.002**	**0.01**	**-0.002**	**0.02**
HH Father Had Professional Job [0-1]	.	.	0.06	0.55	0.05	0.64	0.06	0.61
Fluent in Mandarin [0-1]	.	.	.	.	-0.13	0.25	-0.15	0.21
Party Member [0-1]	.	.	**.**	**.**	.	.	**-0.08**	**0.56**
Province Dummies Available Upon Request								
R Squared	0.22		0.21		0.22		0.21	
N	928		775		767		743	

Bold indicates statistic of interest

Table 4: Outsider Minority vs. Han Regression

	(1) Age≥45		(2) Age < 45	
Variable [10-90 Percentile Range]	**Coefficient**	**Pr > |t|**	**Coefficient**	**Pr > |t|**
Minority [0-1]	**-0.28**	**0.01**	**-0.36**	**0.03**
Number of Working Aged in HH [1-3]	-0.10	0.32	-0.22	0.16
Female [0-1]	0.10	0.25	0.10	0.09
Years of School [7-15]	0.07	0.00	0.04	0.16
Experience [12-42]	0.04	0.10	0.14	0.04
Experience^2	-0.001	0.17	-0.002	0.02
HH Father Had Professional Job [0-1]	0.10	0.22	0.06	0.63
Fluent in Mandarin [0-1]	-0.07	0.48	-0.15	0.25
Party Member [0-1]	0.19	0.03	-0.10	0.47
Province Dummies Available Upon Request				
R Squared	0.31		0.22	
N	563		504	