

**Hui Muslims' Endogamy and Inter-marriages:
Marriage Markets, Islamic Culture, and Economic Growth**

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ABSTRACT

This paper examines the spousal choice dynamics among China's largest Muslim group, the Hui, in the post-1978 reform era. Using the 2005 Chinese Inter-Census Survey data, the competing risk models show a robust and striking regional divide between China's northwestern provinces and other areas, accounting for aging, education, and household registration status. Compared with those living in non-northwestern regions, those who live in the northwest are much more likely to enter endogamies and to marry at younger ages. Regional differences—especially the reluctance to intermarry in the northwestern region—are mainly attributable to three factors: varying local conditions in the marriage market, the Islamic culture, and economic growth. Particularly, findings show that local economic growth, rather than impeding, serves as an enabling condition that encourages Hui men's endogamous preferences. This paper provides a demographic assessment of Muslim–Han relations in China and contributes to the explanatory framework of homogamy and intermarriage by integrating aggregate-level demographic, cultural, and economic determinants.

Keywords: Hui Muslims, endogamy, intermarriage, regional differences, marriage markets, Islamic culture, economic growth

INTRODUCTION

Rates of intermarriage increased in the post-WWII period around the world (e.g., Kalmijn, 1991; Qian and Lichter, 2007; Rosenfeld, 2008; Schwartz, 2013), including marriages with spouses from different religions (Glenn, 1982; Lee et al., 2017; Sherkat, 2004). However, due to Islam's requirement of religious endogamy, Muslims around the world do not actively pursue marriage across religious boundaries (e.g., Clarke, 1971; Connolly, 2009; Jones, Leng, and Mohamad, 2009; Kulczycki and Lobo, 2002; Lee, 1988; Lucassen and Laarman 2009; Van Niekerk and Verkuyten, 2018).

According to the 2010 Chinese population census, China is home to approximately 23 million Muslims.² Though Muslims comprise a small minority in China (1.74%), the population size is similar to that in Syria or Yemen (China Statistical Bureau, 2012; Pew Forum on Religion and Public Life, 2009). Moreover, the limited studies on Chinese Muslims in the demographic literature have focused on their socioeconomic heterogeneities rather than marriage and family (Hannum and Xie, 1998; Poston and Micklin, 1993; Poston and Shu, 1987; Poston and Zhang, 2011; Wu and Song, 2014).

² It is worth noting that this estimate is based on ethnicity. During China's first population census in 1953–1954, ethnic labels were assigned to ten Muslim communities with different linguistic, ancestral, and geo-residential features (Mullaney, 2011). Although it is commonly assumed that these ten ethnic groups have remained predominantly Muslim, the ethnic-based estimation contains biases in both directions. Whereas adherents to Islam can be found in other ethnic groups, such as Han, Tibetans, Dai, and Yi (Ding, 2006), not all members of the ten ethnic groups are Islam believers. Nonetheless, as the Chinese Census Bureau and other administrative data agencies do not identify people's religion, so far there is no better way to determine the population size of Chinese Muslims.

This paper uses the 2005 China 1% Population Inter-Census Survey (i.e., the 2005 mini-census) microdata to examine the main patterns of endogamy and intermarriage of the Hui, China's largest Muslim group (10.6 million). In particular, I identify a striking regional divide between those living in northwestern China and those from other areas. I account for such differences by examining local contexts pertaining to marriage markets, Islamic culture, and economic growth. By doing so, this paper makes two distinct contributions.

First, to my best knowledge, this is the first population-level study that comprehensively documents patterns of mate selection among Hui Muslims across gender, age, region, and historical periods. Existing studies using population-level data often focus on the general patterns of intermarriages between Han and all other ethnic minorities (Liu, 2015) or intermarriages among ethnic minorities (Li, 2004) without pinning down the nuanced social forces behind Chinese Muslims or Hui Muslims in particular. On the other hand, studies that focus on Hui Muslims' mate selections often rely on non-evidence-based theoretical discussions (Lian, 2012) or ethnographic approaches that focus on specific cases or regions (Dong and Ma, 2018; Ji, 2011; Li, 2015; Sun, 2015; Wang, 2011; Yang, 2002; Zang, 2005). Given China's increasingly ambitious outreach to the Islamic world and its tightening policies regarding Muslims from the northwestern region (e.g., Bianchi, 2019; Clarke, 2017; Du, 2016; Gladney, 2018; Sidaway and Woon, 2017), the social sciences need a reliable understanding of China's Muslim minorities, especially their relations with the Han majority. Mate selection provides a valuable angle to observe Muslim–Han relations. As ethnographic studies have shown, endogamy is the “Great Wall” for the Hui Muslim identity (Gladney, 1996, p. 229). In a high-pressure regime that induces social desirability biases in

attitudinal surveys, one's spousal choice might be the most truthful and sensitive behavioral indicator of Hui–Han intergroup dynamics (see Lichter and Qian, 2019).

The second contribution of this paper is an expansion of the explanatory theory of spousal choice. By including local factors at the prefectural level, i.e., marriage markets, Islamic culture, and economic growth, the results help to contextualize mate selection among the Hui. This approach aligns with Merton's (1941) insight on the importance of aggregate-level social structures in shaping individual-level marital outcomes (Holloway et al., 2005). In articulating local factors, I draw on Kalmijn's (1998) three major causes of homogamy and intermarriage: opportunity constraints, influences of the "third parties," and personal preferences. First, I argue that the local marriage market constrains opportunities to meet potential spouses. Second, I propose that local Islamic norms work as a "third party," keeping Hui people from marrying outside of the Muslim community. Finally, although the demographic data do not offer measures of personal preferences, local economic growth may be associated with rising intermarriages as the tendency for individuals to associate modern family attributes with economic development may motivate more "modern" and individualistic marital choices to break through ethnic boundaries (Thornton, 2001, 2005).

RESEARCH SETTING

Historical Background

China is a multi-ethnic country with an officially unified national identity, supported by the Communist state. Thus, there is tension between the maintenance of ethnic identity and the necessity to conform to the state-supported discourse of national identity (Francis-Tan and Mu, 2019). This tension has been reflected in changes in China's ethnic policies. Besides the

Han Chinese, who constitute 91.6% of the total Chinese population based on the 2010 census, there are 55 state-recognized ethnic minorities (Mackerras, 2003). The ethnic categorization was directed by the government and was not finalized until 1982 (Gladney, 2004). The rationale for categorization was not systematic and sometimes arbitrary (Jiang, 1994). For example, Hui, as a historical term used to refer to all Muslims in China regardless of their ethnic origins before the official ethnic categorization, has its conceptual substance narrowed to only include the Sinophonic Muslims (Gladney, 1996; Lipman, 1997).

The Hui people, based on the official ethnic categorization, comprise the second-largest group among China's 55 ethnic minorities, and the largest Muslim ethnic group in China. Besides this demographic magnitude, the Hui people also share a cultural and ethnic closeness with the Han Chinese. Based on the mini-census microdata, roughly 13.2 out of 100 married Hui individuals had Han spouses in 2005 (author's own calculation). Nevertheless, like China's other Muslim groups, the Hui have non-Chinese origins. In the mid-7th century, their ancestors came to China from the Arab world, Persia, and Central Asia as foreign traders, soldiers, laborers, peasants, artisans, and bureaucrats. Toward the end of the Ming Dynasty (1368–1644), Hui descendants emerged as a Sinophonic Muslim community, known as *huihui* (Bai, 2007; Leslie, 1986; Ma, 1983; Yu, 1996). Today, the lay perception deems Hui as the most similar to Han in their physical appearances and language in comparison to other Muslim minorities. Indeed, the Hui are China's only ethnic minority without their own language, and various regionalects of Mandarin Chinese is the Hui's lingua franca in their social lives and in their religion. A large body of Islamic literature was written in Mandarin Chinese (largely in Confucian terms) by *huihui* scholars and widely circulated across the country (Benite, 2005; Leslie, Yang, and Ahmed, 2006). Even today,

this literature, known as the Han Kitab (*han ke ta bu*; *kitab* is the Arabic word for book) literature, helps construct an explicit Chinese identity among Hui Muslims.

Intermarriage was the key to the rise of the *huihui* in China. For six centuries until the Mongol Yuan regime (1271–1368), the *huihui*'s ancestors were perceived as foreign-looking Arab and Persian speakers. During Yuan, the Mongol rulers relocated numerous Central Asian Muslims to China and classified them as *semu*, the second class of the racial caste system and superior to the Han. In 1372, soon after the Han regained state power, the Ming government forced non-Han ethnicities, including Muslims living in China, to marry Han for assimilation purposes (Bai, 2007, p. 127; Yu, 1996, p. 115). These two centuries of forced Muslim-Han marriages had shaped the Sinophonic *huihui*.

Since foreign Muslims were transformed to the Sinophonic and (more or less) Chinese-looking *huihui*, they were no longer forced to marry Han spouses. Given the Islamic requirement of religious endogamy, the *huihui* predominantly sought marriage partners from members of their own community. Then, in the mid-1800s, a series of violent conflicts broke out between the *huihui* people and various Chinese regimes. These conflicts, which continued for over a century, include the Panthay Rebellion (1856–1873) and the Dungan Revolt (1862–1877) against the Manchu Qing (1644–1912) (Atwill, 2005; Chang, 2001), and the warlords' struggles during the Republic era in 1912–1949 (Lipman, 1997). These historical confrontations further reinforced the *huihui*'s endogamous tendencies (Jaschok and Shui, 2013, p. 143).

The socialist revolutionary campaigns during the first three decades of the People's Republic of China (PRC) has uniquely shaped Hui people's marital choice patterns (Gladney, 1996). While the collectivization and nationalization of rural and urban economy

during the Socialist Transformation right after the foundation of PRC weakened the power structure of the traditional family by eliminating household-based production units, the socialist state, through various highly penetrating organizational forms, such as rural collective communes and urban work units, gained tremendous influences over Chinese people's private sphere of life (Whyte, 1990; Xu and Whyte, 1990). As a result, young people's newly acquired marital autonomy was effectively bounded by the state's hegemonic vision of socialism, which had equated ethnic cohesion to local ethnic chauvinism (Gladney, 1996). The government's hostility against ethnoreligious orders quickly escalated into the 1958-1960 Religious System Reform, which aimed to dismantle the existing structures that had obstructed the state's reach to the grassroots-level believers with Islam as a main target (Chen, 2002). Religions continued to be on the very frontline of the massive anti-tradition campaigns during the Cultural Revolution from 1966 to 1977, known as the climax of China's socialist radicalism. Mosques were closed or pulled down, and Muslim ways were extensively insulted and suppressed across the country (Dillon, 1994). Meanwhile, ethnic diversity was considered by the ultra-leftist state leadership as incompatible with the idea of a unified Chinese nationality (Heberer, 2017). In such a context, Hui were strongly pressured to marry Han to show their rejection of old ethnoreligious traditions (Gladney, 1996). Since the ideology and policies during the Cultural Revolution were officially negated in the late 1970s, a post-Mao Islamic revival has been widely observed (Dillon, 1996; Goldman, 1986), and a growing religious conservatism among the Hui community was identified, marked by rising endogamous tendencies (Gladney, 1996).

Yet, despite the changing historical forces, the Hui people remained the only Muslim community with extensive marital contacts with the Han Chinese due to their ethnic similarity to Han Chinese (Mu and Wu, 2015; Zang, 2005).

Regional Divide

With a population of 10.6 million, the Hui people have enormous demographic, socioeconomic, and cultural heterogeneities (Dillon, 1999; Gladney, 1996, 1998, 2004; Lipman, 1997). Hui individuals live in 2,840 of China's 2,870 counties (China Statistical Bureau, 2012), though they are not evenly distributed across the country. The northwest is known as China's Muslim heartland. According to China's 2010 population census, more than three quarters (76.4%) of all China's Muslims lived in the four northwestern provinces or ethnic autonomous regions of Gansu, Qinghai, Ningxia, and Xinjiang, including half (49.6%) of the Hui and practically all the other nine Muslim ethnic groups (99.0%). The rest, namely, 50.4% of the Hui population who are widely distributed among the other 27 provincial-level administrative units account for 97.7% of all Muslims not in the northwest. As illustrated by Table 1, this regional divide creates different sociodemographic circumstances for the Hui.

TABLE 1 ABOUT HERE

Table 1 shows two basic facts. First, northwestern China hosts much larger Hui communities, which account for 8.9% of the population in the northwest but only 0.4% outside of the northwest. Additionally, 64% of counties in the northwest have 1,000 or more

Hui residents, compared to 30.7% elsewhere in China. Second, Hui residents in the northwest have much less exposure to the Han population: for each Hui individual in the northwest, there are only 7.4 Han Chinese, compared with 221.5 Han Chinese in non-northwestern areas. This could be attributed to the fact that the Hui are more segregated from the Han in the northwest than elsewhere. Hui Muslims tend to self-select into areas with higher residential concentrations of Hui for more social, financial, and policy support of religious facilities and to practice religion more rigorously (Mu and Wu, 2015). According to the county-level index of Hui–Han dissimilarity (Massey and Denton, 1988), based on which a greater number indicates a higher level of Hui-Han residential segregation, the index score is 64.1 in the northwest, compared with 60.5 in non-northwestern provinces (author’s own calculation). Note that the index score is by construction positively correlated with the number of residential units (i.e., county) with the non-northwest China hosting much greater number of counties than the northwest, this comparison in fact understates segregation in the northwest. This regional divide implies important differences in the local cultural and demographic contexts for Hui individuals’ spousal choices (Mu and Lai, 2016), which I will detail in the next section.

THEORETICAL FRAMEWORK AND HYPOTHESES

Social context profoundly shapes individuals’ marital behaviors (Blau and Schwartz, 1997). Kalmijn’s (1991, 1998) general framework on causes of social homogamy provides insights to understand how contextual factors influence Hui Muslims’ marital selections. According to Kalmijn, there are three sets of explanatory factors, namely, opportunity constraints of the

marriage market, the influences of the “third parties” who play important and authoritative roles in the influenced individual’s marital decisions, and personal preferences.

The opportunity constraints of the marriage market, reflected by sizes of the single opposite-sex population of a given ethnic group, may impose individuals to varying levels of exposure to potential marriage candidates and thus different tendencies to marry within or out of the ethnic group (Blau and Schwartz, 1997; Cheng and Xie, 2013; Mu and Wu, 2015). Regarding the second set of factors, individuals’ decisions about marriage depend on parents or other authority figures or communities, who for the sake of religious purity, community solidarity or collective interests are inclined to promote marriages within the group (Allendorf and Pandian, 2016; Goode, 1970). For preference, it indicates individuals’ choices free of structural constraints and motivated by their own social values and beliefs (Kalmijin, 1998). With greater levels of social and economic development, individuals are more likely to embrace more “modern” and individualistic marital preferences which break through ascribed group boundaries, such as intermarriages across ethnicities (Thornton, 2005).

In our case, local Hui communities function as an aggregate-level “third party” to inculcate and enforce Islamic norms of endogamy, and the local opposite-sex population sizes of single Hui and Han directly impose marriage market constraints for Hui to meet their potential spouse within or out of Hui (Haandrikman et al., 2008). Thus, compared with Hui in other regions or in places with lower percentages of Hui and smaller sizes of single Hui population, Hui in the northwestern regions or in places with higher Hui residential concentrations and bigger groups of single Hui, may be exposed to stronger local Islamic norms of marrying at younger ages and marrying Hui spouses (Lai and Thornton, 2015; Zang, 2005, 2007) and that their lower exposure to Han Chinese further increases their

chances of ethnoreligious endogamy (Mamet, Jacobson, and Heaton, 2005; Mu and Lai, 2016; Mu and Wu, 2015; Zang, 2012). Furthermore, the divide between the northwest and other provinces as well as across prefectures also means great heterogeneity in economic growth, especially during the reform era (Xie, 2011). Despite dissimilar baseline economies and development, regions and prefectures across China have experienced phenomenal economic growth since the late 1970s (Chow, 2002, pp. 169-170; Naughton, 2018, pp. 37-39). Thornton (2001, 2005) argued that a system of beliefs associating modern family attributes with economic development has motivated family changes, including a rise in intermarriage, on a global basis (also see Allendorf, 2017; Allendorf and Pandian, 2016; Allendorf and Thornton, 2015; Vermeer, 2006). The literature also suggests a positive causal impact of economic growth on intermarriage rates (Blossfeld and Timm, 2003; Schwartz, 2013; Smits and Lammers, 2000).

In the following analysis, I first perform a direct test of the regional disparities in Hui's spousal choice dynamics. Then I parameterize the local conditions at the prefecture level with respect to the marriage markets, Islamic culture, and economic growth to account for the observed regional differences. Specifically, I expect to test the following hypotheses:

Hypothesis 1 (Regional divide): Hui Muslims in the northwest China are more likely to be endogamous and less likely to be intermarried.

Hypothesis 2a (Marriage market): Greater sizes of single Hui population of the opposite sex and smaller sizes of single Han population of the opposite sex at the prefectural level are associated with higher likelihood of endogamy and lower likelihood of intermarriages.

Hypothesis 2b (Islamic culture): Higher percentages of Hui population at the prefectural level are associated with higher likelihood of endogamy and lower likelihood of intermarriages.

Hypothesis 2c (Economic growth): Greater GDP per capita at the prefectural level are associated with lower likelihood of endogamy and higher likelihood of intermarriages.

DATA AND METHODS

To model the reform-era dynamics of Hui's spousal choices and regional disparities, I construct retrospective event-history data based on the 2005 China 1% Population Inter-census survey (i.e., the 2005 mini-census). I also compute and borrow prefectural data from multiple external sources to measure the local conditions regarding marriage markets, religious culture, and economic growth (China Statistical Bureau, 2005). The 2005 mini-census offers two critical advantages. First, it contains the largest possible sample of China's Hui minority and their marital information (identified through household relations), providing enough data points for the highly infrequent intermarriages (Cf. Table 3). More recent census micro-datasets exist for 2010 and 2015, but both are 1/10,000 of the population size. The 2005 dataset is twice as large and thus offers up to 5,516 endogamies and 514 intermarriages for our analysis. Second, the 2005 survey reported the timing of marriage, which enables construction of person-year data to estimate annualized probabilities of endogamy and Hui–Han marriage and to account for time-varying determinants.

Two sample restrictions are imposed due to data limitations. First, the marital unions in our analysis are restricted to first marriages only, as spousal information cannot be identified for those who are divorced or widowed, and the year of marriage cannot be

determined for remarried couples. Nonetheless, as of 2005, most (89%) of ever-married Hui respondents lived with their first spouse. Second, our analysis deals with non-migrants only because the data do not allow us to track respondents' residential history, and thus the time-varying residence and prefectural characteristics cannot be correctly specified for the migrants' past experiences. This leads to a loss of approximately 13% of the sample. The final, person-level sample comprises 9,724 respondents who potentially have ever searched for a Hui or Han spouse in China's marriage market during 1982–2005 (Cf. Table 2).

The 2005 person-level data were transformed to the person-year format to track down each individual's time-varying characteristics and their influences on the transition to first marriages. The time-varying marital status, coded as never married, endogamy, or intermarriage, identifies the event outcomes: first marriages with either Hui or Han spouses. To model the Hui's mate selection dynamics in the reform era, the ideal study universe should be their marriage market experience since 1978. However, given data limitations, the risk set, meaning the pool of total years experienced by all single individuals, is defined with two conditions. First, the historical observational window spans from 1982, when prefectural data became available, to 2005, the survey year. Second, individuals are expected to be eligible for marriages since age 15 and are thus exposed to the possibilities of endogamy or intermarriage until marriage or age 35. According to the 1982, 1990, 2000, and 2010 China census data, as well as the 2005 China mini-census data, the proportion of those who never married by age 35 has been consistently low. Specifically, from 1982 to 2010, the percentages of those who never married by age 35 are respectively 4.25%, 4.36%, 3.77%, 3.57%, and 3.95% for men and 0.25%, 0.25%, 0.27%, 0.44%, and 0.65% for women (China Data Center, 1982, Table 7-71, 1990 Table 7-5, 1995 Table 4-4, 2000 Table L5-03, and 2005

Table 6-1; China Statistical Bureau, 2010, Table L5-05). Note that our analysis is not limited to married respondents, as single Hui men and women also could have contributed eligible person-years to the risk set. In other words, all those who remained single between the ages of 15 to 35 years between 1982 and 2005 are retained in the analytic sample, and the years each individual remained single will be counted toward the total person-years. This procedure yielded 59,669 person-year records, including 5,516 endogamy and 514 intermarriage events. Table 3 reports the annualized probabilities of both types of events, by gender and region, over historical years and personal age.

As the first goal of this study is to reveal the regional differences in the dynamics of mate selection, I use multinomial logit models to estimate discrete-time competing risk models, by gender, using the dummy variables of the four northwestern provinces or ethnic autonomous regions to predict Hui individuals' tendencies toward endogamy and intermarriage (Model 1 in Table 4). By construction, the multinomial logit models applied to the event-history data estimate the multiple decrement processes on the marriage market, that is, how individuals transit out of the single status through either endogamy or intermarriage, and the northwestern province dummies reveal the regional differences in these processes. Model 1 also includes time-varying historical year, personal age, years of education, and respondents' residential registration (*hukou*) status to estimate the net effects of the regional divide.

Once identified, the second goal is to account for regional differences using prefectural level factors. First, I measure the sizes of local marriage markets with the numbers of single Hui and Han individuals of the opposite sex. Counting is conditional on marital status by prefecture in the census microdata from 1982, 1990, 2000, and 2005. I then

weighted the sample counts to the population levels. The numbers between the four time points are imputed with linear extrapolation. Second, I use the proportion of Hui population of the prefecture to instrument the local Islamic culture, again based on the computation and imputation using the four waves of census microdata. Finally, I measure local economic growth using prefectural GDP per capita. Historical GDP data by prefecture have been published in the *China City Statistical Yearbook* (China Statistical Bureau, 2005) since 1989. I standardize the GDP numbers by prefectural population size and perform inflation adjustments, with 1990 as the reference year. When constructing all prefectural series, I harmonize the data to account for administrative reclassifications of prefectures over time. All prefectural data are eventually matched to individual person-year records. For a more comprehensible summary, Table 2 reports the person-level averages of both individual and prefectural variables. As shown in Table 4, the time-varying prefectural variables are included in Model 2 to account for the regional disparities in Hui's mate selection dynamics.

STATISTICAL RESULTS

I summarize the statistical results in three tables. Table 2 describes the person-level sample by gender and region. Table 3 shifts to the person-year data and shows the spousal choice dynamics across historical periods and personal age. Table 4 reports the regression results by gender.

Sample Description

In terms of person-level data, the spousal choice dynamics mainly involve age and marital outcomes. As shown in Table 2, in 2005, the average age of 9,724 risk-set-eligible

respondents was 28.7 years, and 38% had never married. This sample is young and has a low marriage rate mainly because censoring of pre-1982 marriage market experiences excludes many married individuals at older ages. Among the married, 8.5% are married to Han spouses (56.7% endogamies versus 5.3% intermarriages). However, this result significantly underestimates the percentages of intermarriages due to the disproportionately large sample of the northwest, where Hui's marriages are more likely to be endogamous. Nevertheless, the result does not affect our subsequent analysis by region. In fact, it yields more reliable observations of the less frequent intermarriages in the northwest given the sizable sample.

TABLE 2 ABOUT HERE

As expected, the regional divide is clear. For both men and women, the northwestern Hui are younger, likely due to higher fertility in this region, more likely to be married, and more likely to marry Hui spouses in comparison to their non-northwestern counterparts. Non-northwestern men are 10.6 times more likely to have Han wives than their peers in the northwest (13.8% versus 1.3%), and non-northwestern women are 7.5 times more likely to marry Han husbands (12.7% versus 1.7%). Moreover, the northwest's strong endogamous pattern seems to be associated with marrying young (2.4 years younger for men and 2.7 years younger for women compared to those in the non-northwest). In terms of socioeconomic conditions in the northwest, endogamy and early marriage seem to be associated with rural *hukou* status and fewer years of education.

All prefectural variables are time-varying. For the purpose of description, as shown in Table 2, for each respondent, we calculate the 1982–2005 average of these variables to assess

the overall exposure to various prefectural characteristics during the reform era. While Hui men in the northwest are exposed to fewer local single Han women than men in non-northwestern areas (158,000 versus 708,000), their exposure to single Hui women in the same prefecture is much greater than their non-northwestern peers (58,000 versus 11,700). The regional patterns of marriage markets are similar for the female respondents. It is clear that the regional differences in endogamy and intermarriage are connected to the numbers of eligible marriage partners in local Hui and Han populations.

For the other two dimensions of prefecture-level heterogeneity, Islamic culture and economic growth, as shown in Table 2, the percentages of Hui residents in the prefecture are much higher in the northwest than elsewhere (24.6% versus 1.4% for men and 25.1% versus 1.4% for women). With respect to marital outcomes, the greater relative concentration of Hui communities in northwestern prefectures seems to indicate a strong local Islamic culture that encourages early marriage within their own religion.

The prefectural GDP per capita measures the local affluence level. Men and women living in the non-northwestern areas are financially better off. The prefectural GDP per capita are 3,530 yuan versus 2,025 yuan for men and 3,619 yuan versus 1,975 yuan for women, respectively in non-northwestern and northwestern areas. Linking to patterns of marital outcomes, this conforms to popular perceptions that economic development promotes later and interreligious marriages. However, the between-prefecture variation in GDP shown in Table 2 is not a measure of economic growth as it does not reflect temporal variations. To assess these effects, we must estimate the dynamic processes using the discrete-time event-history sample, which allows for the inclusion of time-varying local GDP data.

Descriptive Spousal Choice Dynamics

To model the marriage market dynamics of Hui people in the reform era, I expand the 2005 person-level data into 59,669 records, each representing a person-year spent searching for a Hui or Han spouse between the ages of 15 and 35 from 1982 to 2005. The entire exposure contains 53,639 person-years in never-married status, 5,516 endogamies, and 514 intermarriages with the Han Chinese. Table 3 presents the annualized probabilities of endogamy and intermarriage by gender and region, showing their changing spousal choices over historical time and personal age.

TABLE 3 ABOUT HERE

Regarding historical time changes, note that both endogamy and intermarriage decrease from 1982 to 2005 across gender and region, possibly due to increasing denominators of rates over time. As our person-year data are retrospectively constructed, they tend to over-represent the marriage market experience of the young and unmarried in more recent years. More importantly, the declining risks also mean that young men and women across the country are more likely to delay their first marriages and thus accumulated more person-years while searching for spouses.

A second pattern is that the endogamy probabilities are consistently greater than intermarriage probabilities, especially for northwestern respondents. To highlight the relative likelihood between endogamy and intermarriage, Table 3 also lists the odds ratio between the two outcome probabilities, meaning taking the ratio of the likelihood of endogamy over that

of intermarriage, indicating the relative preference for endogamy. As shown, over time, the relative preference for endogamy has declined as the ratios mostly shrink toward more recent years.

The lower panel of Table 3 shows, by gender and region, the multiple decrements of the synthetic cohort's search on the marriage market, indicating hypothetical distributions of age of marriage if individuals in the sample start spouse search at the same time. First, examining the annual probabilities, the chances of endogamy peak before the chances for intermarriage among women (ages 21-25 for endogamy versus 26-30 for intermarriage). The later peaks of intermarriage indicates a preference for Hui spouses. Second, judging by the declining endogamy-to-intermarriage ratios, the relative endogamy propensity weakens over the life course, indicating an aging effect: as one grows older, choosing a Han spouse becomes relatively more acceptable. Moreover, the ratios are particularly large for ages 15-21, suggesting that early marriage may be a mechanism for Hui endogamy, particularly in the northwest.

The most striking and consistent pattern in Table 3, however, is the regional divide. The total annual probability of endogamy is 9.7% for northwestern men, which is 1.7 times that of non-northwestern men (5.7%). In contrast, average intermarriage rate among non-northwestern men is 1.9%, which is 9.5 times that of northwestern men (0.2%). Comparing Hui women by region, the northwest-to-elsewhere ratio of endogamy probabilities is 1.7 (12.5% versus 7.3%), and the ratio for intermarriage is 0.2 (0.3% versus 2.0%). In other words, northwestern Hui are much more likely to end up in endogamy and much less likely in intermarriages, irrespective of gender, compared with their non-northwestern counterparts. Moreover, such regional patterns persist across historical periods and personal ages.

Regional Effects: Marriage Markets, Islamic Culture, and Economic Growth

I now estimate multinomial logit models on the discrete-time event-history data to evaluate the competing risks of endogamy, intermarriage, and singleness, from 1982-2005. As the mechanisms of mate selection differ between men and women, Table 4 reports the regression results by gender. For each gender, I construct two models. Model 1 highlights regional differences, controlling for period effects and individual-level heterogeneities. Model 2 further includes the prefecture-level factors to account for regional effects. The rest of the section will be structured according to the four hypotheses proposed in the section “Theoretical Framework and Hypotheses.”

TABLE 4 ABOUT HERE

Hypothesis 1 (Regional divide): Hui Muslims in the northwest China are more likely to be endogamous and less likely to be intermarried.

I first focus on the regional differences in Model 1. The results are similar for men and women. Net of period effects and personal characteristics, residence in the northwest is significantly influential on Hui’s spousal choice dynamics. Living in the northwestern provinces means sooner entry into endogamy (except in Xinjiang), longer spouse searching before intermarriage, and much lower odds of intermarriage than endogamy. Thus, Hypothesis 1 is largely supported except for an exception in Xinjiang.

Specifically, as shown in Table 4, the odds of entry into endogamy for Hui men in Gansu is 1.87 times as large as that for their non-northwestern counterparts. Likewise, the

odds ratios for men in Qinghai and Ningxia are 2.62 and 2.83, respectively. All three effects are significant at the 0.001 level. For entry into intermarriage, the odds for all four northwestern provinces are no more than 0.29 as large as that for men in the non-northwestern regions, which are all statistically significant.

Model 1 for women tells a similar story as for Hui men. All northwestern coefficients are statistically significant, except for entry into endogamy in Xinjiang. Moreover, all effect directions are the same. Nevertheless, a systematic difference occurs in terms of the effect size: the positive effects on endogamy are less positive, and the negative effects on intermarriage are less negative for women than for men, without a single exception.

Now that we have established the net regional differences in Hui's spousal choice dynamics, we move on to understand such differences and test the other three hypotheses. As shown in Table 4, Model 2 further includes the time-varying prefectural characteristics. Specifically, I specify the local marriage market size (i.e., the number of single Han and Hui individuals of the opposite sex), the exposure to Islamic culture (i.e., the percentage of Hui in the local population), and the economic growth (i.e., local GDP per capita) to account for the above regional divide.

As shown in Model 2, including prefecture-level explanations greatly reduces regional disparities. For both men and women, this happens in two ways. First, for Qinghai, Ningxia, and Xinjiang, all six effects pertaining to intermarriage become insignificant. Second, among the five regional coefficients that remain significant, all effect sizes shrink. Consequently, for both genders, net of the prefectural heterogeneities, Gansu's positive effect on endogamy and negative effect on intermarriage persists but becomes weaker; for Qinghai and Ningxia, only the positive effects on the entry into endogamy survive, with smaller

magnitudes; and the differences between Xinjiang and the non-northwestern provinces disappear altogether.

This indicates that much of the regional effects are due to prefectural characteristics, so we now examine the concrete mechanisms. Focusing on the prefectural variables in Table 4, we notice two main patterns. First, although they play a limited role in terms of entry into endogamy, these variables extensively influence entry into intermarriage for the Hui and their relative inclination to marry Han spouses over Hui spouses. Second, unlike the regional effects, the prefectural mechanisms differ between men and women. Below, I examine the effects, by gender, of the marriage market, Islamic culture, and economic growth, and link back to the three hypotheses on prefectural factors.

Hypothesis 2a (Marriage market): Greater sizes of Hui single population of the opposite sex and smaller sizes of Han single population of the opposite sex at the prefectural level are associated with higher likelihood of endogamy and lower likelihood of intermarriages.

Regarding the size of local marriage markets, the increase in the number of local Han men delays Hui women's endogamy (odds ratio = 0.89), but the number of Han women does not have the same effect on Hui men. The size of the endogamous market, however, significantly delays entry into intermarriage for both men (odds ratio = 0.93) and women (odds ratio = 0.83). In terms of the odds of intermarriage over endogamy, the number of eligible Han partners does not affect Hui men but has a positive impact on Hui women (odds ratio = 1.34); on the other hand, the Hui endogamous market discourages both men's (odds ratio = 0.84) and women's (odds ratio = 0.80) relative preference for intermarriage. Thus,

based on the significant coefficients, Hypothesis 2a is largely supported except for some gender differences in levels of significance.

Hypothesis 2b (Islamic culture): Higher percentages of Hui population at the prefectural level are associated with higher likelihood of endogamy and lower likelihood of intermarriages.

The local Islamic culture, as measured by the relative size of Hui population, also works differently by gender, and the results are only significant for intermarriages. Although it decreases the odds of intermarriage over endogamy for men (odds ratio = 0.0003) and women (odds ratio = 0.02) alike, it significantly delays entry into intermarriage only for men (odds ratio = 0.0004), suggesting that the local Islamic culture discourages intermarriage much more strongly for men than for women. Thus, based on the significant results, Hypothesis 2b is supported but only for intermarriages.

Hypothesis 2c (Economic growth): Greater GDP per capita at the prefectural level are associated with lower likelihood of endogamy and higher likelihood of intermarriages.

The influences of local economic growth are surprising as they oppose our expectations and are gender-specific too. Specifically, it has no impact on Hui women's spousal choice dynamics, but it keeps Hui men searching longer, rather than shorter, before they enter intermarriages with Han wives and reduces, rather than increases, men's odds of intermarriage over endogamy. This is possibly due to that, the local economic growth during the market reform has given Hui men, but not women, some leverage to maintain their endogamous norms. Economic growth does not necessarily push them into earlier endogamies; rather, it allows Hui men with a strong preference for Hui spouses to stay in the marriage market longer until they realize their preference for endogamy. Therefore,

Hypothesis 2c is not supported. Particularly for men's tendencies of intermarriage, the findings are opposite to the expected directions of influences. That is, better economic conditions may serve as an enabling condition that encourages Hui men's endogamous preferences.

Other Findings

Besides the focal findings, the models also estimate the period effects and individual-level spousal choice mechanisms. Comparing Models 1 and 2, those effects are robust in the presence of prefectural heterogeneities. Therefore, I focus the interpretations on the net effects in Model 2, which are independent of regional and prefectural mechanisms.

The period effects are similar for both genders. Over time, the likelihoods of entering both endogamy and intermarriage decrease (at annual ratios of 0.95 and 0.97 for men and 0.94 and 0.96 for women). This finding indicates an overall trend toward later marriage for all Hui individuals during the reform era.

Aging works in the opposite direction. For Hui men, it motivates sooner endogamies (odds ratio = 1.26) and even sooner intermarriages (odds ratio = 1.33). Increased age also increases the propensity for intermarriage over endogamy (odds ratio = 1.06). For Hui women, aging plays similar roles, driving them to sooner endogamies (odds ratio = 1.29) and intermarriages (odds ratio = 1.31); nonetheless, these effects are comparable and do not result in a significant inclination for intermarriage over endogamy.

Education seems to have different meanings for men and women. For men, it serves as social capital that drives them to sooner endogamy (odds ratio = 1.04) and even sooner intermarriage (odds ratio = 1.17), leading to a significant preference for intermarriage over

endogamy (odds ratio = 1.13). In contrast, for women, it plays the role as a modernizing force as education delays entry into endogamy (odds ratio = 0.96) but increases the chances of early intermarriages (odds ratio = 1.09); overall, education promotes intermarriages among Hui women (odds ratio = 1.14).

The effect of urban *hukou* is more homogenous. For both genders, urban *hukou* prevents early endogamies among single Hui individuals (odds ratio = 0.45 for both men and women) but has no impact on the timing of intermarriages. Nevertheless, this result indicates significant odds ratios favoring intermarriages: 3.25 for men and 2.36 for women.

CONCLUSIONS AND DISCUSSION

This paper provides an in-depth understanding of mate selection dynamics in China's largest Muslim group, Hui, during the reform era. In particular, findings reveal vast regional variations in their choices between endogamy and intermarriage. Prefecture-level heterogeneities in marriage markets, Islamic culture, and economic growth account for much of these differences.

Based on Chinese censuses and mini-census and statistical yearbook data, I construct a national sample of the marriage market experience among Hui people between 1982 and 2005. Although the preference for endogamy over intermarriage declines over historical time and with personal age (without statistical control), a salient and consistent regional pattern emerges across all periods and ages. This pattern points to much stronger endogamous marriages in the northwest (Cf. Table 3), compared with non-northwestern regions. These regional differences are further revealed with four northwestern province dummies in the first set of competing-risk models. Compared to the 27 non-northwestern provinces,

residence in the northwest provinces, regardless of gender, speeds up endogamy (except in Xinjiang), defers intermarriages, and leads to much greater likelihoods of endogamy than intermarriage (Cf. Model 1 in Table 4).

Much of these regional differences can be explained by prefecture-level factors. Specifically, I articulate and test three key local dimensions, namely, marriage markets, Islamic culture, and economic growth, to explain the regional divide between China's northwest and elsewhere. Once these factors are considered, six province effects pertaining to intermarriages disappear for both genders. Gansu, Qinghai, and Ningxia's positive effects on the timing of endogamy remain, as do Gansu's suppressing effects on intermarriage, but all effects weaken in magnitude and statistical significance (Cf. Model 2 in Table 4). The reduction in regional disparities shows the same pattern for both men and women, though the concrete prefecture-level mechanisms differ by gender.

In terms of the marriage market, local exposure to single Han women has no effect on Hui men, but a greater local presence of single Han men delays Hui women's endogamy and thus leads to higher likelihoods of intermarriage over endogamy for Hui women. Meanwhile, more eligible marriage partners from Hui's own community suppress the odds of intermarriage over endogamy by delaying entry into intermarriages for both Hui men and women.

Second, the local Islamic culture suppresses Hui men's entry into intermarriage but does not similarly affect Hui women. Moreover, it decreases men's odds of intermarriage over endogamy (odds ratio = 0.0003) much more strongly than it does for women (odds ratio = 0.02).

Finally, local economic growth affects Hui men only. Contrary to the popular expectation, the increase in local standards of living, as reflected by greater GDP per capita, does not lead to higher likelihood of intermarriage. Rather, it allows Hui men to delay intermarriage and search longer on the marriage market, which results in their lower odds of intermarriage over endogamy (Cf. Model 2 in Table 4).

In recent years, China has become increasingly ambitious and active as a global power. Its international development plan focuses on Muslim countries in different parts of the Eurasian continent (Ferdinand, 2016; Irshad, 2015; Yu, 2017). Given this context, it is important to understand China's 23 million domestic Muslims and their interactions with the majority Han. Yet, it has been a challenge to systematically assess the empirical facts about China's Muslims at the national level, in part because of their small relative sizes but more importantly because of a lack of reliable ethnoreligious data. The Sinophonic Hui Muslims' long, albeit limited, tradition of intermarriage with the Han Chinese provides a unique opportunity to observe their status as a religious minority in China's various demographic, cultural, and economic contexts.

This paper makes both empirical and theoretical contributions. Specifically, it reveals a particularly striking pattern of the regional divide between the northwest and other provinces, where the two halves of the 10.6 million Hui population in China have lived under radically different sociodemographic conditions. For example, Hui men in non-northwestern regions are almost nine times more likely than their northwestern peers to intermarry, and non-northwestern Hui women are almost six times more likely to intermarry than northwestern women. Moreover, these regional effects persist after accounting for period

effects, and individual-level mechanisms, such as age, education, and China's institution of household registration.

In addition to empirical documentation, this study makes a theoretical contribution by articulating the local contexts that affect mate selection among Hui people. I follow Kalmijn's (1998) explanatory framework and specify the structural constraints of local marriage markets using local populations of single Hui and Han of the opposite sex, and Islamic culture as a "third party" agent using local ethnoreligious composition. I also expand the framework to include local economic growth. The analytical results demonstrate the utility of the theoretical framework. Individually, each contextual variable reveals important prefecture-level influences on Hui individuals' spousal choices; collectively, they successfully account for the reform-era intermarriage patterns in Qinghai, Ningxia, and Xinjiang, as well as some patterns in Gansu. The robust resistance against intermarriages in Gansu is attributable to imperfections of the cultural measure and should not indicate that Islamic culture is not powerful and prevalent in Gansu. As China's traditional northwestern borderland, Gansu hosts strong Islamic religiosity. For example, Linxia Hui Autonomous Prefecture, which is home to nearly half of the Hui in Gansu, is known as China's "Little Mecca" (Lipman, 1997).

Finally, the theoretical contribution also includes a modification of the relationship between economic growth and interreligious marriages. The widely established positive correlation between the two phenomena, though not necessarily true, is a popular expectation drawing on a system of beliefs that Thornton (2001, 2005) termed "developmental idealism" which associates modern family behaviors to economic development. Although this expectation has contributed substantial ideational agency that promotes cross-religion

marriages around the world, findings from this study challenges the causality between economic growth and intermarriages. Based on the formulation of this study, economic growth is a neutral force. It helps materialize the preferences of whomever possesses its products. For example, empirical studies on reform-era China have shown that the post-1978 economic development helped revive private property, which has in turn revived the traditional family (e.g., Mu and Xie, 2014). In the case of Hui's marital choices, findings show that local economic growth strengthens Hui men's endogamous preferences. Therefore, I argue that economic growth is likely to motivate family changes, but the direction of its impacts depends on the concrete preferences of individual decision makers and the social contexts in which they are embedded.

Tables

Table 1. Hui population characteristics by region, 2010

	% of Hui	% Hui	% counties with 1,000 Hui or more	Han-Hui Pop. Ratio	Hui-Han Dissimilarity (by county)	Number of counties	Hui population
Non- northwest	50.4	0.4	30.7	221.5	60.5	2,617	5,336,313
Northwest	49.6	8.9	64.0	7.4	64.1	253	5,249,774
National	100.0	0.8	33.6	115.3	68.4	2,870	10,586,087

Source: China Statistical Bureau 2012 (Table 10) and author's own calculation based on the 2005 mini-census microdata.

Table 2. Person-level sample description by gender and region

	All	Male		Female	
		Northwest	Non-northwest	Northwest	Non-northwest
<u>Individual variables</u>					
Marital status in 2005					
<i>Never married</i>	38.0	37.5	43.6	34.7	40.0
<i>Married with Hui</i>	56.7	61.2	42.6	63.6	47.2
<i>Married with Han</i>	5.3	1.3	13.8	1.7	12.7
Age at first marriage (for the married)	22.0 (3.4)	22.2 (3.2)	24.6 (3.2)	20.2 (2.8)	22.9 (3.0)
Age in 2005	28.7 (9.6)	28.3 (9.3)	30.9 (10.6)	27.2 (8.8)	30.2 (10.2)
Male (%)	51.7	100.0	100.0	0.0	0.0
Urban <i>hukou</i> in 2005 (%)	33.2	22.7	56.6	21.2	57.6
Urban residence in 2005 (%)	43.9	30.0	73.9	29.2	74.4
Years of education in 2005	7.8 (4.0)	7.6 (3.5)	9.9 (3.1)	6.1 (4.2)	9.8 (3.4)
<u>Prefectural variables</u>					
Single Han men population (in thousand, 1982-2005 average)	422 (446)			197 (112)	917 (501)
Single Han women population (in thousand, 1982-2005 average)	339 (355)	158 (84)	708 (406)		
Single Hui men population (in thousand, 1982-2005 average)	51.1 (46.7)			69.7 (46.7)	13.7 (12.2)
Single Hui women population (in thousand, 1982-2005 average)	43.6 (39.4)	58.0 (38.8)	11.7 (11.3)		
% Muslim (1982-2005 average)	17.3	24.6	1.4	25.1	1.4
GDP per capita in 1990 CNY	2505	2025	3530	1975	3619

(inflation adjusted, 1982-2005 mean)	(1916)	(1295)	(2541)	(1302)	(2429)
Sample size	9,724	3,364	1,668	3,238	1,454

Note: Data are restricted to non-migrant Hui in non-collective households who are either single in 2005 or entered their marriages in 1982 to 2005 between ages 15 and 35.

Sources: Individual variables are based on the 2005 China 1% Population Inter-Census Survey. Single Han and Single Hui populations, and percentages of Muslim population are based on 1982, 1990, 2000 censuses, and the 2005 China 1% Population Inter-Census Survey. GDP per capita are based on *China City Statistical Yearbook* from 1989 to 2005.

Table 3. Annualized probabilities ($\times 100$) of spousal choices over historical periods and personal ages, by gender and region

	Male								Female							
	Northwest				Non-northwest				Northwest				Non-northwest			
	Endo.	Inter.	E/I Ratio	<i>N</i>	Endo.	Inter.	E/I Ratio	<i>N</i>	Endo.	Inter.	E/I Ratio	<i>N</i>	Endo.	Inter.	E/I Ratio	<i>N</i>
Historical period																
<i>1982-1985</i>	11.4	0.2	54.2	2,856	7.2	2.1	3.4	2,151	15.2	0.1	169.5	2,228	8.8	2.8	3.1	1,681
<i>1986-1990</i>	10.9	0.3	38.9	3,930	8.6	2.3	3.8	2,449	14.9	0.5	27.8	2,983	11.4	2.3	4.9	1,879
<i>1991-1995</i>	10.3	0.2	44.1	4,279	6.1	1.9	3.3	2,247	14.6	0.3	50.4	3,114	8.3	2.2	3.7	1,613
<i>1996-2000</i>	9.7	0.2	40.8	4,638	5.1	1.7	3.1	2,470	13.1	0.4	37.3	3,425	6.5	1.8	3.6	1,764
<i>2001-2005</i>	7.4	0.1	69.3	5,631	2.7	1.5	1.8	3,104	7.8	0.3	23.3	4,768	3.1	1.1	2.9	2,459
Personal age																
<i>15-21</i>	4.8	0.0	353.5	14,762	0.9	0.1	8.6	6,731	9.6	0.1	143.0	13,423	2.5	0.5	4.9	6,042
<i>21-25</i>	20.7	0.3	63.2	5,194	10.8	2.9	3.7	3,991	25.3	1.4	18.4	2,687	16.5	4.1	4.0	2,657
<i>26-30</i>	20.9	1.9	11.2	1,131	14.6	6.9	2.1	1,312	25.1	2.4	10.5	335	15.2	7.2	2.1	541
<i>31-35</i>	16.6	1.6	10.3	247	7.8	4.4	1.8	387	11.0	1.4	8.0	73	10.3	3.2	3.2	156
Total	9.7	0.2	46.8	21,334	5.7	1.9	3.1	12,421	12.5	0.3	37.4	16,518	7.3	2.0	3.7	9,396

Note: Data are restricted to non-migrant Hui in non-collective households who are either single or in their first marriages. The risk set includes all person-years lived through ages 15-35 from 1982-2005 until endogamy or intermarriage.

Source: 2005 China 1% Population Inter-Census Survey.

Table 4. Discrete-time competing risk models predicting Hui's marriage outcomes in 1982-2005, by gender

	Male (N = 33,755)					Female (N = 25,914)						
	Endo./ Single		Inter./ Single		Inter./ Endo.	Endo./ Single		Inter./ Single		Inter./ Endo.		
Model 1. regional effects												
Time-varying year	0.95	***	0.95	***	1.00	0.95	***	0.95	***	1.00		
Individual variables												
<i>Time-varying age</i>	1.25	***	1.32	***	1.06	***	1.29	***	1.31	***	1.01	
<i>Time-varying years of education</i>	1.03	***	1.15	***	1.12	***	0.96	***	1.09	**	1.14	***
<i>Urban hukou (ref. = rural hukou)</i>	0.44	***	1.28		2.89	***	0.46	***	0.98		2.14	**
Region (ref. = non-northwest)												
<i>Gansu</i>	1.87	***	0.27	*	0.14	**	1.86	***	0.46	*	0.25	***
<i>Qinghai</i>	2.62	***	0.29	***	0.11	***	2.61	***	0.39	*	0.15	***
<i>Ningxia</i>	2.83	***	0.29	***	0.10	***	2.44	***	0.36	**	0.15	***
<i>Xinjiang</i>	1.18		0.27	**	0.23	**	1.12		0.48	*	0.43	**
Model $\chi^2(df)$			2535.40(16)***						1763.04(16)***			
Model 2. accounting for regional effects												
Time-varying year	0.95	***	0.97	**	1.01		0.94	***	0.96	***	1.01	
Individual variables												
<i>Time-varying age</i>	1.26	***	1.33	***	1.06	***	1.29	***	1.31	***	1.02	
<i>Time-varying years of education</i>	1.04	***	1.17	***	1.13	***	0.96	**	1.09	**	1.14	***
<i>Urban hukou (ref. = rural hukou)</i>	0.45	***	1.45		3.25	***	0.45	***	1.07		2.36	**
Region (ref. = non-northwest)												
<i>Gansu</i>	1.40	*	0.30	*	0.22	**	1.54	**	0.57	*	0.37	**
<i>Qinghai</i>	2.03	***	0.83		0.41		1.94	***	1.00		0.51	
<i>Ningxia</i>	1.73	**	2.44		1.41		1.62	*	1.73		1.06	
<i>Xinjiang</i>	0.97		0.43		0.44		0.87		0.94		1.08	
Time-varying prefectural characteristics												
<i>Logged single Han of opposite sex</i>	0.95		1.00		1.06		0.89	*	1.19		1.34	**
<i>Logged single Hui of opposite sex</i>	1.10		0.93	*	0.84	*	1.03		0.83	***	0.80	***
<i>% Hui population</i>	1.71		0.0004	*	0.0003	**	1.85		0.04		0.02	*
<i>Logged GDP per capita</i>	0.95		0.68	***	0.72	**	1.02		0.84		0.82	
Model $\chi^2(df)$			2636.55 (24)***						2413.33(24)***			

Note: Data are restricted to non-migrant Hui in non-collective households who are either single or in their first marriages in 2005. The risk set includes all person-years lived through ages 15-35 from 1982-2005 until endogamy or intermarriage. Coefficients are reported on odds ratio metric. * p < 0.05, ** p < 0.01, *** p < 0.001.

Source: 2005 China 1% Population Inter-Census Survey.

REFERENCES

- Allendorf, K. (2017). Conflict and compatibility? Developmental idealism and gendered differences in marital choice. *Journal of Marriage and Family*, 79(2), 337–355.
<https://doi.org/10.1111/jomf.12339>
- Allendorf, K., & Pandian, R. K. (2016). The decline of arranged marriage? Marital change and continuity in India. *Population and Development Review*, 42(3), 435-464.
<https://doi.org/10.1111/j.1728-4457.2016.00149.x>
- Allendorf, K., & Thornton, A. (2015). Caste and Choice: The Influence of Developmental Idealism on Marriage Behavior. *American Journal of Sociology*, 121(1), 243–287.
<https://doi.org/10.1086/681968>
- Atwill, D. G. (2005). *The Chinese sultanate: Islam, ethnicity, and the Panthay Rebellion in southwest China, 1856-1873*. Stanford University Press.
- Bai, S. (2007). *An ethnic history of Chinese Huihui (Zhong guo hui hui min zu shi)*. Zhonghua Press (Zhong hua shu ju).
- Benite, Z. B-D. (2005). *The Dao of Muhammad: A cultural history of Muslims in late imperial China*: Harvard University Press.
- Bianchi, R. R. (2019). *China and the Islamic world: How the new Silk Road is transforming global politics*. Oxford University Press.
- Blau, P.M., & Schwartz, J.E. (1997). *Crosscutting social circles: Testing a macrostructural: Theory of intergroup relations*. Transaction Publishers.
- Blossfeld, H. P., & Timm A. (2003). *Who marries whom? Educational systems as marriage markets in modern societies*. Kluwer Academic.
- Chang, Chong-Fu. (2001). *The northwest Hui revolt in Qing Dynasty: Reflections on sociocultural adaptation and ethnic identity (Qing dai xi bei hui min shi bian)*. Lianjing Press (lianjing chuban shiye gongsi).
- Chen, J. (2002). A thesis on the Religious System Revolution in 1958-1960 (Lun 1958-1960 nian zhongguo zongjiao zhidu de minzhu gaige). *Studies in World Religions*, 24(3), 121-130.
- Cheng, S., & Xie, Y. (2013). Structural effect of size on interracial friendship. *Proceedings of the National Academy of Sciences*, 110(18), 7165-7169.
<https://doi.org/10.1073/pnas.1303748110>
- China Data Center. (1982). *Population Census Data Assembly*. Retrieved 01.11.10 from
<http://chinadataonline.org/member/census1982/ybListDetail.asp?ID=1>

- China Data Center. (1990). *Population Census Data Assembly*. Retrieved 01.08.12 from <http://chinadataonline.org/member/census1990/ybListDetail.asp?ID=1>
- China Data Center. (1995). 1% Population Survey Data Assembly. Retrieved 01.08.12 from <http://chinadataonline.org/member/census1995/ybListDetail.asp?ID=1>
- China Data Center. (2000). Population Census Data Assembly. Retrieved 01.08.12 from <http://chinadataonline.org/member/census2000/>
- China Data Center. (2005). 1% Population Survey Data Assembly. Retrieved 01.11.10 from <http://chinadataonline.org/member/census2005/ybListDetail.asp?ID=3>
- China Statistical Bureau. (2005). *China City Statistical Yearbook (Zhong guo cheng shi tong ji nian jian)*. China Statistics Press.
- China Statistical Bureau. (2012). *2010 Population census of the People's Republic of China (zhong guo 2010 nian ren kou pu cha zi liao)*. China Statistics Press.
- Chow, G. C. (2002). *China's economic transformation*. John Wiley & Sons.
- Clarke, C. G. (1971). Residential segregation and intermarriage in San Fernando, Trinidad. *Geographical Review*, 61(2), 198-218. <https://doi.org/10.2307/213995>
- Clarke, M. (2017). The belt and road initiative: China's new grand strategy? *Asia Policy*, 24(1), 71–79. Retrieved May 28, 2021, from <https://www.jstor.org/stable/26403204>.
- Connolly, J. (2009). Forbidden intimacies: Christian–Muslim intermarriage in East Kalimantan, Indonesia. *American Ethnologist*, 36(3), 492–506. <https://doi.org/10.1111/j.1548-1425.2009.01175.x>
- Dillon, M. (1994). Muslim communities in contemporary China: The resurgence of Islam after the Cultural Revolution. *Journal of Islamic Studies*, 5(1), 70-101. Retrieved May 28, 2021, from <http://www.jstor.org/stable/26196674>.
- Dillon, M. (1996). Muslims in post-Mao China. *Journal of Muslim Minority Affairs*, 16(1), 41-47. <https://doi.org/10.1080/13602009608716326>
- Dillon, M. (1999). *China's Muslim Hui community: Migration, settlement and sects*. Curzon.
- Ding, M. (2006). *An anthropological study on the marginal Muslim ethnic groups in China (Zhongguo bianyuan musulun zuqun de renleixue kaocha)*: Ningxia People Press (Ningxia renmin chubanshe).

Dong, L., & Ma, F. (2018). Mechanisms of changes in Hui-Han intermarriages – A case study on Hui women’s out-group marriages in d village Qing county Hebei province (Huihan tonghun bianqian de yingxiang jizhi yan jiu – yi hebei qingxian d cun d huinv waijia xianxiang wei li). *China Youth Study*, 30(1), 74-81.

Du, M. M. (2016). China’s “One Belt, One Road” initiative: Context, focus, institutions, and implications. *The Chinese Journal of Global Governance*, 2(1), 30–43.
<https://doi.org/10.1163/23525207-12340014>

Ferdinand, P. (2016). Westward ho—the China dream and ‘one belt, one road’: Chinese foreign policy under Xi Jinping. *International Affairs*, 92(4), 941–957.
<https://doi.org/10.1111/1468-2346.12660>

Francis-Tan, A., & Mu, Z. (2019). Racial revolution: Understanding the resurgence of ethnic minority identity in modern China. *Population Research and Policy Review*, 38, 733–769.
<https://doi.org/10.1007/s11113-019-09543-0>

Gladney, D. C. (1996). *Muslim Chinese: Ethnic nationalism in the People's Republic*. Council on East Asian Studies. Harvard University Press.

Gladney, D. C. (1998). *Ethnic identity in China: The making of a Muslim minority nationality*. Harcourt Brace College Publishers.

Gladney, D. C. (2004). *Dislocating China: Reflections on Muslims, minorities, and other subaltern subjects*. University of Chicago Press.

Gladney, D. C. (2018). Xinjiang: Bridge or barrier to Xi Jinping's “belt and road” initiative? *The Caravan*: 1819.

Glenn, N. D. (1982). Interreligious marriage in the United States: Patterns and recent trends. *Journal of Marriage and the Family*, 44(3), 555-566. <https://doi.org/10.2307/351579>

Goldman, M. (1986). Religion in post-mao China. *The Annals of the American Academy of Political and Social Science*, 483(1), 146-156.
<https://doi.org/10.1177/0002716286483001013>

Goode, W. (1970). *World revolution and family patterns*. The Free Press.

Haandrikman, K., Harmsen, C., Van Wissen, L. J. G., & Hutter, I. (2008). Geography matters: Patterns of spatial homogamy in the Netherlands. *Population, Space and Place*, 14(5), 387–405. <https://doi.org/10.1002/psp.487>

Hannum, E., & Xie, Y. (1998). Ethnic stratification in northwest China: Occupational differences between Han Chinese and national minorities in Xinjiang, 1982–1990. *Demography*, 35(3), 323–333. <https://doi.org/10.2307/3004040>

Heberer, T. (2017). *China and its national minorities: Autonomy or assimilation*. Routledge.

Holloway, S. R., Ellis, M., Wright, R., & Hudson, M. (2005). Partnering “out” and fitting in: Residential segregation and the neighbourhood contexts of mixed-race households. *Population, Space, and Place*, 11(4), 299–324. <https://doi.org/10.1002/psp.378>

Irshad, M. S. (2015). One belt and one road: does China-Pakistan economic corridor benefit Pakistan's economy? *Journal of Economics and Sustainable Development*, 6(24). Available at SSRN: <https://ssrn.com/abstract=2710352>

Jaschok, M., & Shui, J. (2013). *The history of women's mosques in Chinese Islam*. Routledge.

Ji, C. (2011). Through the lens of Hui-Han intermarriages to understand the variations in urban Hui's adaption (Cong huihan tonghun xianxiang kan chengshi huizu shiying de chayi xing). Doctoral dissertation, Minzu University of China.

Jiang, P. (1994). *Theory and practice on China's ethnic minorities (zhong guo min zu wen ti de li lun yu shi jian)*. China Central Party School Press.

Jones, G. W., Leng, C. H., & Mohamad, M. (2009). *Muslim-non-Muslim marriage: Political and cultural contestations in Southeast Asia*. Institute of Southeast Asian Studies.

Kalmijn, M. (1991). Shifting boundaries: Trends in religious and educational homogamy. *American Sociological Review*, 56(6), 786–800. <https://doi.org/10.2307/2096256>

Kalmijn, M. (1998). Intermarriage and homogamy: Causes, patterns, trends. *Annual Review of Sociology*, 24(1), 395–421. <https://doi.org/10.1146/annurev.soc.24.1.395>

Kulczycki, A., & Lobo, A. P. (2002). Patterns, determinants, and implications of intermarriage among Arab Americans. *Journal of Marriage and Family*, 64(1), 202–210. <https://doi.org/10.1111/j.1741-3737.2002.00202.x>

Lai, Q., & Thornton, A. (2015). The making of family values: Developmental idealism in Gansu, China. *Social Science Research*, 51, 174–188. <https://doi.org/10.1016/j.ssresearch.2014.09.012>

Lee, S. M. (1988). Intermarriage and ethnic relations in Singapore. *Journal of Marriage and the Family*, 50(1), 255–265. <https://doi.org/10.2307/352444>

Lee, S. M., Hou, F., Edmonston, B., & Wu, Z. (2017). Religious intermarriage in Canada, 1981 to 2011. *Journal for the Scientific Study of Religion*, 56(3), 667–677. <https://doi.org/10.1111/jssr.12362>

- Leslie, D. (1986). *Islam in traditional China: A short history to 1800*. Canberra College of Advanced Education.
- Leslie, D., Yang D., & Yousef, A. (2006). *Islam in traditional China: a bibliographical guide*. Routledge.
- Li, X. (2004). Analysis of the current state of inter-ethnic marriage among different Chinese ethnic groups (Zhongguo ge minzu jian zui hunyin de xianzhuang fenxi). *Population Research (Renkou yanjiu)*, 28(3), 68-75.
- Li, Y. (2015). A study on Hui-Han intermarriages in Wuhan (Wuhan huihan tonghun yanjiu). Doctoral Dissertation, South-Central University for Nationalities.
- Lian, J. (2012). A review of studies on changing patterns of Hui-Han intermarriages since the foundation of People's Republic of China (Xinzhongguo chengli yilai huihan tonghun de fazhan bianqian ji yanjiu shuping). *Academic Exchange (Xueshu jiaoliu)*, 28(4), 147-153.
- Lichter, D. T., & Qian, Z. (2019). The study of assortative mating: Theory, data, and analysis. In *Analytical Family Demography* (pp. 303–337). Springer.
- Lipman, J. (1997). *Familiar strangers: A history of Muslims in Northwest China*. University of Washington Press.
- Liu, Z., & Zhang, L. (2015). A study on changing trends in China's inter-ethnic marriage: based on the comparison of data from the fifth and sixth census (Zhongguo zujihunyin de bianhua qushi yanjiu: jiyu “Wupu” he “Liupu” shuju de duibifenxi). *Guangxi Ethnic Studies (Guangxi minzuyanjiu)*, 123(3), 61-71.
- Lucassen, L., & Laarman, C. (2009). Immigration, intermarriage and the changing face of Europe in the post war period. *The History of the Family*, 14(1), 52–68. <https://doi.org/10.1016/j.hisfam.2008.12.001>
- Ma, T. (1983). A history of Muslim factions and the Menhuan system in China (*Zhongguo Yisilan jiaopai yu Menhuan zhidu shilue*). Ningxia People's Publishing Society.
- Mackerras, C. (2003). *China's ethnic minorities and globalisation*. Routledge.
- Mamet, R., Jacobson, C. K., & Heaton, T. B. (2005). Ethnic intermarriage in Beijing and Xinjiang, China, 1990. *Journal of Comparative Family Studies*, 36(2), 187–204. Retrieved May 28, 2021, from <http://www.jstor.org/stable/41604000>.
- Massey, D. S., & Denton, N. A. (1988). The dimensions of residential segregation. *Social Forces*, 67(2), 281–315. <https://doi.org/10.2307/2579183>

Merton, R. K. (1941). Intermarriage and the social structure: Fact and theory. *Psychiatry*, 4(3), 361–374. <https://doi.org/10.1080/00332747.1941.11022354>

Mu, Z., & Lai, Q. (2016). Micro-macro interactions in ethno-religious homogamy among Hui Muslims in contemporary China: The roles of residential concentration and aging. *Journal of Muslim Minority Affairs*, 36(1), 88–105. <https://doi.org/10.1080/13602004.2016.1153823>

Mu, Z., & Wu, X. (2015). Residential concentration and marital behaviors of Muslim Chinese. *Chinese Journal of Sociology*, 1(2), 177–200. <https://doi.org/10.1177/2057150X15579141>

Mu, Z., & Xie, Y. (2014). Marital age homogamy in China: A reversal of trend in the reform era? *Social Science Research*, 44, 141–157. <https://doi.org/10.1016/j.ssresearch.2013.11.005>

Mullaney, T. (2011). *Coming to terms with the nation: Ethnic classification in modern China*. University of California Press.

Naughton, B. J. (2018). *The Chinese economy: Adaptation and growth*. MIT Press.

Pew Forum on Religion & Public Life. (2009). *Mapping the global Muslim population: A report on the size and distribution of the world's Muslim population*. Washington DC.

Poston Jr., D. L., & Li, Z. (2011). The social demography of China's Muslims. *Modern China Studies*, 18(1), 14-71. Retrieved from <http://libproxy1.nus.edu.sg/login?url=https://www-proquest-com.libproxy1.nus.edu.sg/scholarly-journals/social-demography-chinas-muslims/docview/879504973/se-2?accountid=13876> on May 28, 2021.

Poston Jr., D. L., & Micklin, M. (1993). Spatial segregation and social differentiation of the minority nationalities from the Han majority in the People's Republic of China. *Sociological Inquiry*, 63(2), 150–165. <https://doi.org/10.1111/j.1475-682X.1993.tb00301.x>

Poston Jr., D. L., & Shu, J. (1987). The demographic and socioeconomic composition of the major minority groups in China. *Population and Development Review*, 13(4), 703–722. <https://doi.org/10.2307/1973029>

Qian, Z., & Lichter, D. T. (2007). Social boundaries and marital assimilation: Interpreting trends in racial and ethnic intermarriage. *American Sociological Review*, 72(1), 68–94. <https://doi.org/10.1177/000312240707200104>

Rosenfeld, M. J. (2008). Racial, educational and religious endogamy in the United States: A comparative historical perspective. *Social Forces*, 87(1), 1–31. <https://doi.org/10.1353/sof.0.0077>

- Schwartz, C. R. (2013). Trends and variation in assortative mating: Causes and consequences. *Annual Review of Sociology*, 39, 451–470. <https://doi.org/10.1146/annurev-soc-071312-145544>
- Sherkat, D. E. (2004). Religious intermarriage in the United States: Trends, patterns, and predictors. *Social Science Research*, 33(4), 606–625. <https://doi.org/10.1016/j.ssresearch.2003.11.001>
- Sidaway, J. D., & Woon, C. Y. (2017). Chinese narratives on ‘One Belt, One Road’ (*yi dai yi lu*) in geopolitical and imperial contexts. *The Professional Geographer*, 69(4), 591–603. <https://doi.org/10.1080/00330124.2017.1288576>
- Smits, J. W., & Lammers, J. (2000). More or less educational homogamy? A test of different versions of modernization theory using cross-temporal evidence for 60 countries. *American Sociological Review*, 65(5), 781–89. <https://doi.org/10.2307/2657547>
- Sun, W. (2015). A study on Hui-Han intermarriages in ethnic scattered areas in northern China (Huabei sanzaju diqu huihan tonghun yanjiu). Doctoral dissertation, Shaanxi Normal University.
- Thornton, A. (2001). The developmental paradigm, reading history sideways, and family change. *Demography*, 38(4), 449–465. <https://doi.org/10.2307/3088311>
- Thornton, A. (2005). *Reading history sideways: The fallacy and enduring impact of the developmental paradigm on family life*. University of Chicago Press.
- Van Niekerk, J., & Verkuyten, M. (2018). Interfaith marriage attitudes in Muslim majority countries: A multilevel approach. *The International Journal for the Psychology of Religion*, 28(4), 257–270. <https://doi.org/10.1080/10508619.2018.1517015>
- Vermeer, E. B. (2006). Demographic dimensions of China’s development. *Population and Development Review*, 32(S1), 115–144. <https://doi.org/10.1111/j.1728-4457.2006.tb00005.x>
- Wang, S. (2011). Intermarriages and their cultural influences – A case study on Hui-Han intermarriages in Yaojie township Honggu district Lanzhou city (Zuji tonghun jiqi wenhua yingxiang – yi lanzhoushi hongguqu yaojiezhen huihan tonghun de diaocha yanjiu wei ge an). Doctoral Dissertation, Lanzhou University.
- Whyte, M. K. (1990). Changes in mate choice in Chengdu. pp. 179-213 In *Chinese society on the eve of Tiananmen*, D. Davis and E. Vogel., eds. Harvard University Press.
- Wu, X., & Song, X. (2014). Ethnic stratification amid China’s economic transition: Evidence from the Xinjiang Uyghur Autonomous Region. *Social Science Research*, 44, 158–172. <https://doi.org/10.1016/j.ssresearch.2013.12.002>

- Xie, Y. (2011). Evidence-based research on China: A historical imperative. *Chinese Sociological Review*, 44(1), 14–25. <https://doi.org/10.2753/CSA2162-0555440103>
- Xu, X., & Whyte, M. K. (1990). Love matches and arranged marriages: A Chinese replication. *Journal of Marriage and the Family*, 52(3), 709-722. <https://doi.org/10.2307/352936>
- Yang, Z. (2002). A survey study on Hui's intermarriages in urban Ningxia – case studies of Yinchuan, Wuzhong, Lingwu (Ningxia chengshi huizu tonghun xianzhuang diaocha yanjiu – yi Yinchuan, wuzhong, lingwu wei li). *Journal of Hui Muslim Minority Studies*, 12(1), 39-47.
- Yu, H. (2017). Motivation behind China's 'One Belt, One Road' initiatives and establishment of the Asian infrastructure investment bank. *Journal of Contemporary China*, 26(105), 353–368. <https://doi.org/10.1080/10670564.2016.1245894>
- Yu, Z. (1996). *Chinese historical regimes and Islam (Zhongguo lidai zhengquan yu yisilanjiao)*. Xinhua Press (xinhua shudian).
- Zang, X. (2005). Hui Muslim-Han Chinese differences in perceptions on endogamy in urban China. *Asian Ethnicity*, 6(1), 51–68. <https://doi.org/10.1080/1463136042000309044>
- Zang, X. (2007). *Ethnicity and urban life in China: A comparative study of Hui Muslims and Han Chinese*. Routledge.
- Zang, X. (2012). *Islam, family life, and gender inequality in urban China*. Routledge.