

Childcare, Household Composition, Muslim Ethnicity, And Off-Farm Work In Rural China

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ABSTRACT

This paper explores how religious and ethnic norms and gender relations interact across the domestic and public spheres of work in rural China's minority-concentrated regions. We focus on the roles that childcare and household composition play in the work decisions of prime-age married individuals of Muslim and non-Muslim ethnicity. We find that children generally decrease women's likelihood of working away from/outside the home and increase men's. The gender gap in the probability of off-farm work is larger for those of Muslim ethnicity. Non-Muslim parents of sons are more likely to migrate for work than parents of daughters. The presence of women of grandparent age (46 to 70) universally facilitates labor migration. Men of grandparent age tend to increase only the probability that non-Muslim parents (male and female) migrate for work. Additional adult male household members (of any age) reduce the likelihood that women of Muslim ethnicity work off-farm.

INTRODUCTION

This paper contributes to our knowledge of how household composition, considered in terms of the ages and genders of household members, affects the propensity of China's rural prime-age women and men to engage in off-farm work and to migrate away from home for work. It explores this in a multi-ethnic context and compares the decisions of members of Muslim and non-Muslim ethnic groups dwelling in China's minority concentrated regions. Understanding how gender and caregiving roles intersect with

ethnicity and religious norms in these critical aspects of rural employment is important for the strategic design and implementation of inclusive employment and anti-poverty policies.

Over the reform period of the past three decades, China experienced fundamental economic transformations that moved rural laborers from agricultural to non-agricultural activities, rapidly increased rural-to-urban migration, raised labor productivity and real incomes, and lifted hundreds of millions of rural residents out of poverty. China's rural women were among the potential beneficiaries of these changes. However, in rural China, as in many developing countries, women's ability to participate in new income-generating activities was, and still is, limited by a variety of constraints arising from gender norms and beliefs and from labor market discrimination.

Women's socially assigned responsibilities for domestic work and provision of care present impediments to their participation in off-farm employment since it is more difficult for rural women to combine income-earning activities with caregiving responsibilities when those activities take place away from home. Recent research confirms that China's rural women are less likely to be involved in off-farm work than are men (Qiao et al 2015, Chang, MacPhail and Dong 2011; Knight and Song 2003). Furthermore, Chinese women's migration options are more limited than men's. Until recently, female migrants typically tended to be young and unmarried, while male migrants embodied a wider range of ages and marital statuses (Lee and Meng, 2010, Zhang, de Brauw, and Rozzelle 2004; Hare 1999;). The massive migration of labor from rural to urban areas left many

middle-aged, married women to run the farms and provide care for children, elderly parents, and those in poor health (Connelly and Maurer-Fazio, 2016; Kong and Meng, 2010). Agricultural production has increasingly become the work of women and the elderly (Connelly and Maurer-Fazio 2015; Qiao et al 2015; Chang, Dong, and MacPhail 2011; Mu and Van de Walle 2011). In this paper we explore whether care responsibilities lead to gender-differentiated labor market outcomes for China's rural residents. We focus our analysis on a particular set of decisions about engaging in farm work or off-farm work -- both local and distant.

While a substantial amount of research has focused on gendered patterns of off-farm employment among China's Han ethnic majority, relatively little is known about how the gendered patterns of off-farm employment might vary across ethnic groups or about how ethnic minority women have fared in terms of their access to off-farm employment relative to their male counterparts. We use the term ethnic minority here, to refer to the 55 national minorities who, along with the Han majority, constitute the 56 ethnic groups officially recognized by the Chinese government.¹ We explore whether care needs and caregiving responsibilities differentially affect the likelihood that women and men of Muslim and non-Muslim ethnic groups will work in off-farm endeavors or migrate to distant locations for work. The data on which our analysis rests, described in more detail below, were gathered in seven minority-concentrated regions of China as part of the 2012 China Household Ethnicity Survey (CHES). We explore the question of how household composition affects the likelihood of married women's and men's off-farm work in these regions in its larger context, which takes into account individuals' human capital and

productive attributes and local economic conditions. We are interested in whether this complex set of factors differentially affects the type-of-employment outcomes of China's Muslim and non-Muslim ethnic groups. Comparing the role that children and other household members play (as well as role of the gender of each household member) in type-of-employment decisions across ethnic groups provides a window for observing the intersection of religious/cultural norms and gender relations across the domestic sphere of the household and the public sphere of work in post-reform rural China.²

BACKGROUND

Religion, family, and work are important sites for the formation, negotiation, and change of gender relations. How gender might intersect with religion depends upon its temporal and social contexts. As Spierings (2014) notes, studies that focus on the role of patriarchy in predominately Muslim countries are based on the ideas of patrilineality and the male breadwinner/female homemaker dichotomy. He argues that this notion of patriarchy implies that differences in household composition will lead to differences in female employment and tests this notion across 28 Muslim-majority countries. We explore how differences in patriarchal norms across ethnic/religious groups (Muslim/non-Muslim) in rural China affect both women's and men's proclivities to work locally off-farm and to migrate across county and provincial borders in search of employment opportunities.

In traditional/Imperial China, women, both Muslim and non-Muslim, were conceptualized as subordinate to men. A female-inside/male-outside patriarchal dichotomy characterized the gendered division of labor within the household in both

traditional Confucian and Islamic family cultures. Appropriate roles for women in both cultures were envisioned as those that supported the family and took place inside the household. Appropriate roles for men were envisioned as those that provided for the family through activities outside of the household. Traditional Confucian doctrine espouses an extremely hierarchical view of society in which the position of women is ascribed as lowly and weak and meant to serve others (Croll, 1995). The traditional Muslim family structure, like the traditional Confucian family, is typically portrayed as based on an authoritarian, patriarchal hierarchy. Zang (2008) notes that it also regards women as the repositories of family honor and that preservation of family honor entails restrictions on women's behavior with regard to dress, mobility, and contact with men outside of their own families. He argues that motherhood takes on an additional role as a key safeguard of Islamic culture (Zang 2008).

After the 1949 founding of the People's Republic of China, the Communist Party fought against beliefs that disparaged women and lowered their societal status and instead promulgated rhetoric of gender equality. In the Maoist/socialist era (1949-1976), women's labor force participation increased dramatically and was promoted as a form of liberation (Croll 1995). Chinese women's participation in paid labor improved their status markedly. The dual-earner household became the new norm of the Chinese family.

Women, however, continued to bear the lion's share of unpaid domestic and care work.

Chinese women's emancipation movement did not exert the same degree of influence on Muslims as it did on non-Muslims, especially in the rural sector. Although China's

constitution stipulates that all women and men should have equal rights, economically, socially and politically, Chinese policy makers deemed particular gender issues in Muslim areas to be part of Muslim culture, not subject to state intervention (Zang 2012). The marriage law of 1950 allowed both polygamy and traditional divorce law in Muslim regions (Sautman 1998). Although, China's current marriage law stipulates, in general, that the legal age of first marriage is 22 for men and 20 for women, it reduces these age limits to 20 and 18 for minority men and women, respectively. Autonomous minority regions also have the right to issue legislation allowing even further reductions in the marriage age for their poorer and more remote communities and Xinjiang, home to a very large Muslim population, has exercised this right (Sautman 1998).

China's birth control policies impose stricter limits on the Han than on minorities. From the inception of the severe family planning policies of 1982 until the end of 2015, most urban Han couples were allowed only one child, while rural Han couples were allowed a second child under certain conditions, such as when the first child was female. For most ethnic minorities, the birth control quota was set at two for urban couples and three for rural couples. At particular times, under particular circumstances, for particular groups, these less stringent ethnic limits were further relaxed (Sautman 1998). Over time, as women's education and employment opportunities improved, fertility rates for both Muslim and non-Muslim households declined. Nonetheless, the average fertility rate of Muslim families is higher than that of non-Muslim families, as we show in Table 2 below.

In China's reform and post-reform eras, the declining influence of socialist egalitarian ideology has led both to a resurgence of traditional Confucian culture and an increasing social, political, and religious impact of Islam. The concomitant rise of patriarchal values and norms represents a major setback to Chinese women's hard-won battles for greater gender equality. It has affected Muslim and non-Muslim women differently. Muslim women confront more socioeconomic constraints and have higher fertility rates than non-Muslim women. These factors make it particularly difficult for Muslim women to break away from patriarchal gender relations.

Discrimination also plays a role in the labor market decisions and outcomes of China's Muslim minorities³. Muslims in China, both female and male, are likely to be subject to Han chauvinism and/or discrimination in labor markets. The Uyghurs, one of China's most populous Muslim ethnic groups, are a visible minority with their own language. They may find their employment options limited both by the extent to which they lack an ability to communicate in Mandarin (*Putonghua*) or the local Han dialect and by discrimination. And, although the Hui (another of China's largest Muslim ethnic groups) are very similar to the Han in physical appearance and language, they may find themselves discriminated against due to dietary customs, dress,⁴ or religious practices. These factors may compound the difficulties that Muslim women face in attempting to break away from the legacy of traditional gender role expectations.

LITERATURE REVIEW

In this brief literature review, we first discuss studies focused on China's rural households

that address the effects of children on parents' decisions about migrating for work and working off-farm. We then review a set of studies that add analyses of the influence of both patriarchal norms and ethnicity.

Studies concerned with the effects of children on parents' off-farm work and migration decisions for China's rural households have yielded results that vary by the age of the children. Qiao et al. (2015) find that the presence of preschool-age children in the household affects neither their parents' decisions to migrate or to work off-farm. Although Zhao (1999) also finds that presence of preschool children has no effect on parents' migration decisions, she finds that it decreases parents' participation in local off-farm work. In contrast, Qiao et al. (2015) find that school-aged children increase parents' likelihood of participation in local off-farm work while decreasing their probability of migration.

Several studies have revealed that in China grandparents play an important role in parents' work and migration decisions. Chen, Liu, and Mair (2011) demonstrate that grandparent-provided childcare has become increasingly common, in both urban and rural China. The role of grandparents in childcare is also confirmed in the findings of Chang, Dong and MacPhail (2011), which reveal that preschool children increase the number of hours spent on housework and care work by both elderly men and elderly women, although more so for women than men.

Connelly, Roberts, and Zheng (2012) argue that with grandparents' participation in

childcare, the presence of children is no longer a binding constraint on the migration decisions of rural mothers, even though it affects the timing of their migrations. They report that many migrant mothers return to their rural homes around the time that their children begin formal schooling. They also report that mothers of boys are significantly less likely to migrate after childbirth but more likely to take their sons with them if they do migrate. This suggests to us that it is important to analyze the category of “children” in a nuanced way, disaggregating by both age and gender.

In a subset of the literature that compares labor market outcomes of China’s ethnic minorities and Han majority, papers by both Gustafsson and Li (2003) and Hannum and Xie (1998) suggest that minorities did not fare as well as the Han as China transformed its economy from a socialist orientation to a market one. The gap between minorities and the Han widened in terms of both rural income and occupational attainment. Gustafsson and Li question whether the fundamental cause of the widening of these gaps is location rather than ethnic discrimination. They come down on the side of location. Hannum and Xie argue that important ethnic differences in labor market outcomes remain even after carefully taking location into account. There is no consensus to date on these issues and thus a need for meaningful further contributions to our understanding of how the reforms are affecting China’s ethnic minority populations.

Focusing on the urban sector and examining the gendered patterns of labor force participation revealed in the data of China’s population censuses of 1990 and 2000, Maurer-Fazio, Hughes, and Zhang (2007) find that minority women experienced larger

decreases in labor force participation and had lower rates of participation than either minority men or Han men and women, and the decline was especially pronounced for Hui (Muslim) women. They argue that the decline in Hui women's labor force participation was indicative of a robust cultural or religious difference that surfaced with the relaxation of state control over individuals' lives. Maurer-Fazio, Hughes, and Zhang (2010) find that the market and social treatment of attributes in which Han women are relatively rich (such as educational attainment and residence in high-growth-rate locations) tend to ease women's entry into the labor force, while minority women appear to be rich in levels of those attributes (household size and composition) that discourage market work at the margin. Zang (2012) finds, based on 2005 Urumchi data, both sizable earnings differentials between Han Chinese and Uyghurs and striking differences in the gender differentials in earnings between these ethnic groups. Zang attributes the earning differentials for men across these two groups primarily to group socioeconomic differences and for women mainly to differences in family responsibilities. Zang argues that while both Han and Uyghur women suffer labor market penalties attributable to housework and motherhood, the negative effect is greater for Uyghur women due to Muslim family norms that strengthen women's attachment/relegation to the traditional gendered division of household labor.

Only a handful of studies have investigated how ethnic identity affects rural individuals' participation in off-farm employment and labor migration. They reveal that ethnic minority status generally tends to reduce the probability of participating in the migration process although one or two minorities, including the Hui, are observed to have higher

probabilities of migration than the majority Han population (Gustafsson and Yang 2015; Howell, Gustafsson and Ding 2015; Howell and Fan 2011). Connelly and Maurer-Fazio (2015), focusing on China's rural elders, find that beyond education, the strongest predictors of labor force participation are age, disability, widowhood, and ethnic minority status. Social prejudice, labor market discrimination, lack of skills in, or facility with, Mandarin Chinese (*Putonghua*) language or local Han dialects, and lack of access to social networks at potential destinations are among the main obstacles to ethnic minority workers' entry into the off-farm and urban labor markets (Chen, Lu, and Xu 2014; Maurer-Fazio 2012; Gao and Smythe 2011). Gaining a clearer understanding of how gender intersects with ethnic- and religious-based constraints is of critical importance for the design of appropriate anti-poverty employment policies.

Spierings (2014), in his analysis of differences in women's employment in Muslim-majority countries, expands the notion of household composition to include more than the typically used factors of marital status and the presence/number of children. He reports that other adult women in the household is one of the strongest positive influences on women's employment—presumably these other women help to alleviate the care burden. Spierings reports that women's employment decreases with the number of children (under age 13), but that the strength of this effect is mediated by the strength of local patriarchal norms. He also finds that the higher the number of male breadwinners within a household, the lower the probability of women's employment. In the empirical work that follows, we too, explore the effects of similarly nuanced notions of household composition on women and men's employment by controlling for the gender and age

group of all household members.

EMPIRICAL METHODOLOGY

In the remainder of the paper we examine, after carefully controlling for household composition and local economic conditions, the impact of having preschool or/and school-aged children and other household members on the off-farm work decisions of prime-age (18 to 45) married women and men in China's minority regions and compare the differences in these impacts between Muslim and non-Muslim households. Our analysis seeks to test the following related hypotheses:

Hypothesis 1: Due to traditional gender role expectations, we expect that children decrease women's likelihood of working outside the home, whereas they increase men's likelihood of employment in the off-farm sector. We expect that the gap between men's and women's rates of off-farm employment to be greater for Muslims than non-Muslims. Given Muslim women's higher rates of fertility and higher likelihood of encountering labor market discrimination in combination with re-emergent pre-socialist concepts of gender roles, it seems likely that Muslim women will place a relatively high value on caregiving and home production relative to market work. We expect that children's gender also matters, although it is difficult to predict how this may play out across parents' gender and ethnicity.

Hypothesis 2: We expect that women's likelihood of off-farm employment will decrease with the presence in the household of prime-age (25 to 45) men (additional potential

breadwinners) and increase with the presence of other prime-age women who may act as substitute caregivers. We expect that the substitution of male for female labor in off-farm employment will be stronger in Muslim households than in non-Muslim households.

Hypothesis 3: We expect that women and men's likelihood of off-farm employment (of either type) will increase with the presence of mature (age 46 to 70) adult co-residents. We expect that most of these mature (grandparent age) individuals will be relatively healthy (and productive in comparison to those over age 70 who might be in need of care). We expect that these mature women and men have the potential to alleviate/mitigate the care burden of the group of married individuals aged 18 to 45 who are the focus of our study. The labor of this mature group may also be a substitute for that of prime-age individuals in terms of the household's agricultural endeavors—freeing prime-age individuals to participate in off-farm labor. Given gender norms, we expect that mature women are more likely than mature men to serve as substitutes for prime-age women in care provision. Similarly, we expect that mature men are more likely than mature women to serve as substitutes for prime-age men in agricultural work. We expect the facilitation of off-farm work arising from the presence of mature men for prime-age women to be greater in non-Muslim than Muslim households, because gender roles are more entrenched in Muslim households than non-Muslim households.

In order to explore these hypotheses, we focus on the types-of-employment activities of married women and men between the ages of 18 and 45. We divide these activities into three mutually exclusive categories: farm work, local off-farm work, and nonlocal

off-farm work. We assume that individuals attempt to maximize their utility, given the constraints they face. We also assume that the associated costs and benefits of taking up particular types of employment are affected by the characteristics of the individual, the composition of his/her household, the economic conditions at the village, county, and provincial levels, and cultural norms proxied by ethnicity and religion.

We thus estimate the determination of type of employment using a multinomial logit model:

$$\ln\left(\frac{P_{ij}}{P_{i0}}\right) = \beta_{0j} + \beta_{1j}'HC_i + \delta_{0j}Mus_i + \delta_{1j}(Mus_i \times HC_i) + \beta_{2j}'X_i + \beta_{3j}'Z_i \quad (1)$$

In this model, P_0 is the probability of participating in farm work (the reference category) and P_j stands for the probability of the j -th type of occupation with $j = 1$ for local off-farm work and $j = 2$ for migration/nonlocal off-farm work. Subscript i is the index for individual i . The Greek letters represent unknown parameters. HC is a vector of binary variables representing a set of household composition variables which include the presence of pre-school and/or school-aged boys and girls and adult women and men of particular age groups. Mus is a binary variable that is equal to 1 for Muslim and 0 for non-Muslim. X represents a vector of variables for individual characteristics that includes education, age intervals, and a binary indicator of being able to communicate in Mandarin (*Putonghua*) or the local Han dialect. Z is a vector of variables for regional/location characteristics that includes the distance from the village to the nearest bus stop, village per capita farmland, county-level per capita GDP, the share of primary industry in county GDP, and provincial fixed-effects. We estimate Equation (1) separately for women and men. We focus our analysis on comparisons of the β_j and δ_j for each household

composition HC factor. If the coefficient β_j is statistically significant, it reveals that that a particular household composition characteristic, for example, the presence of a preschool age girl in the household, affects whether the prime-age individual works locally off-farm or migrates for work. The corresponding coefficient δ_j reveals whether or not there is a differential effect of that characteristic for individuals who are members of Muslim ethnic groups.

The variables that represent whether an individual has a pre-school child may be endogenous. Unobserved characteristics may affect both type-of-employment outcomes and fertility decisions. Unfortunately, the lack of valid instrumental variables prevents us from econometrically addressing this concern. However, Connelly et al. (2006) argue that lack of viable instrumental variables for fertility should not prevent researchers from investigating issues of policy interest. The endogeneity of fertility is a matter of degree given that fertility, which cannot be planned exactly, always contains exogenous biological elements and given the time gap between the fertility and employment decisions in question. In developing countries, many economic and social factors increase exogenous variations in fertility, thereby weakening its simultaneous association with employment decisions. Connelly et al (2006) also contend that the stochastic nature of life in developing countries leads to a lower likelihood that decisions made several years apart are actually jointly determined. Arguably, religious beliefs may limit Muslim families' willingness to use birth control devices and China's birth-control policies impose particular constraints on Han families' fertility decisions. Based on their findings for urban Brazil, Connelly et al. (2006, p.26) argue that "at least in the case of recent

fertility in a developing country context, there are good reasons to hypothesize that the endogeneity of recent fertility with respect to women's current employment should be small."

The variables that represent the presence of adults older than 45 may also be considered endogenous, for reasons similar to those for the presence of preschool children. Due to data limitations, we are unable to test this possibility. In our sample, the endogeneity of parents' co-residence with their adult children is also likely to be limited as the co-residence choices of parents in less developed rural areas are limited. Patrilocal co-residence norms limit the presence of selection bias to those who have more than one son. The lack of alternatives to familial caregiving for the frail elderly creates exogenous variations in the variables that represent the presence of older parents in the household.

DATA

Our analysis employs data from the China Ethnicity Household Survey conducted in 2012. Its survey team collected information on households in seven provinces and provincial-level autonomous regions: Inner Mongolia, Hunan, Ningxia, Guangxi, Guizhou, Qinghai, and Xinjiang. Within each sampled region, the sample frame was based on the household registries of the Bureaus of Statistics and employed stratified random sampling methods. This paper uses the rural sub-sample, which includes over 30,000 individuals of more than 7,000 households of hundreds of villages located across 81 counties. Our analytical sample of rural married individuals between the ages of 18 and 45 consists of 930 Muslim women, 950 Muslim men, 3,337 non-Muslim women, and

3,350 non-Muslim men. The data set's information on types of employment, the focus of this paper, refers to respondents' type of employment in 2011.

In Table 1, we present summary statistics on types of employment by ethnicity for the women and men included in our sample. There, we see that in both Muslim and non-Muslim households, women are much more likely than men to participate in farm work and less likely to participate in off-farm work (whether local or involving out-migration). The gender gap in rates of off-farm employment (adding together rates of both local and distant work) is greater for Muslim than non-Muslim households. Specifically, the gender difference in rates of off-farm employment was 56 percentage points for Muslims and 39 percentage points for non-Muslims. Similarly, the gender gap in out-migration for off-farm work is also noticeably larger for Muslim than non-Muslim households at 26 percentage points and 12 percentage points, respectively.

(Insert Table 1 here)

In Table 2, we present information on the gender and age composition of all members of the households of the married rural individuals between the ages of 18 and 45. We find that Muslim minority households have, on average more children between the ages of birth and 14 than do the non-Muslim households, with means of 1.5 and 1.1 children respectively.

(Insert Table 2 here)

In Online Appendix Table A1, we present descriptive statistics on the human capital of the individuals in our sample (including education and language capability), their age distribution, local economic conditions, and their geographical distribution.

RESULTS

In this section, we discuss the factors that determine type-of-employment outcomes for rural Muslim and non-Muslim married prime-age women and men. In Table 3, we present multinomial logit estimates of the marginal effects of selected aspects of household composition relevant to our three hypotheses. We include an indicator variable for Muslim and its interactions with each of the household composition variables. (The regression statistics and the regression coefficients for all variables included in the regressions but not discussed in this section are available in Online Appendix Table A2.)

Hypothesis 1

We posited that due to traditional gender role expectations, the presence of children in the household would reduce women's and increase men's proclivity to work off-farm. In our empirical work we have allowed the effects of children to vary by their age and gender.

Rows 1-4 of Table 3 explore the marginal effects that preschool age girls and/or boys have on women and men's propensities to engage in on- and off-farm work and to migrate away from home for work. We observe in the first three results columns that the presence of a preschool age girl tends to increase a non-Muslim woman's likelihood of being engaged in farm work and reduce her likelihood of working locally off-farm and to

migrate out for work. For Muslim women, the proclivity to work on farm is dramatically increased with the presence in the household of a school age girl, while their likelihood of migrating away for work is reduced. While there is no significant general effect of preschool age boys on non-Muslim women's types of employment, their effect on Muslim women's employment type is even more marked than that of girls.

The effects of preschool-age girls and boys on the employment types of the men (in the fourth through sixth results columns) differ from the effects on women's outcomes. Preschool age girls tend to reduce rather than increase the chances that non-Muslim men engage in farm work. Preschool age boys seem to lead to a fairly strong decline in non-Muslim men's probability of engaging in farm work and a significant increase in men's likelihood of working off-farm. There are no additional significant effects of preschool age children in the households of Muslim men.

Rows 5-8 of Table 3 present the marginal effects of the presence of school-age children on women and men's types of employment. Once again, the indicator variable for Muslim is interacted with the indicator variables for girls and boys (age 6-14).

Interestingly, and in marked contrast to the case of preschool children, we see in Rows 5 and 6 that the presence of a school-age girl has no effect on the types of employment in which women engage, whether Muslim or non-Muslim. For men, we observe a slight decrease in non-Muslim's general propensity to engage in farm work when there are school-age girls in the household. The interaction term reveals that Muslim men increase their propensity to engage in farm work and reduce their propensity work off-farm when

there is a school-age girl in their household. The presence of school-age boys (Rows 7 and 8) seems to generally reduce the chances that non-Muslims of either sex work in agriculture and increase their likelihood of labor migration (for women) and working off farm (for men). Muslim men are significantly less likely to move out of farming and less likely to move into off-farm endeavours than non-Muslims.

We initially expected that children would negatively affect the participation in off-farm for mothers and positively affect if for fathers. Focusing on the effects of preschool children in (whether male or female) on their parents' employment outcomes, we find support for this contention (Table 30). Given that patriarchy can exert itself through cultural and religious norms, we expected that the gender-differentiated effects of children on parents' employment outcomes would be greater for Muslims than non-Muslims. We observe this, for preschool children for women only.

We see a complex and nuanced set of responses to the presence of school-age children on parents' employment choices. For Muslim and non-Muslim women alike, there are no significant differences in their likelihood of working on- or off-farm related to the presence of school-age girls in the household. In contrast, school-age boys seem to reduce mothers' (both Muslims and non-Muslims) likelihood of engaging in farm work and increase their chances of migrating away for work. The reduction in the probability of engaging in farm work and increase in probability of engaging in off-farm work is much larger for non-Muslim fathers than mothers, and, much larger for non-Muslim than Muslim fathers. Non-Muslim fathers of sons may feel strongly motivated by their income

needs—perhaps related to investments in their sons’ educations, weddings, and bride prices.

Hypothesis 2

In Hypothesis 2, we posited that women’s off-farm employment decreases with the presence of additional prime-age male potential breadwinners and increases with the presence of additional prime-age female potential substitute caregivers. Table 3 Rows 9-12 reveal the effects of having additional household members who are of prime working age (25-45).

Somewhat surprisingly, we observe in Rows 9-10 that having an additional female household member of this age group, one who could presumably help provide childcare and/or contribute to the household’s agriculture endeavors, appears to have no significant differential effects on the proclivities of prime-age married women to work on- or off-farm. In addition, we find no differential effects in this regard for Muslim women.

While women seem largely unaffected by having additional prime-age women in the household, their types of employment change with additional prime-age men in the household (Table 3 Rows 11-12). In such households, women are less likely to engage in agriculture endeavors. There are very large differentials between Muslim and non-Muslim women in this regard.

Spierings (2014) found that in Muslim-majority countries, the higher the number of male breadwinners within a household, the lower the probability of women's employment. Our analysis is framed differently with multiple types of employment. Given the rural setting of our analysis, we equate the flexibility that comes with farm work to being somewhat akin to staying home, at least with respect to caregiving. We find that presence of an additional male potential breadwinner, between the ages of 25 and 45 has no effect on non-Muslim women's probability of engaging in farm work. However, an additional prime-age male in the household has a very strong differential effect on Muslim women. It increases their probability of participating in farm work (effectively staying at home) and decreases their probability of participating in local off-farm work.

The presence of additional female household members in this same age group significantly increases the likelihood that men engage in agriculture endeavors and reduces their likelihood of off-farm work. In contrast, the presence of additional men in the household between the ages of 25 and 45, has no effect on the types of employment engaged in by the men in our sample.

Our findings, in terms of women's type-of-employment outcomes, are consistent with Hypothesis 2. The male outside/female inside gender norm appears to have a stronger influence in Muslim than non-Muslim households.

Hypothesis 3

Recall that Hypothesis 3 pertains to the effects of the presence of mature women and men in the household, those between 46-70 years of age, on the types of employment of the households' married women and men age 18-45. We posited above that these grandparent-age individuals could potentially alleviate some of the caregiving burden of the married individuals that constitute our analytic sample. We also posited that the labor of these mature individuals might substitute in farm work for that of the younger generation.

We find that women of grandmotherly age in the household appear to facilitate both women and men's labor migration. See Table 3 Rows 13-14. Women's probability of out migration increases, while their probability of working on the farm falls. When there is a grandmotherly-age woman in the household, men are significantly more likely to migrate away for work and less likely to engage in local off-farm work. We expect that many, if not most, of these mature women provide childcare and alleviate the care burden of prime-age parents, facilitating labor migration. There are no significant differences between Muslims and non-Muslims in this regard.

In Table 3 Rows 15-16, we see that having a grandfatherly-age man in the house has a similar effect on non-Muslim women's types of employment—it reduces their proclivity to engage in farm work and substantially increases their likelihood of labor migration. However, there are large differentials between Muslim and non-Muslim women in this regard. Having a mature man in the household greatly increases Muslim women's probability of engaging in farm work and reduces their likelihood of engaging in off-farm

work. Having a mature man in the household increases non-Muslim men's probability of labor migration and reduces their likelihood of engaging in either farm work or local off-farm. There is a weakly significant further reduction in engaging in off-farm employment for Muslim men.

In sum, our findings support Hypothesis 3. Having adults of grandparent age in the household supports and facilitates the outmigration of married prime-age individuals—for both men and women in Muslim and non-Muslim households. Interestingly, while the presence of additional co-resident men and women of the grandparent age range appears to support both prime-age men and women's migration for non-local off-farm work, there are gender differences. For men, the increased likelihood of migration seems to come mainly through a reduced likelihood of local off-farm work. For non-Muslim women the increased likelihood of migration comes via a reduction in probability of farm-work and for Muslim women it comes via a reduced probability of local off-farm work.

CONCLUSION

We began this research project wanting to learn how the presence of pre-school and/or school-age children affect the likelihood that their parents' work off-farm. Comparing the roles that children and other household members play in married, prime-age individuals' off-farm work decisions between Muslim and non-Muslim groups provides a window for observing the intersection of religious and ethnic norms and gender relations across the domestic and public spheres of work in post-reform rural China.

We find, in accord with traditional gender-role expectations, that children generally decrease women's probability of working off-farm, that is, away from/outside the home and increase men's probability of doing so. We also find that the gender of the child becomes important to the analysis. Mothers, as well as fathers, of school-age sons are more likely to work off farm than parents of school-age daughters. In addition, the gender gap in employment-type choices is wider for Muslim parents than non-Muslim parents.

Another pattern emerges for school-age children in non-Muslim households: fathers of sons are more likely to work off farm than fathers of daughters. This is also the case for mothers of school-age sons. It appears that parents of sons desire higher incomes, perhaps, in part, in preparation for their educational expenses and perhaps also in preparation for expected expenses associated with their sons' future marriages. According to traditional customs, the groom's family supplies the matrimonial house or apartment. Additionally, bride price has increased rapidly.⁵ That children's gender affects mothers' off-farm work decisions might be explained by elderly rural people's son preference (Connelly, Roberts and Zheng 2012). Mothers of sons find more support from their mothers-in-law to care for their sons, such that their ability to participate in off-farm work is less constrained than that of mothers of girls.

We find a result analogous to that of Spierings (2014) -- the presence of additional adult men (age 25 to 45) in the household strongly reduces the likelihood that Muslim women engage in off-farm work and increases their likelihood of working on the farm. There is no analogous effect for men's types of employment. Spierings (2014) finds that the

presence of additional adult women in the household has a very strong positive effect on women's employment. In contrast to Spierings, we find no effect on either Muslim or non-Muslim women's types of employment of having additional prime-age women in the household with whom they could presumably share caregiving roles. We find, however, that having additional prime-age women in the household increases the likelihood that men are engaged in agriculture employment, (staying close to home), and reduces their probability of working off farm.

Finally, our results suggest that having women in the grandparent age range facilitates labor migration for both Muslim and non-Muslim women. However, while the presence of men of grandfatherly age facilitates the labor migration of non-Muslims of both sexes, it increases Muslim women's likelihood of working on farm and decreases their likelihood of working off-farm.

In sum, childcare needs and access to grandparent-provided childcare are significant determinants of prime-age women's participation in off-farm employment. This is true for both Muslims and non-Muslims, however, the choices of China's rural Muslim women appear more constrained by gendered caregiving roles than those of their non-Muslim counterparts as evidenced by their significantly higher probabilities of working on the farm (effectively staying home) with the presence in their households of preschool children and/or additional men whether prime-age or grandparent age.

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Table 1 Employment Patterns, by Gender and Ethnicity

	Muslim		Non-Muslim	
	Women	Men	Women	Men
Share engaged in:				
Farm work	77.1	21.2	64.8	26.2
Local off-farm work	14.4	44.3	20.7	47.4
Nonlocal off-farm work/migration	8.5	34.5	14.5	26.3
Observations	930	950	3,337	3,350

Data Source: China Household Ethnicity Survey 2012.

Table 2 Household Size and Composition by Gender and Age

	Muslim		Non-Muslim	
	Women	Men	Women	Men
No. of household members	5.38	5.50	6.07	6.07
Number of children age 0-5	0.67	0.73	0.44	0.44
Number of children age 6-14	0.83	0.84	0.63	0.63
Number of children age 0-14	1.50	1.56	1.07	1.07
Percentage of households with children of age:				
Girl(s) age 0-5	26.1	28.3	17.3	17.3
Boy(s) age 0-5	32.4	33.7	23.7	23.6
Girl(s) age 6-14	36.6	36.4	28.3	28.3
Boy(s) age 6-14	37.1	37.2	33.9	33.8
Percentage of Households with Members of Particular Age and Gender Composition:				
Women age 15-24	46.7	46.6	37.8	37.3
Men age 15-24	41.3	41.2	34.6	34.7
Women age 25-45	78.1	77.2	88.3	88.0
Men age 25-45	84.5	85.5	92.7	93.2
Women age 46-70	34.3	35.8	40.9	41.3
Men age 46-70	35.2	35.2	39.2	38.9
Women over age 70	5.8	6.0	9.1	9.1
Men over age 70	8.1	8.1	7.7	7.7
Observations	930	950	3,337	3,350

Source: China Household Ethnicity Survey 2012.

Table 3

Multinomial Logit Estimates of the Marginal Effects of Household Composition on the Propensity of China's Muslim and non-Muslim Rural Women and Men Women to Engage in Farm and Off-Farm Work

Row No.	Household Composition & Muslim Interaction Terms	Women			Men		
		Farm Work	Local Off-Farm	Non-Local Off-Farm	Farm Work	Local Off-Farm	Non-Local Off-Farm
1	Girls 0-5	0.068 (0.021)***	-0.035 (0.020)*	-0.033 (0.014)**	-0.044 (0.021)**	0.035 (0.024)	0.009 (0.018)
2	Girls 05 x Muslims	0.093 (0.047)**	-0.028 (0.044)	-0.065 (0.036)*	-0.026 (0.041)	0.056 (0.045)	-0.030 (0.036)
3	Boys 0-5	0.006 (0.019)	0.009 (0.017)	-0.015 (0.012)	-0.079 (0.020)***	0.059 (0.022)***	0.020 (0.017)
4	Boys 0-5 x Muslims	0.172 (0.044)***	-0.078 (0.041)*	-0.094 (0.034)***	-0.012 (0.040)	0.060 (0.044)	-0.048 (0.035)
5	Girls 6-14	0.025 (0.018)	-0.021 (0.016)	-0.004 (0.013)	-0.032 (0.018)*	0.032 (0.020)	-0.000 (0.017)
6	Girls 6-14 x Muslims	0.049 (0.041)	-0.009 (0.036)	-0.041 (0.033)	0.063 (0.036)*	-0.077 (0.042)*	0.014 (0.036)
7	Boys 6-14	-0.052 (0.019)***	0.026 (0.016)	0.026 (0.013)**	-0.103 (0.018)***	0.079 (0.021)***	0.024 (0.017)
8	Boys 6-14 x Muslims	0.061 (0.041)	-0.052 (0.037)	-0.009 (0.032)	0.085 (0.038)**	-0.090 (0.043)**	0.005 (0.036)
9	Female 25-45	-0.012 (0.035)	-0.013 (0.032)	0.026 (0.021)	0.097 (0.031)***	-0.092 (0.035)***	-0.005 (0.025)

10	Female 25-45 x Muslims	0.029 (0.067)	0.013 (0.065)	-0.042 (0.046)	-0.086 (0.059)	0.091 (0.067)	-0.005 (0.053)
11	Male 25-45	-0.077 (0.037)**	0.049 (0.036)	0.027 (0.023)	-0.016 (0.043)	-0.012 (0.050)	0.028 (0.036)
12	Male 25-45 x Muslims	0.202 (0.075)***	-0.176 (0.074)**	-0.026 (0.049)	-0.010 (0.065)	-0.067 (0.075)	0.076 (0.058)
13	Female 46-70	-0.076 (0.021)***	0.012 (0.019)	0.064 (0.015)***	0.010 (0.021)	-0.068 (0.024)***	0.057 (0.019)***
14	Female 46-70 x Muslims	0.006 (0.055)	-0.040 (0.050)	0.034 (0.040)	0.002 (0.050)	0.025 (0.056)	-0.027 (0.045)
15	Male 46-70	-0.076 (0.022)***	-0.025 (0.020)	0.102 (0.015)***	-0.037 (0.022)*	-0.095 (0.026)***	0.132 (0.020)***
16	Male 46-70 x Muslims	0.169 (0.057)***	-0.135 (0.054)**	-0.034 (0.040)	0.064 (0.051)	-0.109 (0.057)*	0.045 (0.045)
17	Muslims	-0.436 (0.106)***	0.230 (0.100)**	0.206 (0.077)***	-0.044 (0.095)	0.002 (0.107)	0.042 (0.086)

$p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Source: China Household Ethnicity Survey 2012.

Online Appendix

Table A1 Summary Statistics of Explanatory Variables Not Presented in Table 2

	Muslim		Non-Muslim	
	Women	Men	Women	Men
Panel A: Education & Language Capability:				
Primary or below	0.577	0.429	0.426	0.279
Junior high school	0.345	0.432	0.504	0.594
Senior high school	0.078	0.139	0.070	0.127
Capable in Mandarin	0.328	0.376	0.685	0.723
Panel B: Age Group Distribution:				
Ages 25-29	0.211	0.223	0.189	0.147
Ages 30-34	0.201	0.201	0.189	0.193
Ages 35-39	0.232	0.264	0.297	0.313
Ages 40-45	0.119	0.176	0.210	0.277
Panel C: Local Economic Conditions				
Distance from village to nearest bus stop (km)	6.436 (9.641)	6.204 (9.322)	11.105 (17.101)	11.168 (17.223)
Village mean per capita land	3.694 (5.451)	3.626 (5.281)	3.570 (13.745)	3.669 (14.519)
County per capita GDP (10,000 yuan)	1.480 (0.944)	1.478 (0.940)	2.035 (2.297)	2.032 (2.288)
Share of primary industry in county GDP	0.446 (0.611)	0.446 (0.614)	0.242 (0.150)	0.241 (0.150)

Panel D:				
Distribution of Provincial Locations: (%)				
Inner Mongolia	---	---	14.59	14.54
Hunan	0.92	1.16	15.94	15.88
Guangxi	---	---	18.64	18.66
Guizhou	0.32	0.21	22.74	22.84
Qinghai	21.72	23.89	14.38	14.33
Ningxia	32.80	32.21	8.33	8.42
Xinjiang	44.19	42.53	5.36	5.34
Observations	930	950	3,337	3,350

Data Source: China Household Ethnicity Survey 2012.

Table A2: Multinomial Logit Estimates of the Marginal Effects of Household Composition, Human Capital,
and Local Economic Conditions on the Propensity of China's Muslim and non-Muslim Rural Women and Men
Women to Engage in Farm and Off-Farm Work
Regression Results (Supplemental to Table 3)

	Farm Work Women	Local Off-Farm Women	Non-Local Off-Farm Women	Farm Work Men	Local Off-Farm Men	Non-Local Off-Farm Men
Female over 70	-0.035 (0.026)	0.005 (0.022)	0.030 (0.018)	0.015 (0.025)	0.000 (0.030)	-0.015 (0.026)
Female over 70 x Muslims	0.137 (0.075)*	-0.111 (0.067)*	-0.026 (0.060)	0.015 (0.075)	-0.072 (0.083)	0.056 (0.058)
Male over 70	-0.016 (0.028)	-0.034 (0.025)	0.050 (0.019)***	-0.026 (0.028)	-0.011 (0.032)	0.037 (0.026)
Male over 70 x Muslims	0.012 (0.070)	0.065 (0.058)	-0.077 (0.060)	0.083 (0.062)	-0.086 (0.071)	0.003 (0.058)
Junior high school	-0.071 (0.015)***	0.035 (0.014)**	0.036 (0.011)***	-0.024 (0.015)	-0.001 (0.018)	0.025 (0.015)*
Senior high school Or higher	-0.156 (0.028)***	0.104 (0.024)***	0.052 (0.020)***	-0.020 (0.021)	0.044 (0.025)*	-0.023 (0.022)
Age 25-29	-0.065 (0.033)*	0.022 (0.032)	0.043 (0.021)**	0.024 (0.036)	-0.024 (0.042)	-0.000 (0.031)
Age 30-34	-0.090 (0.038)**	0.055 (0.035)	0.035 (0.024)	0.012 (0.039)	-0.001 (0.046)	-0.010 (0.035)
Age 35-39	-0.110 (0.037)***	0.096 (0.034)***	0.014 (0.024)	0.002 (0.038)	0.036 (0.045)	-0.037 (0.035)
Age 40-45	-0.057	0.093	-0.036	0.022	0.072	-0.093

	(0.038)	(0.034)***	(0.026)	(0.037)	(0.045)	(0.035)***
Able to speak in Mandarin	0.010 (0.015)	-0.031 (0.013)**	0.021 (0.011)**	-0.031 (0.015)**	0.001 (0.017)	0.031 (0.014)**
Distance to nearest Bus stop	0.003 (0.001)***	-0.002 (0.000)***	-0.001 (0.000)**	0.001 (0.000)	0.001 (0.000)*	-0.001 (0.000)***
Village mean land Per capita	0.009 (0.003)***	-0.002 (0.002)	-0.007 (0.003)**	0.006 (0.001)***	0.002 (0.002)	-0.008 (0.002)***
County mean per Capita income	0.381 (0.667)	1.313 (0.390)***	-1.694 (0.816)**	2.108 (0.389)***	3.930 (0.706)***	-6.038 (0.923)***
Share of primary in county GDP	-0.042 (0.022)**	0.050 (0.017)***	-0.007 (0.018)	0.056 (0.026)**	-0.107 (0.033)***	0.051 (0.020)**
Province fixed effects	yes	yes	yes	yes	yes	yes
Chi2	1,057.91	1,057.91	1,057.91	1,391.66	1,391.66	1,391.66
P value	0.00	0.00	0.00	0.00	0.00	0.00
Pseudo R ²	0.15	0.15	0.15	0.15	0.15	0.15
Test for H ₀ : There is no difference in children's effects between Muslims and non-Muslims.						
Chi2	19.33			14.70		
p-value	0.013			0.065		
Test for H ₀ : There is no difference in adult composition's effects between Muslims and non-Muslims.						
Chi2	33.63			15.03		
p-value	0.006			0.522		
Observations	4,267	4,267	4,267	4,300	4,300	4,300

$p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Data Source: China Household Ethnicity Survey 2012

¹ In many jurisdictions around the world, individuals self identify as being a member of an ethnic minority group. In contrast, in China, ethnic minority status is assigned at birth, recorded on official identity documents, and in almost all cases fixed throughout one's life (Maurer-Fazio and Hasmath 2015).

² Kongar, Olmsted, and Shehabuddin (2014) point out, there are very complex relationships between the economic, political, cultural, and religious spheres that affect people's lives and that it is critical to take intersectionality, historical context, and structural constraints into account when considering women and men's experiences by religion and ethnicity.

³ Maurer-Fazio, using Internet job boards in 6 large Chinese cities, found that college-educated Uyghur women had to put in almost twice as many applications as their equally qualified Han counterparts to obtain the same number of interview callbacks (Maurer-Fazio, 2012).

⁴ In Hui areas, Hui women typically wear headscarves and Hui men white caps. Some family names also signal a strong likelihood of being Hui (Gustafsson and Ding, 2014).

⁵ News accounts report rural bride prices vary over time and place: 30,000 RMB in 1999 (Sun 2016), 100,000 RMB in 2014 (Zhang, 2014), and 200,000 RMB in 2015 (Wang, 2015).