

Women's Entry into Self-employment in Urban China: The Role of Family in Creating Gendered Mobility Patterns

QIAN FORREST ZHANG

Singapore Management University, Singapore

and

ZI PAN*

Shanghai University of Finance and Economics, China

Summary. — How did family characteristics affect women and men differently in self-employment participation in urban China? Analyses of national data show dual marriage penalties for women. Marketization made married women more vulnerable to lay-offs from state-sector jobs; their likelihood of being pushed into unskilled self-employment surpassed that of any other groups. The revitalized patriarchal family tradition favored men in family businesses and resulted in their higher rates of entering entrepreneurial self-employment. Married women who had the education to pursue entrepreneurial self-employment were constrained by family responsibilities to state-sector jobs for access to family services, and had much lower rates in entering self-employment.

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1. INTRODUCTION

Studies on self-employment in developed countries consistently find that family characteristics—mainly marital status and number of children—have greater effects on women's participation in self-employment than on men's (Arum, 1997; Carr, 1996; McManus, 2001; Renzulli, Aldrich, & Moody, 2000). The effects of marriage and family also vary across occupational classes within self-employment: women enter nonprofessional self-employment to balance work and family, but enter professional self-employment more for career advancement than for family concerns (Budig, 2006). This line of research, however, has been limited to the context of Western developed countries. Little is known about to what extent these findings of family structure's different effects on men's and women's self-employment participation hold true in different cultural and economic contexts. This limited scope has also precluded the investigation of self-employment participation during rapid social change. When rapid social change transforms both the character of self-employment and the role of family, how do family and gender interact to shape people's entry into the new landscape of self-employment?

Contemporary urban China provides an ideal case to extend this line of research along these two directions. In China, not only family relations and gender roles within family are different, self-employment also presents a social and economic reality markedly different from that in developed countries. While self-employment has always existed as a viable employment option in developed countries, it had been largely eliminated in urban China during the Maoist era and only re-emerged as the reform started to transform the socialist planned economy toward a market economy. Entry into self-employment in urban China is not only a departure from wage employment, but also one from the redistributive sector to the emerging market sector.

Wage employment in China's once dominant redistributive sector differed from that in developed market economies, especially in the provision of family-related social services. As the reform transformed the employment structure, it altered both the economic rewards and family-friendliness of various jobs. Therefore, the motivations and constraints that drove people from wage employment to self-employment—especially the effect of family concerns on women's employment choices—would not only differ from those in developed countries but also evolve as marketization progressed.

China's transition to a market economy brought in changes in family norms and gender relations, chief among them the scaling back of the state's efforts in creating gender equality in the workplace and a revival of traditional gender roles and division of labor within families. Though we can expect that in China, like elsewhere, women's labor-market activities are more significantly shaped by their family roles, how exactly gender roles and family relations mediate people's responses to changes in the employment structure and create gender differences still awaits investigation.

Studies on gender differences in labor-market processes in contemporary China have noted the gender-specific effects of family on job mobility patterns. For example, women's job changes were more motivated by family reasons, but men's mobility more by career pursuits (Cao & Hu, 2007); only women were negatively affected, in both income and employment status, by marriage and family (Zhang, Hannum, & Wang, 2008); the presence of young children only had negative effects on women's income, but not men's (Shu, Zhu, &

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Zhang, 2007); and, among laid-off workers, marriage lowered women's probability of re-employment, but not men's (Du & Dong, 2009). These studies, however, have not examined gender differences in self-employment or the role of family in creating such differences.

This paper addresses this gap. We use data from a national survey to examine how family characteristics affect men and women differently in their entry into self-employment during urban China's market transition over a 19-year span. This paper makes two improvements on past research on self-employment in China. First, this is the first study that uses national representative data to systematically examine gender variations and family effects in entry into self-employment. Second, we disaggregate occupational classes in self-employment and examine the full range of self-employment activities. This helps to better detect gender differences, as women's participation and the effects of family characteristics may vary across occupational classes in self-employment. Previous studies often focused exclusively on either family business, where the household division of labor often excluded women from taking the leading entrepreneurial role (Bruun, 1993; Entwisle, Henderson, Short, Bouma, & Zhai, 1995), or marginalized petty commodity trades, where women outnumbered men (Jacka, 1990). Other more comprehensive studies also failed to address the internal heterogeneity of self-employment or to examine how women's participation varied across different types of self-employment (Davis, 1999; Wang, 2009; Wu, 2006).

2. THEORETICAL BACKGROUND: GENDERED PATHWAYS TO SELF-EMPLOYMENT

Two major individual-level theories explain the entry into self-employment: the choice theory, also known as the class mobility thesis, sees it as an individual's choice to redeem one's special qualities and pursue career advancement; the constraint theory, also known as the disadvantaged workers thesis, focuses more on structural constraints that restrict one's options in wage employment (Budig, 2006). Men and women, however, may be motivated by different sets of choices and constraints in their entry into self-employment. Past research identified several factors that are related with gender differences in entering self-employment in developed countries. Women's deficiency in human capital (Devine, 1994; Kalleberg & Leicht, 1991), less access to financial capital, and greater liquidity constraints (Loscocco & Robinson, 1991), and the smaller number of entrepreneurs in their social networks (Allen, 2000) all contributed to the gender gap in entering self-employment and having business success. The most important factor, however, has been consistently found to be the differential effects of family characteristics on men and women (Carr, 1996; Renzulli *et al.*, 2000).

Women's roles as wives, mothers, and caregivers in the family cause work-family conflicts and constrain their job choice. Many women, to seek work and family balance, select family-friendly jobs in wage employment, which usually are female-typical jobs that are devalued and lower-paid, and suffer a penalty in wages and career advancement (Budig & England, 2001). Women also face employers' discrimination based on the expectation that family obligations lower their productivity. Work-family conflicts and other disadvantages women face in wage employment may therefore push them into self-employment to seek a more family-friendly alternative. In developed countries, self-employment often provides greater autonomy over the time and place of work and gives women

a flexible work strategy to juggle the competing responsibilities from employment and families (Carr, 1996). Two gendered pathways into self-employment emerge: marriage and children increase the constraints women face in wage employment and, subsequently, their likelihood of self-employment; men, on the other hand, enter self-employment mainly for career advancement.

Recent research also stressed the heterogeneity within self-employment and the importance of a disaggregated approach sensitive to this (Arum & Muller, 2004). In the re-emergence of self-employment in developed economies during the late 20th century, for example, both professional and unskilled contingent self-employment grew, while the traditional petty bourgeois activities continued its decline (Arum & Muller, 2004; Kalleberg, Reskin, & Hudson, 2000). This suggests that people who enter different positions in self-employment are driven by different choices or constraints. More specifically, the effects of family characteristics on women may vary across occupational classes within self-employment. Budig (2006), for example, found two patterns in the United States. For women entering nonprofessional self-employment, because their alternatives in nonprofessional wage jobs often lacked employer-sponsored childcare and entailed close supervision and inflexible schedule at work, they chose self-employment to balance family and work demands. For women entering professional self-employment, however, their alternatives in professional wage employment were often comparably family-friendly to self-employment. They entered self-employment to seek career advancement; family factors had as little effect on them as on men.

In different national contexts, many parameters in this equation change. The provision of care services, the relative family-friendliness of self-employment compared to wage employment, the occupational composition of self-employment, and the gender division of labor in families can all be different. Social changes can also alter the relationship between gender, family, and job mobility. Next, we discuss the evolution of self-employment and changes in family life in urban China during the market transition and propose hypotheses regarding how family characteristics shape gender differences in self-employment participation in this new context.

3. RESEARCH BACKGROUND: URBAN CHINA UNDER SOCIALISM

China's socialist state proclaimed gender equality as a key characteristic of the new society it wanted to build. By transforming the economy into one dominated by publicly-owned enterprises coordinated through central planning, the state provided nearly universal employment for working-age women in Chinese cities (Hershatter, 2004). This high rate was made possible by providing affordable family services—including childcare, medical care, pension, and old-age care—to working families in cities through their state and collective employers, the work units. In urban China under the planned economy, domestic care had become a domain of the state (Cook & Dong, 2011). This privileged access to social services made employees in state and collective work units the labor aristocracy in socialist China (Walder, 1992).

While in developed economies access to family-friendly benefits such as employer-sponsored childcare is associated with higher-status, professional occupations, in socialist urban China, it was linked to the ownership and administrative rank of one's employer but independent of one's occupational status. Work units with higher ranks were able to provide better

family-related services; all employees of a work unit had relatively equal access to them (Walder, 1992). Against this background, in the early stages of China's economic reform, self-employment emerged as the least family-friendly job, because of its exclusion from these state-sector family services, and had job characteristics similar to, if not worse than, those of "bad jobs" in developed countries (Kalleberg *et al.*, 2000). In this context, the pursuit of family-work balance would motivate women to stay in public sector, rather than driving them into self-employment, as found in developed countries. Studies of self-employment in urban China when it re-emerged in the early 1980s found that it remained marginalized and stigmatized in an economy dominated by public-sector employment, and early entrants were mainly "disadvantaged workers" who faced constraints in getting public-sector jobs—such as former convicts, returnees from the countryside, the disabled, and laid-off workers (Bruun, 1993; Gold, 1989; Young, 1991). They did not enter it as a choice to pursue either family-work balance or upward mobility, but rather as a refuge from poverty after being excluded from state-sector jobs. As most people concentrated in low-skill, petty commodity trades such as street peddling, there was little occupational differentiation in self-employment in the early years of the reform.

The socialist state also intervened powerfully in family life and gender relations. Since its founding in 1949, the state, through policies in areas ranging from marriage to public health to employment, pushed Chinese families toward modern family forms at an unprecedented speed (Davis & Harrell, 1993; Hershatter, 2004; Whyte, 2005). Economically, the elimination of private property and dissolution of family as a unit of production for most urban residents weakened the economic base of family loyalty and patriarchal authority. Culturally, the attack on ancestral worship and lineage organizations and the outlawing of some traditional marriage practices undermined, but did not eliminate, traditional family values, and changed family structure. Socially, through drastically increasing women's participation in paid labor and providing social services through nonfamily institutions, the state created more equitable gender relations at work, and reduced traditional culture's influence on gender division of labor in families.

4. RESEARCH HYPOTHESES: GENDER, FAMILY, AND SELF-EMPLOYMENT IN MARKET TRANSITION

China's transition to a market economy introduced profound changes to urban employment, family life, and gender relations. The expansion of the market sector and decline of state sector transformed urban residents' opportunity structures through creating financial wealth and upward mobility in self-employment on one hand and, on the other, reducing access to family-friendly wage employment in state sector. To gender and family relations in China, the transition ushered in contradictory currents. The state scaled back its commitment to gender equality in the workplace and provision of subsidized domestic care to urban families. This opened space for some cultural and economic forces, which had been suppressed under socialism, to resurge and bring back more traditional gender roles and division of labor both in the family and workplace (Cook & Dong, 2011; Whyte, 1993). On the other hand, political and economic openings also accelerated both the diffusion of modern gender and family norms and the rise of advocacy groups for women's rights and equality (Honig & Hershatter, 1988; Yang, 1999). The strict birth-control policy started by the state in 1979 also created even greater uniformity among urban families.

Earlier works on mobility processes during the market transition focused more on how people's human and political capitals shaped both their responses to changes in the employment structure and their life chances in the new stratification order (Wu, 2006; Wu & Xie, 2003). Gender roles in both the workplace and the family, however, influence people's responses to social changes and create gender-specific mobility patterns, as more recent works on job mobility in urban China have shown (Cao & Hu, 2007; Zhang *et al.*, 2008). We adopt this perspective and examine here two major changes related to self-employment that happened during the first 20 years of China's market transition. First, self-employment grew rapidly in size, expanded into more occupations, and offered more opportunities for financial rewards and career advancements. At the same time, the redistributive sector declined and eliminated many wage jobs, driving some of the laid-off workers into self-employment to search for a refuge from poverty. Together, these two processes increased occupational heterogeneity and socioeconomic stratification within self-employment. Second, the decline of the redistributive economy also eroded the role of the state and the work unit as providers of social services, yet commercialization of these services failed to fill the gap, and made them less affordable (Cook & Dong, 2011). Family-friendly jobs in wage employment became scarcer, and care responsibility shifted back to the family—especially to women. Next, we discuss how women's greater family responsibilities, which the market transition had increased, could cause them to respond differently than men to these changes in employment structure and care provision, and create gendered pathways into self-employment.

(a) *Changes in the employment structure*

Self-employment in urban China experienced rapid growth since the reform started in 1978. The number of individually self-employed in Chinese cities grew 100-fold from 150,000 nationwide in 1978 to 15.6 million in 1995 (the year before data used in this study were collected), an annual growth rate of 36%. Its share in the urban labor force also grew from 0.2% to 9.0% during the same period (State Statistical Bureau, 1996).

As self-employment grew, occupational heterogeneity within the sector increased. Self-employed activities spread from the initial low-skill, petty commodity trades to more skilled professions, and from individual self-employment to small private enterprises with hired labor (Bruun, 1993; Gold, 1989). When the government first legalized self-employment activities in 1981, it only gave permission to "getihu"—literally, individual industrial, and commercial households—and restricted them to hiring no more than seven employees (Sabin, 1994). But by 1988, the swelling ranks of larger entrepreneurs made the government to change the policy and legalize larger private enterprises hiring more than seven workers, classifying them as "siying yezhu"—private owners-entrepreneurs.

The emergence of skilled self-employment and private entrepreneurs meant that self-employment started to offer opportunities for upward mobility and financial wealth that were unattainable even in the state sector and became a more appealing career choice to people with greater human and political capital (Wu, 2006). These opportunities, however, may not be equally accessible to men and women, because of the rising role of traditional family norms in determining household division of labor and allocation of resources. In China, petty-commodity production, the starting point for most private enterprises, historically had been organized

within the patriarchal family and kinship structure—as “patri-corporations”—and dominated by men (Gates, 1996). Entrepreneurial self-employment in contemporary China still usually took the form of family business. As Entwistle *et al.* (1995) and Wang (2009) found, respectively, in their studies of private enterprises in rural and urban China, the patriarchal family tradition regulated gender roles and resource allocation in family businesses—tapping on the unpaid female labor in the family but reserving entrepreneurial opportunities for men. Research on gender segregation in employment in developed countries also found that when the economic returns and social status of a job change, its position in the gender-segregated employment structure also shifts and men may colonize it and squeeze out women (Reskin & Roos, 1990). In her pioneering study of self-employment in urban China, Davis (1999, p.43) predicted that “self-employment may . . . emerge as a male prerogative and the tradition of patrimonial, patriarchal family corporatism may play a decisive role in the occupational trajectories of urban adults.” Following this, but adding in the occupational heterogeneity within self-employment, we derive this hypothesis regarding how family roles shaped men and women’s different responses to rising opportunities in skilled and entrepreneurial self-employment (SESE):

Hypothesis 1: Men were more likely than women to enter SESE as marketization in urban China progressed.

During China’s market transition, the decline of the redistributive sector—including state and collective firms and institutions—accompanied the growth of the market sector. Employment in state-owned enterprises (SOEs) declined from its peak of 110 million in 1995–69 million in 2002; an additional 20 million jobs were eliminated in the collective sector in the same period (Du & Dong, 2009). Not only the redistributive sector constricted as an employer of women, the state’s role in advocating for women’s right also declined or even reversed (Honig & Hershatter, 1988). The convergence of these two processes during the state-sector restructuring in the 1990s hit women particularly hard: they were laid-off at much higher rates, had longer durations of unemployment after the lay-off, and suffered greater wage losses when re-employed (Du & Dong, 2009). One survey in Shanghai, for example, showed that, in 1994, women’s unemployment rate in the city was 17.2%, while the overall rate was 7.3% (Davis, 1999, p. 25).

Women were disproportionately affected for a host of reasons. For example, women concentrated in low-end manufacturing industries such as textile, which were the worst hit by the decline (Giles, Park, & Cai, 2006); women had accumulated lower human capital, and occupied lower positions in work units (Hannum & Xie, 1994); and the male-dominated management also placed lower value on female labor (Davis, 1999).

Married women faced additional disadvantages. They were often among the first to be laid-off because of the expectation that family burdens lowered their productivity and commitment to work. During the lay-off, the state abandoned its previous commitment to gender equality, and submitted to traditional patriarchal norms it had sought to suppress. Management in state firms gave priority to protecting husbands’ role as breadwinners in the family and laid off wives first, considering it more acceptable for wives to retreat from employment and go “back to the wok” (Jacka, 1990). The fact that many married couples in Chinese cities worked in the same work unit, a prevalent practice under the planned economy, made these wives particularly vulnerable. Many studies docu-

mented the negative impacts of marital status on women but not men during the state-sector decline (Cao & Hu, 2007; Du & Dong, 2009; Giles *et al.*, 2006; Zhang *et al.*, 2008).

Once laid-off, workers faced bleak prospects in getting new wage jobs. The declining state sector certainly offered no relief. Even in the expanding market sector, more jobs were available for rural migrants and the highly educated than for the mainly middle-aged, under-educated, and unskilled laid-off workers (Solinger, 2002). Among the laid-off, women fared even worse in getting re-employment, as they faced greater employer discrimination in hiring, received less government assistance, and had less access to social networks (Du & Dong, 2009).

Without any sort of proper social welfare net to fall on, many laid-off workers unable to find new wage jobs had to go on the streets—some to engage in self-employment activities, others to protest (Solinger, 2002). Studies on self-employment in urban China have not examined the connection between state-sector lay-off and the growth in low-end self-employment (or the over-representation of women in it). But studies of laid-off workers have shown that self-employment activities such as street peddling were indeed an oft-taken path by laid-off workers (Gong, 2001; Solinger, 2002). We expect that women’s over-representation among the laid-off and greater difficulties in getting re-employment would drive more of them into self-employment to seek a refuge from poverty, hence the following hypothesis:

Hypothesis 2: As marketization (and state-sector restructuring) progressed in Chinese cities, women, especially married women, became more likely to enter the low-end, unskilled segment of self-employment.

(b) *Changes in the provision of care*

Since married women bear a greater burden of unpaid domestic labor, the extent of their domestic responsibilities and the availability of care services are key factors in shaping their entry into self-employment. In socialist urban China, much of the care for children, the elderly, and the sick were provided within the family and mainly by women. Two conditions, however, helped weaken the negative impact of women’s caregiver role on their employment outcomes. First, by delinking wage with job performance, the socialist labor regime minimized wage- and career-related penalties that women had to endure for their caregiver role; second, employer-provided social services shifted some of the care responsibilities from household to the work unit and alleviated women’s family burden (Cook & Dong, 2011). Thanks to these institutions, during the Mao era, China boasted of one of the highest rates of female labor-force participation and lowest gender wage gaps in the world.

During the market transition, while women still bore the double burden of paid work and unpaid domestic labor, the protection and services provided by the socialist state for women’s reproductive and care-giving roles eroded, exacerbating work–family conflicts for women in urban China. The SOEs that survived the restructuring became more profit-driven and less accommodating to women’s care-giving needs, imposing greater penalties for women’s reduced work hours and productivity caused by their domestic responsibilities. Many also scaled back the employer-provided care services, shifting more care responsibilities back to the family. For example, from 1997 to 2006, the number of publicly funded kindergartens dropped from 157,842 to 55,069, and the total number of kindergartens decreased by 28.5%; and by 2006, only 20% of SOEs and 7.5% of all enterprises continued to run kindergartens for employees (Cook & Dong, 2011). The rapid aging of

the population also increased the demand for care for the elderly, which in China had always been primarily the responsibility of their children and fell disproportionately on women. Heightened work–family conflicts and rising penalties for women's caregiver role had deteriorated women's situations in the state sector—higher rates of lay-off, downward mobility to less-pay, lower-skill jobs, and participation in the informal sector (Cook & Dong, 2011). Greater human capital, however, increased women's chances of career advancement and lowered their risk of being laid-off (Giles *et al.*, 2006).

The growing market sector, despite offering more opportunities of financial wealth, exposed women to even greater disadvantages and more intensified work–family conflicts. It was highly gender-segregated and had a greater degree of gender inequality than the state sector. Women were less likely to work in high-paying foreign firms, squeezed out of jobs with faster wage growth, sorted into low-wage, and feminized manufacturing and service jobs, and suffered wage discrimination in private firms (Shu, 2005; Shu *et al.*, 2007; Zhang & Dong, 2008). People in the market sector also faced greater challenges in getting care services and social welfare. The state's efforts to marketize social services bound with state employers had been unsuccessful; among the more and more people who were excluded from the declining work unit-based welfare system, many could not find affordable alternatives on the market (Croll, 1999).

In this context, for married women with greater human capital—and therefore, had the choice—state-sector jobs, because of their lower degree of gender disparities and their access to the increasingly scarce employer-provided social security and care services, still provided a more favorable and family-friendly environment (Davis, 1999). Unlike their counterparts in developed countries, these women in urban China would be constrained by family responsibilities to forego career-rewarding market jobs such as professional and entrepreneurial self-employment. On the other hand, the greater financial rewards potentially available in market jobs, which could allow families to afford commercial care services, were more often left for men to pursue—a strategy of Chinese families to hedge risks during the market transition known as “one family, two systems.” Greater human capital, which was important for both securing state-sector jobs and pursuing career advancement in self-employment, would therefore have bifurcated effects on men and women, because of their different roles in the family. We derive this hypothesis:

Hypothesis 3: Higher education had a much smaller effect on married women than on men in increasing the likelihoods of entering SESE.

5. DATA AND MEASUREMENT

(a) Data

Data used in this study come from the 1996 Life History and Social Change in Contemporary China survey. The survey used multi-stage stratified random sampling to produce a nationally representative sample of 6,090 adults aged 20–69. Rural and urban samples were drawn separately. This study only uses the urban sample of 3,087 persons, drawn from 50 cities. Complete descriptions of the sample design, fieldwork procedure, and questionnaire are available in the project's codebook (Treiman, 1998).

Entry into self-employment is a dynamic process throughout the life course, in which determinants of entry, such as family conditions and job history, vary over time. We also disaggregate

self-employment into different class positions and analyze the separate transitions into these positions. We therefore use discrete-time, competing hazards event history models to analyze transition rates into two types of self-employment: unskilled individual self-employment (UISE) and SESE. The models are specified by a conventional multinomial logistic function:

$$\ln[p_j/(1 - p_j)] = \alpha t + \beta'_x X'_{it}$$

where p_j denotes the conditional probability of the j th type of event (transition to either UISE or SESE) in year t , X'_{it} is a vector of time-invariant and time-varying covariates for the i th individual, and β'_x is a vector of respective coefficients of these covariates.

Discrete-time hazard models shift the unit of analysis from the respondent to the life event of interest at a specific time point. We transform the record of each respondent into multiple person-year records, documenting the respondent's attributes and the life event on a yearly basis. For each year during 1978–96, we construct a risk set that only includes cases that were “at risk” for the event to happen. This means excluding respondents who either were not in the labor force (including attending school, in prison, in military service, disabled, and on sick or maternity leaves), or were already self-employed, or lived in rural areas in that year. Those who had not become self-employed by 1996 are right-censored. The total number of person-year records in the final risk set, combined from the 19 yearly risk sets, is 37,675.

The transformation into person-year records creates autocorrelation in the new data—serial dependence in time among person-year records from the same respondent—which causes biased standard errors in the estimation. We use one-way clustered sandwich estimator in STATA, a variant of robust variance estimation that produces robust standard errors (Rogers, 1993), to address the clustering in data. Respondent id is used as the clustering variable.

(b) Dependent variable

We code a job spell of a respondent as “self-employment” when the main source of income for that spell was either “head of enterprise or individual entrepreneur” or “independently employed.” The percentage of the self-employed in the labor force in 1996 was 15.9 with this method, close to the national average of 11.8% in official statistics (State Statistical Bureau, 1996). Subsequently, a transition into urban self-employment, the dependent variable, is defined as a change from a nonself-employed job spell or from out of the urban labor force into an urban self-employed job spell. During the 19-year period under study, a total of 466 incidents of transition occurred.

For the disaggregate analysis of two types of self-employment, we further differentiate the 466 incidents of transition on the basis of the reported occupational category. There are 443 cases that reported “*getihu*,” individual industrial-commercial household, as their occupations. Treating these as the individually self-employed, we use their detailed occupation codes to code them as either UISE (286 cases) or skilled (157 cases), respectively. Occupations that only involve processing customer-supplied materials with some skills but require little formal training and little capital besides tools of the trade, such as butchers, tailors, and shoe repairmen, and occupations in personal services, such as barbers and maids, are considered unskilled. Others that require higher levels of skills that are obtained through formal training and greater amount of means of production, such as medical practitioners,

insurance or securities salespersons, and electrical or mechanical technicians, are coded as skilled.

Among the 466 incidents of transition, 23 cases reported *siying yezhu* (private owner-entrepreneur hiring more than seven workers) as their occupations. The survey did not collect retrospective data on their number of employees when self-employment started. But we suspect most of these *siying yezhu* started as small employers and theoretically could still be considered self-employed (Wright, 1997). We combine them with the 157 cases of skilled individually self-employed to form the "SESE" category. We tried excluding these 23 cases and estimated the competing hazards of entering unskilled and skilled individual self-employment. The results were essentially the same as reported here.

(c) Explanatory variables

Gender and family structure are measured with marital status (1 = married) or a group of interaction terms between gender and marital status: married men, unmarried women, and married women ("unmarried men" is the reference category). A continuous variable, *number of children*, measures the number of children the respondent had by a given year.

Education is measured as two dummy variables indicating the highest degree completed by a given year: *medium education* and *high education* are coded one, respectively, when the respondent had completed lower-middle school or upper-middle school (or a higher level) by that year. Having low education (not completing lower-middle school) is the reference category. *Work experience* measures the number of years the respondent had been working. We also include a quadratic term of work experience.

A group of variables measure career history. *Prior employment status* is measured as four dummy variables indicating one's sector of employment before the transition occurred (for cases where the transition to self-employment did not occur, it is the sector of employment in that year): state sector, collective sector, private sector, and rural migrants. Not gainfully employed is the reference category. *Cadre experience* is a dummy variable measuring the respondent's political capital (1 = had ever been a cadre before). *Rural background*, another dummy variable, is coded one if the respondent was a rural resident at age 14. *Job change* is a continuous variable measuring the number of job changes one had had by that year.

To measure the effect of the progress of marketization, we include a continuous variable, *reform*, which measures the years elapsed since 1978 (when China's economic reform

started). We also include two dummy variables to control for family background in self-employment and entrepreneurship: *self-employed parent* is coded one when at least one parent of the respondent had been self-employed; *bourgeois family* is coded one when at least one parent or grandparent of the respondent was a business owner before the founding of the People's Republic in 1949. Descriptive statistics for the explanatory variables are presented in Table 1.

6. RESULTS

(a) Descriptive results

Did men and women take different pathways into the two types of self-employment? Table 2 presents the distribution of the 466 incidents of transition into self-employment by gender, position in self-employment, and employment status before entering self-employment. Table 2 makes it clear that men and women were not on a level plain in self-employment in urban China. Male entrants to self-employment were roughly equally divided between UISE ($n = 141$) and SESE ($n = 130$). The placement of female entrants, however, was highly skewed: three quarters (145 out of 195) were concentrated in UISE. This gender difference is also found in the distribution of entrants between UISE and SESE from all three types of prior employment. While men from all backgrounds entered UISE and SESE in similar numbers, female entrants were concentrated in UISE on a 3:1 ratio to SESE, regardless of their prior employment. These patterns suggest that men and women enter self-employment through different processes. Nearly half of the male entrants chose SESE, which presented greater prospects for career advancement, whereas three-quarters of female entrants seemed to be pushed into the low-end, unskilled segment of self-employment.

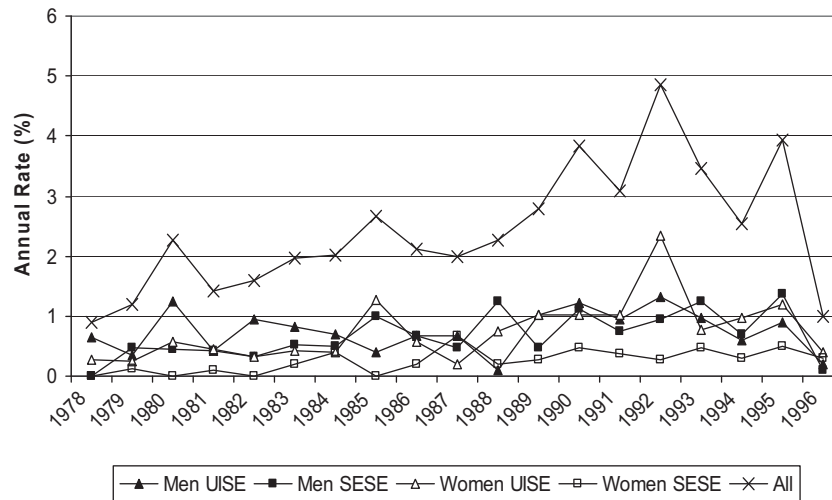
Men and women entered UISE in roughly the same number (141 versus 145). The gender difference observed above mainly comes from women's underrepresentation in SESE. Many factors, including women's lower human capital accumulation, less access to start-up capital, and less resourceful social networks, could contribute to women's less success in entrepreneurial self-employment. Table 2 suggests another explanation. Among men in SESE, half of them (65 out of 130) left state-sector jobs to become self-employed, whereas only one-third of women in SESE (17 out of 50) did so. Women employed in the state sector were either less willing or less able than their male counterparts to leave state-sector jobs for

Table 1. Descriptive statistics for selected explanatory variables for total sample and transitions to self-employment

Variables	Men				Women				Total sample	
	UISE		SESE		UISE		SESE			
	$n = 141$		$n = 130$		$n = 145$		$n = 50$		$N = 37,675$	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Work experience	15.18	13.45	14.34	11.70	14.56	11.17	14.62	12.38	18.69	12.25
Medium education	.64	.48	.67	.47	.70	.46	.66	.48	.51	.50
High education	.23	.42	.32	.47	.12	.33	.22	.42	.36	.48
Married	.65	.48	.67	.47	.72	.45	.80	.40	.79	.41
Number of children	.74	.95	.78	.89	.79	.87	.88	.90	.83	.83
Job change	2.18	1.65	2.63	2.18	2.03	1.44	2.16	1.54	1.86	1.76
Rural background	.54	.50	.45	.50	.67	.47	.48	.51	.31	.46
Cadre experience	.02	.15	.07	.26	.00	.00	.00	.00	.06	.24
Self-employed parent	.13	.34	.12	.33	.10	.30	.08	.27	.06	.24
Bourgeois family	.22	.42	.23	.42	.10	.30	.12	.33	.13	.34

Table 2. *Distribution of transitions to self-employment, by type of self-employment and prior employment status*

Job status before self-employment	Men		Women		Sub-total
	UISE	SESE	UISE	SESE	
Public sector	60	65	50	17	192
% in self-employment type	42.6	50.0	34.5	34.0	
Nonpublic sector	48	35	48	17	148
% in self-employment type	34.0	26.9	33.1	34.0	
Unemployment	33	30	47	16	126
% in self-employment type	23.4	23.1	32.4	32.0	
Sub-total	141	130	145	50	466

Figure 1. *Annual rates of transitions to self-employment, by gender and class, 1978–96.*

the economically rewarding SESE. Something seemed to hold them back.

Figure 1 plots the annual rates of men and women transitioning into the two occupational classes in self-employment over the 19-year span. The rate indicates the percentage of men (or women) who entered UISE (or SESE) in a given year among all men (women) at risk that year. Two observations are notable. First, before 1988, men had higher rates of entering UISE than women; but the trend reversed in 1988, and women generally had higher rates afterward. Women's rate also peaked in 1992, the year when China's reform resumed after a 3-year hiatus following the 1989 student movement and when state-sector downsizing started. This reveals a dynamic dimension that is not visible from the roughly equal numbers of male and female entrants to UISE shown in Table 2. If we divide the 19-year period into two halves (1978–87, 1988–96), female entrants to UISE in the second half ($n = 100$) outnumbered male entrants ($n = 76$) by more than 30%, indicating a correlation between women's participation in UISE and the progress of marketization. Second, in contrast, with only one exception in 1987, men's rates of entering SESE were consistently higher than those of women.

These descriptive statistics revealed gender differences in entry into self-employment in urban China. Men had higher rates of entering the more rewarding SESE, but women's rates of entering UISE surpassed those of men as the market transition progressed, offering *prima facie* support to Hypotheses 1 and 2, respectively. Next, we use event history analyses to identify determinants that gave rise to these gendered pathways into self-employment.

(b) Results from event history analyses

Model 1 in Table 3 is a baseline model estimating the partial effects of explanatory variables on the competing hazards of entering UISE and SESE. Transforming a coefficient by $100 \times (e^b - 1)$ gives the percentage change in the odds ratio caused by one unit change in the explanatory variable. The most notable finding is that, while women had similar probabilities as men in entering UISE, they were significantly less likely (by 70%) than men in entering SESE, confirming Hypothesis 1. Besides gender, education was another switch that selected people into different positions in self-employment: the less educated into UISE, the more educated into SESE. Not only the more educated eschewed UISE, wage employees in the private sector were also 60% less likely than those not gainfully employed (the reference category) to enter UISE, but showed no greater reluctance to enter SESE. On the other hand, people with a rural background—an indication of disadvantages in urban wage employment—were significantly more likely to enter UISE, but not SESE. All these suggest that entry into SESE was more likely a career choice, but entry into UISE likely resulted from constraints faced in wage employment.

Entrants into the two positions also shared some common characteristics. Marriage significantly increased one's likelihoods of entering both types of self-employment. More work experience decreased one's odds of becoming self-employed—probably due to rising opportunity cost associated with leaving wage employment—but the magnitude of the negative effect declined as work experience increased. Job changes

Table 3. *Determinants of transition into self-employment from event history model, by self-employment type: gender differences*

Predictor	Model 1				Model 2			
	UISE		SESE		UISE		SESE	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Constant	−4.20***	.36	−5.04	.48	−3.82***	.45	−5.84***	.82
Female	−0.10	.15	−1.17***	.20	−0.87***	.44	−0.06	.94
Married	0.60***	.20	0.82***	.26	0.61***	.20	0.84***	.26
Number of children	0.04	.10	0.16	.11	0.05	.10	0.15	.11
Education								
Medium education	−0.08	.24	1.12***	.43	−0.25	.34	2.01***	.77
High education	−0.72***	.28	0.80*	.46	−0.63*	.38	1.72**	.79
Work experience	−0.15***	.02	−0.17***	.03	−0.16***	.02	−0.18***	.03
Work experience square	0.002***	.00	0.002***	.00	0.002***	.00	0.003***	.00
Job change	0.38***	.04	0.36***	.04	0.38***	.04	0.37***	.05
Cadre experience	−1.78***	.63	−0.77*	.42	−1.85***	.63	−0.80*	.42
Rural background	0.79***	.15	0.18	.18	0.78***	.15	0.17	.18
Prior employment								
State sector	−1.72***	.22	−2.03***	.24	−1.70***	.22	−1.98***	.25
Collective sector	−0.58***	.19	−1.13***	.25	−0.55***	.20	−1.07***	.26
Private sector	−0.92***	.32	−0.34	.30	−0.90***	.32	−0.28	.30
Rural migrants	1.22***	.21	0.53*	.28	1.28***	.22	0.58***	.29
Self-employed parents	0.97***	.24	0.70***	.27	0.95***	.24	0.67**	.27
Bourgeois family	0.36*	.19	0.37*	.20	0.34*	.19	0.35**	.20
Reform	0.03***	.01	0.05***	.01	0.002	.02	0.04**	.02
Interaction terms								
Female × Reform					0.06***	.02	0.035	.03
Female × Medium education					0.29	.40	−1.53*	.88
Female × High education					−0.32	.48	−1.66*	.92
No. of events	286		180		286		180	
No. of observations			37,675				37,675	
χ^2			720.04				764.79	
Log likelihood			−2371.64***				−2363.58***	
Pseudo R^2			.16				.16	

Source: 1996 Life History and Social Change Survey.

* 10%-level of significance. All standard errors are robust standard errors adjusted for clustering.

** 5%-level of significance. All standard errors are robust standard errors adjusted for clustering.

*** 1%-level of significance. All standard errors are robust standard errors adjusted for clustering.

significantly increased one's odds of becoming self-employed. Cadre experience—a commonly used measure of higher political capital—significantly decreased the odds of self-employment. Prior employment status had strong effects. State and collective sector employees were much less likely to enter either type of self-employment than those not gainfully employed, whereas rural migrants had higher odds than all others. Furthermore, having a self-employed parent and coming from a pre-Revolution bourgeois family both significantly increased one's odds of entering self-employment. These findings suggest that, first, self-employment during the market transition remained risky and was more attractive to people with lower opportunity costs—those with less experience, less political capital, and lower status in wage employment; and second, job values transmitted through the family motivated the entry into self-employment.

Model 1 also shows that the progress of market transition generally increased the odds of entering both types of self-employment; it is unclear, however, whether it had different effects on men and women. To test that, we add an interaction term between gender and the progress of reform in Model 2. It had a significant effect for entry into UISE: when other factors controlled, women had only 42% of the likelihoods of men in entering UISE at the start of the reform; but as market transition progressed, each additional year increased their likelihoods by 6%. This means that by 1988, the tenth year of the

reform, women's odds of entering UISE had surpassed that of men, confirming the finding from descriptive analysis.

Model 2 also includes two interaction terms between gender and education. For entry into UISE, the interaction terms are nonsignificant, showing that women with high education eschewed UISE just like their male counterparts—also an indication that education probably shielded them from being laid-off during state-sector restructuring and pushed into UISE (Giles *et al.*, 2006). Both interaction terms, however, have significant negative effect for entry into SESE. For example, when all other things controlled, high education increased men's odds of entering SESE by more than four times; but it only increased women's odds by about 6%.

Besides finding gender differences in the entry into self-employment, this study is more interested in examining how women's family roles contributed to these gender-specific patterns. Table 4 presents results from two binomial logistic models, estimating the effects of women's family status on entry into UISE (Model 3) and SESE (Model 4) separately. We use binary competing-hazards models here because we are examining effects specific to either UISE (the effects of progress of reform) or SESE (the effects of education). Since each type of event only accounts for a tiny portion of the entire risk set, results from binomial models and multinomial models are essentially the same. In Models 3 and 4, three interaction variables between gender and marital status replaced the gender

Table 4. *Selected determinants of transition into self-employment from event history models, by self-employment type: family effects on women*

Predictor	Model 3		Model 4	
	UISE		SESE	
	Coef.	SE	Coef.	SE
Constant	−3.91***	.38	−5.92***	.81
Gender × Marital status				
Married man	0.62***	.23	0.74***	.27
Married woman	−0.28	.36	1.13	.93
Unmarried woman	−0.45	.35	−1.46***	.36
Education				
Medium education	−0.12	.24	2.01***	.77
High education	−0.76***	.29	1.72**	.78
Reform	0.00	.02	0.04***	.01
Interaction terms				
Married woman × Reform	0.08***	.02		
Unmarried woman × Reform	0.04	.03		
Married woman × Medium education			−1.55*	.88
Married woman × High education			−1.48*	.90
Number of events	286		180	
Number of person-year observations	37,675		37,675	
χ^2	541.43***		377.08***	
Log likelihood	−1398.68		−973.32	
Pseudo R^2	.17		.15	

Source: 1996 Life History and Social Change Survey.

*10%-level of significance. All standard errors are robust standard errors adjusted for clustering.

**5%-level of significance. All standard errors are robust standard errors adjusted for clustering.

***1%-level of significance. All standard errors are robust standard errors adjusted for clustering.

variable. Then women's marital statuses are interacted with the progress of reform (for entry into UISE in Model 3) or with education (for entry into SESE in Model 4). Other variables shown in Table 3 are also included in both models. Those estimates are largely the same as in Table 3 and, for the sake of brevity, not reported in Table 4.

In Model 3, only the interaction term between married woman and reform, not that between unmarried woman and reform, has a significant effect. This confirms Hypothesis 2, showing that the effect of marketization on increasing the odds of entering UISE was limited to married women. To illustrate this pattern, we plot the predicted rates of entering UISE of the four gender-marriage groups in Figure 2. For all groups,

cases used for this calculation are imputed with either sample-average or other representative characteristics. They are assumed to have 19 years of work experience, two job changes, no rural background or cadre experience, medium education, one child, and prior employment in the state sector. The trends are clear: men's rates stayed largely unchanged throughout the course of the reform, while women's rates were rising with the progress of reform. More importantly, the rate of married women rose much faster than that of unmarried women and surpassed all other groups in the second half of the transition.

Married women's higher rates of entering UISE could also result from their choosing UISE to seek better family-work

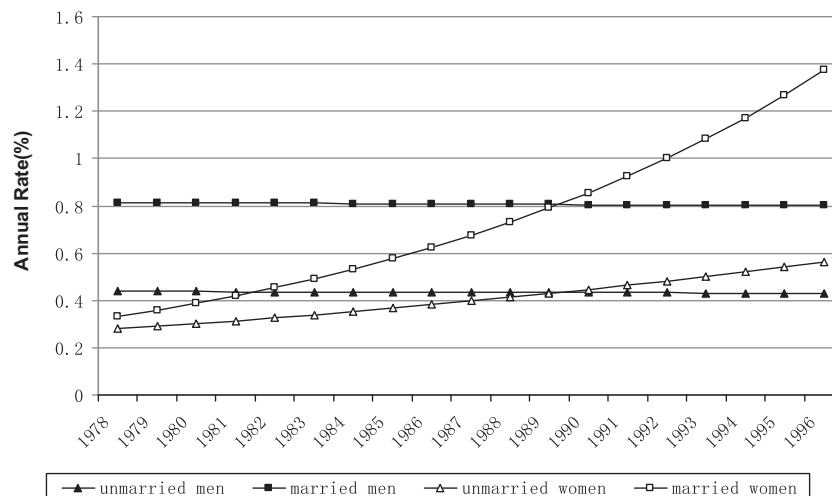


Figure 2. Predicted rates of entry into UISE: effects of gender and marriage.

balance. As marketization progressed and state employers cut down family services, wage jobs in state firms became less family friendly. Female workers, like their Western counterparts, might choose UISE for its flexible schedule and autonomy to better meet family demands. We do not have definitive data to distinguish this type of voluntary entry from the more involuntary entry that followed lay-offs from state jobs. *Prima facie* evidence, however, suggests that voluntary entry was a less important process. Figure 1 shows a peak in women's rates into UISE in 1992. Corresponding to it was the onslaught of state-sector lay-offs: the 14th Congress of the Chinese Communist Party, convened in 1992, introduced a slew of reform measures in state firms, including granting managers the authority to dismiss blue-collar workers (Davis, 1999). Trimming of social functions of state firms, on the other hand, took longer to implement. The finding here is not to deny that women may still enter UISE to balance work-family conflicts, but rather to show that, in China, there was another force shaping this process—the state-sector lay-off caused by the market reform.

Model 4 investigates whether the suppressed effect of education on women's entry into SESE varies by marital status. Only one case of transition into SESE was made by an unmarried woman with high education. Thus, the data are inadequate for the estimation of the interaction effect between unmarried woman and education. Model 4 only includes two interaction terms between married woman and education. Both have significant negative effects on the odds of entering SESE. This means that while higher education generally increased one's chance of entering SESE by a large margin, its effect on married women was much smaller, confirming Hypothesis 3. Figure 3 plots the predicted rates of entry into SESE by married men and women with different levels of education, using the same assumptions as in Figure 2.

We include the number of children in all models, but it consistently has no significant effect independent of the effect of marriage. We tried interacting it with gender, but found no significant effect either. We also tried using a dummy variable indicating having at least one child. It was also nonsignificant. This finding differs from that in other countries (Carr, 1996) and in urban China (Zhang *et al.*, 2008). It is less surprising, however, than it may sound when considered in the context of urban China, where unconventional forms of family formation and out-of-wedlock childbirths were extremely rare and

reproductive behaviors within the family were heavily regulated by the state. In the sample, 99% of women with children were married; 76% of married women had children, of which, 93% had one or two children. The burden of childcare appears to be highly uniform among married women and thus, has no independent effect.

7. CONCLUSIONS AND DISCUSSION

By transforming the employment structure and care provision in China's urban economy, the market transition changed both the socioeconomic rewards and family-friendliness of self-employment relative to wage employment. In their responses to these changes, entrants to different occupational positions in self-employment were driven by different sets of motivations and constraints. Those in UISE were more likely constrained by disadvantages in wage employment and entered self-employment to find a refuge from poverty; entrants to SESE, on the other hand, had greater human capital and entered to seek career advancement.

People's responses to these changes, however, were also mediated by their gender roles—especially roles in the family. During the first 19 years of urban China's market transition, men had higher rates of entering SESE, while married women had higher rates of entering UISE as marketization progressed. We hypothesized that married women's role as primary caregivers and secondary income earners in the family—together with other gender-related disadvantages—exposed them to greater risks of being laid-off during the state-sector restructuring and would drive more of them into UISE. We also hypothesized that, as the revitalized patriarchal family tradition became more powerful in determining gender division of labor in family businesses, entrepreneurial roles would be reserved for men, resulting in their higher rates of entering SESE. Even for married women who had the human capital to pursue career advancement in self-employment, we hypothesized that care responsibilities in the family would constrain them more to state-sector jobs, where family-related services were more accessible, and make them much less inclined than male counterparts to enter SESE. Statistical analyses confirmed all three hypotheses.

These findings differ from those found in developed countries in important ways. Although marriage similarly increased

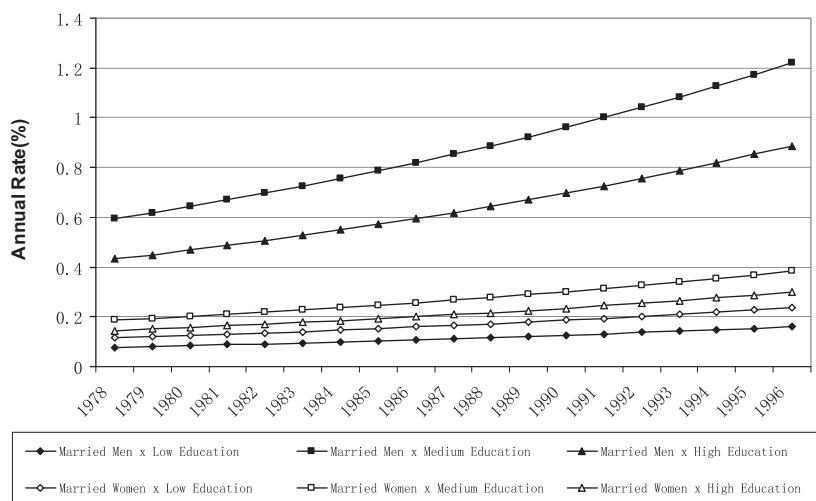


Figure 3. Predicted rates of entry into SESE: effects of gender, marriage, and education.

women's likelihood of entering unskilled self-employment in urban China, as it did to nonprofessional self-employment in the United States (Budig, 2006), the mechanisms that led to such effects were not the same. Women entering professional self-employment in the United States followed a careerist model like their male counterparts (Budig, 2006). In urban China, however, gender difference persisted in this segment of self-employment, and marriage continued to exert powerful constraints on women independent of education, reflecting both the influence of the patriarchal tradition and different institutional settings in the labor market and in provision of social services. These findings make it clear that, although women in general are more constrained by family situations than men, the specific relationship between family status and women's labor-market processes depends on the cultural and institutional contexts.

This research highlights family's role in mediating the people's confrontation with social changes and in generating gender-specific outcomes. Previous studies have documented in many ways how family helped create gendered mobility patterns and stratification outcomes during China's market transition. This study further enriches that knowledge by showing how family roles contributed to the emergence of gender segregation in the self-employment sector of China's new market economy.

Paradoxically, economic liberalization and cultural opening during China's market transition actually led to increased gender disparities in labor market and more traditional gender division of labor within families. As other scholars suggested (Davis and Harrell, 1993; Entwisle *et al.*, 1995), this needs to be understood against the background of state-induced changes in labor market and family rela-

tions under state socialism. Once the Reform opened up more economic activities and social spaces outside the state's control and the state scaled back its intrusive reach in people's private lives, other social forces, especially the cultural traditions that the socialist state had sought to suppress, resurged and gained influence in both public and private spheres. Findings from this study suggest that in urban China's growing market sector, women entered a new regulatory regime, where the long-standing tradition of patriarchal family corporatism replaced egalitarian state policies, and became a powerful force in defining gender roles and division of labor within families.

In this context, employment choices such as entering self-employment became more family strategies and less personal choices, especially for women. The lack of complete retrospective data about spouses' employment in the data set precluded us from examining in this study how that affected the entry into self-employment and how self-employment was pursued as a family strategy. In the qualitative part of her study of self-employment in urban China, Wang (2009) found that in half of her interviewed sample, both spouses were self-employed—running the small family businesses together; for the rest, the husbands of self-employed women all had wage jobs, while half of the wives of self-employed men had wage jobs and the rest stayed at home. These observations suggest that spouses' self-employment is likely a factor in motivating the entry into self-employment, especially for women; but this relationship is a complex one, depending on specific characteristics of both spouses' jobs, self-employed or otherwise. This, and how such family employment strategies were shaped by competing gender norms and family values as market transition further progressed, are areas that call for future research.

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