

Gender Disparities in Self-employment in Urban China's Market Transition: Income Inequality, Occupational Segregation and Mobility Processes

Qian Forrest Zhang *

Abstract

This article presents the first quantitative analysis of gender disparities in self-employment in urban China. It documents the extent of gender income inequality in self-employment. By disaggregating self-employment into three occupational classes, it reveals the gender segregation within self-employment – women were concentrated in the financially least rewarding segment – and identifies it as a main source of gender income inequality. I examine a range of determinants of participation in self-employment, including family structure, family background and career history, and how their gender-specific effects contribute to gender segregation. Although using data from a 1996 national survey, this study captures two key processes that shaped the structure of self-employment in contemporary urban China: the restructuring of the state sector and the growth of financial returns and social status in the private sector, both of which contributed to the formation of gender segregation in self-employment.

Keywords: income inequality; gender segregation; self-employment; urban China; state sector restructuring; stratification

In China's transition to a market economy, the rapidly growing private sector created a new space for employment and for creating inequality. Many studies have examined the gender disparities that have emerged in this sector and have found that, despite offering more opportunities for creating financial wealth, the growing market sector was highly gender-segregated, had a greater degree of gender inequality, and exposed women to more disadvantages and intensified work–family conflicts than the state sector. Women were squeezed out of the jobs with the fastest wage growth and steered towards low-paid and feminized

* Singapore Management University. Email: forrestzhang@smu.edu.sg.

manufacturing and service jobs. Moreover, they were less likely to work in high-paying foreign firms and suffered wage discrimination in private firms.¹

However, the growing literature on gender disparities in China's private sector has so far omitted one key segment – self-employment. Self-employment presents a unique setting where both the institutions regulating gender roles in the workplace and family and the individual strategies in making employment choice can differ from those in wage employment, creating distinctive patterns of gender inequalities. Two differences are particularly salient. First, in wage employment, employers' discrimination against women and the under-valuing of female labour are key causes of gender disparities in income and career advancement; both of these factors are absent in self-employment. Second, the frequent fusion of family and work in self-employment allows family norms, especially the traditional family corporatism and patriarchal authority that have been revitalized in contemporary China,² to become the dominant force in shaping gender roles and forming gender inequality. In private-sector wage employment in urban China, even though the state played a much smaller role than in the state sector, it still acted to counter the influence of traditional family norms.

The creation of gender disparities in self-employment is also closely related to gender inequality in wage employment. Studies in developed countries have found that the autonomy and flexibility of self-employment allows a better balance between work and family. This, and the absence of employer discrimination, can make self-employment a particularly appealing choice for women by providing an escape from both work–family conflicts and gender-related disadvantages in wage employment. It may therefore be expected that, given the greater extent of gender disparities in China's private-sector wage employment, this pattern of women's selective entry into self-employment could be even more pronounced.

All these suggest that gender disparities in self-employment in urban China not only require a separate analysis and cannot be inferred from findings about private-sector wage employment, but also that an analysis of these will provide new understandings of the dynamics that shape gender inequality in China's new employment structure. The objectives of this study are, first, to fill this gap in the literature on gender disparities in China's private sector; second, to provide the first systematic examination of the extent of gender disparities in self-employment during urban China's market transition; and, finally, to attempt a comprehensive analysis of the determinants of men and women's different participation in self-employment.

Self-employment in urban China experienced rapid growth after the reforms started in 1978. The number of *getihu* 个体户 (individual industrial-commercial households) in Chinese cities grew from 0.15 million nationwide in 1978 to 36.1 million in 2008, a 240-fold increase over three decades; its share of the urban labour force also grew from 0.2 per cent to 11.9 per cent during the

1 Shu 2005; Shu and Bian 2003; Shu, Zhu and Zhang 2007; Zhang, Liqin, and Dong 2008.

2 Cook and Dong 2011; Entwisle et al. 1995.

same period.³ Since the mid-1990s, self-employment has constituted around 10 per cent of the total employment in urban China. The initial re-emergence of self-employment and entrepreneurial activities in China attracted wide attention among China scholars and was examined in a series of studies.⁴ All of these studies were based on qualitative data collected in a single or a few locales; their focus was usually on private enterprises, which in the early years of the reform were usually *getihu* and too small to be distinguished from self-employment.

Many of these studies had already noticed the gender disparities that were emerging in self-employment – in particular, women’s concentration in low-end self-employment activities such as street peddling, and men’s dominant roles in family businesses.⁵ These findings suggest that, if this pattern continued as self-employment expanded into more occupations that offered diverging economic returns and social statuses, strong gender segregation among different types of self-employment and significant gender income inequality would emerge. Such outcomes would contradict the expectation that women enter self-employment to escape from gender discrimination and inequality in wage employment. They also raise the question that, without employer discrimination, what could have caused gender disparities in self-employment?

Surprisingly, despite its continued growth in urban China, the issue of self-employment largely disappeared from the literature in the past decade. An extensive literature search yielded just one published article on self-employment in urban China, which actually focused on cadres’ responses to market opportunities rather than the internal characteristics and composition of self-employment.⁶ The early observations on gender disparities in self-employment from qualitative studies still wait to be tested on a larger scale and with representative data.

In addition to quantitatively analysing national data, this study makes a key improvement on past research. Borrowing from the new scholarship on self-employment in developed countries that emphasizes the heterogeneity within self-employment,⁷ I disaggregate self-employment in urban China into three occupational classes: unskilled individually self-employed (UISE), skilled and professional individual self-employed (SISE) and small employers. A disaggregated approach that identifies heterogeneous positions within self-employment that present different rewards and opportunities helps to clarify confusions in

3 National Bureau of Statistics 2009.

4 Bruun 1993; Gold 1989; Sabin 1994; Wank 1996; Young 1991. Most of these early studies were done by sociologists. As Gold (2006) pointed out, the initial emergence of private enterprises and self-employment had little economic impact, but presented many interesting sociological issues.

5 On women’s greater presence in street peddling, see e.g. Bruun 1993; Honig and Hershatter 1988. On men’s privileges in family businesses, see Entwisle et al. 1995; Jacka 1990.

6 Wu 2006.

7 There is a large body of literature on the heterogeneity within self-employment in developed countries and people’s differential mobility processes into diverse positions in self-employment. See e.g. Arum and Muller 2004.

previous studies about whether entry into self-employment represented upward mobility and if all the “entrepreneurs” in this sector were necessarily winners of the transition. More importantly, it allows us to investigate how the gender gap in earnings was related to occupational gender segregation within self-employment, an issue not studied in past research.

Self-Employment in Urban China in the 1990s

Data used in this study come from the Life History and Social Change in Contemporary China (LHSC) survey conducted in 1996. This survey used multi-stage stratified random sampling to generate a nationally representative sample of 6,090 adults (aged 20–69) from all regions of China, except Tibet.⁸ Since its collection, this dataset has become one of the most widely used in sociological studies of contemporary China and has appeared in numerous publications.⁹ Besides being nationally representative, what makes this dataset especially valuable is that the survey collected retrospective data on the complete educational and occupational histories of the respondents. Currently, among the publically available national datasets, the rich longitudinal data in this dataset remain unsurpassed.

However, using this dated dataset also raises a concern. The dataset presents a snapshot of the status of self-employment in urban China in the mid-1990s and clarifies earlier findings on this important part of China’s recent history of market transition. Can an analysis of the dataset identify any trends that have continued since then and that have helped to shape gender disparities in self-employment in China today? I argue that, at the time of the data collection, two key changes that shaped both the occupational structure and gender segregation in self-employment in urban China had already begun.

First, most of the ideological and political obstacles and disincentives that might have hindered people’s entry into self-employment had been removed by 1996.¹⁰ Two more boosts to the private sector would come later – the incorporation of Jiang Zemin’s “three represents” into the Chinese Communist Party’s (CCP) constitution in 2002 and the constitutional amendment to codify the protection of private property in 2004. Both of these moves were more about recognizing the growing power of the new propertied classes than providing additional incentives for the growth of the private sector.¹¹ Parallel to the elevation of the social and political statuses of the private sector, by the mid-1990s, the expansion of the market economy had also allowed some self-

8 Complete descriptions of the sample design, fieldwork procedure and questionnaire are available in the project’s codebook: Treiman 1998.

9 Published works using this dataset are too numerous to list here. Readers can find representative examples in the works of the survey’s two principal investigators, Andrew Walder of Stanford and Donald Treiman of UCLA.

10 See Sabin 1994 for a detailed documentation of policy changes related to self-employment and private enterprises in the 1980s and early 1990s.

11 Dickson 2003.

employment activities to offer opportunities for upward mobility and financial wealth that were unattainable even in the state sector, and to become a more appealing career choice for people with greater human and political capital.¹² More well-qualified urban Chinese started “jumping into the sea” to open their own businesses, and greater heterogeneity emerged within self-employment, especially between private entrepreneurs and the unskilled individually self-employed.

The growing heterogeneity within the private sector was reflected in changes in the official classification scheme. When the central 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. However, in 1988, it became necessary for the government to legalize larger private enterprises and officially classify their owners as *siying yezhu* 私营业主 (private owner/entrepreneurs).¹³ Figure 1 shows the growth of both *getihu* and private-firm employees in China’s urban labour force from 1978 to 2008, as reported in the official statistical yearbooks. The yearbooks did not report numbers of private entrepreneurs, but, starting in 1990, did report the numbers of people employed in private enterprises. When first reported on in 1990, the number of private firm employees nationwide was a mere 570,000, or 0.4 per cent of the urban labour force; by 1996, it had grown more than ten-fold to 6.2 million, or 3.1 per cent of the urban labour force.

The second change to the urban employment structure was the decline of the redistributive sector (including state and collective firms and institutions), which had dominated wage employment in urban China prior to the 1990s. Following Deng Xiaoping’s southern tour earlier that year, the CCP, at its 14th Party Congress convened in October 1992, announced the goal of establishing a “socialist market economy” and accelerated reforms to the stagnant state sector.¹⁴ A series of reform measures gave managers in state-owned enterprises (SOEs) greater authority to dismiss blue-collar workers and introduced more market mechanisms for the hiring and firing of urban employees.¹⁵ This opened the floodgates for state sector layoffs that, in the following decade, trimmed the state sector labour force by one third and left tens of millions of former SOE workers without employment.¹⁶ Many of these laid-off workers, having received little benefit from the state-sponsored re-employment programmes, resorted to self-employment as a refuge from poverty.¹⁷

12 Davis 1999; Sabin 1994; Wu 2006.

13 Sabin 1994.

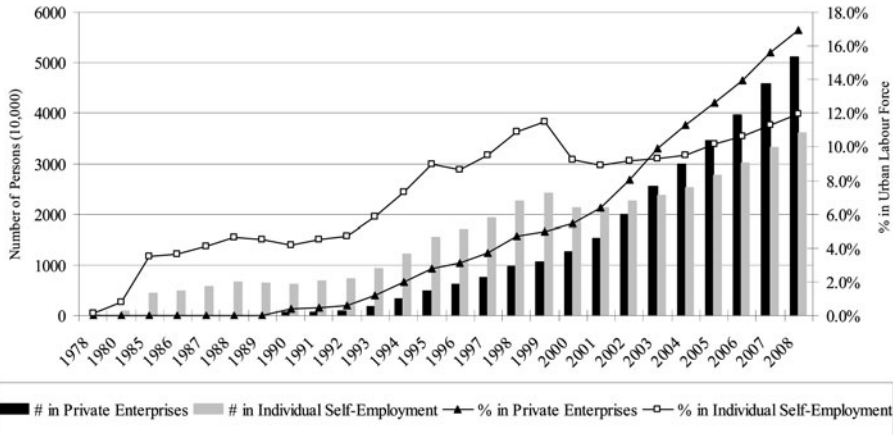
14 The 14th Party Congress also gave a strong endorsement to the private economy, which then led to the lifting of most restrictions on private firms and the rapid growth of private employment. See *ibid.*

15 See Davis 1999 and Rawski 1995 for detailed discussion on these policies.

16 Accurate data about the number of laid-off state workers are hard to come by, as Solinger 2001 demonstrated. Du and Dong 2009 estimate that employment in SOEs declined from its peak of 110 million in 1995 to 69 million in 2002, and an additional 20 million jobs were eliminated in the collective sector in the same period.

17 Solinger 2002.

Figure 1 : Growth of Self-Employment and Employment in Private Enterprises in Urban China, 1978–2008



Sources:

National Bureau of Statistics, *Zhongguo tongji nianjian* (Chinese Statistical Yearbooks), various years.

Figure 1 also provides at least prima facie evidence to demonstrate the impact of state sector layoffs on the growth of self-employment in urban China. From 1985 to 1991, the number of *getihu* in Chinese cities grew from 4.5 million to 6.9 million, a 53 per cent growth over seven years; in the period from 1992 to 1999, during which the state sector layoffs began to take effect, the number of self-employed grew from 7.4 million to 24.1 million, a 226 per cent growth over eight years. Starting in 2000, when state sector layoffs began to subside, the numbers of self-employed actually declined and did not surpass the 1999 level until 2004.

These two processes, which should drive different types of people – in particular, men and women – into different positions in self-employment, were precisely what the sociological literature on self-employment theorized as the two mechanisms that motivate people's entry into self-employment.¹⁸ The class mobility thesis sees entry into self-employment as an individual's choice to redeem their special qualities and pursue career advancement, just as former cadres in urban China went into self-employment to seek greater financial wealth. On the other hand, the disadvantaged workers thesis posits that it is the disadvantages that restrict people's options in wage employment which drive them into self-employment, just as laid-off workers in urban China turned to street peddling as a refuge from poverty.

The constitutional changes and state sector layoffs that began to take effect in the early 1990s unfolded over the next decade, and continued to be the dominant forces transforming the employment structure in urban China. As Figure 1

18 See e.g. Budig 2006.

shows, growth of the self-employed population in urban China during the 2000s has been incremental, with the majority entering self-employment during the 1990s. Findings based on the 1996 data should be representative for at least the entire decade of the 1990s, when growth in self-employment was mainly driven by these two processes. In recent years, changes such as the growth of internet commerce may have created new opportunities for career advancement in self-employment, while new structural constraints – such as the growing unemployment of college graduates – may have made people turn to self-employment as a last resort. While these recent developments would bring new entrants and create new positions in self-employment, they are variations of the same two mechanisms that drive the growth of self-employment. Given that the occupational and demographic structures of this sector were laid down during the 1990s, these new developments would only introduce changes to the margins. Findings on the formation of gender disparities in self-employment during the 1990s, although no longer an accurate documentation of details today, should still be relevant in capturing the broad contours and illustrating the socio-historical processes that shaped the current situation.

Disaggregating Self-Employment in Urban China

The 1996 LHSC survey drew rural and urban samples separately. This study only uses the urban sample of 3,087 persons – which includes both permanent residents with household registration and registered migrants – drawn from 50 cities nationwide. The survey asked respondents to identify all spells of employment. However, only limited information was collected retrospectively on previous jobs. Key information on self-employment, such as earnings and labour-hiring practices, was only available for self-employment ongoing at the time of survey. Thus, instead of examining the dynamic processes of transitioning into self-employment, this article only examines gender differences among those who were self-employed in 1996. Here, a respondent is coded “self-employed” when the main source of income is either “head of enterprise or individual entrepreneur” or “independently employed.” The percentage of the self-employed in the urban labour force in 1996 is 15.9 with this method.

I conceptually differentiate three occupational classes within self-employment along two dimensions: relation to means of production and authority, and relation to scarce skills.¹⁹ In terms of relation to means of production and authority, the key difference within the self-employed is whether one hires labour or not. For those who do, their appropriation of employees’ labour products and domination over employees in the labour process trump the secondary differences in skill assets among them. Thus, they are all put in the “small employers” class. In data analysis, we have to somewhat arbitrarily draw a line between the two

19 This classification is similar to that proposed in Muller and Arum 2004.

conceptual categories of small employers in self-employment and bigger employers in the capitalist class. In this study, I limit small employers to those who hired any non-family employees or more than one family member, but no more than ten workers in total, regardless of their trade.²⁰ In the 1996 sample, only ten entrepreneurs hired more than ten workers and were thus excluded;²¹ for the rest of small employers, the average number of non-family employees is 1.6.

For the non-labour-hiring individually self-employed, differences in skill assets become more consequential. They consist of the highly skilled and credentialed professional self-employed, the traditional petty bourgeoisie in skilled and crafts production, and the unskilled self-employed, differing in their skill levels. I differentiate the individually self-employed into two occupational classes: “skilled individually self-employed” (SISE) and “unskilled individually self-employed” (UISE).²² The individually self-employed cases are coded into these two classes on the basis of their four-digit occupational codes. Self-employment that only involves processing customer-supplied materials with some skills but requires little formal training and little capital, such as butchers, tailors, shoe repairmen and other street vendors, and occupations in personal services, such as barbers and maids, are coded UISE. Occupations that require higher levels of skills obtained through formal training and greater amounts of means of production, such as medical practitioners, insurance or securities salespersons, and electrical or mechanical technicians, are coded as SISE. Of the 396 respondents who were self-employed at the time of survey, this coding method yields 118 small employers, 99 SISE and 179 UISE.

Gender Gap in Self-Employment Earnings

I first investigate whether men and women received unequal income through self-employment in urban China. I use the annual total household business income to measure self-employment earnings.²³ There are 47 cases that did not report household business income and are thus excluded from the analysis.²⁴ This reduces the self-employed sample to 349 cases, consisting of 109 employers, 86 SISE and 154 UISE.

Table 1 reports descriptive statistics that compare men and women in this self-employed sample. Women constitute 40 per cent of the sample, and their average self-employment earnings were only 42 per cent of men’s – 8,318 yuan compared

20 This was the cut-off point used in Wright 1997, which also discusses theoretically why small employers should be included in the self-employed.

21 The largest employer hired 55 workers. Another eight employers hired more than 20 workers each.

22 In the mid-1990s, professional self-employment was still extremely rare – only nine cases (six in medical services and three in artistic works) can probably be considered as such in the data. I put them together with the SISE.

23 Household income is a better measure than per capita income because the latter includes both wage income from other household members and the number of non-self-employed members in the calculation.

24 For the OLS regression analysis, I estimated another model including these 47 cases by assigning them the group mean and adding a dummy variable to identify them. Results are essentially the same.

Table 1: Descriptive Statistics of the Self-Employed Sample by Gender

	Men (n = 211)		Women (n = 138)		F-test
	Mean	Std. Dev.	Mean	Std. Dev.	
Self-employment earnings (yuan)	19773	50459	8318	16429	3.33*
Age	39.4	12.0	38.9	12.8	.09
Years of schooling	8.3	3.1	7.6	3.8	1.88
Years in self-employment	7.1	6.3	6.6	7.2	.19
Number of children in family	.91	.85	.71	.83	2.79*
Having a cadre in household	.02	.15	.07	.26	3.34*
Married	.83	.38	.76	.43	1.19
Earnings by self-employment class (yuan)					
UISE	8605	17679	5458	3925	1.27
SISE	9054	9256	4199	2616	3.71*
Small employer	32309	17679	23132	35866	.19

Note:

*** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed test).

to 19,773 yuan. For a comparison, I calculated the average wages of the wage-employment sample in the dataset: 6,882 yuan for men and 5,117 yuan for women, much lower than the average self-employment earnings. The gender gap in wage earnings was much smaller: women's average wage was 74 per cent of men's. Clearly, although self-employment provided higher financial returns than wage employment for some people, it also led to greater gender income disparities.

Gender segregation – the concentration of women in female-typical and devalued jobs, such as domestic care and street peddling, in a segmented labour market – is one of the most important causes of gender income inequality and has been documented at every level of economic organization, including self-employment.²⁵ In developed economies, gender segregation was found to be a universal and resilient feature in self-employment.²⁶ However, gender segregation only becomes visible when self-employment is disaggregated into multiple class positions. It is only by using a disaggregated approach that the link between gender segregation and the gender gap in earnings in self-employment in urban China, hitherto unexamined, can be drawn.

The last three rows in Table 1 present the average earnings, by gender, in the three types of self-employment. For both genders, earning differences between UISE and SISE were small (and statistically non-significant). Small employers, on the other hand, had significantly higher earnings, which is not surprising given their larger scales of operation and control over employees' labour surplus.

25 There is a vast literature on the effect of gender segregation in labour markets on gender income inequalities. For some examples, see England 1992; Reskin 1993. For studies on contemporary urban China, see Shu 2005; Shu and Bian 2003.

26 McManus 2001.

Table 2: **Distribution of the Self-Employed in Three Occupational Classes by Gender**

	Men		Women		Total
	Count	% of men	Count	% of women	
UISE	92	39.1	87	54.0	179
SISE	67	28.5	32	19.9	99
Small employer	76	32.3	42	26.1	118
Total	235	100	161	100	396

Earning differences between the three positions mean that, if men and women were placed unevenly across the three positions, such segregation would contribute to the gender gap in self-employment earnings.

To measure the extent of gender occupational segregation in the self-employed sample, Table 2 reports the distribution of men and women across the three occupational classes.²⁷ The uneven distribution of men and women is clear: 54 per cent of all self-employed women were concentrated in UISE, whereas self-employed men were roughly equally spread over all three classes. Except for UISE, where numbers of men and women were roughly even (92 to 87), both SISE and small employer – the socio-economically more rewarding positions – were heavily male-dominated, where the ratio of men to women was 2.1 and 1.8, respectively.²⁸

Based on the 1996 sample, was there a greater degree of gender segregation in self-employment than in wage employment in urban China? Index of gender dissimilarity is the most widely used measure of gender segregation, and has a value ranging from 0 to 100, with 0 indicating no gender segregation and 100 indicating complete segregation. Substantively, the value of the index is the percentage of either gender that would have to move to a category in which the other gender dominates for each gender's proportional distribution in all categories to be the same. The index of dissimilarity across the three classes for the sample of 396 self-employed cases is 33.9. To compare this across an institutional boundary with the index in wage employment is, however, tricky. The index is sensitive to the number of categories and how categories are divided, both of which can differ in wage employment and self-employment. For a tentative comparison that helps to put gender segregation in self-employment in perspective, I calculated the index of dissimilarity in the urban wage-employment sample across three sectors – state, collective and private. The result is 12.7, suggesting that gender segregation across the three self-employment classes was much more severe than across the three sectors in wage employment.²⁹

27 Since this analysis does not involve income, I included the 47 cases that did not report self-employment income here. When they were excluded, the distribution was basically the same.

28 The Pearson's chi-square for this two-by-three cross-tabulation is 9.15, statistically significant at .01.

29 Shu 2005 found the index of dissimilarity across the three ownership sectors declining from 15.6 in 1978 to 7.7 in 1995 and the index across six occupations rising from 9.1 to 18.5. In either case, an index of 33.9 found here in self-employment is significantly higher.

Gender segregation can be investigated at different levels. Besides segregation across the three occupational classes, within each class men and women can be further segregated into different types of activities. For example, among the similar number of men and women in UISE, they could still be highly segregated by industry – men in physical labour such as construction, while women in personal services. However, the dataset does not offer enough information for examining segregation within the three categories. Furthermore, segregation across the three class positions is probably the most consequential to income inequality.

Did gender segregation found here contribute to the observed gender gap in earnings? I use ordinary least square (OLS) regression to examine the effects of gender segregation on self-employment earnings. Table 3 presents coefficient estimates from two nested models. Since the dependent variable is the natural log of annual household business income, transforming the coefficient of an independent variable by $100 \times (e^b - 1)$ yields the percentage change in self-employment earnings caused by one unit change in that independent variable.

In Model 1, there is a significant gender effect. All other things being equal, self-employed women earned 20 per cent less than self-employed men. Age also decreases earnings: each additional year reduces earnings by about 1 per cent. Education, on the other hand, has a significant positive effect: one additional year of schooling increases earnings by 6.6 per cent. Having a cadre in the household and having a self-employed spouse are non-significant.

Table 3: Coefficients from OLS Regressions of Self-Employment Earnings (Ln)

	Model 1		Model 2	
	B	Std. Error	B	Std. Error
Intercept	8.77***	.30	8.46***	.29
Individual characteristics:				
Female	-.23**	.11	-.17	.10
Age	-.01*	.01	-.01**	.01
Education: years of schooling	.06***	.02	.06***	.02
Household characteristics:				
Married	-.33*	.19	-.28	.18
Number of children in family	.18***	.07	.18***	.06
Cadre household	.22	.33	.04	.31
Self-employed spouse	.18	.11	.13	.11
Control variables:				
Years in self-employment	.00	.01	.01	.01
Residence in a municipality	.51***	.15	.49***	.14
Self-employment position:				
SISE	–	–	.13	.13
Employer	–	–	.69***	.12
Observations	349		349	
R ²	.16		.25	

Note:

*** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed test).

However, marriage significantly reduces earnings by 28 per cent, and the number of children aged under 18 in the household has a significant positive effect – each additional child increases earnings by 20 per cent. The positive effect of children may come from parents' use of their casual labour in self-employment activities. Finally, other things controlled for, the self-employed in Beijing, Tianjin and Shanghai earned 67 per cent more than those elsewhere.

To discover if occupational segregation can explain away the gender effect on earnings observed in Model 1, I add two dummy variables measuring one's placement in the three occupational classes (UISE is the reference category) in Model 2 while keeping all other variables in Model 1. This changes two coefficients: both marriage and gender are no longer statistically significant. The employer dummy shows a highly significant effect: small employers, other things being equal, had income twice as high as the UISE. SISE has a positive but non-significant effect. Together, evidence in Model 2 suggests that when differential placements of men and women in self-employment – i.e. women's underrepresentation among employers and SISE – are controlled, self-employed women in urban China did not have significantly lower earnings than their male counterparts in similar positions. Gender segregation was the main cause of gender income inequality in self-employment in urban China.³⁰

This conclusion seems to contradict the data in Table 1, which shows significant gender income gaps within all three occupational classes. However, the comparison between the earnings of men and women in Table 1 is not a controlled comparison; the gender earnings gaps there actually reflect the effects of other personal characteristics, such as age and education, on earnings. What Table 1 does suggest is that self-employed men and women in the same occupational class came from different backgrounds.

Gendered Mobility Processes into Self-Employment

What gave rise to the severe gender segregation in self-employment found above? Why were women in urban China less successful than men in becoming employers or entering SISE? Given that there was no employer discrimination in self-employment that restricted women's entry into certain occupations, gender segregation here was primarily formed through differential mobility processes that put men and women with different backgrounds and personal characteristics into different positions.

Sociological research has identified three groups of factors that create gendered pathways into self-employment.³¹ First, men and women can have different personal characteristics, especially in their possession of entrepreneurial resources

30 I tried adding into the model interaction terms between women and education, number of children and employer status to see whether the effects of these variables on earnings varied between men and women, but found no variation.

31 For a summary on this literature, see McManus 2001.

such as human capital, social networks and financial resources, which make the viability and profitability of self-employment different for each. Second, men and women face different constraints in wage employment: gender discrimination often drives women into self-employment, but not men. Third, different gender roles within the family can make men and women approach self-employment differently. Applying these insights – especially the latter two – to China during the market transition can help to explain how the two major changes discussed earlier affected men and women’s entry into self-employment differently and led to gender segregation.

First, although the growth of the market economy brought new opportunities of financial wealth and career advancement in self-employment and private entrepreneurship, these opportunities might not be equally open to men and women because of the rising role of traditional family norms in determining the household division of labour 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 “patricorporations” – and dominated by men.³² Entrepreneurial self-employment in contemporary China still usually took the form of family businesses, in which the patriarchal family tradition regulated gender roles. These businesses tap into the unpaid female labour in the family, but reserve the entrepreneurial opportunities for the men.³³ Research on occupational gender segregation in developed countries has 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.³⁴ In a pioneering study of self-employment in urban China, Davis has also suggested 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.”³⁵ Therefore, the privileged allocation of entrepreneurial opportunities within family businesses to men could be one of the reasons that led to the under-representation of women among small employers.

Similarly, the decline of the state sector could also create greater constraints for women in wage employment and therefore push more of them into self-employment. Many studies have documented how the decline of the state sector during the 1990s hit women particularly hard for a host of reasons: for example, women were concentrated in low-end manufacturing firms, such as textile factories, which were the worst hit by the decline; women had accumulated lower human capital and occupied lower positions in work units; and the male-

32 Gates 1996.

33 See Entwisle et al. 1995 for a study of family businesses in rural China, and Wang 2009 for a study on urban China.

34 Reskin and Roos 1990.

35 Davis 1999, 43.

dominated management also placed lower value on female labour.³⁶ Women not only were laid off at much higher rates, they also had longer durations of unemployment after the layoff and suffered greater wage losses when re-employed, as they faced greater employer discrimination when applying for work, received less government assistance, and had less access to social networks.³⁷ Once laid off, workers' prospects for finding new waged employment were bleak. The declining state sector certainly offered no relief, and even in the expanding private sector, there were more jobs available for rural migrants and the highly educated than for the mainly middle-aged, under-educated and unskilled laid-off workers.³⁸ Without any sort of proper social welfare net to fall back on, many laid-off workers unable to find jobs had to take to the streets – some to engage in self-employment activities, others to protest.³⁹ Therefore, the greater difficulties women faced in retaining wage employment during the state sector layoffs would drive more low-skilled women into UISE, creating gender segregation.

To systematically test the validity of these two explanations requires complex statistical analyses that are beyond the scope of this study.⁴⁰ Here, I use a simpler analysis – multinomial logistic regression – to generate some preliminary evidence and to identify personal attributes that contribute to the formation of gender segregation in self-employment. For this analysis, only respondents who were part of the labour force in 1996 – and thus “eligible” for becoming self-employed – are included ($n = 2,560$). I run the same multinomial logistic model separately on the male sample ($n = 1,276$) and the female sample ($n = 1,284$) to illustrate gender differences.

I include five groups of variables. Three variables measure family structure: married, a dummy variable, and two continuous variables – the number of working adults and the number of dependents (including non-working children, adults and the elderly). Family background is measured with two dummy variables: self-employed parent and pre-revolution bourgeois family are coded 1, respectively, when at least one parent of the respondent had been self-employed at one point, or if one parent or grandparent had been a business owner before 1949. The level of marketization is calculated from the percentage of cases sampled from a respondent's city of residence that were employed in the private sector, including self-employment and employment in cooperative, private and foreign enterprises. It ranges from 0 to 74 among the 50 cities in the sample. Two variables, number of job changes and rural origin – a dummy indicating whether a respondent had rural household registration at the age of 14 – measure job history. Three human capital variables are added as control variables: age and two dummy variables of education level – medium education and higher

36 On how the layoffs disproportionately affected women in urban China, see e.g. Du and Dong 2009; Giles, Park and Cai 2006; Solinger 2002; Li and Zhang 2009.

37 Du and Dong 2009.

38 Li and Zhang 2009.

39 Solinger 2002.

40 See Zhang, Qian Forrest, and Pan 2012 for such an attempt.

education – indicating whether a respondent completed lower-middle school or at least upper-middle school, respectively.

Table 4 presents coefficients from two multinomial logistic models. (For the sake of brevity, standard errors are not presented.) First, there are notable gender differences in the family structure variables. Surprisingly, marriage had strong positive effects on the likelihood of men being in all three types of self-employment, but only a significant effect on the likelihood of women becoming employers. This contradicts a consistent finding in developed countries where marriage had significant effects on women’s entry into self-employment, but not men’s.⁴¹ The effects of marriage on men in urban China offer some support to the argument that the household division of labour reserved the riskier but potentially more rewarding market opportunities for husbands, while assigning wives to the more stable and family-friendly state sector, creating gender segregation. This strategy of “one family, two systems” (*yijia liangzhi* 一家两制) allowed families to balance risks and opportunities in urban China’s transitional context. In other words, marriage, and especially having a wife employed in the state sector, reduced the risks of market activities and emboldened men’s ventures into self-employment.⁴² Marriage’s effect on the likelihood of women becoming employers probably shows that when entrepreneurial activities reached a larger scale, they became family-run businesses, in which the women either joined their husbands in managing them or needed the participation of their husbands.

The number of dependents consistently shows non-significant effects on either men or women.⁴³ Although again differing from findings in developed countries where family burden increased women’s chances of entering self-employment, this finding still reflects the effects of gender roles in the family in China’s context. By the mid-1990s, state sector restructuring had greatly reduced the employer-provided care services, while efforts to marketize these services had not been successful.⁴⁴ Full-time wage employment in state and collective sectors still provided a more family-friendly environment for women. The number of working adults in the family shows significant positive effects, which are more extensive and stronger for women than for men. This probably shows women’s greater aversion to market risks than men: having more family members in gainful employment and providing both greater financial resources and access to employer-based social services decreased the risks associated with self-employment for women.⁴⁵

41 McManus 2001.

42 Ideally, spouse’s employment status should be included when measuring one’s likelihood of being in self-employment. However, in this cross-sectional model, including that is technically problematic: as an independent variable, it is jointly determined with the dependent variable – one’s own employment status – by some unobserved traits (e.g. the family strategy of household division of labour). Thus, its inclusion creates endogeneity and makes the estimates unreliable.

43 I also tried breaking down dependents into young children, the elderly and non-working adults. None had any significant effects.

44 Croll 1999; Cook and Dong 2011.

45 This echoes the argument in Gates 1996 that, traditionally, the availability of other income-generating labour capacity in the household encouraged women’s self-employment. I thank a referee for pointing this out.

Table 4: Coefficients from Multinomial Logistic Models of Entry into Three Types of Self-Employment, Gender Stratified

	Men			Women		
	UISE	SISE	Employer	UISE	SISE	Employer
Intercept	-3.50***	-4.35***	-3.41***	-2.56***	-6.24***	-4.29***
Human capital:						
Age	.00	-.01	-.03**	-.03*	.01	-.05***
Medium education	-.47*	.14	-.68**	-.32	.51	-.59
High education	-1.66***	-.58	-.67**	-1.67***	.14	-1.36***
Family structure:						
Married	.91**	1.44**	.65*	.23	.50	1.09*
Number of dependents	.07	.04	.02	-.17	-.15	-.13
Number of working adults	-.07	-.18	.28**	.39***	.28	.58***
Family background:						
Parent self-employed	.50	1.22***	1.07***	-.07	.92	1.02*
Pre-revolution bourgeois family	.51*	.37	.65**	-.10	-.19	.83**
Career history:						
Job changes	-.10	.09	.05	.19**	.18*	.33***
Rural origin	.19	.23	.32	.76***	1.14***	.77**
Level of marketization	.04***	.03***	.04***	.01	.01	.02*
Observations		1276			1284	
-2 log-likelihood		1556***			1173***	

Note:
 *** $p \leq .01$, ** $p \leq .05$, * $p \leq .10$ (two-tailed test).

Second, the two measures of family background show stronger and more consistent effects on men than on women. Both variables significantly increased the likelihood of becoming employers for both men and women. But, they also had male-specific effects: having a self-employed parent significantly increased a man's likelihood of being in SISE (by more than double), and coming from a pre-revolution bourgeois family significantly increased a man's chances of being in UISE by 66 per cent. This evidence shows strong intergenerational transmission of self-employment status, a pattern not noticed in past research. The gender differences also suggest that this intergenerational transmission – more likely through job values than through direct inheritance in China – is also a gendered process.

Third, the two career history variables indicate the sharpest gender contrasts. While neither had any significant effects on men, having more job changes and coming from a rural origin both significantly increased women's odds of being in all three types of self-employment. Past research showed that, in urban China, women's job changes were usually motivated by family considerations and led to downward mobility.⁴⁶ Thus, both more frequent job changes and rural origin were indications of disadvantages in wage employment, especially in the state sector, which made one more vulnerable to being laid off. Their positive effects on women support the argument that more women were pushed into self-employment by the disadvantages they faced in wage employment, especially during the state sector layoffs.

Finally, men and women also responded to the changing economic context in different ways. A higher level of marketization in the city of residence was associated with a significantly higher likelihood of men entering all types of self-employment, but only had a significant effect on increasing women's odds of being employers.

Conclusion

Three problems in the existing literature on self-employment in urban China motivated this research. First, owing to the lack of quantitative data, no study had investigated the unequal economic returns that existed within self-employment in urban China and, more specifically, the unequal earnings from self-employment between men and women. Second, previous studies failed to explicitly disaggregate heterogeneous occupational classes within self-employment and, as result, were unable to uncover the existence of gender occupational segregation in self-employment or to examine the link between occupational segregation and the gender gap in earnings. Third, no study had systematically investigated a wide range of factors that had shaped the gender-specific pathways into self-employment in urban China and gave rise to occupational segregation and unequal earnings.

46 Davis 1992; Cao and Hu 2007.

Empirical analyses in this article yield some preliminary findings in each of these three areas. Gender segregation becomes apparent when self-employment is disaggregated into three occupational classes. Women were concentrated in the least rewarding UISE while men dominated the more rewarding SISE and employer categories. As a result, men and women derived significantly different earnings from self-employment. Gender segregation in self-employment was formed when labour market processes and family division of labour presented different constraints and incentives to men and women and led them onto different pathways into self-employment. The two major social changes that took place during the 1990s to urban China's employment structure – the growth of financial returns and social status in the private sector and the restructuring of the state sector – exacerbated gender segregation in self-employment: men had advantages in taking entrepreneurial opportunities in family businesses, while women were disproportionately affected by state sector layoffs and pushed into low-end self-employment.

These findings echo those of previous studies about the high degree of gender segregation and gender income inequality in urban China's private sector. They suggest that once the state retreated from protecting gender equality at work, promoting progressive gender relations in the family and providing affordable care services to alleviate women's domestic responsibilities, market forces, aided by revitalized traditional family norms, led to greater gender disparities in employment.

Gender segregation in self-employment – and, in turn, the gender gap in earnings – could have potentially decreased in urban China in more recent years if a new set of mobility processes has started to bring more women with greater entrepreneurial resources into the more rewarding positions in self-employment. There are, however, strong reasons to believe that persistent and even increased gender segregation is much more likely. First, without institutional reforms aimed at reducing it, gender segregation tends to reproduce itself.⁴⁷ In urban China's case, the feminization of UISE and male dominance in private entrepreneurship would attach social stigma to the former and prestige to the latter, making the entry by the minority gender into each even more difficult than before. Second, the internal mobility in self-employment in urban China was more likely to reinforce rather than reduce gender segregation. Many women in UISE were low-skill workers pushed into self-employment by state sector layoffs and their prospects of gaining upward mobility into SISE or small employers were low. On the other hand, the more resourceful men who entered private entrepreneurship to pursue career advancements would probably have enjoyed greater upward mobility. Third, there was no indication that the gendered mobility processes that led differentially qualified men and women into different positions in self-employment have reversed in recent years. In fact, as social welfare and care

47 Reskin and Roos 1990.

provision became increasingly tied to professional wage employment in both the state and private sectors while self-employment continued to offer little, educated women would probably become even more reluctant to enter self-employment as they would face intensified work–family conflicts. As a result, the structure of gender disparities in self-employment in urban China formed during the sector’s formative period in the 1990s, as documented here, would most likely persist.

One development that can have a real impact on the structure of inequality in urban self-employment is the huge influx of rural migrants in the past decade, driven by both the decline of township and village enterprises and non-farm employment in rural areas and the relaxation of the household registration in cities. How migrant men and women entered urban self-employment differently is a question that calls for future research.

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