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

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Abstract

This paper 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 shows the gender segregation within self-employment—women were concentrated in the financially least rewarding segment—and identifies it as a main source of the gender income inequality. It examines a range of determinants of participation in self-employment—family structure, family background, and career history—and how their gender-specific effects contributed 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 private sector, both of which contributed to the formation of gender segregation in self-employment.
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 examined gender disparities emerged in this sector and found that, despite offering more opportunities of financial wealth, the growing market sector was highly gender-segregated, had a greater degree of gender inequality, exposed women to even greater disadvantages and intensified work-family conflicts than the state sector. Women were squeezed out of jobs with faster wage growth, sorted into low-wage and feminized manufacturing and service jobs, less likely to work in high-paying foreign firms, and suffered wage discrimination in private firms.¹

The growing literature on gender disparities in China’s private sector, however, has so far left out 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 of women and under-valuing of female labour are key causes of gender disparities in income and career advancement; but both 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, however, is also closely related with 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 to women by providing an escape from both work-family conflicts and gender-related disadvantages in wage employment. We may therefore expect 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 can 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, an analysis of these will also provide new understandings of the dynamics that shape gender inequality in China’s new employment structure. The goals of this study are therefore to fill this gap in the literature on gender disparities in China’s private sector, provide the first systematic examination of the extent of gender disparities in self-employment during urban China’s market transition, and 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 reform started in 1978. The number of *getihu* (个体户, individual industrial-commercial households) in Chinese cities grew from 0.15 million nation-wide in 1978 to 36.1 million in 2008, a 240-fold increase over three decades; its share in the urban labour force also grew from 0.2 per cent to 11.9 per cent during the same period. Since the mid-1990s, self-employment has constituted around 10 percent 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. All these studies were based on qualitative data collected in a
single or a few locales; their focus was usually on private enterprises, which in earlier years of the reform were usually just getihu and too small to be distinguished from self-employment.

Many of these studies 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. These findings suggest that, if this pattern would continue 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 the gender disparities in self-employment.

Surprisingly, despite its continued growth, the issue of self-employment in urban China largely disappeared from the literature in the past decade. An extensive literature search only yielded one published article on self-employment in urban China, which actually focused on cadres’ responses to market opportunities rather than the internal character and composition of self-employment. 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 analyzing national data, this study makes a key improvement on past research on self-employment in urban China. Borrowing from the new scholarship on self-employment in developed countries that emphasizes the heterogeneity within self-employment, 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 to people helps to clarify
confusions in previous studies about whether entry into self-employment represented upward
mobility and all the “entrepreneurs” in this sector were necessarily winners of the transition.
More importantly, it allows us to investigate how 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, which 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. 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. 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. Till this day, among the publically available national datasets, the rich longitudinal
data in this dataset remain unsurpassed.

Using this dated dataset, however, also raises a concern. Besides getting a snapshot of the
status of self-employment in urban China in the mid-1990s and clarifying earlier findings on this
important part of China’s recent history of market transition, by analyzing this dataset, can we
also identify any trends that have continued since then and helped to shape gender disparities in
self-employment in today’s China? I argue that, by 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 started. 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.\textsuperscript{10} Two more boosts to the private sector would come later—the incorporation of Jiang Zemin’s “Three Represents” in the Chinese Communist Party’s (CCP) constitution in 2002 and the constitutional amendment to codify the protection of private property in 2004. These two, however, were more about recognizing the growing power of the new propertied classes than providing additional incentives for the growth of the private sector.\textsuperscript{11} Parallel to the elevation of social and political statuses of the private sector, by the mid-1990s, growth of the market economy had also allowed some self-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 to people with greater human and political capital.\textsuperscript{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; but in 1988, it became necessary for the government to also legalize larger private enterprises and officially classify their owners as “siying yezhu” (私营业主, private owner/entrepreneurs).\textsuperscript{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, reported numbers of persons employed in private enterprises. When it was first reported in 1990, the number of private-firm
employees nation-wide was merely 570,000, or 0.4 per cent of the urban labour force. But by 1996, it had grown more than 10-fold to 6.2 millions, or 3.1 per cent of the urban labour force.

A 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 before the 1990s. Urged by Deng Xiaoping in his southern tour earlier that year, the CCP, in its 14th Party Congress convened in October 1992, announced the goal of establishing a “Socialist market economy” and accelerated reforms in the stagnant state sector. A series of reform measures gave SOE managers greater authority to dismiss blue-collar workers and introduced more market mechanisms into hiring and firing of urban employees. This opened the floodgate of state-sector layoffs that, in the following decade, trimmed the state-sector labour force by one third and drove tens of millions of former SOE workers into unemployment. Many of these laid-off workers, having received little relief from the state-sponsored re-employment programs, resorted to self-employment as a refuge from poverty.

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

These two processes, which should drive different types of people—men and women, in particular—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.\textsuperscript{18} The class mobility thesis sees entry into self-employment as people’s choice to redeem their special qualities and pursue career advancement, just as former cadres in urban China jumped into self-employment to seek greater financial wealth. On the other hand, the disadvantaged workers thesis posits that it is disadvantages that restrict people’s options in wage employment that drive them into self-employment, just as laid-off workers in urban China turned to street peddling as a refuge from poverty.

These two changes that started in urban China 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 shows, growth of the self-employed population in urban China during the 2000s has been incremental, and the majority of the self-employed entered during the 1990s. Findings based on the 1996 data should be representative for at least the entire decade of 1990s, when growth in self-employment was mainly driven by these two processes. In recent years, new 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 during the 1990s, these new developments would only introduce changes on the margin. 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 situations.
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 include both permanent residents with household registration and registered migrants—drawn from 50 cities nationwide. The survey asked respondents to identify all spells of employment. Only limited information, however, was collected retrospectively on previous job spells. Key information on self-employment, such as earnings and labour-hiring practices, was only available for self-employment on-going at the time of survey. Thus, instead of examining the dynamic processes of transitioning into self-employment, this paper only studies gender differences among those who were self-employed in 1996. Here, a respondent is coded “self-employed” when one’s 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. In terms of relations to means of production and to 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 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. In the 1996 sample, only ten
entrepreneurs hired more than ten workers, who were thus excluded;\textsuperscript{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 distributed, differing in their skill levels. I differentiate the individually self-employed into two occupational classes: \textit{skilled individually self-employed} (SISE) and \textit{unskilled individually self-employed} (UISE).\textsuperscript{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 level of skills 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 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.

\textit{Gender Gap in Self-Employment Earnings}

I first investigate whether men and women got unequal earnings from self-employment in urban China. I use the annual total household \textit{business} income to measure self-employment earnings.\textsuperscript{23} There are 47 cases that did not report household business income and are thus excluded from the analysis.\textsuperscript{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 earning was only 42 per cent of men’s—8,318 yuan compared 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, however, 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 to some people, it also led to greater gender income disparities.

Gender segregation—concentration of women in female-typical and devalued jobs, such as domestic care and street peddling, in a segmented labour markets—is one of the most important causes of gender income inequality and has been documented at every level of economic organization, including self-employment. In developed economies, gender segregation was found to be a universal and resilient feature in self-employment. Gender segregation, however, only becomes visible when self-employment is disaggregated into multiple class positions. Therefore, without a disaggregated approach, the link between gender segregation and gender gap in earnings in self-employment in urban China has never been examined before.

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, however, had significantly higher earnings, not surprising given their larger scales of operation and control over employees’ labour surplus. 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.

[INSERT HERE: Table 2. Distribution in Three Occupational Classes.]

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

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 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 from 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 that across the three sectors in wage employment.29

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. The dataset, however, 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.

[INSERT HERE: Table 3. Coefficients from OLS Regressions.]

In Model 1, we find a significant gender effect: Other things equal, self-employed women had 20 per cent less earnings than self-employed men. Age also decreases earnings: one additional year reduces earning by about one per cent. Education, on the other hand, has a significant positive effect: one additional year of schooling increases earning by 6.6 per cent. Having a cadre in the household and having a self-employed spouse are non-significant. On the other hand, marriage significantly reduces earning by 28 per cent, and the number of under-18 children in the household has a significant positive effect—each additional child increases...
earning by 20 per cent. Children’s positive effect may come from parents’ use of their casual
labour in self-employment activities. Finally, other things controlled, the self-employed in
Beijing, Tianjin or Shanghai had 67 per cent higher earning than elsewhere.

Can occupational segregation 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 changed two coefficients: both marriage and gender are no longer statistically significant.
The employer dummy shows a highly significant effect: small employers, other things equal, had
income twice as high as the UISE. SISE has a positive but non-significant effect. Together,
evidences in Model 2 suggest that when differential placements of men and women in self-
employment—i.e., women’s under-representation 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. The comparison between men’s and women’s
earnings in Table 1, however, is not a controlled comparison; therefore, the gender earning gaps
there actually reflect the effects of other personal characteristics such as age and education on
earnings. What Table 1 does show is that self-employed men and women in the same
occupational class came from different backgrounds—an issue we turn to next.

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. First, men and women can have different personal characteristics, especially in their possession of entrepreneurial resources such as human capital, social networks, and financial resources, which make the viability and profitability of self-employment different for them. 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 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 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 accessible to men and women, because of the rising role of traditional family norms in determining 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. Entrepreneurial self-employment in contemporary China still usually
took the form of family business, in which the patriarchal family tradition regulated gender roles: tapping on the unpaid female labour in the family but reserving entrepreneurial opportunities for men.\textsuperscript{33} Research on occupational gender segregation 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.\textsuperscript{34} In a pioneering study of self-employment in urban China, Davis 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.”\textsuperscript{35} Therefore, the privileged allocation of entrepreneurial opportunities within family businesses to men could be a cause that gave rise to the under-representation of women in 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 documented how the decline of the state sector during the 1990s hit women particularly hard for a host of reasons: for example, women 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-dominated management also placed lower value on female labour.\textsuperscript{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 in hiring, received less government assistance, and had less access to social networks.\textsuperscript{37} Once laid off, workers faced bleak prospects in getting new wage jobs. The declining state sector certainly offered no relief; even in the expanding private 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.\textsuperscript{38}
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.\textsuperscript{39} Therefore, the greater difficulties women faced in retaining wage employment during 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.\textsuperscript{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 in labour force in 1996—and thus “eligible” of becoming self-employed—are included (n = 2,560). I run the same multinomial logistic model separately on the male sample (n = 1,276) and female sample (n = 1,284) to illustrate gender differences.

I include five groups of variables. Three variables measure family structure: \textit{married}, a dummy variable, and two continuous variables—\textit{number of working adults} and \textit{number of dependents} (including non-working children, adults and the elderly). Family background is measured with two dummy variables: \textit{self-employed parent} and \textit{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 \textit{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 zero to 74 among the 50 cities in the sample. Two variables, \textit{number of job changes} and \textit{rural origin}—a dummy indicating whether a respondent had rural household registration at age 14—measure job history. Three human capital variables are added as control variables: \textit{age} and two dummy variables of
education level—*medium education* and *higher education*—indicating whether a respondent completed lower middle school or at least upper middle school, respectively.

[INSERT HERE: Table 4. Coefficients from Multinomial Logistic Models.]

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. Marriage surprisingly had strong positive effects on men’s likelihoods of being in all three types of self-employment, but only a significant effect on women’s likelihood of 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 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 wives employed in the state sector, reduced risks of market activities and emboldened men’s venture into self-employment.42 Marriage’s effect on women’s likelihood of becoming employers probably shows that when entrepreneurial activities reached a larger scale, they became family-run businesses, in which 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.\textsuperscript{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 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 risks of self-employment for women.\textsuperscript{45}

Second, the two measures of family background show stronger and more consistent effects on men than on women. Both variables significantly increased the likelihoods of becoming employers for both men and women. But they also had male-specific effects: having a self-employed parent significantly increased men’s likelihoods of being in SISE (more than doubled), and coming from a pre-Revolution bourgeois family significantly increased men’s chances of being in UISE by 66 per cent. These evidences show 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 show 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.\textsuperscript{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 layoffs. 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 changing economic context in different ways. A higher level of marketization in the city of residence was associated with significantly higher likelihoods of men entering all types of self-employment, but only had a significant effect in increasing women’s odds of being employers.

Conclusion

Three problems in the existing literature on self-employment in urban China motivated this research. First, due to 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 gender gap in earnings. Third, no study had yet systematically investigated a wide range of factors that shaped the gender-specific pathways into self-employment in urban China and gave rise to occupational segregation and unequal earnings.

Empirical analyses in this paper yielded some preliminary findings in each of these three areas. Gender segregation became apparent when self-employment was 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—growth of financial return and social status in private sector and restructuring of the state sector—both 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 in previous studies about the high degree of gender segregation and gender income inequality in urban China’s private sector. These evidences 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 potentially decline in urban China in more recent years, if a new set of mobility processes 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. 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; their prospects of gaining upward mobility into SISE or small employers were low. The more resourceful men who entered private entrepreneurship to pursue career advancements, on the other hand, would probably enjoy 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 reversed in recent years. In fact, as social welfare and care provision became increasing 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, where 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 nonfarm 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.

Sources: State Statistical Bureau, Zhongguo Tongji Nianjian (Chinese Statistical Yearbooks), various years.
Table 1. Descriptive Statistics of the Self-Employed Sample, by Gender.

<table>
<thead>
<tr>
<th></th>
<th>Men (n = 211)</th>
<th>Women (n = 138)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Self-employment earnings (yuan)</td>
<td>19773</td>
<td>50459</td>
</tr>
<tr>
<td>Age</td>
<td>39.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Years of schooling</td>
<td>8.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Years in self-employment</td>
<td>7.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Number of under-18 children in family</td>
<td>.91</td>
<td>.85</td>
</tr>
<tr>
<td>Having a cadre in household</td>
<td>.02</td>
<td>.15</td>
</tr>
<tr>
<td>Married</td>
<td>.83</td>
<td>.38</td>
</tr>
</tbody>
</table>

Earnings by self-employment class (yuan)

<table>
<thead>
<tr>
<th>Class</th>
<th>Count</th>
<th>% of men</th>
<th>Count</th>
<th>% of women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>UISE</td>
<td>92</td>
<td>39.1</td>
<td>87</td>
<td>54.0</td>
<td>179</td>
</tr>
<tr>
<td>SISE</td>
<td>67</td>
<td>28.5</td>
<td>32</td>
<td>19.9</td>
<td>99</td>
</tr>
<tr>
<td>Small employer</td>
<td>76</td>
<td>32.3</td>
<td>42</td>
<td>26.1</td>
<td>118</td>
</tr>
</tbody>
</table>

*** p ≤ .01, ** p ≤ .05, * p ≤ .10 (two-tailed test).

Table 2. Distribution of the Self-Employed in Three Occupational Classes, by Gender.

<table>
<thead>
<tr>
<th>Class</th>
<th>Count</th>
<th>% of men</th>
<th>Count</th>
<th>% of women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>UISE</td>
<td>92</td>
<td>39.1</td>
<td>87</td>
<td>54.0</td>
<td>179</td>
</tr>
<tr>
<td>SISE</td>
<td>67</td>
<td>28.5</td>
<td>32</td>
<td>19.9</td>
<td>99</td>
</tr>
<tr>
<td>Small employer</td>
<td>76</td>
<td>32.3</td>
<td>42</td>
<td>26.1</td>
<td>118</td>
</tr>
<tr>
<td>Total</td>
<td>235</td>
<td>100</td>
<td>161</td>
<td>100</td>
<td>396</td>
</tr>
</tbody>
</table>
Table 3. Coefficients from OLS Regressions of Self-Employment Earnings (Ln).

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Intercept</td>
<td>8.77***</td>
</tr>
<tr>
<td>Individual characteristics:</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>-.23**</td>
</tr>
<tr>
<td>Age</td>
<td>-.01*</td>
</tr>
<tr>
<td>Education: Years of schooling</td>
<td>.06***</td>
</tr>
<tr>
<td>Household characteristics:</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>-.33*</td>
</tr>
<tr>
<td>Number of under-18 children in family</td>
<td>.18***</td>
</tr>
<tr>
<td>Cadre household</td>
<td>.22</td>
</tr>
<tr>
<td>Self-employed spouse</td>
<td>.18</td>
</tr>
<tr>
<td>Control variables:</td>
<td></td>
</tr>
<tr>
<td>Years in self-employment</td>
<td>.00</td>
</tr>
<tr>
<td>Residence in a municipality</td>
<td>.51***</td>
</tr>
<tr>
<td>Self-employment position:</td>
<td></td>
</tr>
<tr>
<td>SISE</td>
<td>------</td>
</tr>
<tr>
<td>Employer</td>
<td>------</td>
</tr>
<tr>
<td>Observations</td>
<td>349</td>
</tr>
<tr>
<td>R²</td>
<td>.16</td>
</tr>
</tbody>
</table>

*** p ≤ .01, ** p ≤ .05, * p ≤ .10 (two-tailed test).
Table 4. Coefficients from Multinomial Logistic Models of Entry into Three Types of Self-Employment, Gender Stratified.

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UISE</td>
<td>SISE</td>
<td>Employer</td>
<td>UISE</td>
</tr>
<tr>
<td>Intercept</td>
<td>-3.50***</td>
<td>-4.35***</td>
<td>-3.41***</td>
<td>-2.56***</td>
</tr>
<tr>
<td>Human capital:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.00</td>
<td>-.01</td>
<td>-.03**</td>
<td>-0.03*</td>
</tr>
<tr>
<td>Medium education</td>
<td>-.47*</td>
<td>.14</td>
<td>-.68**</td>
<td>-.32</td>
</tr>
<tr>
<td>High education</td>
<td>-1.66***</td>
<td>-.58</td>
<td>-.67**</td>
<td>-1.67***</td>
</tr>
<tr>
<td>Family structure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>.91**</td>
<td>1.44**</td>
<td>.65*</td>
<td>.23</td>
</tr>
<tr>
<td>Number of dependents</td>
<td>.07</td>
<td>.04</td>
<td>.02</td>
<td>-.17</td>
</tr>
<tr>
<td>Number of working adults</td>
<td>-.07</td>
<td>-.18</td>
<td>.28**</td>
<td>.39***</td>
</tr>
<tr>
<td>Family background:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent self-employed</td>
<td>.50</td>
<td>1.22***</td>
<td>1.07***</td>
<td>-.07</td>
</tr>
<tr>
<td>Pre-revolution bourgeois family</td>
<td>.51*</td>
<td>.37</td>
<td>.65**</td>
<td>-.10</td>
</tr>
<tr>
<td>Career history:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job changes</td>
<td>-.10</td>
<td>.09</td>
<td>.05</td>
<td>.19**</td>
</tr>
<tr>
<td>Rural origin</td>
<td>.19</td>
<td>.23</td>
<td>.32</td>
<td>.76***</td>
</tr>
<tr>
<td>Level of marketization</td>
<td>.04***</td>
<td>.03***</td>
<td>.04***</td>
<td>.01</td>
</tr>
<tr>
<td>Observations</td>
<td>1276</td>
<td></td>
<td></td>
<td>1284</td>
</tr>
<tr>
<td>-2 log-likelihood</td>
<td>1556***</td>
<td></td>
<td></td>
<td>1173***</td>
</tr>
</tbody>
</table>

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


M. E. Sharpe, 2006), pp. 120-127 pointed out, the initial emergence of private enterprises and self-employment had little economic impact, but presented many interesting sociological issues.


8 Complete descriptions of the sample design, fieldwork procedure, and questionnaire are available in the project’s codebook: Donald J. Treiman, *Life Histories and Social Change in Contemporary China: Provisional Codebook* (Los Angeles: UCLA Institute for Social Science Research, Social Science Data Archive, 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, "New bosses in the workers' state" for a detailed documentation of policy changes related to self-employment and private enterprises in the 1980s and early 1990s.


Sabin, "New bosses in the workers' state."

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 rapid growth of private employment. See Ibid.


Accurate data about the number of laid-off state workers are hard to come, as Dorothy J. Solinger, "Why We Cannot Count the 'Unemployed'," *China Quarterly*, No. 167 (2001), pp. 671-688 demonstrated. Fenglian Du and Xiao-Yuan Dong, "Why do women have longer durations of unemployment than men in post-restructuring urban China?," *Cambridge Journal of Economics*, Vol. 33, No. 2 (2009), pp. 233-252 estimates 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.


20 This was the cut-off point used in Erik Olin Wright, *Class Counts: Comparative Studies in Class Analysis* (Cambridge: Cambridge University Press, 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 so 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.


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 In Shu, "Market Transition and Gender Segregation", she 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.

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.

For a summary on this literature, see, McManus, "Women's participation in self-employment."


See Entwisle et al., "Gender and family business in rural China" for a study of family businesses in rural China, and Jianying Wang, Self-employment in Urban China: The Interplay of Gender, Capitalism and Labour Market, doctoral dissertation, Department of Sociology, (New Haven, CT: Yale University, 2009) for a study on urban China.


Davis, "Self-Employment in Shanghai", p. 43.


Du and Dong, "Why do women have longer durations of unemployment."

Li and Zhang, "The professional reintegration of the "Xiagang"'.

Solinger, "Plight of the Laid-off Proletariat."

McManus, "Women's participation in self-employment."

Ideally, spouse’s employment status should be included when measuring one’s likelihoods 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 (for example, the family strategy of household division of labour). Thus, its inclusion creates endogeneity and makes the estimates unreliable.

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


This echoes the argument in Gates, *China’s Motor*, 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.


Reskin and Roos, *Job Queues, Gender Queues*. 