Female Labor Force Decline in China: Unequal Duties and Unequal Aging

Kai Feng, Population Studies Center, University of Pennsylvania

Introduction

Despite women have been catching up with men in educational attainment since the 1990s, women seem to fare worse in the labor market over the same period (Wu 2019). The female labor force participation rate has dropped from 73% in 1990 to 64% in 2010 (National Census 1990 and 2010). Although the employment rate of men has also declined, the decline among women is faster in speed, widening the gender gap in labor force participation. A large body of research attributes the gender inequalities in the labor market to the impact of socialism-to-market transition in which the state stopped from providing public childcare programs to families and market-oriented employers triggered discrimination against married women and mothers (Zhang et al. 2008; He and Wu 2018; Ji et al. 2017 for a review). By focusing on characteristics at the individual level, the previous scholarships on gender stratification overlooked how the demographic trend at the macro-level interacts with the market transition in shaping gender inequality in the labor market.

In this article, I focus on the interaction between gender inequality and one ongoing demographic trend in China, that is, population aging. I suggest that when the population shifts from a younger one to an older one, and the social supports for women are not yet established or the institutional barriers remained unchanged, the gender inequalities would be amplified at the aggregate level. The case of China provides a test for this proposition because of two attributes: first, the market transition turns China into a neoliberal economy that provides little protection to female employees (Ji et al 2017); and second, the three-and-a-half decade long "one-child" policy and the subsequent very low fertility accelerated the aging process in an unprecedented speed (Wang 2011).

Although rapid population aging could affect female labor force participation in multiple ways, in this article, I highlight the interaction between aging and the gender inequality in retirement in shaping the employment rate. Using tabular data from the decennial national census in 1990, 2000, and 2010, and 1% population sample survey conducted between census in 1995 and 2005, I show that the proportion of female unemployment due to early retirement has increased overtime from 1990 to 2010. It explains the gender gap in the unemployment rate by 14% for the entire nation and 30% for the urban population in 2010. Without a fundamental change in the current retirement system and family support system, the gender gap will be widened as the population age.

Theoretical focus

The study of gender stratification on China has proliferated in the past two decades due to increasing data availability (Wu 2019). In recent years, scholars have adopted a two-sphere separation framework to understand the impact of China's socialism-to-market transition on gender inequality (Ji et al. 2017). In the public spheres, marketization of previous state-owned enterprises (SOEs) and the rise of the private sector induced discrimination against women, particularly to wives and mothers, in job application (Du and Dong 2009), wage payment (Zhang et al 2008; He and Wu 2018), and promotion opportunities (He and Wu 2021), a practice that was prohibited under the state socialism (Wu 2019). In accordance with the market transition, the

state and previous SOEs ceased to offer accessible childcare programs, especially to children aged 0-2, shifting the childcaring responsibility to the family (Du and Dong 2013).

Although women enjoy a relatively high level of equity in public spheres under state socialism, the traditional gender norms were still ingrained in the private spheres. The decline of the Marist egalitarian ideology during the economic reform led to a revitalization of traditional patriarchal gender values (Sun and Chen 2015). Evidence shows that wives still undertake the majority of housework across generations, whereas husbands' contribution has declined in the post-reform cohort (Zhang 2017). Moreover, the resurgence of ideal wife/mother narratives create extra burdens for working women and reinforce the stereotypes that women are less productive and family-oriented in the public spheres (Ji et al 2017).

The two-sphere separation is useful to help us understand the impact of the market transition on gender inequalities, but important components have been overlooked. I identify three limitations in the literature of gender inequality in the labor market, particularly in the Chinese context. First, much of literature using the two-sphere separation framework has focused on the role of market transition and its consequences on gender inequality. The impact of population aging, and the interaction between aging and gender on labor force participation are under explored. Second, most studies have only used age as a control variable, downplaying the fact that age itself can be a base of inequality, particularly against women. Moreover, fewer studies have acknowledged the negative impact of unfair retirement age on the gender gap in labor force participation. Third, studies have often used a subset of population for analyses, focusing exclusively on prime-age workers, married women, or women with dependent children; there are fewer studies present a holistic picture of how many women are out of the labor market and for what reasons.

Data

This study uses the classic decomposition method (Das Gupta 1993) to assess the rate change in unemployment between men and women in China from 1990 to 2010. I paid particular attention to changes in the unemployment rate due to retirement and caregiving activities.

I used long-form tabular data from the 1990, 2000, 2010 census and 1995, 2005 1% population sample survey to obtain the unemployment status by gender, age, and urban residence. The working population was classified as respondents who had worked for paid for at least 1 hour in the past week before the interview, including respondents who were temporally on leave or on training. The remaining population was classified into mutually exclusive categories based on the reasons for unemployment. I kept four original categories that were labeled using the same words in all samples and rearranged the remaining categories into one group.

The four categories include unemployed due to 1) enrollment in school, 2) caregiving activities, 3) retirement, and 4) disabilities. The first group includes people who were enrolled in certified educational institutions at all degree levels. It did not include students who were engaged in part-time jobs or employees who were doing off-job training. Unemployment due to caregiving activities includes people who were doing unpaid care work for their own family and who did not engage in any paid work or were seeking jobs while doing unpaid care work. Retirement refers to the unemployed who had formally retired and received pension but did not engage in

any paid work after retirement. The last category includes people who were not able to participate in the labor market due to physical or cognitive disabilities, including the elderly with functional limitations. However, people who formally retired were counted into the retirement group regardless of their disability status.

Analytical plan

I first decompose the gender difference in the unemployment rate into six components: age structure, enrollment in school, caregiving activities, retirement, disabilities, and unemployed due to other reasons. The first components reflect how much of the difference in the unemployment rate is due to the change in age structure. The remaining five components are the reasons for unemployment. I then compare the relative contribution of each component to the gender difference in the unemployment rate and how the distribution of each changes over time. I then decompose the difference in the female unemployment rate between 1990 and 2010. Particular attention has been given to the age group differences in unemployment between 1990 and 2010. I did all the analysis separately for the total population and for the urban population

Summary of findings

This study has three main findings. First, women's uneven share of unpaid care work is still the major reason for the gender gap in labor force participation. The absolute value of the gender gap in the unemployment rate due to women's caregiving activities has increased from 12 to 13.3 for the entire population, and from 10.9 to 14.4 for the urban population. However, the relative contribution of caregiving activities to the gender unemployment gap has declined. Second, female unemployment due to retirement has increased substantially from 1990 to 2010 due to population aging. Female early retirement explained about 14% of the gender unemployment gap for the entire population and about 30% for the urban population in 2010 (Figure 1). Third, comparing to 1990, women aged 20 to 45 are more likely to drop the labor market for unpaid caregiving activities in both the total population and in urban population. Although female unemployment due to caregiving activities has declined among older ages, the female retirees have multiplied as well, compensating the "gain" in reducing female caregivers at older ages (Figure 2).

This study has made a theoretical contribution by extending the two-sphere separation framework in the Chinese context. The classic two-sphere separation framework limits their focus to the impact of market transition on gender inequality, overlooking how broader demographic trends could interact with the social structure and cultural belief in shaping gender inequality. China has gone through a dramatic demographic transition in the past decades due to profound changes in economic development and population policies. Future research on gender inequality should incorporate the impact of demographic trends, such as population aging, low fertility, and delaying or forgoing marriage, into their theoretical and analytical frameworks.

This study also has policy implications. Before the consequences of population aging fully unfolded, a fundamental change needs to be made in the retirement system, particularly the gender inequality in retirement age. An equal effort, if not more, should be made to ameliorate the caregiving demands that are unevenly shared by women. In 2021's report on the work of government, the prime minister announced a plan of delaying retirement as a solution to the incoming labor force shortage in China. By lifting the retirement age at a faster speed for

women, the younger cohort would finally achieve an equal retirement age at 65 for both women and men. However, less attention has been paid to women withdrawn from the labor market due to caregiving responsibilities at ages even before retirement age. Although an equal retirement is important, our analyses showed that without addressing the gender inequality in both public and private spheres at early ages, the labor market would lose a significant share of female workers, a number at least not lower than what delayed retirement would have accomplished.

Table 1. Decomposition: gender difference in reasons of unemployment for urban residents

Component	1990		1995		2000		2005		2010	
	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)
Age structure	0.02	0.17	-0.24	-2.13	-0.22	-1.90	-0.52	-3.86	-0.20	-1.42
At school	-1.64	-16.90	-0.63	-5.68	-0.58	-5.12	-0.39	-2.93	0.01	0.06
Caregiving	12.00	123.45	12.10	107.99	11.90	105.49	12.60	94.65	13.30	94.77
Retirement	-0.10	-1.04	0.20	1.78	0.69	6.08	1.27	9.51	1.94	13.85
Disability	-0.12	-1.27	-0.17	-1.53	-0.01	-0.09	0.20	1.47	-0.10	-0.69
Other	-0.43	-4.40	-0.05	-0.43	-0.50	-4.46	0.16	1.18	-0.92	-6.56
Overall	9.72	100.00	11.21	100.00	11.28	100.00	13.32	100.00	14.03	100.00

Table 2. Decomposition: gender difference in reasons of unemployment for urban residents

Component	1990		1995		2005		2010	
	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)	Absolute Difference	Proportion (%)
Age structure	0.06	0.53	0.02	0.16	0.13	0.70	0.25	1.33
At school	-1.18	-10.25	-0.48	-3.36	-0.47	-2.52	-0.06	-0.33
Caregiving	10.90	94.58	12.00	84.29	13.70	74.20	14.40	78.45
Retirement	2.47	21.45	2.71	19.03	4.67	25.19	5.49	29.86
Disability	-0.06	-0.51	-0.15	-1.07	-0.03	-0.15	-0.18	-0.97
Other	-0.67	-5.80	0.14	0.95	0.48	2.58	-1.54	-8.35
Overall	11.52	100.00	14.24	100.00	18.48	100.00	18.36	100.00

Figure 1. Share of caregiving and retirement in gender gap of unemployment rate

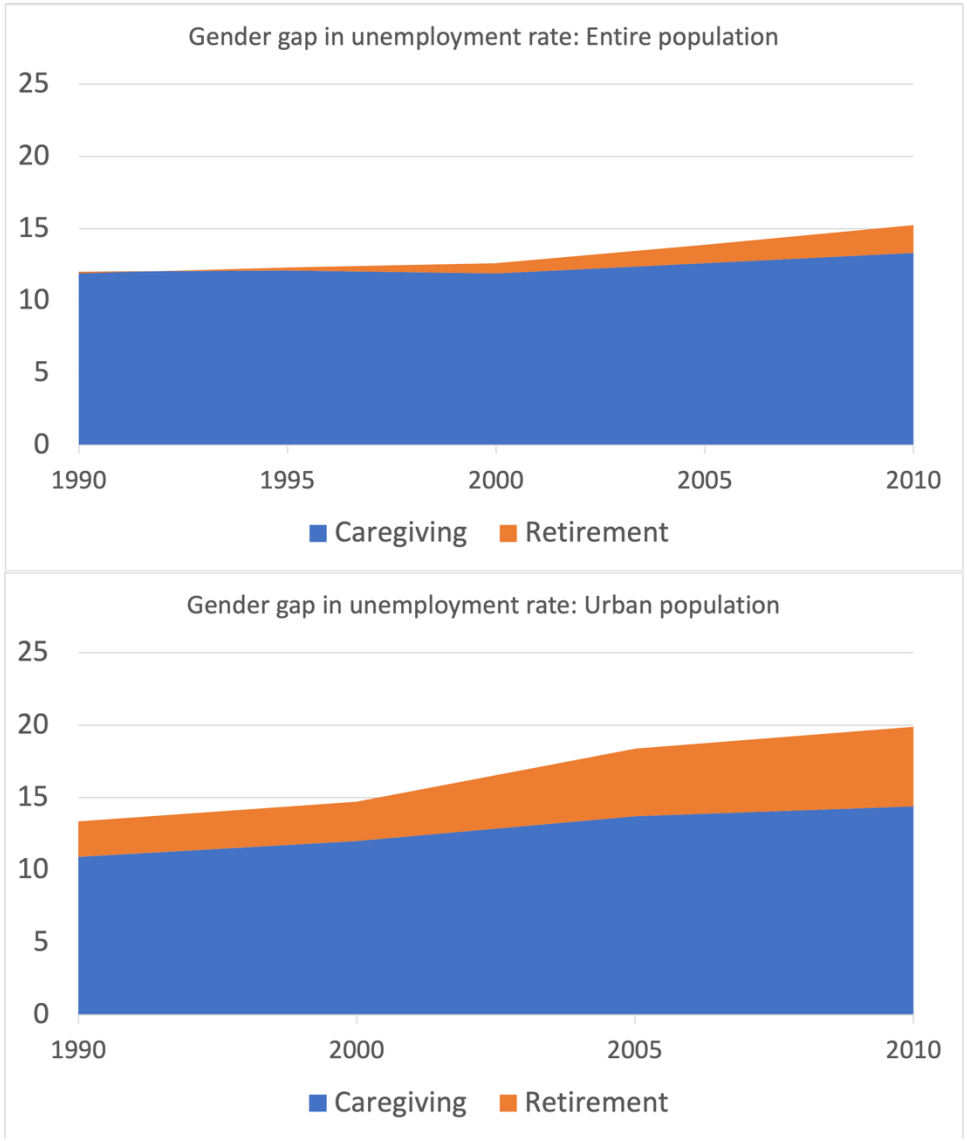

Table 3. Decomposition: year comparison of female unemployment rate by reasons and age groups, Entire population

Reasons for Female Unemployment 1990 vs. 2010: Entire Population							
Age	Age structure	As school	Caregiving	Retirement	Disability	Others	Total
20-24	-14.28	27.79	4.12	0.00	0.12	10.20	27.95
25-29	-8.43	1.19	8.42	-0.01	0.12	7.18	8.47
30-34	-3.59	0.04	7.92	-0.02	0.17	4.39	8.91
35-39	-0.83	0.00	7.71	-0.04	0.19	4.43	11.46
40-44	5.97	0.00	2.84	-0.23	0.19	3.99	12.76
45-49	9.04	0.00	-0.84	0.07	0.19	3.65	12.11
50-54	7.43	0.00	-7.03	5.72	0.14	1.59	7.85
55-59	15.35	0.00	-14.63	6.47	0.07	1.49	8.75
60-64	9.77	0.00	-17.11	6.96	0.65	1.48	1.75
Total	20.43	29.02	-8.60	18.92	1.84	38.40	100.00

Table 4. Decomposition: year comparison of female unemployment rate by reasons and age groups, Urban population

Reasons for Female Unemployment by Age Group 1990 vs. 2010: Urban Population							
Age	Age structure	As school	Caregiving	Retirement	Disability	Others	Total
20-24	-3.23	21.56	0.02	-0.01	-0.01	3.74	22.07
25-29	-4.18	1.09	5.69	-0.02	0.02	5.70	8.30
30-34	-2.65	0.00	8.48	-0.04	0.07	4.36	10.22
35-39	-0.45	-0.02	8.35	-0.07	0.13	4.67	12.61
40-44	3.31	-0.01	4.96	-0.38	0.17	4.56	12.61
45-49	5.53	0.00	2.31	-0.46	0.21	4.47	12.06
50-54	2.89	0.00	-1.81	5.91	0.13	1.52	8.64
55-59	6.66	0.00	-4.33	5.77	0.14	1.20	9.44
60-64	2.68	0.00	-6.38	6.68	0.10	0.97	4.05
Total	10.56	22.62	17.29	17.38	0.96	31.19	100.00

Figure 2. Share of caregiving and retirement in explaining female unemployment rate by age, 2010 vs. 1990