INCLUSIVE GROWTH IN THE PEOPLE'S REPUBLIC OF CHINA

A DEEP LOOK AT MEN AND WOMEN'S WORK
AMID DEMOGRAPHIC, TECHNOLOGICAL,
AND STRUCTURAL TRANSFORMATIONS

Xiao-Yuan Dong and Veronica Mendizabal Joffre

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Inclusive Growth in the People's Republic of China: A Deep Look at Men and Women's Work Amid Demographic, Technological, and Structural Transformations

Xiao-Yuan Dong and Veronica Mendizabal Joffre
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ABBREVIATIONS

ADB	Asian Development Bank
CHFS	China Household Finance Survey
CNNIC	China Internet Network Information Center
CTUS	China Time Use Survey
ECEC	early childhood education and care
GDP	gross domestic product
GWR	gender wage ratio
ILO	International Labor Organization
LFPR	labor force participation rate
NBS	National Bureau of Statistics of China
PRC	People's Republic of China
SDG	Sustainable Development Goals

LIST OF DATA SOURCES

China Household Finance Survey, 2011 and 2017	The surveys were organized by Southwestern University of Finance and Economics in Chengdu, Sichuan Province, People's Republic of China, covering all provinces except Tibet Autonomous Region and Xinjiang Uygur Autonomous Region
China Time Use Survey, 2008 and 2017	<p>The 2008 survey was conducted by the National Bureau of Statistics of China and covers 10 provinces</p> <p>The 2017 survey was conducted jointly by Inner Mongolia University and Southwestern University of Finance and Economics, and covers all provinces in the People's Republic of China except Tibet Autonomous Region and Xinjiang Uygur Autonomous Region</p>
<i>China Labor Statistical Yearbook</i> , 2009 and 2017	Annual publication of the National Bureau of Statistics of China
World Development Indicators	Online database of the World Bank

ABSTRACT

The economic success of the People's Republic China (PRC) since the onset of economic reforms has been remarkable, as has been its rate of poverty reduction. The country is now undergoing a technological transformation that opens opportunities for increased productivity and employment creation, but which needs to be managed to benefit all. At the same time, the share of the PRC's population over 65 years of age is increasing and is expected to account for 17% of the total population by 2030. Focusing on the period following the global financial crisis of 2008, this paper explores how these interrelated social and economic trends impact men and women's work differently, and how the gender dynamics in the labor market and at home interact with other socioeconomic characteristics including education, age, and rural-urban divide. The findings suggest that better educated segments have been able to benefit from structural change, while women who are less educated, from rural areas, and older are lagging. Occupational segregation has increased, and regardless of education, urban and rural women continue to assume the bulk of unpaid domestic and care work. The paper provides a comparative perspective of the pathways of selected countries of the Organisation for Economic Co-operation and Development and recommends investing in rural women as part of rural vitalization policy, developing the market for care services, increasing public spending on early childhood education and care, and considering pension reform to further the PRC's vision of inclusive, high-quality growth.

I. INTRODUCTION

The economic success of the People's Republic China (PRC) since the onset of economic reforms in the late 1970s has been remarkable and is well documented. The PRC's gross domestic product (GDP) per capita has increased from \$318 in 1978 to \$8,827 in 2017.¹ Its poverty headcount ratio has decreased from 88.3% in 1981 to 0.7% in 2015.² However, this has also been a period when income inequality has increased substantially, according to the National Bureau of Statistics (NBS), as seen in the Gini coefficient rising from 0.320 to 0.467 between 1981 and 2017 (NBS 2018, Table 1-4). Regional and rural-urban economic disparities persist (Li, Sato, and Sicular 2013), and gender gaps in many labor market indicators have increased.³ The growing socioeconomic inequalities present new challenges for the PRC to further its economic success and ascend from an upper-middle-income to a high-income country status (Piketty 2015, United Nations 2015).

This paper explores the gender dimensions of inclusive growth in the PRC focusing on the period since the 2008 global financial crisis. The main feature of this episode of structural change is the relative rise of services and high-technology sectors, and the further decline of the agriculture sector as the main provider of jobs. Inclusive growth requires that people, especially those from the most vulnerable segment of the population, have equal opportunities to contribute to and benefit from economic growth. The concept of inclusive growth has been included as part of the 2030 sustainable development agenda, where Goal 8 of the Sustainable Development Goals (SDGs) refers to “promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all” (United Nations 2015). The PRC is a signatory of the 2030 SDGs and inclusive growth is also a main development objective endorsed in the Communiqué of the 19th Congress of the Chinese Communist Party in 2017.⁴

Gender equality as used here refers to the equal rights, opportunities, and responsibilities of men and women. It is both a valued goal in itself and an effective means to achieve inclusive and sustained growth. The McKinsey Global Institute (2015) estimates that achieving gender parity in labor force participation would increase the PRC's GDP by \$2.5 trillion. Women also contribute to inclusive and sustained growth through their role as primary providers of domestic and care work, which refers to domestic chores and care for people at home and in communities that are performed for no explicit monetary reward (Waring 1989). It is estimated that the monetary value of unpaid domestic and care work amounts to one-third of the PRC's GDP, and more than 70% of that value is contributed by women (Dong and An 2014). Domestic and care work is essential for human well-being. Time investment in children lays strong foundations for the human capital development of the next generation of workers, and it is also one possible channel through which economic status is transmitted from one generation to another (World Bank 2018, Heckman 2006). However, the time and energy women have are fixed; the competing demands of paid work and unpaid domestic and care work (termed “work-family conflict” hereafter) hinder women's ability to participate equally with men in the labor market and reduce the time available to themselves for skill upgrading, sleep, and relaxation (Cagatay, Elson, and Grown 1995). The work-

¹ Atlas method (current United States [US] dollars). World Bank. World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source==world-development-indicators> (accessed 20 January 2019).

² The poverty line is \$1.90 a day (2011 purchasing power parity). World Bank. PovcalNet. <http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx#> (accessed 20 January 2019).

³ See Connelly et al. (2018); ADB and ILO (2017); Dong, Li, and Yang (2016); and Berik, Dong, and Summerfield (2007) for the literature reviews on this topic.

⁴ The Communiqué envisions a people-centered development agenda that is innovative, balanced, green, open, and inclusive for the decades to come. See <http://news.sina.com.cn/c/nd/2017-10-18/doc-ifymvuyt3921862.shtml> (accessed 16 November 2019).

family conflict also discourages women, especially highly educated women, to make a commitment to reproduction, which has been recognized as a main cause of persistent low fertility in many developed countries, with its attendant issues of aging populations and a shrinking labor force (McDonald 2000; Feyrer, Sacerdote, and Stern 2008).

Gender equality and inclusive growth in the PRC are shaped by a range of broader social and economic trends, including those related to rapid population aging, disruptive technological progress, and economic structural change. This paper explores how the ongoing demographic, technological, and structural transformations impact men and women's labor market outcomes and time use patterns; and how the gender dynamics in the labor market and at home interact with other forms of socioeconomic inequality defined by education, age, and the rural–urban divide. The analysis draws on information from English and Chinese literature, official documents and statistics, as well as descriptive statistics derived from nationally representative sample surveys. After providing the background information in section 2, we review the literature on the gendered labor market impacts of the ongoing demographic, technological, and structural transformations in the PRC in section 3. In sections 4 and 5, we document the observed trends in labor force participation rates (LFPR), wages, employment structures, and time use of Chinese men and women in the decade following the 2008 global financial crisis. The analysis uses micro data from the 2011 and 2017 China Household Finance Survey (CHFS); the 2008 and 2017 China Time Use Surveys (CTUS);⁵ and macro data published in various editions of the *China Labor Statistical Yearbook*. In section 6, we discuss the lessons and good practices that can be learned from the gender and demographic pathways of selected countries of the Organisation for Economic Co-operation and Development. The last section concludes with policy implications for greater gender equality and economic inclusion in the PRC.

II. CRITICAL SHIFTS SHAPING THE PEOPLE'S REPUBLIC OF CHINA IN THE LAST DECADES

A. Demographic Shifts

Over the course of rapid economic growth since the late 1970s, the PRC has undergone a demographic transition that in most developed countries took more than a century to complete. The PRC's fertility rate has decreased from 2.9 in 1978 to 1.6 in 2016, and its population is rapidly aging. From 1995 to 2017, the old age dependency rate increased from 9.2% to 14.8%, while the child dependency rate fell from 41.2% to 24.6%. The working-age population (ages 15–64) increased from 584.7 million in 1980 to 996 million in 2014 and started to fall afterward. In 2017, the population aged 65 and above numbered 148 million.⁶ Based on United Nations projections (United Nations 2017), this number is expected to increase to 246 million in 2030 (accounting for 17.1% of the population), and 358 million by 2050 (26.3% of the population). The rapidly aging population could disrupt the labor market, creating shortages, placing pressure on the social security program, and increasing care burdens on families.

⁵ The statistics based on the 2011 and 2017 CHFS and the 2017 CTUS are unpublished, and were compiled by researchers who have access to the survey under the authors' supervision.

⁶ World Bank. World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source==world-development-indicators> (accessed 20 January 2019).

B. Technological Change

As other countries around the world, the PRC is experiencing rapid digital transformation. New technologies (including automation and robotics, artificial intelligence, and advances in information and computing technology) are increasing labor productivity and creating new employment opportunities, while at the same time potentially amplifying the risk of widening skill gaps, greater inequality, and broader polarization (Norton 2017). Digital technologies are reshaping the skills needed for work. The demand for less advanced skills that can be replaced by machines and algorithms is, for example, declining, while the demand for advanced cognitive skills—a combination of technological know-how, problem-solving, and critical thinking; as well as socio-behavioral skills such as perseverance, collaboration, empathy, and adaptability, are expected to increase (World Bank 2018, World Economic Forum 2018). In this context, human capital investment, especially in early childhood development, and lifelong learning will increasingly play a central role in providing current and future workers with the skills needed in rapidly changing labor markets; and in ameliorating the potentially deleterious impact of digital technologies on inclusive growth.

Technological innovation is vital for the PRC to make the next jump to high-income status. After 3 decades of large-scale, rural-to-urban labor migration and steady decline in fertility, the era of cheap labor for manufacturing exports in the PRC came to an end in the late years of the first decade of the 2000s (Li et al. 2012). As the prices of labor are bid up, companies in the more labor-intensive industries where automation of tasks is relatively difficult, such as textiles and clothing and apparel manufacturers, are increasingly looking to relocate overseas for sources of lower-cost labor. Companies in the more capital-intensive industries are beginning to automate, moving to produce more sophisticated products (United Nations Conference on Trade and Development 2016). In recent years, technological innovation and industrial upgrading have become a major policy drive that aims to move the PRC's manufacturing up the value chain to avoid being squeezed by both newly emerging low-cost producers and technologically more advanced industrialized economies. The China Internet Network Information Center (CNNIC) estimates that digital economies contributed 34.8% of GDP in 2018 (CNNIC 2018b). However, with the potentially polarizing labor market effect of new technologies, the innovation and industrial upgrading drive might exacerbate the already high socioeconomic inequalities if not properly managed.

C. Structural Transformation

Structural transformation refers to the systematic changes in sector shares of agriculture, industry (manufacturing and construction), and services in GDP and employment as economies grow. The structural transformation is usually associated with rural-to-urban migration and urbanization. Structural transformation in the PRC was initiated in the 1950s. At the time, the Chinese labor force was segregated by *hukou*, a residential permit system that gave rural and urban *hukou* holders markedly different entitlements to employment, social welfare and protection, and public services. Because of the *hukou* system that created a barrier to labor mobility between the rural and the urban sectors, the PRC's structural change in employment had been much slower than the structural change in GDP, and its urbanization level was also significantly low by international standards (Cheng and Selden 1994). In 1978, for example, the agriculture sector contributed only 27.7% of GDP but 70.5% of employment (see Figure 2.1), while only 17.8% of the Chinese population lived in the urban areas. The large gap between the employment and GDP shares of the agriculture sector, which is indicative of a large labor productivity gap between the agriculture sector and the industrial and services sectors, was a main source of rural-urban income inequalities in the PRC (Knight and Song 1999). In the early 1990s, restrictions on rural *hukou* holders working in cities were relaxed in response to rising demand for workers in the urban manufacturing, construction and services sectors, and export-oriented factories in coastal areas, which

Figure 2.1: Distribution of Gross Domestic Product and Employment by Industry, 1978, 2008, and 2017
(%)

Note: Industry consists of manufacturing and construction.

Source: NBS (2018, Tables 3-2 and 4-2).

resulted in a dramatic increase in rural-to-urban migration. Massive rural-to-urban migration has played a major role in narrowing the gap between agriculture's shares in employment and GDP and rural-urban income inequalities.

Since the global financial crisis in 2008, the Government of the PRC has pursued a “rebalancing” of the economy away from manufacturing export-led growth toward domestic demand-driven growth. This policy shift has led to an expansion of the PRC's underdeveloped services sector (ADB and ILO 2017) and acceleration of urbanization. In 2017, the share of the urban population reached 58.5%, up 40.7 percentage points compared to 1978, with 30% of the urban residents (244 million) being migrants (NBS 2018, Tables 2-1 and 2-3). In 2019, the central government mandated that cities with a population of 3 million or lower should completely remove the *hukou* restriction on access to social services and housing, and cities with a population between 3 to 5 million should remove the restriction on migrants who have stable employment or have lived in the city for more than 4 years (China Development and Reform Commission 2019).

The main feature of structural change in the PRC following the 2008 global financial crisis is the rise of services and further decline of agriculture. From Figure 2.1, the share of the services sector in GDP increased from 42.8% in 2008 to 51.6% in 2017, while its share in employment went up from 33.2% to 44.9%. The share of agriculture in GDP decreased by 2.4 percentage points, from 10.3% to 7.9%; while its employment share declined by 12.6 percentage points, from 39.6% to 27%. Most of the labor force moving out of agriculture was apparently absorbed by the services sector as the employment share of industry was up slightly, from 27.2% to 28.1%. Despite the marked decline, the share of agriculture in employment was still 3.4 times of its share in GDP in 2017. Thus, to reduce rural-urban income inequalities, there is still a need to transform the labor force from the agriculture sector to the industry and services sectors while revitalizing the agriculture sector and rural economies.

III. GENDER AND DEMOGRAPHIC, TECHNOLOGICAL, AND STRUCTURAL TRANSFORMATIONS

A. Gender and Population Aging

The Asian Development Bank (ADB) and the International Labour Organization (ILO) have recognized that population aging creates both opportunities for and barriers to achieving gender equality and inclusive growth (ADB 2018, ILO 2018). Rising labor shortage in an aging society improves the employment prospects for women. In particular, population aging increases the demand for services in the traditionally female-dominated health and eldercare sectors, creating new employment opportunities for women (ILO 2018). However, as in many developed and emerging economies, paid elderly care services in the PRC are provided primarily by domestic workers. It is estimated that in the PRC, there are at least 25 million domestic workers serving as housekeepers and caregivers for urban families (Tong 2018), and about one-third of these workers are engaged in elderly care services (Dong, Feng, and Yu 2017). Paid domestic work, perceived as one of the least prestigious occupations in Chinese society, is culturally devalued (Li 2005). The Labor Law and the Labor Contract Law that protect workers employed by firms do not cover domestic workers because they are employed by households (Tong 2018). Thus, earnings for domestic workers are relatively low, especially among those caring for the elderly (Dong, Feng, and Yu 2017). The precarious employment status has made domestic elderly care work unattractive, thereby creating severe labor shortages in elderly care services.⁷

Having no access to affordable elderly care services, most of the Chinese elderly rely on family members (spouses and adult children) to provide needed care (Chen et al. 2018). The increased demand for elderly care works to amplify women's unpaid care burdens and intensify their work-family conflict, since women are typically the main caregivers for aging family members. Indeed, caring for elderly parents is found to have a negative impact on Chinese women's LFP and labor hours supply (Liu, Dong, and Zheng 2010; Chen et al. 2015).

Population aging not only affects middle-age women caring for frail parents but also women of reproductive age. As a response to population aging, the long-standing one child policy was replaced by a new policy in 2016 that encourages couples to have two children. This policy shift has heightened the work-family conflict for reproductive-age women, in light of the shortage of affordable, high-quality childcare services, particularly for infants and toddlers (Du and Dong 2013, Song and Dong 2018, Cook and Dong 2011). Studies find that compared to those with only one child, women with two children are more likely to sacrifice employment and career advancement for family responsibilities (Lai et al. 2017). The concern that with the implementation of the two-child policy, child bearing would become more disruptive for women's paid work has made employers more reluctant to hire young women (Lai et al. 2017).

Gender inequalities in the labor markets, in turn, place women at greater risk of having an income shortfall in old age under the current contributory pension programs where the pension entitlement is defined exclusively by a person's average earnings and length of employment. Zhao and Zhao (2018) find that Chinese women older than 60 years receive only about half of what men receive for their social pension, and much of the gender pension gap is attributable to their poorer labor market outcomes in terms of wages and occupational choices. Given that women, who have longer life expectancy than men, have a greater need for old-age security, the large gender pension gap requires special policy attention.⁸

⁷ From a recent survey by China's National Commission on Population Aging, over 80% of urban families in need of elderly care services were unable to find domestic workers to provide needed services (Dong, Feng, and Yu 2017).

⁸ According to the World Economic Forum, the average gender pension gap in the world is estimated at 30%–40% (Lane 2018).

B. Gender and Technological Change

The advancement of digital technologies expands employment opportunities for women, as it has made work arrangements more flexible, allowing women to work from any place, at any time, and take up whatever jobs suits them. CNNIC (2018b) reports that in 2017, women in the PRC accounted for 47.4% of internet users (772 million, or 55.8% of the population). It is estimated that 70.5% of individuals engaging in online retail sales through WeChat were women, and 26.4% of them were mothers of young children (*Xingzhu Daily* 2017); and that one in two of the online shop owners on Alibaba were women (Ali Research 2015). These examples illustrate how digital technologies can lead to greater inclusion for women in the labor market.

However, technological advances can also deepen gender and social divides based on pre-existing social divisions. Many developed countries face increasingly polarized labor markets and rising inequality—in part because digital technologies augment the productivity of highly skilled workers, forcing many medium-skilled workers to compete for low-paying jobs (Avent 2016, Autor 2011).

Women are at a disadvantage in coping with the disruption brought about by technological change because of three gendered constraints. The first constraint is gender gaps in access to general education. Undoubtedly, the PRC has made impressive strides to provide broad-based education. During Chairman Mao Tse Tung's era, the PRC's literacy rate increased significantly, from less than 30% in the 1940s to 66% in 1978 (Meng 2012). In the postreform period, as Figure 3.1 indicates, the gross enrollment rates (GER) at all levels of education continued to increase. In 2017, the PRC's GER for pre-primary school was 86%, higher than the world average of 50.4%, and the average for the Organisation for Economic Co-operation and Development (OECD) of 79.6%. The PRC's GER for tertiary school was 51%, higher

than the world average of 37.9%, but lower than the OECD average of 74.4%.⁹ The post-2008 period is seeing a large expansion of GERs at all levels except for primary education. The decline of the GER for primary school from 109.7% to 102.1% between 2008 and 2017 is a sign of progress, indicating that fewer Chinese children repeated grades and fell behind in their schooling relative to the official age for primary education.

The progress in education has, however, been uneven: the rural–urban divide and gender gaps in educational attainment persist. From Figure 3.2, in 2017, only 26% of rural adults between 16 and 64 years had attained at least a senior high school education, while the proportion for urban adults in the same age bracket was 60.4%.¹⁰ In terms of gender gaps, the proportion of adults aged 16–64 who had no more than a primary school education was 28.5% for women and 18.9% for men. The gender gaps were even greater among rural residents; 45.4% of rural women aged 16–64 had no more than a primary school education, while the figure for rural men was 29.3%. The gender education gaps also increased with age, whereas younger people of both sexes were more educated than older people (Figure 3.3).

The disparities in educational attainment create a digital divide between men and women and between urban and rural residents. In the PRC, the proportion of internet users was 57.3% for men and 54.2% for women in 2017, whereas the proportion was 69.2% for urban residents and 36.2% for rural residents (as reported in CNNIC 2018a). Low literacy appears as a more important obstacle to accessing the internet than an inadequate supply of physical infrastructure. In a survey conducted by CNNIC (2018a), 53.5% of non-internet users said that they did not use the internet because they lacked knowledge; 38.2% said they did not understand the Chinese phonetic alphabets (*pinyin*); or they had other limitations in education. In contrast, only 14.8% indicated not using the internet due to lack of local access to internet

⁹ World Bank. World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source==world-development-indicators> (accessed 26 April 2019).

¹⁰ Authors' estimates using data from the 2017 CHFS.

services. This is an important aspect as the lack of adequate education not only creates barriers for people to benefit from the economic opportunities that digital technologies offer, but also makes them more vulnerable to the process of job automation and the risk of unemployment (Brussevich et al. 2018).

The second constraint that women face arises from gender segregation in education and occupation. Parents, teachers, and society at large holds stereotyped beliefs such as girls being not as good as boys in math or science, potentially leading to women's underrepresentation in the fields of science, technology, engineering, and math (STEM); and overrepresentation in health and humanities in tertiary education (Melhem, Morrell, and Tandon 2009). A study based on a large sample of primary and junior high school students finds that in the PRC, boys outperform girls in math tests, and that part of the gender performance gap is attributable to the fact that girls have lower self-confidence in math and higher anxiety with math tests than boys (Liu 2018). From a survey of 63 top universities in the PRC conducted in 2011, women accounted for only 35.4% of the students majoring in science and engineering but 69.3% in health and humanities.¹¹

This pervasive gender divide in educational fields leads to women's underrepresentation in most skilled jobs in the technology sectors. Statistics from the 2017 CHFS show that women only accounted for 29.4% of the employment in the scientific research and technical service industry, and 33.8% in the information and communication technology (ICT) industry, which are well below women's share in total employment of 43.7%. Within the ICT industry, men and women are also segregated by occupation. A study based on a survey of 202 ICT enterprises in Beijing and Wuhan finds that women in these enterprises are concentrated in departments of human resources, accounting, and back office operations (Summerfield et al. 2011). Women's underrepresentation among researchers and engineers in the ICT sector not only leads to a larger gender earnings gap but also increases the likelihood that the needs of women and girls are ignored in the development and design of new technologies (Melhem et al. 2009).

¹¹ Authors' estimates using information from Lai et al. (2017, pp. 180 and 189).

The third gendered constraint is women's unpaid care burdens. In rapidly changing labor markets, workers must continually upgrade their skills. Women are at a disadvantage in this regard, as they tend to be more time-constrained than men due to their double burden of paid work and unpaid caregiving responsibilities. Studies suggest that female Chinese workers are more likely to be time-poor (lack of adequate time for rest and leisure) than male workers (Qi and Dong 2018), and that long work hours and time poverty are a significant correlate of poor mental health (Liu, MacPhail, and Dong 2018). Studies also find that time poverty is more prevalent among women with lower socioeconomic status, given that they often have to work longer hours to generate adequate incomes to meet their family's basic needs as their earnings are low; and they tend to spend more time on unpaid domestic and care work as their ability to outsource it to the market is more limited (Bardasi and Wodon 2010, Qi and Dong 2018).

The work–family conflict also acts as a deterrent to women's entry into the highly competitive STEM field. From a survey of 1,066 young Chinese researchers in sciences conducted in 2017, 63% of the young researchers worked more than 50 hours per week; and 73% of the interviewees perceived young female researchers as having great difficulty balancing the needs of work and family given the long work hours and competition pressure for career advancement.¹² The survey finds that some female researchers chose not to have a child because they were too busy with work, while some female researchers gave up on research temporarily because of childbearing and rearing. A similar situation is also found in foreign enterprises and joint ventures in the PRC's ICT industry where the difficulty to reconcile the competing demands of having a family and a highly competitive career has made female professionals in these enterprises choose to marry at a much older age (4–7 years older) than those working in other industries (Shen and Ge 2005). The potential work–family conflict forces these highly educated women to make a difficult choice between family and career.

C. Gender and Structural Transformation

Women's LFPR has varied in tandem with the structural transformation over the course of development (Boserup 1970). In developed countries, women's massive entry into the labor force took place after the countries had completed industrialization and the services sector became the dominant source of employment and output (Blau and Winkler 2018). Hence, the large expansion of the services sector since the 2008 global financial crisis in the PRC can be seen as having played an important role in promoting economic inclusion for women. The growth in the services sector can also work to cushion the disruptive impact of technological change on women's employment, given that it is harder to substitute robots and other automation technologies for human labor in services than in manufacturing and construction.

However, there are several impediments preventing rural women from benefiting equally from the structural transformation in the PRC. The first one is rural women's low educational attainment. As pointed out earlier, the PRC economy is still in the process of transforming the labor force from agriculture to industry and services. The skill requirement for non-agricultural employment is higher than the requirement for traditional agricultural employment. Studies have consistently found that educational attainment is one of the most significant determinants of the likelihood that rural men and women would participate in local off-farm employment or labor migration (Yang and Zhou 1999, Hare 1999). The growing importance of digital technologies in the economy creates another hurdle for less educated men and women to find productive employment.

¹² See China's Youth Daily and China Academy of Sciences (2017).

A second impediment is again women's unpaid care responsibilities. It is more difficult for women to combine paid work with caregiving responsibilities in the industrial and urban setting, where the workplace is typically separated from the home and work schedules are more rigid, compared to agricultural production. Having or caring for preschool children is found to have a significant negative effect on the probability of rural women participating in off-farm employment, locally or elsewhere (Ding, Dong, and Maurer-Fazio 2018; Mao, Connelly, and Chen 2018; Qiao et al. 2015). Women's greater difficulty, relative to men, in obtaining off-farm employment and the need to combine paid and unpaid work have contributed to the feminization of agricultural employment (Chang, Dong, and MacPhail 2011). The lack of access to affordable childcare in cities has also led to family dislocation for migrant workers, with tens of millions of young children being left behind living with mothers or grandparents in the native villages (Zhao 1999, Hare 1999). Analysts have also found that childcare costs have a significant negative effect on the LFP of migrant mothers living with young children in cities (Song and Dong 2018).

The third impediment is labor market discrimination. In this regard, women migrants experience a double disadvantage in the labor market: they are discriminated against as women and as migrants (Pun 2007). Consequently, women migrants tend to have worse paid work outcomes in terms of occupational attainment and earnings compared to male migrants, as with women and men with an urban *hukou* (Dong, Li, and Yang 2016).¹³

In the next two sections, we explore the gender impact of the ongoing demographic, technological, and structural transformations by documenting the observed trends in men and women's paid and unpaid work. The impacts of these social and economic trends are intertwined. Given the complexity of the processes at work, the analysis is unable to separate the effects of different forms of transformation.

IV. TRENDS IN MEN AND WOMEN'S LABOR MARKET OUTCOME

A. Trends in Labor Force Participation and Wages

The trends in LFPR and wages presented in this section are derived from data provided by the 2011 and 2017 waves of the CHFS. The CHFS, launched in 2011, is organized by the Southwestern University of Finance and Economics located in Chengdu, Sichuan Province. The survey covers all provinces in the PRC except for Tibet Autonomous Region and Xinjiang Uygur Autonomous Region.¹⁴ The survey provides rich micro data, which allows an exploration of the diverse experiences of men and women differentiated by their socioeconomic characteristics such as education, age, and rural–urban residential status. The analysis targets working-age individuals between 16 and 64 years of age. The sample for analysis consists of 10,806 men and 10,774 women for 2011; and 42,847 men and 42,572 women for 2017.¹⁵

1. Labor Force Participation Rates

Women's LFPR in the PRC is high relative to most countries in the world owing to the legacy of the women's emancipation movement during Mao's era. In 1990, Chinese women's LFPR was 73.2%,

¹³ That over 90% of the domestic workers are women migrants (ADB and ILO) is a telling example of the marginalization of women migrants in the urban labor market.

¹⁴ Tibet Autonomous Region and Xinjiang Uygur Autonomous Region, two ethnic minority provinces, accounted for 2% of the PRC population in 2017 (NBS 2018, Table 2–6).

¹⁵ Despite the difference in sample size, the samples of the 2011 and 2017 CHFS are compatible, given that they adopted the same random sampling procedure.

21.8 percentage points higher than the world average of 51.4%.¹⁶ However, it has been on a steady decline since then, to 61.5% in 2017, with its lead over the world average of 48.7% falling to 12.8 percentage points. The falling LFPR among women has been explained in terms of college education expansion and increasing household income, but also the greater difficulty of combining paid and unpaid work, as the source of employment moves away from rural-based agriculture, and publicly subsidized childcare services in the urban sector declines (Connelly et al. 2018).

In line with the declining trends revealed by macro data, statistics from the CHFS presented in Figure 4.1 show that women's LFPR decreased from 61.6% in 2011 to 58.2% in 2017, while men's LFPR remained more or less unchanged around 76%. Consequently, the gender LFPR ratio, defined as women's LFPR divided by men's, decreased from 0.80 in 2011 to 0.77 in 2017. Dividing the sample by education, we note that the LFPR of workers with a college education increased from 73.9% to 78.9% for men, and from 65.5% to 70.1% for women. In contrast, the LFPR of workers with a primary school education or lower decreased from 83.3% to 76% for men, and from 70.2% to 58.7% for women. The decline in LFPR for women with primary schooling or lower is disturbingly large: over a short span of 6 years, it dropped by 11.5 percentage points, 7.3 percentage points higher than the decline for their male counterparts.

Figure 4.2 depicts the diverse patterns of change in LFPR between rural and urban sectors and, within each sector, among different age groups.¹⁷ The rural and urban sectors are defined by location; the rural sector covers the labor force living in villages and townships and the urban sector consists of those

¹⁶ World Bank. World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators> (accessed 20 April 2019).

¹⁷ To streamline the presentation, the paper does not explore the differences between married and unmarried individuals. In the sample, nearly 90% of the people aged 30 years or older are married and the differences in average LFPR and earnings between married and unmarried women are small. To assess the *ceteris paribus* marriage effect requires multivariate regression analysis.

Figure 4.2: Labor Force Participation Rate of Men and Women Aged 16–64 by Sector and Age, 2011 and 2017 (%)

Source: China Household Finance Survey (Southwestern University of Finance and Economics 2011 and 2017).

(urban *hukou* holders and migrants) in the cities.¹⁸ In the rural sector, the LFPR decreased for both sexes, from 84.8% in 2011 to 79.6% in 2017 for men and from 74.8% to 63.3% for women, with the decline being observed by all age groups. In contrast, the LFPR in the urban sector increased for both sexes, from 69.2% to 72.6% for men and from 50.4% to 53.7% for women; and the rise of LFPR was experienced by all age groups except for the youngest (age 16–24). Similarly with women having a primary school education or lower, rural women’s LFPR fell by 11.5 percentage points, 5.2 percentage points higher than the LFPR decline experienced by rural men.

Figure 4.3 presents the main reasons that men and women provided why they did not participate in the labor force in 2017. Overall, 34.2% of the economically inactive women identified “taking care of housework” as the main reason for their inactivity, whereas only 5.9% of the inactive men gave the same answer.¹⁹ A greater gender difference is observed among men and women of reproductive age, as 63.9% of women aged 25–34; and 65.1% of women aged 35–44 attributed their economic inactivity to the responsibility of “taking care of housework”. Meanwhile, the corresponding figure for men was only 8.3% for ages 25–34, and 9.8% for ages 35–44. Using women’s responses presented in Figure 4.2, we estimated that there were 52 million Chinese women of working age and 36.7 million women of reproductive age outside the labor force because of the responsibility of “taking care of housework” in 2016.²⁰

¹⁸ As a household survey, the CHFS does not cover those migrants living in their employers’ home such as domestic workers, or workers in factory dormitories. The analysis of the differences between urban *hukou* holders and migrants is beyond the scope of this paper.

¹⁹ The world average is 41.6% for women and 5.8% for men (ILO 2018).

²⁰ The calculation also uses information on female population and age distribution from Table 2–9 of the *China Statistical Yearbook 2017* (NBS 2017); the LFPR of working aging women (69%) estimated by World Bank (2016); and the LFPR of women aged 25–44 (74%) derived from the 2017 CHFS. It is estimated by ILO (2018) that in 2018, there were 606 million women of working age in the world who were economically inactive because of family responsibilities.

Figure 4.3: Reasons for Not Being Employed by Gender and Age, 2017
(%)

Note: The category “other reasons” includes “job off after graduation”, “lost job for work units or personal reason”, “lost contract land”, and other unspecified reasons.

Source: Southwestern University of Finance and Economics (2017).

2. Employment Status and Educational Attainment

Figure 4.4 presents the distribution of employed men and women by employment status in 2017.²¹ Compared to men, women had a higher share (34.5% versus 31.8%) of vulnerable employment, defined as own-account worker or unpaid contributing family worker. This is mainly because women were more likely (13.5%) than men (3.8%) to be unpaid contributing family workers. Men were more likely than women to be heads of enterprises that employ workers (4.7% versus 1.7%). In the PRC, most of the own-account and unpaid contributing family workers are employed in the agriculture sector while most of the wage and salaried workers are in the industry and services sectors.

Figure 4.5 presents educational attainment of employed men and women in 2017. For all types of workers combined, women’s educational attainment relative to men seems more “polarized” and at the extremes of the spectrum, in that the percentage of workers with primary school education or lower is higher for women than for men: 29.2% for women versus 18.9% for men; and the same is true for workers with a college education and above: 24.4% for women versus 22.6% for men. Meanwhile, the percentage of workers who have a junior or a senior high school education is higher for men than for women. A similar gender pattern is also observed among wage workers, with women’s lead over men in the category of having a college education being much larger than for all employed workers (38.2% for women versus 31.0% for men). However, among own-account and unpaid contributing family workers, the percentage of women with primary school education or lower is higher than that of men (33.5% for women versus 22.6% for men), whereas the percentage of men in each of the three higher educational categories is higher than that of women. Wage and salaried workers of both sexes are, on average, more educated than own-account and contributing family workers, which is consistent with the expectation that non-agricultural employment has a higher skill requirement than traditional agricultural employment as discussed earlier.

²¹ The 2011 CHFS did not collect information on employment status.

Figure 4.4: Composition of Employment Status by Gender, 2017
(%)

Source: Southwestern University of Finance and Economics (2017).

Figure 4.5: Educational Attainment of Employed Men and Women, Overall and by Employment Status, 2017
(%)

Source: Southwestern University of Finance and Economics (2017).

3. Gender Wage Ratios

Figure 4.6 presents the trends in the gender wage ratio (GWR), defined as the average wage of women divided by the average wage of men, for wage workers between 2011 and 2017.²² During the period under investigation, average real wages grew slightly faster for women than for men (7.6% versus 7.3% per year), and the GWR for all workers in the sample increased from 0.785 to 0.800. However, the patterns varied with educational attainment: the GWR increased from 0.693 to 0.728 for those with a junior high school education, and from 0.743 to 0.794 for those with a college education; for those with primary school education or lower, and those with senior high school education, GWR decreased. Differentiating workers by age, we note that the GWR increased for those between 16 and 44 years of age and decreased for those aged 45 years or older. Evidently, more educated, younger women have enjoyed greater wage gains than their male counterparts, while the opposite gender pattern of change was observed for less educated, older workers.

B. Gender Segregation and Employment Growth by Skill Level

The remainder of this section presents the change in gender segregation and employment growth by skill level over the period 2008–2016 using macro-data from *China Labor Statistical Yearbook*.²³ The analysis seeks to shed light on the following questions: (i) How has occupational segregation by gender changed over time? (ii) To what extent are the employment structures being upgraded, i.e., shifting from low-skilled, low-paid employment toward high-skilled, high-paid employment? (iii) How have women, especially low-skilled women, fared relative to men in this process?

²² The survey does not provide information on earnings of individual own-account and contributing family workers.

²³ To estimate employment growth, we need macro data. The *China Labor Statistical Yearbook* is the only official publication providing gender-disaggregated employment information annually and it is used as the main source of information by ADB and ILO (2017). The data in 2016 were the latest available when this report was prepared.

1. Occupational Segregation and Employment Growth

We first look at skill levels defined on the basis of occupation and educational attainment. Our classification adopts the approach in ILO (2016), which classifies legislators, executive officers, managers, as well as professionals and technicians as the high-skilled workers; clerks, transport and plant operators, and agricultural and trade workers with at least a junior high school education as the medium-skilled workers; and agricultural and trade workers with a primary school education or lower as the low-skilled workers. In line with this classification, we divide all employed individuals into eight occupational groups and present women's share in total employment and in each occupation in Figure 4.7.

As Figure 4.7 shows, from 2008 to 2016, the occupational distributions of men and women have shifted dramatically from agriculture, skilled or unskilled alike, to other occupations. However, occupational gender segregation is still evident. Comparing women's share in each occupation against their share in total employment of 44.3% in 2008, women were underrepresented in the occupations of legislators, executive officers and managers, clerks, transport and plant operators, and skilled agricultural workers. Women were overrepresented in the occupations of unskilled agricultural workers; trade workers, both skilled and unskilled; and professionals and technicians. Women's share in total employment decreased to 43.7% in 2016, but women's share in all occupations went up, except for transport and plant operators. While women were still underrepresented in high-skilled occupations of executive officers and managers and medium-skilled occupations such as clerks, their representation in these occupations has improved. Meanwhile, women's overrepresentation in low-skilled occupations of unskilled agricultural

and trade workers, and their underrepresentation in medium-skilled occupations such as transport and plant operators, have become more pronounced. Overall, the degree of occupational segregation has increased from 2008 to 2016, with the index of segregation rising from 15.2 to 19.2.²⁴ It is noteworthy that the degree of occupational segregation in the PRC is still low by international standards; for example, the index of gender segregation over 10 occupational categories for the United States (US) is 29.²⁵

Figure 4.8 presents the absolute changes in employment by occupation and gender between 2008 and 2016. During this period, the total employment increased by 20.39 million, from 755.64 million to 776.03 million. Judging by the employment growth across occupations, the employment structure has shifted from less skilled occupations toward more skilled occupations, as agricultural employment for men and women as a whole fell by 244.41 million, whereas the employment of other occupational categories combined went up by 264.8 million. Among non-agricultural occupations, the total number of managers and professionals, or high-skilled occupations according to the ILO, increased by 55.39 million, with nearly half of the new positions being taken by women. However, the number of unskilled trade workers—a non-agricultural occupation for workers with only a primary school education or lower—increased only by 8.21 million, of which 68.7% were held by women.

²⁴ The index of segregation, also called the Duncan index, is defined as $100 \sqrt{\frac{1}{2} \sum_i (S_i - S)^2}$, where i is the index for occupation, m and f stand for male and female, respectively, S is the share of a given occupation in total employment, and n is the total number of occupations. A score of zero means that the occupational distributions of men and women are identical, while a score of 100 means that the employment of men and women is completely segregated.

²⁵ Authors' estimates using data from Table 7-1 in Blau and Winkler (2018).

Figure 4.9 presents the relative changes in employment over occupations. For all occupations as a whole, the low-skilled occupation of unskilled trade workers accounted for only 3.1% of the employment growth. For the medium-skilled occupations, the shares were 34.6% for skilled trade workers, 22.5% for transport and plant operators, and 18.9% for clerks. The high-skilled occupations of managers and professionals accounted for the remaining 20.9%. Comparing the relative changes by gender, men's employment growth was relatively concentrated in two medium-skilled occupations: transport and plant operators (31.6%) and skilled trade workers (29.0%). Meanwhile, women's employment growth was more concentrated in one of the medium-skilled occupations: skilled trade workers (42.9%); as well as the high-skilled occupation of managers and professionals (24.1%).

Figure 4.9: Distribution of Non-agricultural Employment Growth between 2008 and 2016 over Occupations, Overall and by Gender (%)

Sources: *China Labor Statistical Yearbook 2009* (NBS 2009, Tables 1-52 and 53); *China Labor Statistical Yearbook 2017* (NBS 2017, Tables 1-5, 1-36, and 37).

Both men and women are experiencing employment upgrading, but the changes are more inclusive for men than for women. The shift from agricultural to non-agricultural occupations has created 16.01 million new jobs for men, much more than the 4.38 million new jobs for women. The gender employment growth gap is attributable, to a large extent, to the fact that the employment expansion for female-dominated occupations of low-skilled trade workers is much smaller than the employment contraction for female-dominated occupations among unskilled agricultural workers. This explains why as we presented earlier, rural women with a primary school education or lower have withdrawn from the labor force in large numbers. These rural women have been losing out because they neither have the skills needed to find a job in the fast growing occupation of skilled trade workers, nor the physical power to compete with their male counterparts in the transport and plant operation occupations. Given that 45.4% of working-age rural women in the PRC had no more than a primary school education, creating more productive employment for these less educated rural women is vital for inclusive growth.

2. Industrial Segregation and Employment Growth

The analysis presented below draws on data for employees in “urban units”, defined as “those who work in units with state ownership; urban collective ownership; joint ownership; shareholding stock ownership; limited liability corporations; foreign and/or Hong Kong, China; Macau, China; and Taipei, China ownership; or enterprises and individual units.”²⁶ The sample of “urban units” excludes small-scale private enterprises and self-employed workers in the urban sector.²⁷ Thus, the urban unit employment, which accounted for 43.2% of total urban employment in 2016, represents the upper segment of the labor market in the PRC in terms of pay, productivity, and social protection.²⁸

Figure 4.10 presents women’s share in total urban unit employment as well as in each of 19 industries in 2008 and 2016. Overall, women’s share in total urban unit employment was lower than their share in total employment—37.6% versus 44.3% in 2008, and 36.4% versus 43.7% in 2016. This provides further evidence that women are underrepresented in the upper end of the skill and productivity spectrum. Comparing women’s share in each industry with their share in total urban unit employment, women were overrepresented in health and social services, education, financial intermediation, hotel and catering, and wholesale and retail trade. They were underrepresented in public organizations, scientific research and technical services, transport, storage and post, construction, utility, and mining industries. From

Figure 4.10: Women’s Share of Urban Unit Employment by Industry, 2008 and 2016
(%)

Note: “Urban units” are units with state ownership, urban collective ownership, joint ownership, shareholding stock ownership, limited liability corporations, foreign and/or Hong Kong, China; Macau, China; and Taipei, China ownership; or enterprises and individual units.

Sources: *China Labor Statistical Yearbook 2009* (NBS 2009, Table 3-1); *China Labor Statistical Yearbook 2017* (NBS 2017, Table 3-1).

²⁶ Explanatory notes are found in the Main Statistical Indicators section of *China Labor Statistical Yearbook 2017* (NBS 2017).

²⁷ Gender-disaggregated information by industry for this group is unavailable.

²⁸ Calculated by the authors using information from Tables 1-1 and 1-7 in *China Labor Statistical Yearbook 2017* (NBS 2017).

2008 to 2016, women's share in those industries where women had traditionally dominated increased, while their share in most of those industries where women were underrepresented decreased. Thus, gender segregation by industry has become more entrenched, with the index of segregation by industry rising from 21.3 to 24.8.²⁹

We next analyze the growth by industrial mean wage quintile. A total of 92 industrial branches or industries are ranked in quintiles based on each branch's mean wage in 2008.³⁰ The main industrial branches included in each quintile are presented in Table 4.1. Table 4.2 reports women's employment shares and mean wages for all industries combined and for each quintile in 2008 and 2016. From Table 4.2, women are overrepresented in the first and third quintiles and underrepresented in the second and fifth quintiles for both periods. Women's employment share decreased in the second quintile and increased in the fourth and fifth quintiles between 2008 and 2016.

Table 4.1: Industries Included in Each Mean Wage Quintile, 2008

Wage Quintile	Industry Branches
First	Agriculture; nonmetal mining; low-end manufacturing such as textiles, garments, furniture, and food products, hotel and catering, and retail trade
Second	Construction; property management; household services and storage; and medium-ranked manufacturing such as electrical machinery, chemical fibres, and metal products
Third	Primary and secondary education; social services; and high-end manufacturing such as general and special purpose machinery, measuring instruments, computer and other electronic products, and automobiles
Fourth	Social security and public organizations, health, wholesales, business services, and utility
Fifth	Coal mining, petroleum; transport and logistics; higher education; media; research and technical services; information and communication technology; and real estate, banking and financial intermediation

Source: Authors' representation.

Table 4.2: Women's Share and Mean Wages, Overall and by Quintile, 2008 and 2016

Wage Quintile	Women's Share (%)		Mean Wage (yuan/year)	
	2008	2016	2008	2016
Overall	37.6	36.4	28,898	56,308
First quintile	49.3	49.6	17,355	37,721
Second quintile	27.1	22.9	22,558	44,899
Third quintile	44.2	44.3	28,282	57,476
Fourth quintile	37.1	41.4	32,373	63,271
Fifth quintile	30.1	32.1	45,130	84,509

Notes: Quintile mean wage is weighted average of industrial branch's mean wages in each quintile. Wages are discounted by the urban consumer price index with 2008 as the base year.

Sources: *China Labor Statistical Yearbook 2009* (NBS 2009, Table 3-1); *China Labor Statistical Yearbook 2017* (NBS 2017, Table 3-1).

²⁹ Based on information presented in Table 7-2 in Blau and Winkler (2018), the index of segregation over 19 industries for the US in 2015 is 29. This statistic may be incompatible with the one for the PRC, given that the former is derived for the entire workforce while the latter is only for the upper segment of the Chinese workforce.

³⁰ This method is an adaptation of the job-based approach that has been utilized to analyse employment polarization and job quality in developed countries (Autor 2011, Eurofound 2013). The job-based approach divides occupations in each industry into different quintiles based on the mean wage of each occupation-industry category. Limited by the lack of gender disaggregate data on occupations within industry, we only look at the mean wages of different industrial branches.

Figure 4.11 presents the absolute and relative changes in urban unit employment between 2008 and 2016. During this period, the total urban unit employment increased by 56.95 million. The employment upgrading was again evident for both men and women, as the employment growth in the first quintile was the smallest among all quintiles, only accounting for 10% of women's employment growth, 4.7% of men's, and 6.5% for men and women as a whole. The sluggish employment growth in the lowest wage quintile was attributable to a variety of factors, including the decline in agricultural employment, relocation of low-end manufacturing production to countries with lower labor costs, and slow growth of low-skilled jobs in services. For men and women as a whole, the largest employment growth was observed in the second quintile, which amounted to 21.95 million, or 46.3% of the total employment growth. The employment growth in this quintile was, for the most part, driven by expansion of the construction industry as a result of massive investment in infrastructure and housing construction. The remaining three higher-wage quintiles contributed 47.2% of the total employment growth, which was propelled largely by the expansion of high-end manufacturing, education, health and social services, information and communication technology (ICT), and financial services.

The changing employment structures over industrial wage quintiles show once again that the employment upgrading process is more inclusive for men than for women in two aspects. In terms of absolute change, the urban unit employment has increased by 37.58 million for men but only 19.38 million for women, with men accounting for 66% of the total employment growth and women for the remaining 34%. This result is what we would expect, given that the smallest employment growth among all quintiles occurred in the female-dominated first quintile, whereas the largest employment growth was observed in the male-dominated second quintile. In terms of relative change measured by distribution over quintiles, compared to women, the employment growth for men was more concentrated in the second quintile, which accounted for 56.6% of men's employment growth but only 25.8% of women's. In contrast, the distribution of women's employment growth was more concentrated in the three upper quintiles.

Given the gender patterns of employment growth distribution, low-skilled female workers are more likely than their male peers to be marginalized in the employment upgrading process. In other words, for those low-skilled workers who are unable to find a job in the slow growing first quintile sectors, men have a better chance than women to find a job in the fast growing male-dominated second quintile sectors. In contrast, women are more likely than men to move into unemployment, given that it is more difficult for a low-skilled worker to find a job in the third or higher quintile sectors than in the second quintile sectors. In contrast to the plight of their low-skilled sisters, however, high-skilled female workers appear to have benefited disproportionately from the expansion of higher-paid jobs in education, health and social services, and banking and financial services. The seemingly “polarized” employment experience of women relative to men over skill levels is consistent with the finding presented earlier that the GWR has decreased for workers with no more than a primary school education, but increased significantly for those with a college education.

V. GENDERED PATTERN OF TIME USE

This section examines the gender patterns of time use using data from the 2008 and 2017 China Time Use Survey (CTUS). The 2008 CTUS was conducted by NBS and surveyed individuals between 15 and 74 years of age from 16,661 households in 10 provinces, including Anhui, Beijing, Gansu, Guangdong, Hebei, Heilongjiang, Henan, Sichuan, Yunnan, and Zhenjiang. The 2017 CTUS was conducted jointly by Inner Mongolia University and Southwestern University of Finance and Economics. The survey covered individuals aged 3 years and older from 12,471 households in all provinces and province-equivalent municipalities and autonomous regions in the PRC except for Tibet Autonomous Region and Xinjiang Uygur Autonomous Region.

A. Evolution of Time Use between 2008 and 2017

We first explore how the gender pattern of time use has evolved from 2008 to 2017. For purposes of comparison, the analysis focuses on married men and women between 22 and 64 years of age in 10 provinces that are covered by both surveys. We compute the gender ratio for the time spent in paid work; unpaid domestic and care work; and nonwork activities (personal hygiene, sleep, leisure, learning etc.)—defined as the time women spent on a given activity divided by the time spent by the men.³¹ The absolute value of the gender ratio minus 1 measures the size of a gender time gap.

Table 5.1 presents the mean time that a married man or woman spent in paid work, unpaid care work, and nonwork activities each day. Across the world, on average, men spend more time on paid work than women, while women spend more time on unpaid care work than men. The PRC is no exception in this regard. In 2008, men spent 6 hours and 40 minutes per day on paid work and 1 hour and 32 minutes on unpaid domestic and care work, whereas women spent 4 hours and 53 minutes per day on paid work and 4 hours and 8 minutes on unpaid domestic and care work. In relative terms, the gender ratio for paid work was 0.73 and the gender ratio for unpaid domestic and care work was 2.68. Overall, women spent 49 more minutes per day on two types of work combined than did men, which amounted to 10% of men’s total work time. As a result, women have less time available for nonwork activities, including learning and skill upgrading, compared to men.

³¹ To streamline the presentation, we do not further disaggregate nonwork activities.

Table 5.1: Mean Time Spent on Activities by Married Men and Women, 2008 and 2017

	2008			2017		
	Men (minutes/day)	Women (minutes/day)	Gender Ratio	Men (minutes/day)	Women (minutes/day)	Gender Ratio
Paid work	400	293	0.73	440	312	0.71
Unpaid work	92	248	2.68	67	221	3.32
Domestic work	70	204	2.93	43	152	3.51
Care of persons	19	40	2.09	23	69	2.95
Total work	492	541	1.10	507	533	1.05
Nonwork activities	948	899	0.95	933	907	0.97
Observations (sample size)	12,507	12,507		2,008	2,008	

Note: Gender ratio is women's time divided by men's time.

Sources: Authors' estimates based on NBS (2008); and Inner Mongolia University and Southwestern University of Finance and Economics (2017).

From 2008 to 2017, the time spent on paid work by both sexes increased, from 6 hours and 42 minutes to 7 hours and 20 minutes per day for men; and 4 hours and 54 minutes, to 5 hours and 12 minutes for women, which is perhaps reflective of the growing competition in the labor market. Nevertheless, the time spent on unpaid domestic and care work decreased, from 1 hour and 30 minutes, to 1 hour and 6 minutes a day for men; and 4 hours and 8 minutes, to 3 hours and 41 minutes for women. Disaggregating unpaid domestic and work into domestic work and care work (mostly childcare), we find that the time spent on domestic work by both sexes declined while the time spent on care work increased. The shift of time from domestic work to care work can be explained by (i) increasing household incomes and growing market service supply, which enable Chinese families to outsource part of domestic work to the market and invest more time in childcare; and (ii) improved access to infrastructure (running water and electricity) and better technologies for domestic chores. The rising demand for advanced skills and the increased returns to education also give parents incentives to invest not only more money but also more time in early childhood education and care (ECEC). Overall, the total work time increased for men but decreased for women, with the gender ratio for total work time falling from 1.1 to 1.05. Despite the improvement, women's daily total work time was still higher than men's time by 27 minutes.

Comparing the gender ratio for two types of work, we find that the gender ratio for paid work decreased from 0.73 to 0.71, and the gender ratio for unpaid domestic and care work increased from 2.68 to 3.32. The gender division of work in Chinese families has apparently moved further in conformity with the traditional “men breadwinner, women homemaker” norm. Such a troubling trend has also been captured by the 2nd and 3rd Chinese Women Status Surveys conducted by the All China Women Federation. According to the surveys, the percentage of people who agreed with the statement that “men should be in charge of the external affairs and women domestic affairs” increased from 50.4% to 54.8% for women; and from 53.9% to 61.6% for men between 2000 and 2010 (NBS 2012, chart 9-9).

B. Variations by Rural–Urban Divide and Educational Attainment

Using data from the 2017 CTUS, the analysis presented in the remaining section targets prime-age (aged 22–49) men and women who are married and employed—the demographic group for which the work–family conflict is the most acute. The sample for analysis covers all provinces in the PRC except for Tibet Autonomous Region and Xinjiang Uygur Autonomous Region. From Table 5.2, for the sample as a

whole, both men and women had long paid work hours at 8 hours and 35 minutes for men, and 7 hours and 20 minutes for women. Combined with the time spent on unpaid domestic and care work, women's average daily total work time was 9 hours and 49 minutes, or 20 minutes higher than men's total work time of 9 hours and 29 minutes. As a result, women's time spent on nonwork activities was only 98% of men's, which limits women's ability to allocate time to skill upgrading and relaxation.

Table 5.2: Mean Time Spent on Activities by Prime-Aged, Employed, Married Men and Women by Rural–Urban Divide and Education, 2017
(minutes/day)

	Paid Work	Unpaid Domestic and Care Work			Total Work	Nonwork Activities
		Total	Domestic Work	Care Work		
Overall						
Men	515	53	29	23	568	872
Women	440	149	101	47	589	851
Gender ratio	0.85	2.81	3.43	2.02	1.04	0.98
By sector						
Urban sector						
Men	520	53	26	27	573	867
Women	463	132	84	48	595	845
Gender ratio	0.89	2.47	3.18	1.78	1.04	0.98
Rural sector						
Men	509	52	35	17	561	879
Women	408	173	127	46	581	859
Gender ratio	0.8	3.32	3.69	2.61	1.03	0.98
By educational attainment						
Primary school or lower						
Men	533	47	37	10	580	860
Women	443	151	121	30	594	846
Gender ratio	0.83	3.20	3.23	3.08	1.02	0.98
Junior high school						
Men	532	44	26	17	576	864
Women	451	154	116	38	604	836
Gender ratio	0.85	3.52	4.39	2.21	1.05	0.97
Senior high school						
Men	514	57	29	28	571	869
Women	455	125	83	42	580	860
Gender ratio	0.88	2.23	2.93	1.51	1.02	0.99
College or higher						
Men	478	68	30	38	546	894
Women	413	154	72	82	567	873
Gender ratio	0.86	2.26	2.4	2.16	1.04	0.98

Sources: Authors' estimates based on NBS (2008); and Inner Mongolia University and Southwestern University of Finance and Economics (2017).

We next compare the time use patterns between the rural and urban sectors.³² For both sexes, the daily total work time was higher in the urban sector than the rural sector. Relative to urban women, rural women spent less time on paid work (by 54 minutes per day) but more time on unpaid domestic and care work (by 41 minutes per day). Disaggregating the unpaid work into two activities, rural women spent more time on domestic work than urban women (2 hours and 7 minutes versus 1 hour and 24 minutes per day) but less time on care work (43 minutes versus 48 minutes per day). A similar between-sector difference is also observed among men. Rural families spent more time on unpaid domestic work than did urban families largely because the average income of rural families is lower than that of urban families; and because market services, infrastructure, and technology are also less available in villages than in cities. The higher domestic work burden acts to reduce rural women's time available for paid work and care work. Overall, the gendered division of paid and unpaid work was more pronounced in the rural sector than in the urban sector, as indicated by the gender ratio of each type of work.

Turning to the differences by educational attainment, we find that less educated men and women both have a higher total work time and a lower nonwork time than their more educated peers. The difference in total work time between those with a primary school education or lower and those with a college education is 32 minutes a day for men and 26 minutes for women. Moreover, less educated men and women both spent more time on domestic work and less time on care work, compared to their more educated counterparts. Specifically, women with a primary school education or lower spent 121 minutes (versus 37 minutes for men) per day on domestic work; and 30 minutes (versus 10 minutes for men) on care work. For the college-educated, women spent 1 hour and 12 minutes on domestic work (30 minutes for men); and 1 hour and 22 minutes on care work (38 minutes for men). Combining the differences in care work time between the two educational groups for men and women, we obtain a total care time gap of 1 hour and 22 minutes per day between couples with college education and couples with primary school education or lower. The care time gap highlights the extent to which Chinese children with less educated parents are disadvantaged in terms of parental time investment. Lastly, we find that more educated men tend to spend more time in unpaid domestic and care work, and the gender ratio for unpaid work is decreasing with educational attainment. Evidently, the distribution of unpaid work between men and women is more equitable among couples with higher educational attainment.

VI. POLICY RESPONSES FROM SELECTED COUNTRIES

A. Links Between Work, Family, Gender Norms, and Fertility Rates

The work–family conflict is a common problem that working women around the world confront. It has been recognized that the work–family conflict in the industrial and post-industrial world is reflective of the fact that while economic development has brought about greater gender equality in education and LFPR, social norms regarding men and women's household roles has been much slower to move away from the male breadwinner and female homemaker model (McDonald 2000). The incompatibility between the worker and mother roles for women is attributed not only to pervasive gender inequality in the labor market, but also to sustained very low fertility rates in many developed countries. Studies have found that there is a positive relationship between a country's fertility rate and women's LFPR among developed countries (Feyrer, Sacerdote, and Stern 2008). In Northern and Western European countries, the US and other English-speaking countries, men's participation in unpaid domestic and care

³² As per the analysis presented in section IV-A, the rural and urban sector is defined by location (villages and townships versus cities), not by *hukou* status.

work is relatively high, and the state and firms provide generous benefits for families in the forms of paid maternity and parental leave, subsidized childcare, and flexible work arrangements. In these countries according to Anderson and Kohler (2015), women's LFPRs are relatively high and fertility rates are closer to the replacement level (2.1). In contrast, countries in Southern Europe, Central and Eastern Europe, and East Asia where the traditional gendered division of labor persists; where maternal LFP has been restricted by lack of family support services; and where workplace practices make it difficult to combine work and family, women's LFPR is low as are fertility rates.

Table 6.1 presents selected gender equality indicators and fertility rates of 10 OECD countries and the PRC.³³ The selected OECD countries includes a Nordic country (Sweden); the five largest developed countries in the west (France, Germany, and Italy, the United Kingdom [UK], and the US); two transition countries (Hungary and Poland); and two countries in East Asia (Japan and the Republic of Korea). Among these countries, Sweden and France, which have the highest gender equality ranking and the relatively more equal distribution of paid work and unpaid domestic and care work between men and women as indicated by the gender ratio of the time spent on each type of work, also have the highest fertility rates. In contrast, Hungary, Italy, Japan, the Republic of Korea, and Poland, which have relatively low gender equality ranking and high gender ratio on time spent on unpaid domestic and care work, also have very low fertility rates (below 1.5).

Table 6.1: Gender Equality Indicators and Fertility Rates, Selected Countries

	Gender Equality Ranking	Gender Equality Index	Female Labor Force Participation Rate (%)	Fertility Rate	Gender Ratio of Paid Work Time	Gender Ratio of Unpaid Domestic and Care Work Time
Sweden	5	0.816	79.8	1.91	0.82	1.24
France	11	0.778	67.2	1.98	0.63	1.58
Germany	12	0.778	73.1	1.46	0.60	1.66
United Kingdom	15	0.770	71.9	1.87	0.63	1.77
Poland	39	0.728	62.0	1.30	0.58	1.88
United States	49	0.718	66.2	1.87	0.68	1.55
Italy	82	0.692	54.3	1.47	0.46	2.95
China, People's Rep. of	100	0.674	70.3	1.62	0.69	2.98
Hungary	103	0.670	61.6	1.37	0.66	2.11
Japan	114	0.657	66.4	1.46	0.50	3.30
Korea, Rep. of	118	0.650	55.9	1.30	0.59	4.82

OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Notes: The gender ratios of paid and unpaid work time for the PRC presented in this table are lower than the gender ratios presented in Table 5.1 because values in this table are calculated for a sample of adults aged between 15 and 74 years, to be compatible with the samples of the other countries presented.

Sources: Statistics presented in the first four columns are obtained from World Economic Forum. *The Global Gender Gap Report 2017*. www.weforum.org/reports/the-global-gender-gap-report-2017. Statistics in the last two columns except for the PRC are from OECD. OECD Gender Data Portal. <https://www.oecd.org/gender/searchresults/?q=Time%20Use%20data> (accessed 9 February 2019). The time use data for the PRC is *China Time Use Survey 2017* (NBS 2017).

³³ The gender ratios of paid and unpaid work time for the PRC presented in Table 6.1 are lower than the gender ratios presented in Table 5.1 because the statistics presented in Table 6.1 are calculated for a sample of adults aged between 15 and 74 years, to be compatible with the samples of other countries presented in Table 6.1.

The demographic and gender pathways of Poland and Hungary as transition countries, as well as Japan and the Republic of Korea, offer important lessons for the PRC. As with the PRC, during the socialist era, the communist governments in Hungary and Poland encouraged women to participate in the labor force with a system of state-provided family services (Chesnais 1996). While a dual-earner model became a family norm, the division of labor at home remained adherent to traditional gender roles. During the transition from a centrally planned to a market economy in Hungary and Poland, many social provision arrangements that had supported families in caring for their members were dismantled, and the traditional gender values became more influential in society. With the setback in social provisioning, women's position in the labor market deteriorated and fertility rates also plummeted.

Japan and the Republic of Korea have achieved high levels of human development, and Japanese and Korean women are the most educated among OECD countries.³⁴ However, societal expectations might play a role in women leaving the labor force after giving birth to their first child (Macnaughtan 2015, Yoon 2017). The female LFP in Japan and the Republic of Korea follows an M-shaped curve over the life cycle, with its peak around women in their late 20s, falling during their childbearing and rearing years, and then rising when children reach school age. Japanese and Korean men, on average, work longer hours than their peers in other developed countries. Work pressures result in married men in Japan and the Republic of Korea having relatively low involvement in unpaid domestic and care work (Nagase and Brinton 2017). Time use surveys show that Japanese men spend an average of 1 hour and 17 minutes, and Korean men 39 minutes, per day on unpaid domestic and care work, compared to 4 hours and 14 minutes for Japanese women and 3 hours and 8 minutes for Korean women (Charmes 2015). The gender ratios of unpaid domestic and care work in Japan and the Republic of Korea are thus the highest among the countries presented in Table 6.1. The difficulty in combining worker and mother roles has made many highly educated women say “no” to marriage, and many married women are hesitant to have a second child (Nagase and Brinton 2017, Yoon 2017, Hwang 2016). This could have led to the persistent low fertility rates and rapid population aging in Japan and the Republic of Korea.

B. Policy Measures to Support Workers with Family Responsibilities

It has become an international consensus that gender equality in paid work cannot be achieved without greater public support for families and more equitable gender division of unpaid domestic and care work (ILO 2018, World Bank 2019). This consensus is manifested in Goal 5.4 of the 2030 SDGs, which calls for the member states to “recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate” (United Nations 2015). The policies that aim to recognize, reduce, and redistribute unpaid domestic and care work include leave policies, publicly provided or subsidized care services, social protection benefits related to care, family-friendly working arrangements, and care-relevant infrastructure (for details of these policies, see ILO 2018 and World Bank 2019).

³⁴ In 2017, 52.2% of women between 25 and 64 years of age in Japan and 44.4% in the Republic of Korea had a tertiary education, which are higher than the OECD average of 39.5% (OECD 2019).

1. Public Support for Families and Working Women

Table 6.2 presents information on public support for families and care provision in the 10 OECD countries discussed earlier and the PRC.³⁵ Among these countries, Sweden, France, Germany, and the UK have the most generous public support for families. For instance, Sweden invests 3.64% of GDP in public spending on family benefits and 1.64% of GDP in public spending on ECEC programs. Moreover, 46.5% of Swedish children aged 0–2 and 95.9% of Swedish children aged 3–5 are enrolled in center-based childcare and ECEC programs. Furthermore, working mothers in Sweden are entitled to 12.9 weeks of maternity leave with a wage replacement of 77.6%; and 42.9 weeks of care leave with a wage replacement of 57.7%. Sweden also gives working fathers 10 weeks of paternal leave with a wage replacement of 75.6%. The generous public support for families helps working parents resolve the work–family conflict in Sweden.

Table 6.2: Selected Indicators of Public Support for Families

	Public Spending on Family Benefits (% of GDP)	Public Spending on ECEC (% of GDP)	Enrollment Rate of ECED (ages 0–2, %)	Enrollment Rate of ECED (ages 3–5, %)	Paid Maternity Leave (weeks/ replacement rate, %)	Paid Parental and Care Leave (weeks/ replacement rate, %)
Sweden	3.54	1.64	46.5	95.9	12.9/77.6	42.9/57.7
France	3.68	1.27	56.7	100.0	16/94.2	26/14.5
Germany	3.06	0.58	37.3	94.9	14/100	44/65.0
United Kingdom	3.60	0.78	31.5	100.0	39/30.9	0.0
Poland	1.86	0.45	12.2	84.9	20/100	32/67.5
United States	1.12	0.35	28.0	65.6	0.0	0.0
Italy	2.49	0.54	35.5	94.9	21.7/80.0	26/30.0
Hungary	3.53	0.59	16.7	92.1	24/70.0	136/40.4
Japan	1.61	0.37	22.5	91.8	14/67.0	44/59.9
Korea, Rep. of	1.43	0.88	53.4	93.4	12.9/79.5	52/28.5
China, People's Rep. of	NA	0.18	NA	86.0	14/80	NA

ECEC = early childhood education and care, ECED = early childhood education and development, GDP = gross domestic product, NA = not available, NBS = National Bureau of Statistics, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Notes: The statistics presented in this table are the latest information available. Public spending on family benefits includes financial support that is exclusively for families and children, including child-related cash transfers such as child allowance, public spending on services such as publicly provided or subsidized ECEC programs, and financial support for families provided through the tax system such as child tax credit. The maternity leave benefits for the PRC presented in this table are stipulated in the Labor Law, and the actual maternity leave benefits vary across provinces.

Sources: Data for OECD was taken from OECD Family Database. www.oecd.org/social/family/database.htm (accessed 13 April 2019). For the PRC, public spending on ECEC programs as a percentage of gross domestic product was from Ministry of Education and NBS. Pre-primary gross school enrollment rate was from World Bank. World Development Indicators (see Figure 3.1).

³⁵ In the PRC, public spending on family benefits includes financial support that is exclusively for families and children, including child-related cash transfers such as child allowance; public spending on services, such as publicly provided or subsidized ECEC programs; and financial support for families provided through the tax system such as child tax credit.

In recent decades, the governments of Japan and the Republic of Korea have steadily increased the support for workers with family responsibilities to boost women's LFPR and fertility rates (OECD 2017). As indicated in Table 6.2, public spending on family benefits now accounts for 1.49% of GDP in Japan and 1.32% in the Republic of Korea, whereas public spending on ECEC programs accounts for 0.37% of GDP in Japan and 0.88% in the Republic of Korea. Japan gives working mothers 14 weeks of maternity leave with a wage replacement rate of 67%; and 44 weeks of care leave with a replacement rate of 59.9%. In the Republic of Korea, 53.4% of children aged 0–2 and 93.4% of children aged 3–5 are enrolled in center-based childcare and ECEC programs. In the early 2000s, the Japanese government required that companies with more than 300 employees should construct action plans to support employees with family responsibilities and encourage male employees to participate in housework and care provision (Nagase and Brinton 2017). With extensive government efforts, the status of Japanese and Korean women in the labor market has improved and men's participation in care provision has steadily increased, although more concerted efforts are needed to fundamentally transform gendered norms and practices in society (Macnaughtan 2015, Yoon 2017).

As in Japan and the Republic of Korea, public support for ECEC and working mothers in the PRC has increased significantly in recent years. Its public spending on ECEC programs increased from 0.07% to 0.18% of GDP between 2008 and 2016; the pre-primary school enrolment rate grew from 49.8% to 83.7%; and the number of mothers receiving paid maternity leave benefits went up from 1.4 million to 9.14 million.³⁶ Despite the rapid growth, the PRC's public spending on ECEC is still very low, compared with the OECD countries presented in Table 6.2. As a result of low public spending, pre-primary education in the PRC is largely provided by private institutions, which accounted for 54% of children enrolled in pre-primary education, compared to 32% on average across OECD countries (OECD 2018). One concern about private institutions as a dominant provider of ECEC services is that this may create a cost barrier for low-income families (Du and Dong 2013, Song and Dong 2018). While the PRC appears to have outperformed the US in maternity leave provision, the leave provision does not benefit all Chinese working mothers. As a reflection of the rural–urban divide, paid leave, to a large extent, remains an urban phenomenon. In the cities, the coverage of paid leave in private sectors, where migrant workers are concentrated, is low because there are no effective means of enforcing labor market regulations in these sectors (Jia, Dong, and Song 2018). In 2016, only 49.6% of the Chinese mothers who gave birth received maternity leave benefits, which is well below 82% in Mongolia and 69% in the Russian Federation.³⁷ Unequal access to maternity leave benefits can lead to reduced LFP and increase income disparities among women from different socioeconomic groups.

2. *Old Age Poverty and Social Pension*

As mentioned in section III-A, one direct consequence of gender inequality in the labor market is the high incidence of old-age poverty because women's life expectancy is longer than men's and therefore older women make up the majority of the elderly population. A study of seven OECD countries finds that elderly women make up 55% of all persons aged 65, but account for 70% of the elderly poor in

³⁶ For public spending on ECEC programs, information for 2008 to 2011 and 2016 was obtained from Department of Development Planning, Ministry of Education, and Information for 2012 to 2015 was from Department of Finance, Ministry of Education and Department of Social, Technology, and Cultural Industrial Statistics, NBS. Information on GDP was from NBS (<http://data.stats.gov.cn/easyquery.htm?cn=C01>, accessed 23 December 2018). Information on maternity beneficiaries was from NBS (2017b, Table 9-27).

³⁷ The estimate for the PRC is derived from the information that in 2016, 9.16 million mothers received maternity leave benefits (NBS 2017, Table 9-27); and 18.46 million babies were born (National Health and Family Planning Commission. www.nhc.gov.cn/guihuaxxs/s10748/201708/632e3ccdbdc045af97504fb4f8187463.shtml accessed on 26 April 2019). The figures for Mongolia and the Russian Federation are obtained from ADB (2018, Figure 2.2).

these countries. Women aged 75 years or older are particularly vulnerable (Smeeding and Sandstrom 2005). Women's pension incomes and old-age poverty in OECD countries are found to be highly correlated with their employment histories, where women pensioners are “penalized” for spending time out of the labor force for childbearing and rearing under contributory pension plans (Mohring 2015). One measure adopted to close gender pension gaps and prevent old-age poverty in OECD countries is to have redistributive components in the pension system by providing basic pensions for all elderly, or providing targeted income-tested pensions with benefits unconditional as to previous earnings or contributory history (Mohring 2015, Smeeding and Sandstrom 2005). Another measure to improve the pension situation of women is to provide “care credits” in contributory pension plans (Frericks, Maier, and de Graaf 2008). For instance, in Germany, women's average pension incomes are only half of men's. To level out women's disadvantages associated with care responsibilities, German pensioners are given care credits of up to 7 years per child to compensate for the time spent out of the workforce, so as to raise pension entitlements up to the maximum entitlements of average income-earners. Although the redistributive pension schemes and pension care credits can work to moderate the connection between women's working life and their status in retirement, these measures represent second-best solutions. Given the rising budgetary burdens associated with population aging, the most effective, fiscally sustainable solution to old-age poverty is to promote gender equality in the labor market, thereby providing men and women equal opportunities to build up their pension wealth.

VII. CONCLUDING REMARKS AND POLICY IMPLICATIONS

This paper has explored the impacts of the ongoing demographic, technological, and structural transformations on men and women's work and their implications for gender equality and inclusive growth in the PRC. Drawing insights from the existing literature, the paper has highlighted the gendered constraints arising from gender gaps in education attainment; social gender norms and stereotypes affecting employment decisions; and competing demands of work and family, which prevent Chinese women from benefiting equally from the opportunities that multiple developmental transformations offer. By analyzing the trends in LFPR, wages, employment structures, and time use of Chinese men and women in the recent decade after 2008, the paper has pinpointed areas where pervasive gender inequality remains, areas where gender inequality is increasing, and socioeconomic groups that are more likely to be adversely affected. The paper presented lessons from the gender and demographic pathways of selected countries.

The findings suggest that action is needed in five areas: (1) investing in rural women with a targeted approach; (2) tackling gender stereotyping and segregation in occupations; (3) increasing public spending on early childhood education and care; (4) developing the market of care services; and (5) considering pension reform.

(1) Investing in Rural Women as Part of Rural Vitalization Initiatives

Despite the large expansion of school enrollments over the past decades, there were still nearly a third of all working-age women and 45% of the rural women with no more than a primary school education in the PRC as of 2017. These women have been losing out because of the massive decline of low-skilled jobs in agriculture and the slow growth of low-skilled jobs in services. While less educated women have a higher need for skill upgrading, their capacity to do so is limited because they have a higher total work burden. To improve the status of less educated, rural women in the labor market, four measures are recommended:

- a. Provide skill training for less educated women in fields that are becoming increasingly relevant in a digital, high-technology economy including digital literacy, new ways of getting work done, and entrepreneurship.
- b. Increase the supply of social services (electricity, running water, roads, garbage disposal, clinics, day care, library, ICT etc.) in rural areas to help rural women reduce the time spent on domestic chores and to have more time available for learning and skill upgrading.
- c. Make the provision of skill training and job creation for women a vital component of the “rural vitalization” program and for the rural economy to thrive.
- d. Accelerate the pace of urbanization through *hukou* reforms. As was presented in Figure 4.2, despite the decline of LFPR in the rural sector, LFPR for women has increased significantly in the urban sector, even for those aged 45 years or older—the age group whose average educational attainment is relatively low. This result is attributable to the fact that the demand for low-skilled service workers is higher in the cities than in rural areas. *Hukou* reforms can reduce the costs of rural-to-urban migration and improve the employment prospect of less educated women.

(2) Adopt Measures to Address Gender Segregation in the Labor Market

These measures include systematically challenging social stereotypes as to what constitutes men and women's work, early investment in girls and women in scientific and technical fields, and closing gender gaps in leadership positions. The promotion of more equal gender division of domestic and care work is essential to revert gender stereotypes, in turn reducing women's total work time so they can enter and remain in highly competitive sectors, and improving their capability for balancing work, lifelong learning, and family. As indicated in Target 5.4 of the SDGs, it is key in this regard to recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies, and promotion of shared responsibility within the household and the family.

(3) Increase Public Spending for Care Provision, with Greater Attention to Disadvantaged Groups

As the analysis in section VI-B indicates, public support for care provision in the PRC is low, even by the standards of Japan and the Republic of Korea. The PRC should significantly increase its public spending on family benefits, ECEC, and elderly care programs, and gradually close the public spending gap with developed countries. The PRC has to increase the supply of publicly subsidized high-quality childcare programs and gradually incorporate preschool education into the free compulsory education system. While the market is serving better off populations, publicly subsidized childcare programs should target children from disadvantaged groups, and rural and migrant children, to address their parents' investment deficits.

(4) Expand market provision for care services

As pointed out in section II, the services sector in the PRC is underdeveloped by international standards. The inadequate market provision hinders women's LFP, given that more than 80% of Chinese women are now employed in non-agriculture sectors where work arrangements are more rigid and access to out-of-home childcare services is thus increasingly a precondition for women's LFP. Policies that support a wide range of care providers are needed to meet the diverse needs of families at different income levels. The state should play an active role in providing and subsidizing skill training, with special attention to the needs of less educated workers and improving the connection between care workers and care users.

This will require improving the economic status of domestic workers by granting them equal rights to social protection, skills training, and certification. In light of the important role of domestic workers in care provision, the formalization of the domestic sector and the advancement of paid domestic work to become a skilled, socially respectable employment option represents a high-road approach that will contribute to both decent work conditions and pay for care workers and high quality services for care recipients (ILO 2018).

(5) Pension Reform

Policies addressing the growing demand for elderly care and old-age security should reflect the awareness that elderly women, who tend to outlive men, have greater need for care services and economic security but much limited financial resources. To reduce the gender pension gap, reforms to the pension program should consider such measure as giving credits to the time women withdrew from the labor force due to childbearing and rearing, and introducing redistributive components that are delinked from labor market outcomes.

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Inclusive Growth in the People's Republic of China

A Deep Look at Men and Women's Work Amid Demographic, Technological, and Structural Transformations

This paper explores the impacts of demographic, technological, and structural transformations on the work of men and women in the People's Republic of China. Three types of gender-based constraints that hamper inclusive growth are identified: gender gaps in educational attainment; gender stereotypes affecting employment decisions; and competing demands of work and family, especially on women. The paper recommends (i) investing in rural women with a targeted approach, (ii) developing elderly care services, (iii) tackling gender stereotyping and segregation in occupations, (iv) increasing public spending on early childhood education and care, and (v) considering pension reform.

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