

Care Economy, Gender and Inclusive Growth in Post-Reform China: How Does Unpaid Care Work Affect Women's Economic Opportunities and Gender Equality?

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Executive summary

This paper examines the transformations of the care economy in post-reform China and their implications for gender equality and inclusive growth. The first part of research described the economic and social trends and policy development during the reforms by drawing information from English and Chinese literature, as well as official documents and statistics. The analysis shows that before the reforms during the Maoist era, the State, urban employers and rural collectives all played a role in care provision. As China embarked on the path of reforms in the late 1970s, social provisions from the Mao era were dismantled, and care responsibilities shifted back to the household. Rural-to-urban migration led to many rural children left behind with grandparents. The one-child policy enacted in 1980 led to steep declines in fertility and a rapidly aging population. These trends intensified the burden of care on women, particularly those from disadvantaged groups.

The second part of research studied the distributive consequences of post-reform care policies and arrangements and the impacts of unpaid care responsibilities on women's opportunities and gender equality by using data from ten national representative surveys. The analysis found that the household-centered care arrangements and absence of public services that have emerged has increased inequality in access to care services and created care deficits for disadvantaged groups. The care deficits for children of low-income families are contributing to transmission of disadvantages from parents to children.

The analysis also found that unpaid care responsibilities limit women's ability to participate fully in the economy and contribute to greater gender inequalities in labor force participation, off-farm employment, earnings and pensions, and the impacts of unpaid care work vary by age, ethnicity and residential status. Moreover, women's mental health is worse than men's and women's double burden and higher workload is a significant correlate of the gender gap in mental health.

The findings generated from the project suggest that the lack of recognition for unpaid care work in public policy is an important cause of growing socioeconomic inequalities and gender inequalities in particular in post-reform China. The paper concludes with five policy recommendations for lessening the burden of care on women and reducing care deficits experienced by disadvantaged groups.

Introduction

China's economic reforms have brought about enormous economic growth and poverty reduction. The reforms have also led to increased inequalities across socio-economic groups, and gender inequalities continue to persist. While the rising of socioeconomic inequalities and gender inequalities in particular in post-reform China has been extensively analyzed, our knowledge about the role of women's unpaid care responsibilities in this phenomenon remains limited.

This project examined the transformation of the care economy in post reform China and its implications for gender equality and inclusive growth. The term 'care' is used to refer to the daily work of producing and maintaining human resources, including housework and the care of children, the sick, and the elderly (Razavi 2007). The time and effort involved in the daily work of caring for oneself and others are essential for the capabilities and well-being of individuals as well as the functioning of society and the economy (Folbre and Nelson 2000; Carneiro and Heckman 2003). The term 'care economy' is used to refer to the ways in which care is provided, financed and regulated. Care can be purchased from the market or provided through the household, community and civil society arrangements; the State can also play a role in financing and provision (UNRISD 2010). In most countries, care work is predominately undertaken by women at home and is largely unpaid.

Unpaid care work limits women's ability to participate equally with men in the labor market and reduces their available time for self-care, personal development, socialization, political participation, and leisure (Cagatay et al. 1995). Women of low-socioeconomic status are particularly impacted by this unequal distribution, as they have less income to purchase care services from the market and have less access to social services that can help reduce the burden of care (Razavi 2007). However, unpaid care work remains unrecognized and undervalued. Indeed, the issue of care is largely absent from the policy agendas in most developing countries, where care provision is commonly perceived as women's natural duty and a private matter for families (Beneria 2003).

Unpaid care work has thus been identified as a key source of policy interventions.¹ The Beijing Platform for Action, adopted at the 1995 United Nations Fourth World Conference on Women, called for member nations to take measures to recognize the value of unpaid care work, reduce the burden of unpaid care work, and encourage a more equitable distribution of unpaid care work within the household (United Nations 1996). Goal 5 of the 2030 Sustainable Development Goals (SDGs) includes a target for recognizing and valuing unpaid care work (United Nations 2015).

The care economy in post-reform China has undergone dramatic transformations. Before the reforms during the Maoist era, the State, urban employers and rural collectives all played a role in

¹ See publications by the United Nations Research Institute for Social Development (UNRISD) at www.unrisd.org, by the National Transfer Accounts: Understanding the Generational Economy at www.ntaaccounts.org, and by other IDRC-funded research on unpaid care work at www.idrc.org.

care provision. In the course of reform, social provisions from the Mao era were dismantled, and care responsibilities returned to the household. The burden of care on women was further intensified by other socioeconomic trends. The structural change that has transformed the Chinese economy from an agrarian to an increasingly industrialized and urbanized one changed the nature of employment for rural women, heightening the tension on them in playing their dual roles as care givers and income earners. Rural-to-urban labor migration has left behind a large population of young children and elderly people, putting pressure on family care providers, mostly mothers and grandmothers, in the rural sector. China's transition into an increasingly aged society has further increased care burdens on families. Nevertheless, there are other economic and social trends that help lessen the burden of care. Rapid income growth provides Chinese families with more resources to pay for care services, simultaneously creating new employment opportunities for women. China's impressive infrastructural development contributes to reducing the drudgery of domestic chores. Rapid fertility decline, compounded by the longstanding one-child policy, reduces the needs for childcare. The extent to which women are affected by these social and economic trends depends upon their socioeconomic and demographic characteristics.

This paper examines the care policies and arrangements that have emerged in the post-reform period and their distributive consequences, and the impact of unpaid care responsibilities on women's opportunity and gender equality. It seeks to shed light on five critical but understudied questions: 1. How does the reform process reshape the institutional arrangements of care for children and the elderly and how do these changes influence the disadvantaged's ability to address their care needs? 2. To what extent does the burden of care affect the labor market outcomes of men and women differentiated by age, ethnicity and residential status? 3. How does the double burden of paid work and unpaid care work influence the time use and mental health of urban workers? 4. How do women's disadvantages in employment and earnings impact their pension incomes relative to men? 5. To what extent do urban retirement age policy and rural pension programs affect the supply of care provision? Answers to these questions shed light on lessons from the transformation of the care economy in post-reform China and help to pinpoint the challenges to the care economy.

This paper is based on a series of research papers prepared for a project funded by the International Development Research Centre of Canada entitled "The Care Economy, Women's Economic Empowerment and China's Inclusive Growth Agenda." The project participants documented the economic and social trends and policy developments in the reform period by drawing information from the English and Chinese literature, as well as official documents and statistics, and they estimated the impacts of unpaid care work and alternative care arrangements by using data from ten nationally representative sample surveys. This paper presents the main findings generated from this project.

The remainder of the paper is organized as follows. The following section provides an overview of the economic reforms and institutional arrangements of care provision in China. The third section examines the changes in care policies and arrangements and their impact on the well-being

of care recipients. The fourth section analyzes the impacts of caregiving responsibilities and access to non-maternal childcare on women's opportunities and gender equality in the labor market. The fifth section examines the gender patterns of time use and mental health among urban workers and the gender pension gap in China. In the sixth section, we assess the impact of China's retirement age policy and the New Rural Pension Program on the supply of care provision. In the last section, we discuss the lessons that can be learned from the analysis and policy measures to lessen the burden of care on women and reduce care deficits for the disadvantaged.

Economic and social trends and policy change in the reform era

As in most countries, in China, families assume a central role in care provision, and women are the major caregivers. However, during the Maoist era (1949-1976), many care roles and responsibilities were socialized to mobilize women to participate in the labor force. In the urban sector, the State provided female workers with paid maternity leave and access to on-site breastfeeding rooms and subsidized childcare programs through their employers (work-units) (Liu et al. 2008). Social support for care of the elderly, sick, and disabled were also provided through pensions, public health care, subsidized housing and retirees' service centers. Owing to the household registration system (called *hukou*), State-provided services for rural residents were more limited than those for urban residents. Rural residents and their families relied on collectives for access to social services, and the main services included subsidized primary and secondary education and access to basic health care (Perkins and Yusuf 1984). The role of rural collectives in direct care provision was limited, where it mainly involved temporary day care during the busy farming season and the provision of social assistance and nursing homes for orphans, the disabled, and the childless elderly. Care for children, the elderly, and the sick in rural areas was thus primarily undertaken within the household on an inter-generational basis. Because the vast majority of the rural labor force was engaged in agricultural production, which allowed greater flexibility in location and work schedule, the needs of working women for socialized care services in rural areas were not as strong as those in cities. In 1978, China embarked on a transition from a planned to a market economy.

During the first two decades of the reform, the primary concerns of the Chinese government were to stimulate growth and improve the efficiency of the economy through gradual liberalization measures. Because income inequality was low at the time, distributional concerns, including those related to gender equity, were secondary considerations. Analysts have noticed a close resemblance of China's development strategy to those pursued by the East Asian development states, including Japan and South Korea (White 1998). In the early stages of development, these development states had directed resources to capital accumulation for building a competitive industrial base while relegating the provision of welfare and care to the household to keep social expenditures to a minimum. The emphasis on the household's responsibility for care provision was often justified with reference to Confucian cultural tradition (Shang and Wu 2011; Cook and Dong 2016). Consequently, the reform process undid many of the mechanisms that socialized care roles and responsibilities under Mao, and the Confucian patriarchal values that were suppressed

under Mao reemerged in the post-reform period, leading to a more widespread acceptance of traditional gender roles (Yee 2001). These changes in turn reversed many of the gains experienced by women.²

In the urban sector, economic decentralization and the privatization of state- owned enterprises and urban collectives brought an end to the era of “cradle-to-grave” socialism and lifetime employment for urban workers. The rapid expansion of private/informal sectors eroded the State’s regulatory ability to protect women in their reproductive role. The public-sector restructuring also led to a substantial decline in the support of the State and employers for childcare and eldercare (Liu et al. 2008).

As childcare services became more expensive and inaccessible, working mothers with young children increasingly sought support from their extended families, mostly grandparents (Chen et al. 2011). Furthermore, welfare reform transformed the social pension program from noncontributory to contributory, with contributions coming primarily from workers and employers. Under the new pension program, individuals’ entitlements to healthcare and pensions are largely determined by their labor market status. This system exacerbates the adverse financial consequences of caregiving for those who have to forgo earnings or employment to fulfill their caregiving responsibilities (Zhao and Zhao 2017).

In the rural sector, reforms began with the implementation of the household responsibility system in the late 1970s, which led to the dismantling of collectives. The implementation of this system was followed by the expansion of off-farm employment in Township and Village Enterprises (TVEs) from the mid-1980s, and these enterprises were rapidly privatized in the mid-late 1990s. The dismantling of collectives and privatization of TVEs reduced the fiscal revenues of local governments, thereby weakening their ability to provide public goods and social services for the rural population (Cook 2007). Between 1995 and 2003, the number of childcare and pre-school programs in rural areas fell sharply from 10,700 to 5,000 (Cook and Dong 2011). Without access to out-of-home care substitutes, women have to make difficult choices between foregoing the opportunity to participate in higher paying off-farm employment and leaving some care needs unaddressed.

Since the early 1990s, rural-urban migration has become the most common way through which rural workers get a job off the farm (de Brauw et al. 2002). While restrictions to labor movement to cities were relaxed, the government remained cautious about decoupling welfare provision and *hukou* status. Given the difficulty of accessing social services in destination areas, migrant workers left their children and disabled or elderly parents behind. According to the 2010 population census, 61 million of children under 18 years old—40 percent of all rural children—were left behind. Thus, they lived with only one parent (mostly mothers) or grandparents or other relatives, and 47 percent of the left-behind children were separated from both parents (UNFPA 2013). In recent

² See Berik et al. (2007) for a literature review on gender and economic transition in China.

years, as the *hukou* system was further relaxed, rural couples began to migrate together and take their children with them (Yang and Chen 2013).

The 2010 population census shows that nine million migrant children under seven years of age lived with their parents in cities, representing 26 percent of urban children in this age group (UNFPA 2013). Having access to affordable, high-quality childcare is crucial for migrant mothers to participate in paid work.

As has been well documented, economic reforms—while bringing about rapid income growth and lifting hundreds of millions of people out of poverty—have dramatically increased inequalities (Li et al. 2013). At the turn of the new century, the Chinese government stepped up efforts to bring equity and social development back into the policy agenda. A series of policy measures were initiated to support the rural sector and less-developed regions and to expand the coverage of social safety nets. A new social security system for the rural population, which includes a new cooperative health care program, a minimum living allowance (*dibao*) system, and a new rural pension program, has been established (Li 2011). In 2010, the Chinese government pledged to expand early childhood education programs to poor rural counties and rural areas in central and western provinces and to cover migrant children in urban areas in 2010 (State Council 2010). In June 2010, the State Council announced that the household registration (*hukou*) system would be gradually replaced by a system of residence permits that would enable migrants to enjoy the same social security benefits as urban residents. The gradual delinking of *hukou* status from access to social security has accelerated the pace of family migration (Yang and Chen 2013).

Population policy reform and demographic change is another important dimension of the post-reform transformation that has reshaped care needs and provision. The one-child policy was enacted in 1980 as a means to slow population growth and promote economic growth. While the one-child policy did not meet much resistance in urban areas, it was unpopular and was not been fully implemented in rural areas. Nevertheless, the rapid growth of better paying off-farm employment created the economic incentive for rural women to have fewer children (Chen and Summerfield 2007). Thus, the reform period has seen a large fertility decline, from 2.3 in 1980 to 1.6 in 2015, which lowered the need for childcare provision. However, steep declines in fertility, combined with longer life expectancy, have dramatically increased the proportion of aged dependents. Indeed, the percentage of the population aged 65 years and older increased from about five percent to over 10 percent between 1982 and 2014 (NBS 2015, Table 2-4) which has increased the care needs of the elderly.

To boost fertility and slow the population aging process, the longstanding one-child policy was formally replaced by a new policy that encourages all couples to have two children in 2016, and the new policy, if effectively implemented, will increase the demand for childcare. Meanwhile, the population aging process has also created pressure for policy changes that may hamper families' ability to provide care. China's retirement age thresholds are low by international standards, at 50 for blue-collar female workers, 55 for white-collar female workers and 60 for

male workers. These thresholds were established in the 1950s when life expectancy at birth was less than 50 years old. The relatively low retirement age lowers the opportunity costs of caring for grandchildren or elderly parents for middle-age people, and as we will show in Section 6, grandparents' involvement in childcare is essential for maternal labor force participation in the post-reform period. However, a low retirement age places tremendous stress on social security programs.³ In 2008, the Ministry of Human Resource and Social Security proposed to gradually increase the retirement age to 65. This policy change will reduce the availability of middle-aged people as caregivers; without an increase in the supply of affordable out-of-home childcare services, reproductive-age Chinese couples would hesitate to have a second child.

Care policies, care arrangements and care deficits

In this section, we address the first issue: how China's care policies and care arrangements have changed in the post-reform period and how these changes affect the manner in which the care needs of the disadvantaged are addressed. Our analyses focus on three areas: maternity leave, childcare provision and eldercare provision.

Maternity leave

In the post-reform era, a series of new regulations have been introduced to safeguard women's employment and reproductive rights in the new market economy (Jia and Dong 2017). The Labor Law adopted in 1995 stipulated that employers shall not lay off female employees or lower their wages for reasons of marriage, pregnancy, maternity leave, and breastfeeding. The Labor Contract Law enacted in 2008 introduced the provision that prohibits employers from unilaterally terminating labor contracts with female employees who are pregnant, give birth and care for a baby postpartum. Under the two labor laws, all female wage employees are entitled to job-protected maternity leave.

The benefits of maternity leave have also undergone a series of improvements in the post-reform period. The length of paid maternity leave was extended from 56 days prior to reform to 90 days in 1988 and to 98 days in 2012. The paid maternity leave duration was further extended to a minimum of 128 days in 2016 after the long-standing one-child policy was replaced by the universal two-child policy. In addition to paid leave, maternity benefits also include a reimbursement of expenses for pre-natal examinations, delivery, hospital care and medicine (Liu et al. 2008).

Maternity benefit provision is administered by provincial governments, and maternity benefits are paid by either maternity insurance or employers. The maternity insurance program was first

³ The issue of increasing retirement age is highly controversial among Chinese women. Professional women demand an equal retirement age because their lower retirement age hinders their opportunities for career advancement (Tan and Yang 2013). In contrast, women in blue-collar occupations oppose the policy of an equal retirement age because employment prospects for blue-collar women in their 50s are bleak (Liu, Guo and Hao 2011).

introduced in Shanghai in 2005, and it was gradually adopted in other provinces. Maternity insurance premiums are paid by the employer based on the size of the company's payroll. For women employees who are covered by maternity insurance, maternity allowance is equal to the company or organization's average monthly wage from the previous year, whereas for a female employee who is not covered by maternity insurance, maternity allowance is equal to her basic wage before pregnancy.⁴

However, the maternity leave provision does not benefit all mothers employed in the wage sector, as the maternity leave regulations have required. While permanent employees in the state sector receive maternity leave benefits, most state-sector employees on a short-term contract do not have such benefits. The coverage of paid leave in private sectors is much lower because there are no effective means of enforcing labor market regulations in private sectors (Liu et al. 2008). Indeed, analysts estimate that only 33.5 percent of female employees in cities were covered by maternity insurance in 2012 (Wang 2014). Women who are not covered by maternity insurance tend to be among those of lower socioeconomic status, such as less-skilled workers and migrant workers and those who are concentrated in informal/private sectors, where paid maternity leave benefits are generally unavailable.

Using data from the third wave of the Survey on Chinese Women's Social Status (SCWSS) conducted in 2010, Jia and Dong (2017) document trends in paid maternity leave and estimate the effect of paid maternity leave on breastfeeding duration in urban China during the period from 1988 to 2008. The analysis shows that for 1988-1997 and 1998-2008, the proportion of employed urban mothers who took paid leave at the time surrounding their most recent birth decreased from 66.3 to 59.6 percent. The proportion of paid leave-taking mothers among employed women with a college education fell slightly from 91.6 to 88 percent, and the mean duration of paid leave for these mothers remained unchanged at 107 days. In contrast, the proportion of paid leave-taking mothers among employed women without a college education declined markedly from 57.7 to 36 percent, and the mean duration of paid leave for these mothers fell by 23 days, from 62 to 39 days.

The decline in paid leave coverage among non-college educated mothers intensified the trade-off between income earning and infant nurturing confronted by these mothers. The regression analysis shows that paid maternity leave duration has a strong positive effect on a mother's ability to sustain breastfeeding. If the length of paid leave increases by 30 days, the probability of breastfeeding for at least six months increases by 12 percentage points for all mothers in the sample. Based on this estimate, a 23-day decline in the mean paid leave duration among non-college educated mothers would reduce their probability of breastfeeding for at least six months by nine percentage points. In light of the well-recognized health benefits of breastfeeding for children (WHO/UNICEF 2003), the rising disparity in access to paid maternity leave contributes to transform mothers' socioeconomic disadvantages to children in terms of poor health.

⁴ In the post-reform period, labor compensation for most Chinese workers comprised basic wages and bonus.

Childcare provision

Under Mao, the State and employers played an important role in childcare provision (He and Jiang 2008). In the post-reform period, low-cost childcare provided by state and collectively owned firms (*danwei*) has been severely reduced. Enterprise surveys show that only five percent of companies surveyed provided a breastfeeding room for women workers and that less than six percent ran childcare programs (Cook and Dong 2017). Moreover, public expenditures on pre-primary school education were low, as they accounted for only 1.3 percent of the total public education expenditures in the 2000s (Lu 2013). In the face of the dramatic decrease of publicly funded childcare programs, private kindergartens have grown rapidly. For instance, from 1998 to 2013, the share of private kindergartens in China rose from 17.0 to 67.2 percent. In 2013, 46.1 percent of kindergarten and pre-school students were enrolled in private kindergarten programs. For those enrolled in publicly run kindergarten programs, the parents had to pay for more than half of the operation costs of these programs, with only 40.8 percent covered by public funding.⁵

One important concern about the shift from publicly subsidized to for-profit and commercialized childcare provision is that the latter may create cost barriers for low-income families. Indeed, studies show that family income is a significant determinant of childcare utilization by urban Chinese families in the post-reform period (Du and Dong 2013; Gong et al. 2015). Song and Dong (2017) find that childcare costs, maternal wage and unearned incomes are the most significant determinants of the childcare utilization rates of migrant and local urban families with children under seven years old. Specifically, a one-percent increase in childcare costs lowers the childcare utilization rate by 1.1 percent for migrant families and 1.5 percent for local urban families, whereas a one-percent increase in maternal wages increases the childcare utilization rate by 0.114 percent for migrant families and 0.647 percent for local urban families.

As formal childcare services became more expensive and inaccessible, urban working families increasingly sought support from grandparents (Chen et al. 2011). Using data from the China Health and Nutrition Survey (CHNS), Du et al. (2017) find that in the urban sector, the proportion of children under seven years of age who were enrolled in daycare programs decreased from 26.1 percent in 1991 to 22.2 percent in 2011, whereas the proportion of children in this age group cared for by grandparents increased from 39.9 to 55.6 percent. In their sample, 82 percent of grandmother caregivers and 74 percent of grandfather caregivers were under the age of 65 years—the standard age of retirement in most developed countries.

The lack of out-of-home childcare services is a major issue for rural parents, particularly in low-income villages. Because the limited public spending on pre-primary education is concentrated in county centers, with little public investment at the township level or below, children aged between three and five years in poor villages generally have no access to pre-primary education (Lu 2013). Statistics show that while 55 percent of Chinese children lived in rural areas, they

⁵ Calculated using information from Table 20-41, China Statistical Year Book 2013, <http://www.stats.gov.cn/tjsj/ndsj/2013/indexch.htm>.

accounted for only 34.4 percent of total kindergarten enrolments in 2012 (Cook and Dong 2017).

Chang et al. (2017) studied the patterns and determinants of care arrangements for children aged 0-6 in rural China by using data from CHNS. Their analysis shows that from 1991 to 2011, the proportion of rural children who were cared for by daycare or preschool programs and by grandparents increased from 11.0 to 26.4 percent and from 27.2 to 48.4 percent, respectively. Owing to massive labor migration, the proportion of preschool-age children who were left behind by both parents and in grandparents' full custody rose sharply, from 3.6 to 26.6 percent. Many grandparents took care of grandchildren for several adult children; for these grandparents, childcare was similar to having a full-time job.

The author next investigates what types of villages are more likely to have daycare and preschool programs and what types of households are more likely to enroll children in daycare and preschool programs. Based on village-level data, the regression estimates show that daycare and preschool programs are more likely to be found in villages where income levels are higher, a larger proportion of the labor force has migrated to other areas, and there are telephone services and bus stops. It is evident that access to daycare and preschool programs is more limited in less developed, more remote villages. Based on household-level data, the regression analysis finds that the presence of daycare and preschool programs in the village is positively correlated with children's enrolment in these programs. Compared with children who lived in the village where childcare and preschool programs are absent, the probability that a child is enrolled in a daycare or a preschool program is 8.7 percentage points higher for those who lived in the village with a childcare program and 5.4 percentage points higher for those who lived in the village with a preschool program. Given that daycare and preschool programs in less developed areas are rarer, children in these areas have a disadvantage in accessing out-of-home care and preschool education.

Finally, the authors estimate the impact of daycare programs and grandparent custody on the amount of time a child is cared for by adults. The estimates show that the presence of daycare programs in the village increases the care time for a child aged between three and six years old by 7.7 hours per week. The estimates also show that children in their grandparents' full custody spend considerable less time in care than children living with at least one parent. Numerically, the time gap in care is 4.5 hours per week between a child in his or her grandparents' full custody and a child living with at least one parent. Moreover, the care time that children whose primary guardians are aged 55 or older (mostly grandparents) received is 11.5 hours less per week than the time received by those whose primary guardians are under 25 years of age (mostly parents).⁶ These results suggest that the left-behind children and children in the villages without daycare programs are experiencing "care deficits."

Care for the elderly

⁶ The mean age of the grandparents who are the guardians of left-behind children in the sample is 56 years.

Like many countries in the world, the provision of care for the elderly is primarily the family's responsibility in China. The Marriage Law of 1950 and the Constitution of 1954 stipulate that care for the elderly is the responsibility of Chinese citizens and that it is a criminal offense for an adult child to refuse to perform her or his proper duty to support an aged family member (Palmer 1995). In line with the approach to childcare, the post-reform eldercare policy discourse stresses family responsibility and the role of markets for care provision. The Law of Elderly Rights and Security, which was enacted in 1996, reiterates that care for frail elderly parents is a non-evadable responsibility of adult children. The role of the State in eldercare provision continued to be limited to financing and operating nursery homes only for the elderly and the disabled who had no children to take care of them. This policy is, however, gender insensitive, in that while the female elderly tend to outlive their spouses, they are more likely than men to be married and have children and therefore are not eligible for State-sponsored care services.

The ageing of the Chinese population and the change of the household structure has undermined the familialism of eldercare provision. In response to the challenge of population ageing, the 12th 5-Year Development Plan for Social Services System for Old Persons (2011-2015) proposed to commodify eldercare services through the development of eldercare markets, non-profit organizations and voluntary service providers. The new model of eldercare that the plan envisioned is the one that has home-based care as the key component, supplemented by community-based services and complemented by institutional care (*jujiayanglao*). According to the plan, the expansion of paid domestic service and care for the elderly will create 7.1 million new jobs.

Feminist scholars have expressed concern that commodification of unpaid care services might perpetuate the social and economic disadvantages of having a heavily feminized and poorly paid domestic workforce (Matthaei 2001; Klemm et al. 2011). Indeed, the market for domestic services in China has grown rapidly since the mid- 1990s, and approximately 15 to 20 million workers, mostly female migrants, now earn a living by cleaning, cooking and taking care of children, the elderly and the sick for urban families (Hu 2010). Although paid domestic work indisputably provides a better-paying alternative to farm work for migrant workers, as in many other countries, domestic work in China is a low-status, low-paid job relative to other urban occupations. Dong et al. (2016) find that domestic workers in Shanghai— particularly those caring for the elderly— earned 20 to 28 percent less than other workers in the services sector with similar human capital characteristics.

Another concern about the commodification of eldercare services is that paid care services only meet the needs of those who can afford to pay, leaving the needs of low-income elderly people unaddressed. To address this concern, in more developed areas, local governments have assumed responsibilities for eldercare by purchasing domestic and care services from the private sector (Li and Zhang 2009).

Chen et al. (2017) examine the gender patterns of care provision for the disabled elderly in China

by using data from China Health and Retirement Longitudinal Study (CHARLS) undertaken in 2011. The analyses show that the family-centered traditional eldercare regime remains the primary form of eldercare and that this care arrangement is inadequate for meeting the care needs of the disabled elderly, particularly elderly women. The authors estimate that 26.8 percent of women aged 60 years and older and 19.4 percent of men in this age group have difficulties in daily living and require instrumental care. However, 11 percent of those who are in need of care do not receive it, and 68 percent of the neglected are women. Further analyses reveal striking gender differences in how the infirm elderly are cared for.

Other things being equal, infirm elderly men are 10 percent more likely than elderly women to be cared for by a spouse, while infirm elderly women are eight percent more likely to be cared by adult children. This gendered pattern of eldercare provision places elderly women in a disadvantaged position for two reasons. First, spouse- provided care is arguably more reliable than the care provided by adult children because altruistic motives tend to be stronger in the former than the latter. Second, women's greater reliance on adult children for care provision places rural elder women at higher risk of having no one to take care of them if their children migrate to cities and leave them behind.

Care provision and labor market outcomes of men and women

In this section, we investigate how the burden of care affects Chinese women's opportunities and gender equality in the labor market – the paper's second research question.

Findings of existing studies

China's rapid economic growth in the post-reform period has undoubtedly created enormous opportunities for both women and men. However, studies suggest that women have not benefited equally, and gender gaps in both employment and earnings have increased markedly. According to the 1990 and 2010 SCWSS, the employment rates for men and women aged between 18 to 64 years old in the urban sector were 90 and 76.3 percent, respectively, in 1990, falling to 80.5 and 60.8 percent, respectively, in 2010 (Liu 2013). In the span of twenty years, the gender employment gap increased by 6.6 percentage points, from 13.7 to 20.3 percent. The earnings gap between women and men also widened despite an upward trend in wages in absolute terms for both sexes. In 1990, the ratio of women's earnings to men's was 77.5 percent in the urban sector and 79 percent in the rural sector, and in 2010, the earnings ratio dropped to 67.3 percent in the urban sector and 56 percent in the rural sector. Ironically, the rise of gender gaps in employment and earnings has been associated with impressive improvement in women's education. In 1980, women accounted for 23.4 percent of total college enrollments, and their share rose to 50.8 percent in 2010 (Liu 2013). Closing the gender disparity in education is apparently insufficient to reduce gender inequalities in the labor market.

Studies have endeavored to investigate to what extent the increased gender gaps in employment and earnings are attributable to the rising difficulty women have experienced in reconciling work-

family conflicts. Maurer-Fazio et al. (2011) find that the labor force participation (LFP) rate of prime-age women with preschool children in the cities fell sharply between 1990 and 2000, and co-residence with grandparents became increasingly important for enabling women to stay in the labor market. Du and Dong (2013) find that the presence of daycare centers in a community has a positive effect on the LFP of urban women with preschool children and that the decline in daycare provision accounted for 46 percent of the decrease in maternal LFP during the period of State-sector restructuring between 1997 and 2000.

Liu et al. (2010) study the impact of caring for elderly parents on the labor supply of married women in the cities, and they find that while caring for one's own parents does not affect a woman's employment status and work hours, caring for a parent-in-law has a significant, sizable negative effect on a woman's participation in paid work and work hours in urban China. Chen et al. (2015) find that married women who spent more than 15 hours per week on caring for elderly parents are less likely to participate in the labor force and intensive caregivers who remained in the labor force spent significantly fewer hours on paid work each week than other women workers.

Evidence also shows that care responsibilities limit rural women's occupational choices and contribute to widening the gender gap in access to better paid off-farm employment. Chang et al. (2011) find that having children under the age of six increases the time spent in agriculture for women but has no effect on men, indicating that women's caregiving responsibility is a driving force of the feminization of agricultural production. Connelly et al. (2012) and Qiao et al. (2015) find that having school-aged children has a negative effect on rural women's migration decisions, as they need to assist their children with school work. Giles and Mu (2007) find the evidence that caring for the disabled elderly also affects men. According to their analyses, the health status of elderly parents has a negative effect on the migration probability of both male and female adult children and that the negative effect is stronger for men than women.

Women's unpaid care responsibilities not only adversely affect their employment and occupational choices but also reduce their earnings. For instance, Jia and Dong (2013) find that mothers earned considerably less than childless women with the same observable human capital characteristics in urban China. The wage losses associated with motherhood increased substantially following State sector restructuring in 1997, and much of the increase was observed in non-State sectors. Qi and Dong (2016) report not only that women spend more hours on unpaid care work than men but also that their paid work time is more likely to be interrupted by unpaid care work. Holding constant other factors, both women and men earn less income if they spend more time on unpaid care work and/or if their paid work is interrupted by unpaid work. Results regarding the gender-earnings decomposition show that the gender differences in time spent on unpaid care work and its interference with paid work account for 28 percent of the gender earnings gap, which is greater than the effect of gender differences in education and occupation combined. A similar finding is obtained by Zhang et al. (2008). In particular, their analysis shows that women's family responsibilities play a greater role than their human capital disadvantage in accounting for gender inequalities in employment and wages in the post-reform labor market.

The studies presented in the remaining section add to the growing literature on care and women's paid work in post-reform China by exploring how gender and caregiving roles interact with age, ethnic and religion norms and residential status.

Care provision and paid work in the rural sector

The rapid expansion of off-farm employment (locally or through labor migration) in the post-reform period fueled sharp rises in labor productivity and income for rural women and men, providing them with an effective means to escape poverty. However, caregiving responsibilities hinder caregivers' ability to participate in off-farm employment, and the impact of caregiving varies not only by gender but also by age, location, and social contexts (Spierings 2014).

Ding et al. (2017) explore the intersectionality of gender, religious and ethnic norms and intergenerational relations that shape the division of labor within the household in rural China's minority-concentrated regions using data from the 2012 China Ethnicity Household Survey (CHES). The authors analyze the choices of rural married women and men at reproductive age (between 18 and 45) related to farm work, local off-farm work, and nonlocal off-farm work. They compare the differences between Muslim minority peoples and non-Muslims (including non-Muslim minority and the Han majority). According to summary statistics, Muslim households have lower per capita incomes and higher rates of poverty than non-Muslim households. In both Muslim and non-Muslim groups, women are more likely than men to participate in farm work and are less likely to participate in local off-farm work and labor migration. The gender gap in rates of off-farm employment is much larger for Muslims than non-Muslims.

Using the presence of children as a proxy for childcare needs and the presence of adults in the age group that generally contains grandparents as a proxy for access to non-parental childcare within the household, the paper explores the extent to which care needs and provision affect the occupational choices of women and men in different ethnic groups. The estimates show that children generally decrease women's but increase men's likelihood to work in the off-farm sector, but it is more socially acceptable for non-Muslim mothers than Muslim mothers to work away from home. Muslim mothers appear to receive less support than non-Muslim mothers for childcare from male adult household members. For Muslim households, the presence of additional adult men (of any age between 15 and 70) in the household reduces the likelihood that women engage in off-farm work, whereas the presence in the household of a woman of grandmotherly age (between 46 and 70) supports Muslim women's ability to migrate for work. For non-Muslim households, both grandfathers and grandmothers facilitate the ability of parents (male and female) to migrate for work. Thus, although childcare needs and access to grandparent-provided childcare are significant determinants of the likelihood of reproductive-age women to participate in off-farm employment for both groups, the choices of Muslim women are more constrained by gendered caregiving roles than those of non-Muslim women.

Using the CHARLS 2011-2012 baseline data, Connelly, Mao and Chen (2017) explore the

interrelationship between caregiving and off-farm employment for women and men aged between 45 and 65 in rural China. People in this age group face the tradeoff of taking care of their elderly parents and helping their adult children with childcare. Indeed, 45 percent of women and 39 percent of men in the sample provide care for grandchildren or elderly parents. Such care work is indeed intensive: a female caregiver typically spends 48 hours per week caring for grandchildren and 16 hours per week caring for parents, and the respective figures for a male caregiver are 43 hours and 14 hours per week.

This paper estimates the effects of caring for grandchildren and elderly parents on the off-farm employment and earnings of rural middle-aged people. The estimates show that taking care of grandchildren decreases the off-farm employment rate of rural middle-aged men and women by 19.6 and 20.5 percentage points, respectively. Conditional on being employed off farm, it also reduces the hours of off-farm work by 10 hours for women per week and 26 hours for men. Moreover, caring for grandchildren reduces annual earnings by 1,050 yuan per year for men, but not for women. However, caregiving for parents does not have the same negative effects on off-farm employment participation, hours worked and earnings. These results indicate that caring for grandchildren entails significant opportunity costs for grandparents. In the absence of a well-developed social security system, the economic sacrifice of rural middle-aged people would make them vulnerable to economic deprivation in old age if their children were unwilling or unable to provide proper support for them when they were incapacitated.

The burden of care not only limits women's ability to participate in off-farm employment but also adversely affect agricultural production that has increasingly become the work of women and the elderly. Using panel data from China Rural Fixed Sample Households Survey for the period 2003 to 2012, Zhang shows that the burden of care (defined as having a preschool-age child, an elderly over the age of 84 years or an household member in poor health) has a significant negative effect on the technical efficiency of crop production. Specifically, having a member in poor health reduces the technical efficiency of crop production by six percent. The burden of care also decreases sown areas, yields, gross output and net profits of crop production. Thus, rural households with a higher care burden are more likely to fall into poverty.

Care provision and paid work in the urban sector

As in the process of off-farm employment in rural areas, in urban settings, where paid work is generally inflexible with respect to location and time, access to non-maternal childcare is a precondition for the labor force participation (LFP) of women with young children. The childcare choices of migrant mothers who bring young children with them to cities are more limited than those of local urban mothers. Migrant families are less likely than local urban families to have extended families living nearby to help them with childcare. Moreover, owing to the *hukou* system, publicly subsidized childcare programs are less accessible for migrant families than for local urban families. Furthermore, migrant workers are concentrated in the low- paying job sector, which hampers their ability to pay for commercialized care services (Meng 2012).

To what extent the lack of access to affordable childcare programs represents a deterrent to the LFP of migrant mothers who co-reside with preschool children in the cities? Does this problem affect migrant more than local mothers? To shed light on these questions, Song and Dong (2017) estimate the effect of childcare costs on the LFP of migrant and local mothers of preschool-aged children in urban China by using data from the 2010 National Dynamic Monitoring Survey of Floating Populations.

The estimates show that childcare costs have a strong negative effect on the LFP for both migrant and local mothers and that the LFP of migrant mothers is more sensitive to changes in childcare costs than that of local mothers. Specifically, a one-percent increase in childcare costs decreases migrant mothers' LFP by 0.301 percent and lowers local mothers' LFP by 0.229 percent. Maternal LFP is thus evidently more constrained by the lack of access to affordable childcare for migrant than for local mothers.

Using data from the CHNS for the period from 1991 to 2011, Du, Dong and Zhang (2017) compare the roles of grandparent-provided childcare and daycare programs in enabling maternal LFP in urban China.⁷ According to the survey, the LFP of urban mothers with children under seven years old declined from 90.3 percent in 1991 to 74.9 percent in 2011. Despite this decline, maternal LFP in urban China remained high by international standards. The authors estimate the effects of grandparent-provided childcare and access to daycare programs on the LFP of urban Chinese mothers with preschool-age children. The estimates show that both grandparent-provided childcare and access to daycare services have strong positive effects on maternal LFP, with a greater effect for the former than the latter. Numerically, having grandparent-provided childcare increases maternal LFP by 38 to 43 percentage points, whereas having access to daycare services increases maternal LFP by 24 to 29 percentage points. The estimates also show that having a healthy grandmother is a significant determinant in whether grandparent-provided childcare is utilized and that the demand for grandparent-provided childcare is higher in localities in which daycare services for children under three years old are more expensive. These findings support the view that grandparents, particularly grandmothers, play an important role in sustaining maternal LFP by filling the gap created by the State's withdrawal from childcare provision in post-reform urban China.

Using data from the CHARLS conducted in 2011-2012, Wang and Zhang (2017) estimate the impacts of caring for grandchildren and elderly parents on the labor supply of women and men aged between 45 and 65 in urban China. In the sample, 60 percent of women and 45 percent of men were engaged in grandchild care, while 26 percent of women and 24 percent of men provided care for elderly parents. In terms of labor supply, 74 percent of men and 54 percent of women participated in the labor force. The majority of male and female workers worked on a full-time basis, spending 45.8 and 40.7 hours per week on paid work, respectively.

⁷ The sample mainly consists of local urban mothers because the CHNS does not cover migrant households.

The regression analyses show that caring for grandchildren is associated with a 5.8 percentage-point decline in LFP for women, and conditional on their being in the labor force, caring for grandchildren reduces women's labor supply by 10 hours per week. In contrast, there is no statistically significant association between grandchild care and labor supply for men. Unlike their rural counterparts, urban middle-aged men do not adjust their employment to accommodate the need for grandchild care. For both women and men, there are also no statistically significant relationships between caring for elderly parents and labor supply. Caring for elderly parents thus appears to be more flexible and less intensive than caring for a preschool child.

The analyses by Du et al. (2017) and Wang and Zhang (2017) show that in the post-reform period, grandparents' involvement in childcare has cushioned the negative effect of the declining supply of low-cost childcare services on maternal employment, though at their own expenses, and the economic sacrifice is particularly large for grandmothers. From a household perspective, this gendered inter-generational division of labor seems rational because the opportunity costs of childcare are higher for fathers than mothers and for parents than grandparents.

However, from the perspective of caregivers, unpaid care work hinders their ability to earn income and accumulate wealth, thereby forcing them to rely on spouses and adult children for support in daily life and old age. Moreover, because women bear the primary responsibility for unpaid care work, as mothers and grandmothers, the rising burden of care on Chinese families in the post-reform period has exacerbated gender inequalities in the labor market.

According to the analyses by Connelly, Mao and Chen (2017) and Wang and Zhang (2017), caring for elderly parents has no significant effect on the employment and earnings of middle-aged women and men. This does not mean that caring for the elderly has no cost. For those whose employment does not appear to be affected by their caregiving responsibilities, the sacrifice of caring for others may take the form of a 'time crunch' owing to the need to cope with the simultaneous demand of a job, the household, and eldercare.

Time poverty, mental health and retirement pensions

In this section, we address the third and fourth issues: how the double burden of paid work and unpaid care work affects the time use and mental health of urban workers and to what extent women's disadvantages in employment and earnings impact their retirement pensions relative to those of men.

Work burden, time poverty, and labor market regulations

In China, as is the case globally, women's total work burden is heavier than men's. Based on the 2008 China Time Use Survey (CTUS), Qi and Dong (2017) find that whereas both employed women and men in the urban sector work on a full-time basis (42.9 versus 45.6 hours per week), women's average weekly hours of unpaid care work are double men's, at 21.3 hours per week compared to 9.9 hours per week, respectively. Consequently, the total work time of employed

women is higher than that of their male counterparts by 8.7 hours per week. Excessively long work hours deprive workers of adequate time to meet their basic needs for rest and leisure. This phenomenon is termed “time poverty” (Vickery 1977; Bardasi and Wodon 2010). The time-use decisions of workers with family responsibilities are shaped not only by those constraints affecting unpaid work time, such as gender roles and access to affordable care services, but also by those constraints influencing paid work time, such as labor market regulations and workplace practice.

Using synthetic data from the 2008 China Time Use Survey and the 2008 Chinese Household Income Profile, Qi and Dong (2017) estimate time-poverty rates and compare the profiles of time poor male and female workers in urban China. The authors introduce three time-poverty indicators to differentiate those who work excessively long hours by choice from those who have no choice but to work long hours to escape income poverty. Statistics based on these indicators show consistently that women are more likely than men to be time poor. Based on the indicator that defines the “time poor” as those who spend more than 68 hours on paid work and unpaid care work each week, the time poverty rate is 37.6 percent for women and 18.9 percent for men, and the gender gap is 18.7 percentage points. Time poverty is particularly prevalent among low-paid workers,⁸ as 52.2 percent of these workers are time poor, whereas the time poverty rate of non-low-paid workers is 21.1 percent.

The regression estimates show that the probability of being time poor is positively correlated with personal characteristics such as being female, being a low- paid worker, being married and living with preschool- and school-age children or the elderly. Moreover, time poverty is more rampant in counties with higher overtime-work rates and lower minimum wage standards, indicating that long paid work hours and low earnings are among the driving forces of the high incidence of time poverty among Chinese workers. Simulations indicate that raising the minimum wage standard to 60 percent of the provincial median wage could reduce time poverty by 7.9 percentage points for men and 13.8 percentage points for women, and enforcing work time regulations could reduce time poverty by 6.2 percentage points for men and 13.2 percentage points for women.

Work burden, mental health and gender roles

Liu et al. (2017) investigate how work burden, including both paid work and unpaid care work time, affects the mental health of urban prime-age workers by using data from the 2010 China Family Panel Studies (CFPS). Based on the 6-item mental health scores, statistics show that gender differences in mental health exist, with women’s mental health being worse than men’s. The regression results indicate that long work hours and time poverty are negatively related to the mental health of both women and men, and the negative correlations are stronger for workers with worse mental health. Additional analyses show that the gender gap in total work hours and the likelihood of being time poor account for 25.9 and 18.5 percent of the gender gap in mental health

⁸ Using the ILO definition, we define low-paid workers as those who earn less than 60 percent of the median wage of full-time workers in a province.

scores, respectively.

Liu et al. (2017) further explore the gendered relationship between the separate components of work burden, namely, paid work and unpaid care work, and mental health. The investigation is motivated by the question of why women spend a much greater amount of time on unpaid care work than men and therefore have a heavier work burden even though women and men spend similar amount of time on paid work. As is well recognized, the gender division of labor within the household is regulated by gender norms regarding appropriate types of work for women and men. Because of the legacy of women's emancipation under Mao, there is widespread support and acceptance of women participating in paid work in Chinese society (Zuo and Bian 2001). However, the mentality of "domestic work and care is a nature duty of women" is enduring. Men thus resist taking on more unpaid care work, and women hesitate to negotiate a more equal distribution of care burden and leisure time (Pimentel 2006). Thus, the paid work-mental health relationship may not be gendered because paid work is socially expected of both women and men; however, the relationship between unpaid care work and mental health may differ between women and men because doing unpaid work is in conflict with the masculine identity but consistent with the feminine identity. The regression analyses provide supportive evidence for these contentions.

The estimates show that paid work hours are negatively correlated with mental health for both women and men, whereas a negative correlation between unpaid care work hours and mental health is observed for men but not for women. Further, compared with paid work, unpaid work has a greater negative effect on men's mental health. These results shed new light on the strength of gender norms and barriers to involving men in paid work.

Gender pension gaps

Since the late 1990s, a broad-based social pension system has been gradually established in China. Initially, pension insurance programs based on the contributions of employers and employees primarily covered urban workers in the formal sector. Such schemes were then extended to cover migrant workers, the urban informal sector, and rural residents. As a result, China's social pension system is highly segmented, with huge entitlement disparities between the formal and informal sectors and among urban residents, migrants and rural residents.

Zhao and Zhao (2017) investigate the gender pension gap and its underlying causes by using data from the 2013 CHARLS. Statistics from the survey show that Chinese women older than 60 receive only about half of what men receive for their social pension. A decomposition exercise attributes nearly three quarters of the gap to women's lower likelihood of receiving the occupational pension offered to employees in government, government-funded institutions and urban firms; the remaining quarter is attributable to the smaller amount of pension benefits women receive if they have such a pension. Further analyses indicate that women's disadvantages in access to more generous pension programs and pension benefits are almost entirely linked to women's lower educational attainment and their disproportionate share of employment in sectors

that offer workers lower pension benefits. Further, among recipients of an occupational pension, nearly one-third of the gender benefit gap can be explained by women's fewer years of employment and lower pre-retirement salaries. These results suggest that the large gender gap observed in the labor market has translated into an even larger income gap at older ages under the current pension program.

Clearly, women's caregiving responsibilities are an important source of their economic vulnerability in old age, given their adverse impacts on women's LFP, occupational choices, length of lifetime employment and earnings documented in Section four.

Retirement age policy, rural pension programs, and care provision

This section addresses the fifth issue by exploring the implications of China's retirement age policy and the New Rural Pension Program for care provision from extended family.

Retirement age and grandchild care in the urban sector

As mentioned above, grandparents caring for grandchildren is a widespread practice among urban families in post-reform China, and the vast majority of grandparent caregivers are under 65 years of age. Do China's low retirement age thresholds play a role in facilitating urban grandparents' involvement in childcare? To shed light on this question, Feng and Zhang (2017) examine the interaction between retirement and grandchild care among urban men and women in a ± 10 years band from the official retirement age by drawing on data from the 2011-2013 CHARLS. The estimates show that the transition to retirement increases a woman's likelihood of taking care of a grandchild by 29 percentage points and a man's likelihood by 21 percentage points. These results lend support to the contention that China's low retirement age facilitates urban grandparents' participation in childcare. Given the size of the retirement effect, an increase of the retirement age could have a strong negative effect on the childcare provided by grandparents.

Rural pensions and grandchild care

In 2009, the New Rural Pension Program (NRPP) was introduced to provide old-age security for rural residents. Unlike urban pension programs that are defined entirely by the contributions of employees and employers, the NRPP is essentially a defined contribution and funded pension program with a small public pillar. The basic pension, i.e., the public pillar, is payable to people who have reached 60 years of age. Those who have already reached age 60 at the start of the program are eligible to receive this basic pension (initially RMB55), even if they have never contributed.

People younger than 60 years of age must make annual contributions (a minimum of RMB100) to be eligible for both the basic pension and individual pension amount when they reach age 60. Studies show that receipt of an old-age pension in South Africa enabled grandmothers to shift their time from income-earning activities to caring for their grandchildren (Budlender and Lund 2011).

Li and Zhao (2017) examine the impact of the NRPP on the work patterns of rural women and men aged 60 years or older by using the 2011 and 2013 waves of the CHARLS. The analysis shows that the NRPP induced elderly men to shift their work from farming to grandchild care. Specifically, the rural pension program reduces hours of farm work among elderly men by 113 hours, a reduction of 13.5% from the previous level, and increased hours of grandchild care by 192 hours, representing a 36.9% increase. However, the pension program did not have a statistically significant effect on elderly women's work patterns. These gender differences are perhaps attributable both to the fact that the pension benefit is small (55RMB or \$8 per month) and to the fact that women had spent less time on farm work than men and more time on grandchild care prior to the implementation of the NRPP. These findings highlight the potential of expanding and strengthening social security programs that lower the economic costs of grandchild care for the rural elderly.

Conclusions and policy discussion

In this paper, we examine the transformation of the care economy in post-reform China and its gender and wider distributive consequences. We first investigate the changes in the areas of paid maternity leave and childcare and eldercare provisions and their impact on the way by which the care needs of the disadvantaged are addressed. The analysis shows that as the State's support for care provision declined and the burden of care shifted to the household, the disadvantaged have greater difficulties addressing their care needs. Specifically, access to paid maternity leave among working mothers without a college education becomes more limited, and this change has a strong negative effect on these mothers' ability to sustain breastfeeding. In urban areas, accessing affordable childcare services represents a major challenge to low-income families, particularly migrant families. In rural areas, daycare and preschool programs are largely unavailable in low-income and remote villages. Consequently, parents of young children increasingly rely on grandparents to provide childcare. Rural children left behind with grandparents receive significantly fewer hours of care than those who live with parents. The analysis of eldercare indicates that the family-centered, traditional eldercare remains the primary form of care provision and the care arrangements within the family are gendered, making elderly women more vulnerable than elderly men to the risk of having their care needs unaddressed.

We next examine the impact of unpaid care responsibilities on women's opportunities and gender equality in the labor market. The analysis shows that childcare responsibilities generally hinder rural women's participation in off-farm employment and urban women's LFP. However, the impact of caregiving responsibilities varies by ethnicity, residential status, and age. Compared to non-Muslim women, the employment decisions of rural Muslim women are more constrained by gendered care roles and arrangements. With grandparents' involvement in childcare, having young children does not represent a binding constraint on mothers' employment. However, caring for grandchildren adversely affects employment, occupational choices and earnings for middle-aged grandparents. In cities, higher childcare costs reduce maternal LFP, particularly for migrants.

We further examine the impact of unpaid caregiving responsibilities on non-labor market outcomes in terms of time use, mental health, and retirement pensions. The analysis shows that women's mental health tends to be worse than men's, and this is partly attributable to their longer work hours. Men's mental health is more negatively affected by doing unpaid care work, which illustrates the strength of gender norms and barriers to redistribute unpaid care work. The analysis also finds that women's pensions are substantially lower than men's and much of the gender pension gap can be explained by gender differences in occupational choices, length of employment and pre-retirement earnings, for which women's unpaid care responsibilities are a major driving force.

Finally, we estimate the impact of retirement age policy and a rural pension program on the supply of care from extended family. The analysis indicates that social pension programs have potential both to reduce the opportunity costs of caregiving for family members and to facilitate care giving.

The findings generated from the project suggest that the household centered care arrangements and absence of public services that have emerged have two undesirable consequences. First, such care arrangements create care deficits for the disadvantaged. The care deficits for children of low-income families can transform disadvantages in capabilities and skills from parents to children. Second, the rise of care burden on women, particularly poorer women, reduces their ability to participate fully in the economy and increases gender gaps in employment, earnings and mental health. Thus, the lack of recognition for unpaid care work in public policy has played a role for the rising of socioeconomic inequalities and gender inequalities in particular in post-reform China.

From a policy perspective, the neglect of care arises in part because public policies in the post-reform period valued efficiency and growth more than equity and fairness. The adverse effect of unpaid care work on women in a wide range of indicators should raise wider concerns about gender justice in public policy. It is nevertheless difficult to make a case for gender justice in unpaid care work when distributive justice is of secondary consideration for policymakers. Moreover, because the work of caring for dependents has public good qualities, both private and public enterprises take the greater supply of human and social capital for granted. They reward workers who devote themselves to paid work while being reluctant to accommodate workers' caregiving needs.

Care is also neglected because deep-rooted norms that define caring for dependents as "a women's natural duty" and "a family private matter" influence policy making. It makes public policies insensitive to potential negative consequences for women as caregivers. The contributory pension program is a primary example.

Whereas early childhood development and eldercare has become a subject of policy debate in recent years, much of the discussion focuses on the well-being of care recipients, with little attention devoted to the situation of caregivers. When care is defined a 'women's issue', policies related to care provision become, for the most part, the responsibility of organizations such as the

All China Women's Federation rather than the concern of mainstream government agencies (Cook and Dong 2017).

Since entering the new century, the Chinese government has strived to move away from a strategy that narrowly focuses on economic growth toward one that places greater emphasis on inclusiveness and widely shared prosperity. China is a signatory of the UN 2030 SDGs, and at the 2015 World Summit, President Xi pledged that China is fully committed to the 2030 SDGs and gender equality in particular. The analyses of this paper illustrate the central importance of supportive care policies for gender equality and inclusive growth. China's commitment to the 2030 SDGs provides an excellent entry point for integrating the care economy into the national development agenda.

Based on the empirical findings of this paper, we make the following specific policy recommendations.

- i. Integrate care needs and provision and gender equality into broader development agendas, not treating them as a 'women's issue'. At the macro level, the State should make a budgetary commitment to achieve the 2030 SDGs in child health and early education and gender equality. Economic programs, such as poverty alleviation and job creation, should reflect the awareness that women are both income earners and caregivers by not only creating economic opportunities but also addressing the caregiving constraints women face. Urbanization programs should recognize social reproduction and care by accelerating the *hukou* reform and encouraging family migration. In this way, migrant workers will no longer be forced to choose between paid employment and family life, with its associated reproductive and care responsibilities. Childcare needs and provision should also be factored into the formulation of policies on fertility, employment and retirement. Given the important caregiving role of middle-aged people, retirement age policies should be sufficiently flexible to allow them to decide the timing of retirement based on their family's care needs and employment prospects. In addition, social security programs should contain measures that mitigate the negative ramifications of the contribution-based pension insurance for women as caregivers.
- ii. Increase the roles of the State in providing and financing care provision, with greater attention to disadvantaged groups. The coverage of paid maternity leave should be gradually extended to include migrant workers and workers in informal/private sectors. It should be a policy priority to make childcare and preschool programs accessible to children in low-income, remote villages, migrant children, and children of urban low-income families. Eldercare policies should also take into account that elderly women, who tend to outlive men, have greater care needs but a more limited ability to purchase care services from the market or bargain for care from adult children.
- iii. Expand market and community service provision. Policies that support a wide range of care

providers are needed to meet the diverse needs of families at all socioeconomic levels, especially as the population ages and the need for childcare increases under the 2016 universal two-child policy.⁹ Expanding market services can also create new jobs. The State should play an active role in providing skill training and fostering social respect for care workers. Professionalizing care work will help to ensure decent work conditions and pay for care workers.

- iv. Accommodate family care duties in the workplace. State enforcement of the regulations that safeguard women's employment and reproductive rights in non-state sectors is essential for the LFP of women of low socioeconomic status. More concerted efforts in this area are also needed to minimize the negative repercussion of the universal two-child policy for reproductive-age women in hiring and promotion. Further, the policy debate over working hours and minimum wage standards should strike a proper balance between firms' concerns about competitiveness and workers' need to have adequate time to care for themselves and their dependents. Family- friendly workplace arrangements, such as flexible work arrangements and part-time jobs, should also be encouraged in addition to the provision of on-site breastfeeding rooms and subsidized childcare, and other family services.
- v. Increase support for the endeavor to transform gender norms and encourage more equitable sharing of care responsibilities within the household. Educational campaigns to involve men in unpaid care work and to change norms and attitudes are necessary to promote a more equal division of labor between genders, reduce women's double burden and total working time, and improve gender equality in well- being.

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⁹ A study from the China Population and Development Research Centre found that the lack of childcare services was a major deterrent for women's willingness to have a second child. Read the article "No Child Care Means no Second Child for Many" by China Daily (http://www.chinadaily.com.cn/china/2016-11/28/content_27499218.htm). We thank Edgard Rodriguez for bringing this article to our attention.

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