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Labor market outcomes of informal care provision in Japan ☆

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ABSTRACT

This paper examines the labor supply outcomes of family care provision for Japanese households in 2010, ten years after the introduction of the public long-term care insurance (LTCI) program. We found that family care provision for parents adversely affected labor market outcomes of main caregivers at home in terms of the probability of working, employment status and hours worked. The adverse effect was found to be more serious for female caregivers than for male caregivers. Moreover, our results suggest that the public LTCI program seems to only partially mitigate the disadvantages of the main caregivers for both males and females.

Introduction

An aging population is a common phenomenon among developed countries as well as some emerging countries especially in Asia. Together with extending longevity, care provision for the rapidly expanding population of frail elderly is one of the most serious challenges in the public policy arena. Since care provision at home has been conventionally borne mostly by women, dramatic demographic change may place more emphasis on women's role as caregivers. Most of those countries suffer from lower birth rates and expect their labor force to shrink in future. Women in these countries are confronted with the dilemma of being expected to be both caregivers and workers.

This is a particularly serious issue in Japan since the country is experiencing an unprecedented increase in the aging population and a historically stagnant birth rate. The proportion of the population aged 65 and over was approximately 25% in 2013 and is expected to increase to 33.4% in 2035 and 39.9% in 2060 (National Institute of Population and Social Security Research, 2012). Moreover, the proportion of older people living with a child was 69% in 1980, which had fallen to 42.3% in 2010 whereas the sum of the proportion of older people living with only a spouse and alone increased from 28.1% to 54.1% during the same period (Ministry of Health, Labour and Welfare "The Comprehensive Survey of Comprehensive Survey of Living Conditions" various years). The current Abe administration pushed forward female active participation and proposed new female-oriented policies in the package of the Japan Revitalization Strategy (approved on June 14, 2013), stating "it is essential for the 'power of women' to be fully utilized... Therefore, the Government will aim to raise the women's labor participation rate to the world's highest level by providing childcare arrangements and other services..."

To provide sufficient childcare and meet those seemingly contradictory policy requirements, the public long-term care insurance (LTCI) program was implemented in 2000, striving to "establish a system that responds to society's major concerns about aging, the care problem, whereby citizens can be assured that they will receive care and be supported by society as a whole" by shifting the responsibility of care from the family to the government, and the motivation of the statement is the fact that most caregivers were elderly and the number of working women increased (MHLW, 2002). In other words, the public LTCI program was expected to diminish the care burden and remove obstacles to the female labor supply (Shimizutani, 2014).

This paper provides new evidence on labor market outcomes of care provision in Japan. To do so, it examines the labor supply effect of family care provision for Japanese households in 2010, ten years after the introduction of the public LTCI program. The literature analyzing the relationship between caregiving and work using a variety of datasets is quite extensive but the results are still

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mixed (Van Houtven et al., 2013).[2] While a negative relationship between family care provision and extensive margin of work in terms of work probability is found in most studies (e.g., Heitmueller, 2007; Bolin et al., 2008), there is less consensus on intensive margins in terms of working hours (affirmative by Ettner, 1996; Johnson and LoSasso, 2000 for the U.S. and negative by Bolin et al., 2008; Casado-Marín et al., 2011; Wolf and Soldo, 1994) or in terms of wage penalties (affirmative by Carmichael and Charles, 2003; Heitmueller and Inglis, 2007). As Japan is one of the few countries that have introduced a social insurance-type public LTCI program (Tamiya et al., 2011), our findings on Japan's experience may be of interest for designing programs in other countries.

The possible adverse effect of caregiving on work behavior on the extensive and/or intensive margin may be expected to be naturally curtailed because the public LTCI program should substitute for a part of family care provision but there is scarce evidence to support this. One direction is that labor supply increases by the extent that public care provision substitutes for family care in the case that time constraints affect the ability to work. The other direction is that labor supply increases as a result of paying for care services to a wider section of the public. Such payments were only supplied to low income households before the introduction of the public LTCI program. To the best of our knowledge, there are few studies on the effect of the public LTCI program on labor supply. Shimizutani et al. (2008) used longitudinal data and found that the introduction of the LTCI program had a large, positive effect on the female labor supply; the program enhanced the probability of being employed by 30–60%, working days per week by 40–60%, and working hours per day by 50–70%. In contrast, Tamiya et al. (2011) found that the introduction of the LTCI program increased the probability of being employed mainly for the high-income group and weekly working hours by 4.6 h for the group, though they did not use longitudinal data covering before and after 2000. Note that those two studies focused on the effect of the introduction of the LTCI program on female labor supply attachment.

Few empirical studies have examined the causal relationship between caregiving and work attachment when the public LTCI program matured despite the expanding costs of formal care provision through the program. During the decade, the use of long-term care services grew considerably and LTCI costs doubled from 4.0 trillion yen in FY2000 to 8.4 trillion yen in FY2011. The National Council on Social Security (2006) estimated that LTCI costs will increase from 19 to 24 trillion yen by FY2025 (from 3.2% to 4.1% of GDP). Sugawara and Nakamura (2014) examined this area and conclude that the LTCI program has a positive effect on female labor supply. However, their results are questionable since they do not address endogeneity issues between the work decision and the need for care (their measure is subjective) and, more seriously, interpret any changes in the coefficient on need for care in the regressions at three different timings as the policy effect of the LTCI program, even though factors other than the program might have affected the coefficient and important variables may have affected labor supply such as educational attainment.

Empowered by micro-level data from a large-scale survey, we examined the impact of care provision for parents at home on labor market outcomes in terms of work (work or not) and employment status (regular worker, non-regular worker, self-employed or not at work) and hours worked per week if working. To do so, we focus on how the labor market outcomes of the main caregiver at home are affected by providing help for his/her parents (Lilly et al., 2010). We also relate those examinations to the public LTCI program to explore whether the LTCI program could mitigate a caregiver's disadvantages in the labor market. While our data limits our analysis to co-residential caregiving, there is little consensus on the effect of caregivers' residence on labor market outcomes; Ettner (1996) found that only non-coresidential female caregivers experience significant short-term negative work effects in the U.S. while co-residential caregiving has stronger negative effects on work in Europe (Casado-Marín et al., 2011; Heitmueller, 2007; Heitmueller et al., 2010).

This paper proceeds as follows. Section "Japan's public long-term care insurance program" provides a concise overview of the relevant aspects of Japan's LTCI program. Section "Data description" explains the dataset used in this study. Section "Empirical approach and results" describes our empirical approach and discusses the estimation results. The final section provides our conclusions.

Japan's public long-term care insurance program

This section provides a brief overview of the LTCI program in Japan, focusing on at-home care that is relevant to the current paper (Shimizutani, 2014). A distinct feature of Japan's LTCI program is its "decentralized yet centralized" approach (Mitchell et al., 2006, 2008).[3]

The LTCI program insurers are municipalities or their alliances. Participation in the program is compulsory and all Japanese citizens aged 40 or over are required by law to participate in the program regardless of whether they expect to receive LTC services. The insured persons are divided into Category 1 (individuals aged 65 and older) and Category 2 (individuals aged 40–64). In principle, only Category 1 persons may use LTC services once certified. The program is operated as a pay-as-you-go program, financed half by premiums levied on insured persons and half by contributions from the general tax revenues from central and local governments. LTCI premiums differ across insurers and are subject to revision every three years and means tested and categorized into six levels. The premium is deducted from the salaries of employees or the larger pension income of beneficiaries and is paid to each municipality by non-employees or pension beneficiaries with the smaller pension income.

When a beneficiary aged 65 and older requires long-term care support, one needs to be certified (approved) to receive services by application to the relevant municipality. The certification criteria are uniform nationwide and determined by information on physical and mental health, not on economic status such as income and assets. A certified person is assigned one of the seven care levels linking the necessity of support and the service allowance to be received. Care levels 1–5 are for disabled individuals in need of LTC to help with basic activities of daily living (ADL) and they can use "LTCI benefits" including institutional care services, at-home care services, and community-based services, whose provision is based on a care plan devised by a certified care manager selected by the beneficiary. In contrast, "Support Required" levels 1–2 are for individuals who can live independently but are in need of care to assist with instrumental activities of daily living (IADL) and they can use "preventive benefits," which are based on a care plan for prevention.

[2] In addition, Van Houtven et al. (2013) points out several major concerns regarding the previous literature on the causal relationship between caregiving and work. First, much of the older literature ignored the endogeneity problem between caregiving and work that was addressed by newer literature producing mixed results. Second, much of the recent longitudinal literature focused on Europe and is difficult to generalize.

[3] The centralized elements are aspects that the certification process, type of services to be insured, fee for service and co-payment are determined and uniformly implemented by the central government. In contrast, the decentralized elements are aspects where insurers and insurance premiums vary across regions and are collected by the municipality and types of care to be used are determined by a care manager and supplied by a variety of providers including for-profit organizations.