



ELSEVIER

Contents lists available at ScienceDirect

Journal of Housing Economics

journal homepage: www.elsevier.com/locate/jhec

Family labor supply, commuting time, and residential decisions: The case of the Tokyo Metropolitan Area [☆]

Yukiko Abe ^{*}

Graduate School of Economics and Business Administration, Hokkaido University, Kita 9 Nishi 7, Kita-ku, Sapporo 060-0809, Japan

ARTICLE INFO

Article history:

Received 19 January 2010

Available online 6 January 2011

JEL classification:

J22

R21

R23

Keywords:

Commuting

Family labor supply

Part-time work

ABSTRACT

In this paper, I build a model of family labor supply and residential choices that explicitly incorporates the full-time or part-time work decisions of married women. The model can explain why women's participation patterns in full-time and part-time work vary significantly in areas that are geographically close but differ in real estate prices. The model suggests that high commuting costs could be one of the main obstacles for women's full-time employment in places like the Tokyo Metropolitan Area.

© 2011 Elsevier Inc. All rights reserved.

1. Introduction

How is women's employment related to the geographical distribution of households? The present paper explores this question in a specific context: the Tokyo Metropolitan Area in Japan. I present an optimizing model of family labor supply and residential choices that incorporates an important institutional feature of the Japanese labor market: the decision by women to work full time or part time. The Tokyo Metropolitan Area is also unique in that real

estate prices are much higher for locations close to the Central Business District (CBD).

Costa and Kahn (2000) show that highly educated "power couples" in the United States became more likely to locate in the Metropolitan Statistical Areas (MSAs) from 1940 to 1990. They attribute this change to the colocation problem, i.e., the difficulty of finding a residence convenient to both spouses' workplaces. In contrast, Compton and Pollak (2007) analyze panel data and show that power couples are no more likely than other types to migrate to large metropolitan areas. Accordingly, they argue that colocation is not a major cause of the concentration of power couples in large MSAs.¹ Neither of these studies, however, is very explicit about the relationship between residential decisions and housing prices.

Several studies have investigated the relationship between women's employment and housing purchases. Yoshikawa and Ohtake (1989), Fortin (1995), and Del Boca and Lusardi (2003) empirically examine how the working

[☆] This paper uses microdata of the Employment Status Survey (ESS) made available through the Ministry of Internal Affairs and Communication of Japan under Article 33–2 of the Statistics Act. Microdata cannot be released due to the terms of usage of the data. I thank Kazuyasu Sakamoto, Yasuhiro Sato, and seminar participants at Nagoya University and Toyama University for helpful comments. This paper was presented at the 2009 Spring Meeting of the Japanese Economic Association at Kyoto University (June 6, 2009) and FESAMES 2009 Meeting at University of Tokyo (August 3, 2009). Remaining errors are my own. This research is supported by the Japan Society for Promotion of Science Grant-in-Aid for Scientific Research (Grant Number B-19330053 and C-20530188).

^{*} Fax: +81 11 706 4947.

E-mail address: abe@econ.hokudai.ac.jp

¹ Compton and Pollak (2007) also show that the concentration of power couples in MSAs declined slightly between 1990 and 2000.

status of married women is related to housing purchases by their households. In the regional science literature, Mok (2007) asks whether incomes of spouses are pooled or not in deciding housing location. Using the Canadian Census data for the Toronto Metropolitan Area, she finds that incomes are not pooled for couples without children. Iwata and Tamada (2008) build a model of commuting behavior of married women and argue for a non-monotonic relationship between the wage rate of working married women and their commuting time. Sakanishi (2007, 2008) builds a model in which household location is determined by the husband's choice and the wife chooses her employment status given the husband's location.

In this paper, I present a model of family labor supply that permits married women to choose from full-time and part-time job opportunities. The commuting costs, wage levels, and working hours for the two employment options are explicitly modeled so as to reflect the real constraints faced by couples in Japan. The model explains why the distribution of women's employment status differs significantly across prefectures in the Tokyo Metropolitan Area. Although the theoretical model is constructed to explain the facts for the Tokyo Metropolitan Area, the implications of the model are broadly consistent with empirical patterns observed in the New York Metropolitan Area: evidence from the New York area is reported in the Appendix.

The paper makes two novel contributions to the literature. First, it explicitly considers the optimization over married women's work (either full-time or part-time) and residential location. In modeling this, the "discreteness" of these two choices is particularly emphasized. This element of the model is especially relevant in the Tokyo Metropolitan Area, where full-time work is more common among women living close to the CBD than among women living in the suburbs. Such regional differences in participation are not observed for men (Section 2). By modeling the family's housing location and labor supply decisions simultaneously, this model provides a natural explanation for such patterns.

Second, the paper highlights the importance of commuting costs in understanding women's work in Japan. Several important measures (legal and otherwise) to promote women's participation in the workplace have been adopted in Japan in recent decades (e.g., the Equal Employment Opportunity Law, the Maternity Leave Law, and various policies to make balancing work and family easier). Nonetheless, the proportion of women working in regular full-time jobs in Japan has not increased much, especially over age 40. Most of the increase in women's employment after middle age has taken the form of non-regular, part-time work (Abe, *in press*). Commuting costs (including the time and energy necessary for commuting) have not fallen much for female workers in the past several decades, which may explain the sluggish increase in regular full-time employment for women.

The unique aspect of the model is that it explicitly incorporates the discreteness of the labor market in terms of full-time or part-time status. In Japan, full-time wages are much higher than part-time wages. Furthermore, it is difficult for women who left the labor force at childbearing age to return to regular employment (Ueda, 2007). These

factors make full-time and part-time work very distinct, whereas the middle ground between these two options is almost nonexistent. The model shows that the housing market operates in a way to further strengthen this discrete feature in the labor market.

Discreteness in the labor market can sometimes be mitigated by other "markets." For instance, if annual full-time earnings are higher than part-time earnings, in a multi-period setting full-time workers retire early but part-time workers retire late. Then lifetime earnings from the two employment statuses are more equalized than for single-period earnings, implying that intertemporal substitution mitigates discreteness in a single period.² What is unique about the housing market in this paper is that it operates to *magnify* the discreteness in the labor market.

The property whereby high-wage workers live close to the CBD whereas low-wage workers live farther from the CBD is common in many monocentric models because the bid-rent gradient is higher for high-wage earners. By contrast, the model in this paper assumes that all men work at the CBD while women have the option to engage in part-time employment for which the commuting time is zero. In this model, the distance from the CBD creates larger differences in women's behavior than for men's. The large discrepancy in women's behavior is caused by the discreteness in the labor market, magnified by the housing market.

The remainder of the paper is organized as follows. Section 2 presents stylized facts on regional differences in labor market participation. Section 3 presents a model that explains the stylized facts. Section 4 provides numerical examples of the model and Section 5 concludes. The Appendix reports evidence from the New York Metropolitan Area.

2. Stylized facts

2.1. Discreteness in women's employment choices: full-time and part-time work in the Japanese labor market

To introduce the stylized facts to be explained in the theoretical model, I begin with an overview of full-time and part-time work in the Japanese labor market. In subsections 2.1 and 2.2, participation in the two types of wage-salary earners is considered: (1) regular full-time employees and (2) part-time and casual employees.³ Part-time and casual employees comprise the typical non-regular workforce in Japan and their numbers have increased dramatically in recent decades. According to the ESS, among women aged 25–59 years, the number of part-time or casual workers was 4.5 million in 1987 and 7.4

² Abe (2009), albeit in a different setting from this paper, presents a model that explains this point.

³ In the data used in this paper, part-time and casual are the terms for employment status in the workplace. Both part-time and casual employees are non-regular workers. There is no clear distinction in tasks or working conditions for the two types of workers, although casual workers are generally younger than part-time workers. Students who work part time normally work under casual status. In the questionnaire of the Employment Status Survey (ESS, Statistics Bureau, Ministry of Internal Affairs and Communications of Japan), casual workers are referred to as "arbit workers".

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات