A new anatomy of the retirement process in Japan

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ABSTRACT

In Japan, retirement is a gradual process that transpires over a particularly long period of time. Using large scale micro-level datasets from the Survey of Employment of the Elderly compiled by the Japanese government, we provide some stylized facts on the development of retirement behavior since the 1980s and explore factors affecting the individual retirement decision. First, we observed a general declining trend in the proportion of retired individuals aged 55–59 (especially females) while the proportion of retired individuals aged 65–69 (especially males) increased. Second, the survival analysis on actual retirement age shows that those who are more educated are more likely to retire earlier and those who experienced mandatory retirement are less likely. Third, the survival analysis on the expected retirement age shows that individuals who are satisfied with their job in terms of nonmonetary rewards are less likely to retire earlier.

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1. Introduction

Retirement is a gradual process. In Japan, it begins with leave from a career job and eventually concludes with the decision to leave the labor force permanently. The process is lengthy and is affected by a variety of factors including economic, health, family, and other circumstances.

The usual starting point in the retirement process is separation from a career job, which in Japan often takes the form of mandatory retirement, increasingly prevalent in recent years encouraged by policies to employ the elderly. According to Survey on Employment Management (Koyo Kanri Chosa) compiled by Ministry of Health, Labor and Welfare, the proportion of firms employing 30 or more workers that had in place a mandatory retirement practice was 60 percent in 1980; the percentage increased to nearly 100 percent after 2000. The most dominant mandatory retirement age currently is 60. If the scope is widened to include smaller firms, the proportion of employees subject to mandatory retirement was approximately 60 percent for males and 40 percent for females in 2000 (Shimizutani and Oshio, 2010). On the other hand, permanent leave from the labor force is the last phase of the retirement process. In Japan, the average effective retirement age for males is 69.5 years and for females 66.5 years, both of which are the latest ages among OECD countries (OECD, 2008). It is worth noting that the average retirement age of males is both remarkable in and of itself as well as being higher than that for Sweden, the second highest, by 3.8 years.

Seen together, the prevalence of mandatory retirement at around age 60 and subsequent leave from the labor market in the late 60s implies that the retirement process is particularly lengthy in Japan, especially for male workers. The unusually long duration of the retirement process is considered one of the most distinct features of the Japanese elderly labor market and acknowledged to require in-depth analysis.[1] However, to our knowledge, evidence for recent development on retirement behavior has been scarce. This study aims to provide new systematic empirical evidence on when and how Japanese workers retire in order to enhance understanding of the retirement process of the world's latest retirees. This study performs three sets of analysis to provide a new anatomy of the retirement process in Japan. First, we present several retirement measurements that show new developments in retirement since the 1980s. Second, we employ a survival analysis to explore factors affecting the actual retirement age that include a variety of characteristics of individual and job status prior to mandatory retirement. Third, we examine determinants of the expected age that current workers will retire. The advantage of this analysis is that it explores the effect of current health condition, job satisfaction and family status on the retirement decision, and thus complements the analysis of the actual retirement age.

The paper proceeds as follows. The next section describes the dataset used in this study. Section 3 presents some basic facts

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[1] For example, the role of firms in post-retirement arrangements was examined by Clark and Ogawa (1997), Rebick (1995), and Shimizutani and Oshio (2010). Shimizutani and Yokoyama (2009) argued that long-term employment practice prevailed even after 1990s in Japan. See Lazear (1986) and Lumsdaine and Mitchell (1999) for a comprehensive survey on retirement.

about developments in retirement behavior since the 1980s. Section 4 explores factors affecting the actual retirement age and Section 5 employs a similar analysis for the expected retirement age. The last section summarizes our findings.

2. Data description

This study uses micro-level data from the *Survey on Employment of the Elderly* (henceforth, the SEE survey), compiled by the Ministry of Health, Labor and Welfare (formerly Ministry of Labor), Government of Japan. The individuals in the sample were aged between 55 and 69 randomly chosen from all regions in Japan. The SEE survey has been performed every four or five years and the sample size is 20,000–30,000 depending on the survey year.[2] In this study, we describe the development of retirement behavior using micro-level data from the surveys conducted in 1983, 1988, 1992, 1996, 2000, and 2004 and perform survival analysis on actual and expected retirement age using the 2000 survey since that year's survey contains information on specific retirement age that is indispensable to the hazard analysis.

To our knowledge, the SEE survey is one of the few datasets in Japan that contains essential information on developments in retirement behavior. One feature of the survey is that it provides multiple variables including the individual's characteristics, current employment status, actual and expected retirement age, and social security eligibility and benefits. Another feature of the survey is that the sample size is large enough to enable construction of cells by age and gender, which permits us to perform in-depth analysis on retirement trends. The sampling design has remained unchanged year to year and the questions related to retirement are for the most part consistent, which is suitable for depicting "basic facts" on a long-run development of retirement covering two decades, during which time large economic fluctuations and a variety of social security reforms were witnessed.

3. Developments in retirement behavior in Japan

In this section, we provide the proportion of the retired and show new developments in retirement behavior though several measurements. First, we provide macro-evidence on the trends of the labor force participation (LFP) rate, which is often used to summarize retirement behavior. Fig. 1 reports the labor force participation rate by age group (55–59, 60–64 and 65–69) and sex. The source of this data is the publicly available tabulation of the *Labor Force Survey* (Roudou ryoku chosa) compiled by the Government of Japan. The upper panel shows that the LFP rate of males aged 55–59 exceeds 90 percent and levels off and that of males aged 60–64 varies between 70 and 80 percent with a sharp rise in 2007. In contrast, the LFP rate of males aged 65–69 has been on a declining trend with some recovery since 2005. The lower panel shows that the LFP rate of females aged 55–59 has been increasing since the mid-1980s and those of females aged 60–64 and 65–69 level off with a modest recovery in recent years. Among these trends, it is worth noting the decline of the LFP rate of males aged 65–69 and the rise of the LFP rate of females aged 55–59.

Next, we turn to the developments in retirement by age and sex using the SEE survey in six different years between 1983 and 2004. Since the concept of retirement is rather complex, it needs to be defined before proceeding. In fact, there are a number of ways to define "retirement" depending on the purpose of the topic to be examined (Lazear, 1986). Thus, we will use five different
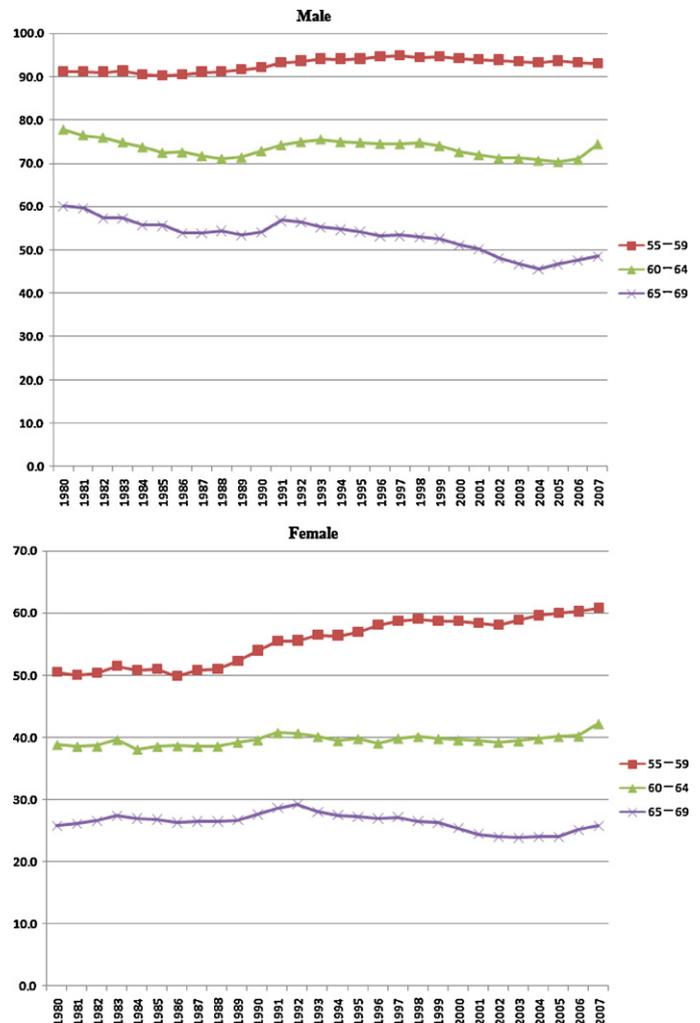

Fig. 1. Labor force participation rate since 1980.

retirement measurements available in the survey, though some definitions are not consistently available through all six surveys.[3]

Definition 1 is the state in which a respondent has already permanently stopped working for a salary. The 2000 and 2004 SEE surveys pose the question as follows: "Have you ever considered permanently discontinuing a salaried job or have you already permanently stopped working for a salary?" While the implicit definition of "work for salary" or "permanently" depends on the identity and point of reference of the respondent, the answer to the question is a starting point to explore retirement behavior. Fig. 2(1) shows that the proportion of retirees by this definition increases with age and is consistently smaller for males than females in all ages. In 2000, the proportion for males increased from 9 percent (21 percent for females) at age 60–37 percent (44 percent) at age 69. At a closer look, the proportion of males levels off in the 50s, jumps at age 60, and is followed by an upward slope in the 60s. The proportion of females jumps at around age 60–61 after which a

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[2] The total sample size was reduced to 19,595 in the 2000 survey and 17,853 in the 2004 survey.

[3] See Gustman et al. (1995) for several retirement measures using HRS, though a direct comparison with this analysis is not possible due to different age ranges (51–60 in their paper). A popular definition is an affirmative answer to a question regarding retirement status like "Are you currently retired?" (Lazear, 1986). The other definitions in Lazear (1986) are (1) the individual is out of the labor force with the intention of remaining out permanently, (2) the individual has reduced his hours substantially from some lifetime average and intends to maintain hours at or below the current level, (3) the individual receives some of his income as pension benefits, (4) the individual appears on some company's retirement role, and (5) the individual receives a primary social security payment.