

# Phased Retirement for Older Workers in Taiwan

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## Abstract

Among older workers around the world, working part-time has become a popular option as a transition from a full-time job toward full retirement. Five waves of The Survey of Health and Living Status of the Elderly (SHLSE) in Taiwan from 1989 to 2003 are used to study older workers' part-time work behaviors. The data confirms that more than 20% of full-time older workers with at least 10 years of job tenure do not just fully retire from their career jobs. Moreover, there exists a significant portion of older workers who stay with their career jobs and work part-time; this is different from what Quinn et al. (1990) and Chen (2004) both found in the 1970's and 1990's in the United States. The empirical results also show that older or married workers are less likely to use phased retirement options. In addition, workers with longer work experience or years of job tenure are more likely to work part-time on their career jobs in Taiwan.

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## **I. Introduction**

Retirement of older workers is an important policy issue that has received considerable public attention. Traditionally, older workers' retirement decisions are viewed as a dichotomous choice between full-time work and full-time leisure. People either work full-time, or they retire fully. But, Quinn, Burkhauser, and Myers (1990) challenged this view; they used the Retirement History Survey data to establish that older workers in fact took several different paths from their full-time career jobs on their way to full retirement in the United States during the 1970s. In particular, there were many older workers who chose part-time jobs as bridge jobs before full retirement, i.e. the so-called phased retirement. Interestingly, however, these part-time jobs often involve a move to a new employer rather than remaining with the original full-time employer. Friedberg (1999) and Chen (2004) both observed similar findings during the 1990s. In this paper, we empirically examine older workers' retirement patterns, and study the factors which might affect their choices toward phased retirement in Taiwan.

There are several reasons why this might be an important and interesting topic. First, by examining the most recent available data of Taiwan, we can determine whether older Taiwanese workers have job transition patterns similar to the ones found in the United States and the rest of the world. In particular, it would be interesting to know the extent to which older workers are taking up part-time jobs after exiting their full-time career jobs. And, do most of them have to move to a new employer? Second, if we find that older workers do move to part-time work in other firms in Taiwan, it would be something of a puzzle. If the highest and the best of a person's skills are to be used by the same employer for many more years, then it is reasonable to expect that the best part-time job for that person would most likely be with the same employer. Third, there may be social benefits from an enhanced understanding of why older workers rarely move from full-time to part-time within the firms they have served for a long time. If older workers want part-time jobs and do not stay with

their long-term employers, they cannot utilize their specific human capital, which can presumably make them more useful and productive for their current employers than in other firms. This situation may imply that there are potential efficiency gains to be derived from enhanced part-time job opportunities for older workers, who want to gradually retire from their career jobs within the same company.

This paper begins with examination of data from 1989, 1993, 1996, 1999, and 2003 Survey of Health and Living Status of the Elderly in Taiwan (SHLSE), to study patterns of older workers' job transition before full retirement. In particular, it would be interesting to know the extent to which older workers are taking up part-time jobs after exiting their full-time career jobs. Next, this paper studies what variables are most closely associated with older workers' shift to part-time jobs. For instance, what are the variables most closely associated with the probability that older workers shift from full-time to part-time at the same job? Also, what are the variables associated with the probability that older workers shift from full-time to a part-time job elsewhere? What role is played by older workers' demographic characteristics (i.e. gender, age, education and marital status), financial incentives (i.e. type of pension(s) and other pension characteristics), and wages? As part of this research, this paper would examine whether part-time work with a new employer and part-time work with the existing full-time employer are different phenomena.

## **II. Literature**

Traditionally, transitions toward full retirement do not play an important role in the study of retirement. Most researchers consider retirement as dichotomous: an older worker is either working full-time, or is fully retired. There is no gray area(s) or transitional state(s) between an older worker's full-time career job and retirement. Part of the reason for this may be because, in the past, many older workers retired directly from their full-time career jobs and never considered other possible alternatives (like a part-time job) as transition jobs before full retirement.

However, this trend might have changed. For example, Gustman and Steinmeier (1984, 1985) find that more and more older workers take part-time jobs as a “bridge” to full retirement in the United States. This trend has emerged in other countries as well (see Laczko, 1988; Latulippe and Turner, 2000; Lei and Genevieve, 1996). Also, the tendency toward more part-time older workers might in fact delay the retirement age of the old in the future (Friedberg, 1999; Quinn, 1997). However, most of these studies do not treat working part-time at career jobs separately from working part-time jobs elsewhere. They usually consider both kinds of part-time jobs as one category; they do not, or cannot, answer the question why many of part-time transition jobs are taken up with firms other than those where a worker had his/her career job.

Quinn, Burkhauser, and Myers’ (1990) book is the first and the major study that addresses the issue of part-time jobs inside (i.e. switch to part-time within career jobs) and outside (i.e. take up a part-time job elsewhere). It uses data from the Retirement History Survey to document the patterns of older workers’ switch to part-time jobs as transition toward retirement in the 1970s. It also examines the correlation between transition patterns and many individual characteristics like health, education, pension status, industry and occupation, and wage. Furthermore, it points out that different types of employer-provided pension plans could be the major factor affecting an older worker’s choice between part-time inside and part-time outside. For example, it suspects that many older workers, who are entitled to defined benefits under pension plans, stand to lose some of their pension benefits when they opt for part-time inside jobs. So, more part-time outside jobs than part-time inside jobs are observed in the Retirement History Survey. Besides, Chen (2004) finds similar job transition patterns in the United States during the 1990s.

Due to the limitation of available data for older workers, only a few empirical studies have been conducted on retirement in Taiwan. Ho (2003) used the 1996 Survey of Health and Living Status of the Elderly in Taiwan to study older workers’ retirement behavior. The author

estimated two duration models and the major findings were: age, gender (female), number of kids, and bad health have positive effect on the probability of retirement. Also, people with pension benefits, and with low income, are more likely to retire. Huang (2007) discusses the factors which affect workers' expected retirement ages, and finds that family structure plays an important role in workers' choices. Indeed, neither of these two studies deals with the transition between a full-time career job and full retirement.

### **III. Economic Theory and Statistical Models**

When workers approach their retirement age, when/how to retire definitely becomes an important decision to be made by them. Many older workers express an interest in gradually reducing work hours for some years and then becoming fully retired (Chen, 2004). Working fewer hours and staying with the same firm is not always a feasible option for many older workers. It could be that the current employer-provided financial packages for phased retirement are not attractive or there is no phased retirement arrangement at all. In general, wage and pension benefits are the two major factors when employers design their financial packages for the workers who seek phased retirement. For example, when current employers do not want their older workers to stay and work part-time, they could just pay an unattractive part-time wage to current older workers or even make no wage offer at all.

There are some dissimilarities between inside and outside part-time jobs could exist. First, the size of the firm could play an important role in this. In general, larger firms could be more flexible in offering part-time work opportunities for their current employees since these firms have more job positions and could be more likely than smaller firms to find ways to accommodate part-time positions.

Second, different employer-provided pension plans could have different effects older workers' part-time inside and outside choices. In particular, individuals with defined benefit pension plans could be more likely to move to an outside firm than individuals with defined contribution pension plans. This is true because, as a general rule, older workers need to leave

their current firm in order to start collecting their pension benefits when their pension plan is a defined benefit plan. Also, the last years of the wages usually have large weights on the pension benefits among most of the defined benefits pension plans. So, a move to part-time schedule would severely hurt an older worker's pension benefits when the type of pension is defined benefit. On the other hand, defined contribution plans could be more neutral on older workers' inside and outside choices, since the pension benefits stay the same whether the older workers move outside or stay inside. Therefore, two testable hypotheses are drawn from the discussion of part-time inside and outside job differences: larger firms are more likely to offer part-time inside jobs, and defined benefit pension plans encourage older workers to move to part-time outside jobs.

We consider that old workers can choose among different possible states:

- (1) Part-time Inside (PI): work part-time at career jobs,
- (2) Part-time Outside (PO): work part-time at different jobs,
- (3) Full-time Inside (FI): work full-time at career jobs,
- (4) Full-time Outside (FO): work full-time at different jobs, and
- (5) Out-of-Labor-Force (OLF): not work at all.

Let us consider a five-choice model (with full-time inside, full-time outside, part-time inside, part-time outside, and out of labor force options):

$$FT \text{ inside (FI) indirect utility:} \quad U_{i,FI} = Z_{i,FI} \gamma_{FI} + \eta_{i,FI} \quad (1')$$

$$FT \text{ outside (FO) indirect utility:} \quad U_{i,FO} = Z_{i,FO} \gamma_{FO} + \eta_{i,FO} \quad (2')$$

$$PT \text{ inside (PI) indirect utility:} \quad U_{i,PI} = Z_{i,PI} \gamma_{PI} + \eta_{i,PI} \quad (3')$$

$$PT \text{ outside (PO) indirect utility:} \quad U_{i,PO} = Z_{i,PO} \gamma_{PO} + \eta_{i,PO} \quad (4')$$

$$Out \text{ of labor force (OLF) indirect utility:} \quad U_{i,OLF} = Z_{i,OLF} \gamma_{OLF} + \eta_{i,OLF} \quad (5')$$

$U_{i,\cdot}$  is the individual  $i$ 's utility from working either full-time inside/outside, part-time inside/outside, or out of labor force,  $Z_{i,\cdot}$  are the covariates,  $\gamma$  are coefficients, and  $\eta_{i,\cdot}$  are

structure disturbances.

The vector  $Z_i$  contains variables which affect worker  $i$ 's job transition decision such as gender, age, pension characteristics, marital status, firm sizes, etc. Basically, an older worker has to choose a job status that gives him/her the highest utility among options (1') to (5'). For example, if working full-time inside produces the highest utility for individual  $i$ , i.e.  $U_{i,FI} > \max\{U_{i,FO}, U_{i,PI}, U_{i,FO}, U_{i,OLF}\}$ , then individual  $i$  will choose to work full-time inside. A multinomial logit model is used to estimate the  $\gamma$ 's

#### **IV. Data**

The Survey of Health and Living Status of the Elderly (SHLSE) in Taiwan is the primary data source for this project. The SHLSE is a national representative panel study which contains rich information about older people's retirement decisions, health status, family structure, employment history, and housing. The SHLSE collected its first wave data in 1989, and subsequently repeated the exercise almost every three years or so. There were over 4,049 individuals in the initial wave of the 1989 sample. All respondents were 60 years or older in 1989. All respondents have been re-interviewed almost every three years, since their first interview in 1989. Thus, there are five waves of SHLSE data available (i.e. 1989, 1993, 1996, 1999, and 2003).

The focus of this study is on the transitions that older workers make when exiting their full-time career jobs. Thus, only individuals who had career jobs in the first wave are kept in the sample. A career job is defined as working full-time with at least 10 years of job tenure. In the data set, we found that there are 824 individuals with career jobs. These older workers have at least five choices while they still have their full-time career jobs: part-time inside, part-time outside, full-time inside, full-time outside, and full retirement. The individuals in the sample were followed in later years, until they moved out of their full-time career jobs. Then, the choices made at the time of retirement from full-time career jobs were recorded.

There are many variables which could potentially explain older workers' retirement

choices. For example, SHLSE has fairly rich information about individuals' wages, health status and health insurance coverage, pension information, job characteristics (i.e. firm size, industry, occupation), and individual and family characteristics (age, gender, education, marital status, number of children, family income and wealth).

## **V. Empirical Results**

Based on Table 1, we find that the majority of older workers just retire their career jobs, and it is 61%. In addition, the proportion of older workers who work part-time inside jobs is much greater than part-time outside jobs, which about 15 to 1. Also, there are only 4.5% of the older workers who choose to work full-time outside jobs. Finally, there are still 18.1% of the older workers who still work on their career jobs.

The job transition pattern is different from the one found in the previous studies based on the United States data. In Chen (2004), and Quinn et al. (1990), most of the older workers chose part-time outside jobs toward full retirement instead of part-time outside jobs. But, we observe that almost all older workers selected part-time inside jobs as bridge jobs toward retirement.

There are many possible reasons why we found a different result in Taiwan. First, people might change jobs less often in Asian countries than in the U.S. Thus, when older workers make their transition decisions, they have the options to stay and they might also prefer to stay with their career jobs. Second, Taiwan is a small country, and most old workers do not move to a different city/region when they retire. Since they will stay at the same place even after retirement, they might just keep working for the original employers. Finally, there might have enough part-time job opportunities outside of current employers, so older workers' main option is to stay at their career jobs if they decide to work part-time in Taiwan.

Next, Table 2 reports the results of job transition choices using a multinomial logit model. There are five choices available to older workers: part-time inside, part-time outside, full-time



inside, full-time outside, and out of labor force. Out of labor force is used as the reference group when we run the multinomial logit model.

We found that variables age, marital status, work experience, and years of job tenure have significant effects on older workers' decision to choose part-time inside job. For example, age has a negative effect for choosing part-time inside jobs. So, the older you are, the more likely you will select full retirement instead of part-time inside jobs as bridge jobs toward retirement. Work experience and job tenure both have positive effects for selecting part-time inside jobs. Thus, more experienced workers in labor markets and/or more experienced workers in current jobs are both more likely to work part-time inside jobs. Finally, married older workers are less likely to work part-time inside jobs.

## **VI. Conclusions**

Among older workers around the world, working part-time has become a popular option as a transition from a full-time job toward full retirement. Five waves of The Survey of Health and Living Status of the Elderly (SHLSE) in Taiwan from 1989 to 2003 are used to study older workers' part-time work behaviors.

The SHLSE data shows that more than 20% of full-time older workers with at least 10 years of job tenure do not fully retire from their career jobs. Instead they take transition jobs like working part-time in current jobs, other part-time jobs, or other full-time jobs, as they move toward full retirement. Moreover, in the SHLSE data, there exists a significant portion of part-time older workers who stay with their career jobs and work part-time; this is different from what Quinn et al. (1990) and Chen (2004) both found in the 1970's and 1990's in the United States.

The empirical results also show that when older workers get older or when they are married, they are more likely to just retire from their career jobs. In addition, older workers are more likely to select part-time inside jobs if they have longer work experience or years of job tenure.

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**Table 1: Job Transition Patterns**

	Number of individuals	%
Career Jobs	824	100%
Full-Time Inside (FI)	149	18.1%
Full-Time Outside (FO)	37	4.5%
Part-Time Inside (PI)	126	15.3%
Part-Time Outside (PO)	9	1.1%
Out-of-Labor-Force (OLF)	503	61%

Data Source: SHLSE 1989-2003.

**Table 2: Estimation Results for Job Transitions**

Estimation Method	Multinomial Logit (N=824)			
Types of job transitions (reference type: OLF)	PI	PO	FI	FO
Male	-0.3075	-0.1710	-0.8870**	-1.0251**
	(0.2698)	(1.1685)	(0.2845)	(0.5404)
Age	-0.0884**	0.0433	-0.2259**	-0.1810**
	(0.0387)	(0.1196)	(0.0373)	(0.0636)
Married	-0.6582*	16.970**	0.6233	-0.4634
	(0.4060)	(5.4000)	(1.0486)	(1.1057)
Number of Children	0.0614	-0.1498	0.0183	-0.0497
	(0.0658)	(0.2904)	(0.0766)	(0.1346)
Urban	0.0136	-0.0592	0.0082	0.0249
	(0.0183)	(0.0578)	(0.0178)	(0.0294)
Health Status	0.1479	0.0188	0.0735	-0.2145
	(0.1017)	(0.3600)	(0.0992)	(0.1816)
Spouse Working	-0.1781	-0.9839	0.4598**	0.2303
	(0.2295)	(0.8727)	(0.2101)	(0.3665)
Pension	0.4303	0.0407	0.0240	0.3299
	(0.4164)	(1.1570)	(0.4662)	(0.6140)
Work Experience	0.0550**	-0.1548	0.0104	0.0213
	(0.0254)	(0.0863)	(0.0248)	(0.0429)
Job Tenure	0.0226**	0.0085	0.0210**	-.0339**
	(0.0091)	(0.0365)	(0.0100)	(0.0172)
Constant	0.7751	-15.463**	10.528**	9.6419**
	(1.8381)	(1.1571)	(1.9820)	(3.1195)

Note: All the covariates are from the career full-time jobs, and standard deviations are in parentheses. "\*\*\*" is significant at 0.05 and "\*" is significant at 0.10 Type I error level. Data Source: SHLSE 1989-2003.

PI: part-time inside jobs.

PO: part-time outside jobs.

FI: full-time inside jobs.

FO: full-time outside jobs.

OLF: out of labor force (retirement).