

## GRADUAL RETIREMENT AMONG MIDDLE-AGED AND OLDER WORKERS IN TAIWAN

Ching-Li Yang<sup>1\*</sup> Wan-Chun Chuang<sup>2</sup> Han-Yu Wu<sup>3</sup>

<sup>1</sup> Professor, Department of Sociology, National Sun Yat-sen University, Kaohsiung, TAIWAN; Joint Appointment Professor, Institute of Gerontology, National Cheng-Kung University, Tainan, Taiwan. Email: [clyang@mail.nsysu.edu.tw](mailto:clyang@mail.nsysu.edu.tw)

<sup>2</sup> Assistant, Institute of Gerontology, College of Medicine, National Cheng Kung University, Taiwan. Email: [virginia@gamil.com](mailto:virginia@gamil.com)

<sup>3</sup> Research Associate, Department of Sociology, National Sun Yat-sen University, Kaohsiung, TAIWAN. Email: [whysoon@gmail.com](mailto:whysoon@gmail.com)

\*Corresponding author

### Abstract

As a result of the aging population across the world, middle-aged and older workers play a key role in the labor market that is likely to face supply shortage in the near future. Gradual retirement gives these workers an alternative other than full-time work or complete retirement. While most related studies are based on the situations of the U.S. and European countries, this study attempts to better understand the case of Taiwan by examining the factors for gradual retirement among Taiwanese middle-aged and older workers.

Using data from Taiwan Longitudinal Study on Aging (TLSA), we employed logistic regression models to explore the factors that affect an individual's decision on taking gradual retirement. Two different definitions of gradual retirement including taking bridge jobs and continuing to work after receiving old-age benefit are used.

The results show that the utilization of bridge jobs was more common among younger respondents, respondents with higher income and respondents are self-employed. We also found that keeping work after receiving retirement benefits was more common among male, self-employed and blue-collared respondents, respondents at poorer self-assessed financial status, respondents with higher income and respondents with better self-assessed health status. Besides, we suggest that the retirement process of middle-aged and older workers are not a single-direction pathway but a continual transferal between full time work, part-time work and retirement.

**Keywords:** older workers, gradual retirement, bridge jobs, old-age benefit

### 1 INTRODUCTION

With low fertility and expansion of higher education, labor force shortage is a common threaten for developed countries. Therefore, numerous countries turn to other alternative human resources, such as women, minority, disabled and older workers, for alleviating the problem of labor force supply. On the other hand, health status of

older people has been improved along with human longevity, which means that people still have the ability to work and may want to stay in labor market during their young old age. As a result, employment of older workers becomes a hot issue among developed countries.

To encourage old people participating labor market, the European Union is very actively promoting gradual retirement. What is gradual retirement? In fact, there is no conclusive definition. Gradual retirement is a general term, refers to gradual change in a person's work arrangements as a transition toward full retirement (EBSA, 2000). Literatures have used a variety of indicators to define gradual retirement, such as reducing working hours (Kantarci and Van Soest, 2008), reducing wage associated with partial pension (Honig and Hanoch, 1985), to change employers at 55 years and older (Cahill et.al, 2006; Gustman and Steinmeier, 2000), and to make a self-assessment as gradual retirement (Gustman and Steinmeier, 2000; Pengcharoen and Shultz, 2010). Some literatures combined changes in working hours or wage and self-assessment together (Ruhm 1990; Scott2004), while others combined wage and working hours only (Honig 1985).

Gradual retirement includes phased retirement and partial retirement (Kantarci and van Soest, 2008). The former is working for the same employer with same working system but gradually reduce workload (of course, often accompanied with a reduction in salary). The strategies adopted could be re-scheduling work plan, assigning a temporary mission, engaged in consulting work, allowing telework (using a computer in a remote office), and sharing work with others, etc. (Reday-Mulvey 2000). Partial retirement is to leave original career jobs and then work under different employers or become self-employed workers, mostly along with salary decrease (Honig and Hanoch 1985; Scott 2004). Both new types and positions of work are referred as "bridge job".

So far, a lot of EU members, including Sweden, Finland, Denmark, France, Germany, Austria, Italy, Luxembourg and Spain (Ready-Mulvey and Delsen, 1996), have implemented gradual retirement system, and an increasing number of non-EU countries began to consider gradual retirement along with partial pension programs. Comparing to European countries, phased retirement is relatively rare in the United States because most US pension programs are defined benefit system with no attraction for employees to work longer (Chen and Scott, 2003; Forman and Scahill, 2003). Besides, the US has no universal national health insurance therefore employers have to bear more health insurance expenditure if hiring older workers, and unions often do not allow arbitrary adjustment of working hours and wages. (Hurd, 1996) On the other hand, partial pension programs and part-time jobs are more popular in Europe to nourish the gradual retirement system.

Taiwan is one of the fastest aging population countries in the world as a result of rapid declining fertility rates and longer life expectancy, and will be an aged society (the proportion of people aged over 65 years is more than 14%) in 2018 and hyper-aged society (the proportion of people aged over 65 years is more than 20%) in 2025. Labor force aging and supply shortage will be drastic threatens and older workers' gradual retirement could play a key role in the near future. While most related studies are based on the situations of the U.S. and European countries, this study attempts to understand the case of Taiwan by examining the prevalence of gradual retirement and factors affecting taking gradual retirement among Taiwanese

middle-aged and older workers.

## 2 METHOD

### 2.1 Analytical framework

There are three categories of factors affecting people to choose gradual retirement: (1) the preferences of elderly workers (demand-side factors), (2) availability of flexible jobs offered by employers (supply-side factors), (3) institutional constraints, for example, whether retirement is a required condition for applying old-age pension. This paper focus on the demand-side factors due to the limited information of supply-side factors and the institutional factor is included into a special definition of Taiwan's gradual retirement. The demand-side factors can be classified as demographics, economic, health, family, job and psychological factors (Adams and Rau, 2004; Cahill et.al, 2006; Davis, 2003; Ekerdt et al., 1996; Kim and DeVaney, 2005; Kim and Feldman, 2000; Mutchler et.al, 1997; Quinn and Kozy, 1996).

Using data from Taiwan Longitudinal Study on Aging (TLISA), we employed logistic regression models to explore the factors that affect individual's decision on taking gradual retirement. Psychological factors emphasis the meaning of work and are not available in TLISA, therefore we established an analytical framework (Figure 1) in which psychological factors were not included. The symbols in brackets represent a positive or negative effect of explanatory variables on response variable.

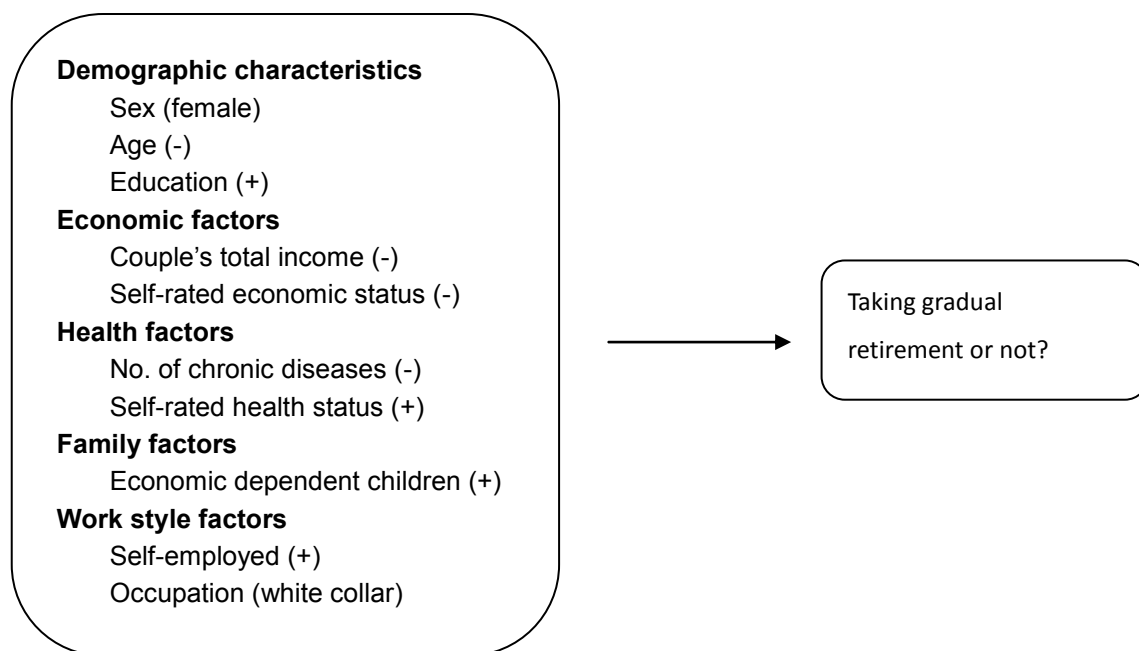


Fig. 1 Analytical framework and hypotheses

### 2.2 Data

Data for this study come from the "Survey of Health and Living Status of the Elderly in Taiwan" which is a longitudinal panel survey conducted in 1989. Our analysis uses data from the first to sixth waves of the survey

(1989, 1993, 1996, 1999, 2003 and 2007). The initial survey consisted of a nationally representative sample of aged 60 and older including non-institutionalized and institutionalized individuals (Panel B). In 1993 these individuals were aged 64 and older and in 2007 they were 78 and older. The 1996 survey included an 'aged-in' component with individuals aged 50 to 66 (Panel A) who were interviewed for the first time using a similar questionnaire and the newly added individuals in 2003 are aged 50 to 56 (Panel C).

## 2.3 Measures

### 2.3.1 Two definitions of gradual retirement

Two definitions of gradual retirement are used in this study: (A) taking bridge jobs and (B) continue to work after old-age benefit received. The first definition is common among related literature. The second is a special operation for Taiwan's situation. According to Taiwan's Labor Standards Act, workers with 15 years tenure or reach 55 years old is qualified to voluntary retirement, so many workers at the time of retirement may not really want to quit from labor market, but to get a lump-sum payment of old-age benefit. Nevertheless, regardless of the original intention of retirement application, once the retirement is approval, the workers may think their new jobs the second wind of career, and probably do not require specific work conditions that they insisted before. This is just the concept of graduate retirement.

For the definition A, the most adequate measurement is retrospectively depicting the work pathway, with or without bridge jobs between full-time career jobs and fully retired, of those who are already fully retired. But the sample size of qualified respondents is too small to conduct multivariate analysis. Therefore, we used a broader definition: as long as taking part-time job after a full-time job, no matter in which wave of survey, is defined as gradual retirement workers. That is, we included respondents who had a full-time job in wave 1 (1989) to wave 5 (2003), then identified if they had any part-time jobs in the following waves of survey. Although we cannot make sure the part-time job is really a "bridge job", because all respondents are 50 years and older (respondents of wave A and C are 60 years and over) and have had a full-time job before, we believe the part-time job is quite close to a bridge job. The measurement of definition B is straightforward. We defined those who were engaging in works (no matter in full-time or part-time jobs) after having received old-age benefits as gradual retirement workers

### 2.3.2 Operational definitions of two explanatory variables

The operational definitions of explanatory variables "Couple's total income" and "Occupational strata" are summarized in table 2.

Table 2 Operational definitions and values of response and explanatory variables

Variables	Definition
Couple's total income	2 categories: higher and lower income Cutting point: two times of average disposable income per capita in survey year

Occupational strata	Higher stratum: person who performs professional, administrative, or managerial work. Ex. Doctor, lawyer, technician, employer, manager, etc. Lower stratum: those who work for wages. Ex. salesman, clerk, craftsperson, semi-skilled workers, non-skilled workers, farmers, etc.
---------------------	---

### 3 RESULTS

#### 3.1 Descriptive statistics

Table 3 shows the frequency distribution of all variables we included for logistic regression models. There were 1,771 respondents who had a full-time job in first 5 waves of survey composing the qualified sample for analyzing gradual retirement definition A, and the proportion of ever taking gradual retirement is 20.04%; while 2,078 respondents who had ever received old-age benefits composing the qualified sample for analyzing gradual retirement definition B, and the proportion of ever taking gradual retirement is 41.72%. No matter in which definition, male respondents are more than female respondents.

Table 3 Frequency distribution of all variables included for logistic regression models

	Definition A: taking a bridge job		Definition2: continue to work after old-age benefit received	
	Frequency	%	Frequency	%
Sample size	1771		2078	
Taking gradual retirement				
Yes	355	<b>20.04</b>	867	<b>41.72</b>
No	1416	79.96	1211	58.28
Panel				
Panel B	782	44.16	829	39.89
Panel A	754	42.57	938	45.14
Panel C	235	13.27	311	14.97
Age				
50-54 years	394	22.25	359	17.28
55-59 years	372	21.01	407	19.59
60-64 years	603	34.05	676	32.53
65-69 years	291	16.43	464	22.33
70-74 years	87	4.91	123	5.92
75 years and above	24	1.36	49	2.36
Sex				
Male	1260	71.15	1635	78.68
Female	511	28.85	443	21.32
Education				
Primary school and illiterate	1187	67.02	1065	51.25
High school	401	22.64	659	31.71
College and above	183	10.33	354	17.04
Self-rated economic status				
Good	732	42.09	934	46.17
Normal	682	39.22	741	36.63
Bad	325	18.69	348	17.20
Couple's total income				
Higher	721	40.71	1158	55.73
Lower	1050	59.29	920	44.27
Self-rated health status				

Good	953	54.71	1068	52.51
Normal	574	32.95	651	32.01
Bad	215	12.34	315	15.49
Number of chronic diseases				
0	1104	62.34	1230	59.19
1	370	20.89	428	20.60
2	177	9.99	216	10.39
3	72	4.07	117	5.63
4	29	1.64	47	2.56
5 and above	19	1.08	40	1.92
Economic dependent children				
at least one child	883	49.86	989	47.59
None	888	50.14	1089	52.41
Occupational strata				
Higher stratum	556	31.39	738	35.79
Lower stratum	1215	68.61	1324	64.21
Self-employed				
Self-employed	783	44.56	444	22.16
Not self-employed	947	55.44	1560	77.84

### 3.2 Logistic regression

Before carrying out regression analysis, we examined the correlation coefficients of each two variables (data not shown). The correlation coefficients for most pair of variables are low (less than 0.3). A small part of correlations are moderate, such as educational attainment and couple's total income ( $r=0.459$ ), and educational attainment and occupation ( $r=-0.546$ ). Since our respondents are 50 years and older, the advantage/ disadvantages of education attainment has been converted into economic and occupational performance. To make the model more parsimony, we excluded the variable of education for logistic regression.

When we used "taking bridge job or not" as the dependent variable, table 4 (the left two columns) showed that younger persons, couples with lower total income, and self-employed workers were more likely to taking gradual retirement strategy. When "continue to work after old-age benefit received" as the dependent variable, table 4 (the right two columns) indicate that men, who are not satisfied with the self-rated economic conditions, couple with higher total income, more satisfied with self-rated health status, self-employed workers and lower stratum workers were more likely to taking gradual retirement strategy.

Table 4 Logistic regression of taking gradual retirement

	Definition A: taking a bridge job		Definition2: continue to work after old-age benefit received	
	P-value	Odds Ratio	P-value	Odds Ratio
Sex				
male (ref.)		1		1
female	0.0511	0.786	<0.0001*	0.329
Age	0.0442*	0.976	0.0551	0.984
Self-rated economic status				
Good (ref.)		1		1
Normal	0.5132	1.038	0.5565	1.067
Bad	0.0521	1.346	0.0015*	1.583

Couple's total income Lower(ref.) Higher	0.0266*	1 0.644	0.0003*	1 1.506
Self-rated health status Good (ref.) Normal Bad	0.5762 0.4967	1 0.920 0.851	0.0075* <0.0001*	1 0.741 0.470
Number of chronic diseases	0.0852	0.931	0.6003	1.025
Occupational strata Higher stratum Lower stratum (ref.)	0.1203	0.725 1	0.0327*	0.792 1
Economic dependent children at least one child None(ref.)	0.0788	1.262 1	<0.0001*	2.369 1
Self-employed Self-employed Not self-employed (ref.)	<0.0001*	2.072 1	0.9887	1.001 1
N	1727		1951	
df.	11		11	
-2LL	1657.694		2477.192	
Max-rescaled R <sup>2</sup>	0.0648		0.1186	

#### 4 CONCLUSION AND DISCUSSION

Comparing two different definition of gradual retirement, this study showed that the proportion of gradual retirement under the definition A "taking a bridge job" is much lower than the proportion under the definition B "continue to work after old-age benefit received ". One of the reasons might be the qualified retirement age in Taiwan is quite low (55 years), so that many people applied old-age benefit just because they were qualified but did not really want to retire. Therefore, these people would continue to work after receiving old-age benefit. On the other hand, Taiwan's labor market did not provide sufficient part-time job for older workers and retired people that result in the unpopularity of taking bridge jobs.

In terms of influencing factors, younger, couples with lower total income, and self-employed workers were more likely to having gradual retirement by the strategy of taking a bridge job; men, lower self-rated economic status, couple with higher total income, more satisfied with self-rated health status, self-employed workers and lower stratum workers were more likely to taking gradual retirement by the strategy of continuing to work after old-age benefit received. The both group of results shows that economic status plays a key role in whether taking a gradual retirement.

Studies on gradual retirement in Taiwan are rare and this study is just a beginning. We remain more questions than we have resolved. First, the preferences and characteristics of workers are only part of factors affecting the gradual retirement behavior. The environmental factors, such as whether the market providing adequate job opportunities, employers' stereotypes on aged workers, accessibility to supply and demand information of older workers for employers and employees, etc., cannot be ignored. Secondly, this study used full retirement as a reference group, that means we only distinguished who is more likely to retire gradually and who is more likely to retire directly. For more comprehensively understanding the feature of gradual retirement, another group of "continuing full-time job after statutory retirement age" should be included for further comparisons. Finally, if we want to employ gradual retirement to be the strategy of promoting labor

force participation rates of older people, we need to identify the characteristic of bridge jobs and find the occupations that could be selected or modified to be bridge jobs.

## REFERENCE LIST

- Adams, G. & Rau, B.(2004).Job Seeking among Retirees Seeking Bridge Employment. *Personnel psychology*, 57,719-744.
- Cahill, K.E., Giandrea ,M.D., Quinn, J.F. (2006). Retirement Patterns from Career Employment. *The Gerontologist*, 46(4), 514-523.
- Chen, Y.P. &Scott, J.C.(2006), Phased Retirement: Who Opt for It and Toward What End? *European Papers on the New Welfare*, 6,16-28.
- Davis, M.A.(2003).Factors Related to Bridge Employment Participation among Private Sector Early Retirees. *Journal of Vocational Behavior*, 63, 55–71.
- EBSA Advisory Council Report(2000). Report of the Working Group on Phased Retirement. From <http://www.dol.gov/ebsa/publications/phasedr1.htm>
- Ekerdt, D. J. , DeVaney, S., and Kosloski, K.(1996). Profiling Plans for Retirement. *Journal of Gerontology: Social Science*, 51B(3),140-149.
- Gustman, A.L.& Steinmmeier T.L.(2000).Retirement Outcome in the Health and Retirement Study. *Social Security Bulletin*, 63(4), 57-71.
- Honig, M.&Hanoch, G. (1985). Partial Retirement as a Separate Mode of Retirement Behavior. *The Journal of Human Resources*, 20(1), 21-46.
- Hurd, Michael D. 1988. "The Joint Retirement Decision of Husbands and Wives." Cambridge, MA: National Bureau of Economic Research.
- Kantarci, T. &Van Soest, A. (2008). Gradual Retirement and Limitations. *De Economist*, 156,113-144.
- Kim, H. &DeVaney, S. A.(2005).The Selection of Partial or Full Retirement by Older Workers. *Journal of Family and Economic Issues*, 26(3).371-394.
- Kim, S. & Feldman, D.C.(2000). Working Retirement: The Antecedent of Bridge Employment and Its Consequences for Quality of Life in Retirement. *The Academy of Management Journal*, 43(6), 1195-1210.
- Mutchler, J.E., Burr, J.A., Pienta, A.M., Massagli,M.P.(1997). Pathways to Labor Force Exit: Work Transitions and Work Instability. *Journal of Gerontology: SOCIAL SCIENCES*, 52B,4-12.
- Pengcharoen, C.& Shultz,K.S.(2010).The influences on bridge employment decisions. *International Journal of Manpower*, 31(3), 322-336.
- Quinn, J., F.(1996).The Role of Bridge Jobs in the Retirement Patterns of Older Americans in the 1990s. USA:Working paper.
- Quinn J.F., Kozy M. (1996).The Role of Bridge Jobs in the Retirement Transition: Gender, Race, and Ethnicity. *The Gerontologist*, 36(3), 363-372.
- Reday-Mulvey,G. & Delsen,L.(1996). Gradual Retirement in the OECD Countries,a Summary of the Main Results. *The Geneva Papers on Risk and Insurance*, 21,502-523.



- Reday-mulvey, G.(2000). Gradual Retirement in Europe, *Journal of Aging & Social Policy*, 11(2-3), 49-60.
- Ruhm, C.J.(1990).Bridge Jobs and Partial Retirement *Journal Of Labor Economic*,8(4),482-501.
- Scahill, Patricia and Forman, Jonathan Barry (2003). Protecting Participants and Beneficiaries in a Phased Retirement World. Retirement Implications of Demographic and Family Change Symposium Monograph Working Paper. Available at SSRN: <http://ssrn.com/abstract=390360>.
- Scott, J. (2004). Is Phased Retirement a State of Mind? The Role of Individual Preferences in Retirement Outcomes. Paper presented at Population Association of America Annual Meeting, Boston, MA.