

Research on Gender Differences of Labor Retired Intend in China

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Abstract

Using the sampling survey data of 30 provinces and cities in 2015, it studied the influence factors of different sex worker retirement intend in our country. The empirical results show that age, level of the education, health, dependency ratio of the population, people of independent source of income, unit properties, working conditions will affect significantly for both men and women, but there is another bigger difference. The level of leisure consumption and the expected retirement age have a great effect on the retirement age relatively consistent. The Conclusion of research of this paper is helpful to understand the public's retirement will, to provide certain reference value to carry out the reform of the retirement age.

Key words: Retirement intend; Mlogit model; Gender differences

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INTRODUCTION

Under the background of the arrival of the ageing peak acceleration and pensions balance pressure, the topic of "delay retirement" has caught the attention and the debate of the society from all walks of life. Thirteenth five year plans proposed the policy of gradual delay retirement age to strengthen the sustainability of social security. Before the delay retirement policy fall to the ground, also need to agree through developing schemes, report to the central,

advice to the society, but people has ignored prominent problem of "early retirement". "Early retirement" phenomena are very common in our country, but have not caused extensive concern about the management and the social from all walks of life from the point of view of media reports.

The retirement age policy design is related to the immediate interests of the social groups, carry out the policy, need to solicit public opinion. Many scholars from different angle intend to study delay retirement (Yang, 2011; Qian & Shen, 2012; Li & Peng, 2014, Liao & Liu, 2015, Yin & Ren, 2015; Han, 2014; Suo, 2015; C. T. Yu & J. Y. Yu, 2013). Throughout these studies, the scholars from the micro perspective explore the influence factors of individual expected retirement age, but due to differences of use of data, the conclusion is also different. Domestic research mainly is the lack of high quality micro data (Li, 2014). And individual retirement intends change the external environment, age, personal cognitive or psychological factors (Parker & Hayward, 2002). In fact, exceptional retirement age for the actual retirement age plays an important role. Honig (1996) found that retirement expectations and the actual observed behavior were consistent with the retirement using the health and retirement survey data,, so he said expected retirement could accurately predict behavior. Therefore, Gary (1998), Honig (1998) and other scholars believe that academia should strengthen research of on-the-job personnel expected retirement age.

1. DATA DESCRIPTION

In this paper, by using the data in 30 provinces and cities nationwide in 2015 from the Ministry of Education of important research project - The social and economic effect of progressive retirement age policy projects sample survey, obtained 3,223 valid samples, the data has a very good representative.

The questionnaire content and data statistical results are as follows:

(a) Laborer personal and family basic information

Based on life cycle theory and social network hypothesis can be obtained, retirement plan is completely determined by the individual autonomy, personal decision from the awareness of the environment, the environment is made up of several individual characteristics as a result, such as gender, age, educational background, family population, support the population, the number of independent source of income, marriage and health.

(b) The professional type and level of position

Position level and its power are indivisible, the higher the level of position, the greater the power will be. And position senior people, tend to have stronger working achievement and satisfaction, after retirement, will produce a larger psychological gap (Qian & Shen, 2012). Laborer vocational type questionnaire divided into public service personnel (11.51%), institution staff (17.43%), the enterprise staff (66.78%) and other (4.28%). The government official rank type is “departmental level above 1.91%,” to “internal” (1.63%), the county level (18.53%), “level, and the following” accounted for 77.93%; Senior secondary vocational institution staff known as “is” (4.71%), “high” (13.94%), “intermediate” accounted for 45%; Enterprise staff nearly 80% of the general staff.

(c) The working state of the workers

Individuals under the limited life expectancy weigh the benefits and rewards, and more rational to choose the retirement age. Which includes not only the economic returns, including through the work of a sense of accomplishment and satisfaction. Questionnaire laborers working condition can be divided into work for income, welfare, working strength, work autonomy, work pressure this five aspects of satisfaction. In addition to job autonomy, workers surveyed on job income, welfare, work pressure, work does not satisfy the strength of the ratio is higher than the satisfaction ratio.

(d) The consumption status of the workers

The consumption of workers mainly by spending habits of the past and continued income decision. Questionnaire is the cost of living in the life needs of consumption, such as food, clothing, daily necessities cost; Healthy consumption refers to meet the health needs of consumption, such as a doctor, to buy drugs, health care products, nutrition, fitness cost; Refers to satisfy the entertainment leisure entertainment leisure consumption, such as party, KTV entertainment, tourism, and other aspects, such as cost, education consumption refers to meet the needs of learning, such as the cost of their own learning and their children’s education. Now researchers (Ren, 2015; Cui, 2013; Qian, 2012) discusses the influence to delay retirement income, Qian (2012) with a monthly household consumption level as proxy variables of family income, found that the higher the level

of consumption per month, the more its willingness to delay retirement.

(e) Labor retirement intend and expectations

The survey shows that only 5.51% of workers would delay retirement, willing to retire early retirement and on time the proportion of 31.36% and 55.7%, respectively, and 7.42% choose “no”. For the desired retirement age, 94.3% of workers expect retiring before the age of sixty. From the perspective of gender analysis, on the “early retirement” will, not much difference between men and women; But women “retired” on time intend to around 5% higher than the male; on the delay retirement intend, estimated at 2% more men than women, and 8.87% of men choose “no”, and the proportion of women is only 5.85%. In addition, about 95% of women and 87% of men want to retire before the age of sixty.

2. MODEL AND VARIABLE

The survey data on the reliability analysis of reliability index, using alpha reliability coefficient as value 0.649, illustrate the questionnaire will be trusted. According to the result of questionnaire survey, this article take “early retirement = 1, retirement on time = 2; delay retirement = 3” as the dependent variable, the factors influencing the retirement age as independent variables, multiple choice model mlogit regression. Because mlogit model between options are mutually exclusive, so delete the answer is “no” in the dependent variable data, the remaining 2,406 data. Mlogit model used to depict the laborer faces multiple choice, as explained variable values with options and decide, not only depends on the individual characteristics of laborer (Case Specific), multivariate logit model expressed by Formula (1) :

$$P_{ij} = \frac{\exp(x_i' \beta_j)}{\sum_{j=1}^3 \exp(x_i' \beta_j)} \quad (1)$$

Said workers i choose the probability of in advance ($j = 1$), ($j = 2$) on time, or delay retirement ($j = 3$), x_i said a vector of i labor individuals and their families socioeconomic characteristics (such as income, education degree, etc.). Formula (1) ensure $0 < p_{ij} < 1$ and $\sum_{j=1}^3 P_{ij} = 1$ This paper set the retirement on time as base category, the coefficient of retirements on time is set as 0 to satisfy the Formula (1) identification. At this point, reflect individual variables change on (in advance or delay) retirement relative to retire on time. Further, this paper also needs to know some explanatory variables change to the influence degree of retirement willingness. Mlogit model belongs to the nonlinear model, a unit change of explanation variable to the marginal effect of explained variable can be show by (2):

$$\frac{\partial P_{ij}}{\partial x_i} = P_{ij} (\beta_j - \bar{\beta}_i) \quad \bar{\beta}_i = \sum_j P_{ij} \beta_j \quad (2)$$

See Table 1 variables set and assignment .

Table 1
Variables Set and Assignment

Independent variables	Name	Variable definitions
Variables of personal and family	Age(x_1)	16~30 =1; 31~45 =2; 46~60 =3; 61~65 =4; >=66 =5
	Education(x_2)	Junior middle school=1; high school=2; junior college=3; undergraduate=4;
	Marriage(x_3)	Master=5; doctor=6
	Health(x_4)	Married=1; others=0
	Dependent people(x_5)	The worst=0.; the best=9
	People of independent source of income(x_6)	0 people=1; 1people=2; 2people=3; 3 people=4; >=4 people=5 1 people=1; 2 people=2; >=3 people =3
Types of profession	Government servants(x_7)	Government servants=1, others=0
	rank (x_{71})	Bureau=1, others=0
	(x_{72})	Place=1, others=0
	(x_{73})	Middle-level (the control group)
	Institution staff (x_8)	Institution staff =1, others=0
	(x_{81})	Senior=1, others=0
	(x_{82})	Sub-senior=1, others=0
	(x_{83})	Middle=1, others=0
	Enterprise staff (x_9)	Primary (the control group)
(x_{91})	Senior manager=1, others=0	
(x_{92})	Middle manager=1, others=0 Ordinary (the control group)	
Working state	Income(x_{10})	Very dissatisfied = 1; Not satisfied = 2; General = 3; Satisfaction = 4;
	Welfare(x_{11})	Very satisfaction = 5
	Intensity(x_{12})	
	Autonomy(x_{13})	
	Pressure(x_{14})	
Consumption	Living consumption(x_{15})	<=20% =1; 30%=2; 40%=3; 50%=4; >=60% =5
	Leisure consumption(x_{16})	
	The desired retirement age(x_{17})	<=55 =1; 55-59 =2; 60 =3; 61-65 =4; >=66 =5
Dependent variable(P_i)	Ahead of retirement=1, retirement on time=2, delay retirement=3	

3. ANALYSIS OF REGRESSION RESULTS

Table 2 reports mlogit model regression results of the willing of the retired workers with “retired” on time as the reference group, using multivariate Logit model analysis of regression coefficient (β) and the marginal effect ($\delta p/\delta x$).

Table 2
Mlogit Model Regression Result of Retirement Willing

Explained variable	Male				Female			
	Ahead of retirement		Delay retirement		Ahead of retirement		Delay retirement	
	β_i	$\frac{\delta p_{i1}}{\delta x_i}$	β_i	$\frac{\delta p_{i3}}{\delta x_i}$	β_i	$\frac{\delta p_{i1}}{\delta x_i}$	β_i	$\frac{\delta p_{i3}}{\delta x_i}$
x_1	0.9*	0.208	-1.44**	-0.064	-0.095	-0.019	-0.11	-0.002
x_1^2	-0.17	-0.041	0.311***	0.013	—	—	—	—
x_2	0.322	0.081	-1.064***	-0.043	0.149	-0.032	—	0.004
x_2^2	-0.041	-0.01	0.817***	0.007	—	—	—	—
x_3	-0.112	-0.021	-0.196	-0.006	0.16	0.038	-0.554	-0.018
x_4	-0.113***	-0.024	-0.01	0.001	-0.073*	-0.015	0.062	0.002
x_5	-0.42*	-0.102	1.071***	0.044	0.119***	0.023	0.241***	0.005
x_6	0.232***	0.051	-0.163	-0.008	0.166	0.031	0.472**	0.01
x_7	0.112	0.025	-0.126	-0.005	0.509***	0.11	0.407	0.006
x_{71}	-0.45	-0.315	-2.21	-0.04	1	0.3***	0.966	0.974***
x_{72}	0.9	0.696	-0.81	-0.039	0.453	0.11	0.741	-0.026
x_{73}	-0.764*	-0.132	-0.85	-0.018	-0.266	-0.05	0.037	0

To be continued

Continued

Explained variable	Male				Female			
	Ahead of retirement		Delay retirement		Ahead of retirement		Delay retirement	
Explanation variables	β_i	$\frac{\delta p_{i1}}{\delta x_i}$	β_i	$\frac{\delta p_{i3}}{\delta x_i}$	β_i	$\frac{\delta p_{i1}}{\delta x_i}$	β_i	$\frac{\delta p_{i3}}{\delta x_i}$
x_8	-0.053	-0.019	0.549	0.025	0.395*	0.078	0.798*	0.02
x_{82}	-0.171	-0.058	1.2	0.083	-0.096	-0.02		0.012
x_{83}	-0.285	-0.055	-0.183	-0.003	-0.619**	-0.115	-0.057	-0.002
x_{91}	0.383	0.095	-1.083	-0.027	1.9***	0.426	1.18	0.004
x_{92}	-0.035	-0.011	0.29	0.012	-0.212	-0.046	0.35	0.012
x_{10}	-0.186*	-0.04	0.083	0.005	-0.285***	-0.059	-0.115	0
x_{11}	-0.008	-0.001	0.036	0.001	-0.062	-0.017	0.626***	0.016
x_{12}	-0.35***	-0.069	-0.434**	-0.012	-0.371***	-0.077	-0.104	0
x_{13}	-0.062	-0.016	0.297**	0.011	-0.074	-0.015	-0.003	0
x_{14}	-0.139	0.031	-0.152	-0.007	-0.133	0.3	-0.336	-0.009
x_{15}	0.057	0.013	-0.077	-0.003	0.084	0.016	0.187	0.004
x_{16}	0.259***	0.051	0.28**	0.007	0.167**	0.031	0.43***	0.009
x_{117}	-0.633***	-0.144	0.835***	0.038	-0.646***	-0.142	0.866***	0.027
C	0.605		-2.97		0.874		-7.65	

Results show that the factors affecting the willing of men and women retire each are not identical.

a) Age

The retirement age for men will have a significant impact, and is a nonlinear relationship. Men under the age of 45, relative to the retirement on time, more willing to “early retirement”, is not willing to delay retirement. In men over the age of 45, with the growth of the age, more willing to “delay retirement”, is not willing to “early retirement”. The influence of the retirement age for women will not be significantly.

b) Level of education

Level of education for men’s retirement will have a significant impact, but also the nonlinear relationship. Degree in master of the men, in terms of relative to retire on time, more willing to “early retirement”, is not willing to delay retirement. When a degree in master of above, just tend to delay retirement.

c) Level of education of women significantly increased “delay retirement” willing, for women “early retirement” will influence was not significant

The South (2011) and Yang Yi similar research, fixed number of year of the education effect on female worker retirement age is significantly positive, that female worker by the more fixed number of year of the education, the late retirement age. And the Hall and Johnson (1980), Burtless and Moffitt (1985), Montalto, Yuh and Hanna (2000) and others are consistent findings. It is generally believed that the longer the fixed number of year of the education of the worker and the later period of time in the Labour market, so employees tend to put off retirement, to recycling education investment

cost as much as possible, and get the human capital investment benefit.

d) Health status

Health in men and women have a significantly negative effect “early retirement”, in other words, the better the health status, men and women are not willing to “early retirement”. Health, good men tend to be “retired” on time, in good health women, tend to delay retirement. The reasons for this difference is that female worker’s retirement age in China is too low (female female cadres, 50, 55 years old), and the life expectancy for women than men generally, as long as the body allows female worker to retire as late as possible.

e) The number of children and old raising or support

The variable of men and women will have significant impact on retirement. Family upbringing or support the more the number of children and old, male “delay retirement” will be more strongly; while women or early retirement or delay retirement, depends on the role of women in the family, is a major or minor laborer workers.

f) The number of independent source of income in the home

The variable of men “early retirement” will have a significant negative impact, “delay retirement” for women has significant positive effect. Home every 1 person, increase the number of independent source of income will increase 5.1% of male “early retirement”, women “delay retirement” will increase by 1%.

g) Unit nature

Relative to the enterprise staff, the government civil servants in both men and women willing to “early retirement”, that mean questioning the pension will

encourage civil servants are applicable delay retirement is not at all. Rank no significant influence on the will of men. "Internal" women "delay retirement" the will of the strong.

Relative to the enterprise staff, institution "intermediate" title of women willing to "retirement" on time, "high" title of women, are more willing to delay retirement.

h) Working condition

For men or women, work income, the more satisfied, the less willing to "early retirement". Job satisfaction of income increased by 1%, the male "early retirement" probability by 4%, "delay retirement" probability is increased by 5%, but not significantly; women to reduce the probability of 5.9% and the "early retirement". "Welfare" satisfaction did not show significant effect on the will of men, but a significant increase in the women's willingness to "delay retirement". The higher the intensity of work satisfaction, regardless of men and women, are willing to "retirement" on time. Job autonomy significantly enhances the male "delay retirement".

i) Consumption status

Leisure consumption significantly affected men and women's retirement. The higher the proportion of leisure consumption, both men and women to reduce the probability of "retirement" on time, it also conforms to the basic theory of labor economics. According to the classical theory of labor economics (Ehrenberg, Smith, 2006), wages for labor supply will have a substitution effect and income effect at the same time. The higher wages, means leisure becomes relatively expensive, substitution effect makes the worker increase Labour supply, the retirement age; the higher wages and means that the worker's lifetime income is higher, so that the worker has the ability to pay more leisure, income effect encourage employees to reduce labor supply, choose early retirement. So leisure consumption impact on retirement, depends on the individual leisure preferences.

j) Expect the retirement age

The variable for retirement will have a significant impact. Both men and women, the bigger the expected retirement age, "delay retirement" will also more intense.

CONCLUSION

In this paper, empirical studies have found that factors affecting the will of men and women retirement has bigger difference. To the male, age, level of education, health, raise or caring for children and old number, the number of independent source of income in the home, work, income, job autonomy, leisure consumption level, expect the retirement age for retirement will have a significant impact. For women, education, health, the number of independent source of income in the home, rank, title, work welfare, leisure consumption level, expect the retirement age for retirement will have a significant impact. So retirement system reform is a systematic project, involving every aspect such as pension, employment and personal choice. Every worker's characteristics, such as economy, individual, family, and career will have different, so the retirement age is also expected to exist significant difference. This is verifying the rationality of the implementation of an elastic retirement system, this system allows the worker according to the basic factors of their own to choose its own retirement age. Furthermore, we also found that a lot of on-the-job worker still choose to retire ahead of schedule, can make our country economic losses more skilled Labour, aggravates the strain of labor supply in China.

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