

## **Will Pre-retirement Planning Affect Post-retirement Experience?**

The purpose of this study was to analyze the impact pre-retirement financial planning has on post-retirement experience for retirees. Both pre-retirement financial planning and post-retirement experience were measured with a series of questions on retirement issue. Using a sub-sample of the 1999 Retirement Confidence Survey, it was found that those retirees who did a good pre-retirement planning job, with a higher retirement household income had a more positive retirement experience. Age also played a marginal role in determining retirement experience. Actual retirement saving such as money put into a retirement plan at work, not including Social Security taxes and employer-provided money is not a significant factor affecting retirement experience, which indicates that there might be other sources of asset account for retirement experience. Understanding of this impact may help financial planner and policy makers to better serve the aging society.

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### **Introduction**

The aging of baby boomers, together with a decline in fertility and birth rates as well as an increase in longevity contributed by advanced medicine and healthcare, implies that the society is experiencing a general graying population. Demographic trends suggest that time has come for individuals, organizations and policy makers to be more concerned about retirement issues whereas retirement has become one of the primary financial planning issues. This paper specifically analyzes the relationship between pre-retirement financial planning actions taken prior to retirement and the actual post-retirement experience. Do individuals plan for retirement? Do they actually save for their retirement? Do those who plan and save prior to retirements actually experience a better than expected post-retirement life in terms of overall standard of living, medical expenses, and basic living expenses than those who did not?

The economic models of saving and consumption were used to study factors affecting retirement experiences. The fields of gerontology and of social, clinical, developmental psychology, as well as demography, and sociology have investigated that statistical relationship mainly through empirical study using non-representative samples. This paper uses the 1999 Retirement Confidence Survey to analyze factors affecting post-retirement experience within the context of life-cycle consumption behavior model.

Post-retirement experience could be defined as a retiree's actual experience in retirement years in terms of overall standard of living, financial security, health care availability, and other aspects. Current measurement of actual retirement experience does not exist. Researchers have used self-reported retirement experience versus expectation (Floyd, Haynes, Doll, Winemiller, Lemsky, & Burgy, 1992) and retirement satisfaction (Anderson, 1989; Elder & Rudolph, 1999; Kimmel, Price, & Walker, 1978) to measure retirement experience. For the population still in the workforce, retirement confidence could be treated as an indicator of future retirement experience. As such retirement confidence was used to evaluate worker sample attitudes towards retirement issues (Joo & Pauwels, 2002). In this research, self-reported retirement experience versus expectation was used as a dependent variable.

The second section of this paper presents earlier research on different perspectives. Methodology is discussed in section three, which includes data and definition of variables used to conduct this research. Statistical findings and discussion are covered in section four. Finally limitation and implications are summarized in section five.

### **Literature Review**

Retirement issues have attracted enormous research interests from many fields. Researchers from different disciplines view and examine retirement issues from distinctive standpoints; their unique angles of research in turn contribute substantial diversified results as well as provide frameworks of tools and models to analyze retirement issues.

#### Studies in Gerontology, Psychology, and Sociology

Research in gerontology, psychology, and sociology disciplines contributed their studies on analyzing relationship between retirement experiences and pre-retirement occupation satisfaction, reasons to retire, human

capitals, pre-retirement preparation and planning, individual financial situations, health conditions, and personal relationships.

Beehr (1986) conducted a broad psychological empirical literature review on retirement issues. He suggested that the degree of consistency between individuals' pre- and post-retirement activities is affected by their formal and informal planning, economic status, health, and occupational goal attainment. In their reviews of early studies, Fitzpatrick (1979), Manion (1976), and Ullmann (1976) all claimed successful pre-retirement programs have significant impact on retirement satisfaction. Beehr's review also pointed out that in early studies, economic status and health variables have been used intensively when predicting retirement decisions (Kimmel, Price, & Walker, 1978; Kingson, 1982; McCune & Schmitt, 1981; Palmore, George, & Fillenbaum, 1982) and when forecasting post-retirement quality of life (Beck, 1982; Glamser 1981; Kimmel, Price, & Wallcer, 1978)

Gerontology research executed by Anderson (1989) shows that significant differences exist between the perceived life satisfactions of retirees who participated in pre-retirement programs as compared to those who did not. Anderson's study supports the need for pre-retirement planning and retirement preparatory programs. MacEwen, Barling, Kelloway, and Higginbottom (1995)'s study on retirement anxiety suggests that parental socialization and personal financial planning are associated with positive retirement expectations. Floyd, Haynes, Doll, Winemiller, Lemsky, and Burgy (1992)'s study on retirement satisfaction and experiences found retirement saving and planning have a positive relationship with retirement experience and satisfaction.

#### Studies in Economics

Economic models have long been used to study retirement experience and related issues. Hurd (1990) provides a good general review of retirement saving and consumption. Bernheim, Skinner, and Weinberg, (1997)'s article along with Banks, Blundell, and Tanner (1998)'s article observed that there is a sharp drop in consumption after retirement. They observed a significant proportion of fall in consumption around the time of retirement. This fall in consumption as household heads approach retirement which can not be fully explained by a consumption-smoothing model even when accounts for expected demographic changes and mortality risk. This fall in consumption could possibly be explained by other assumptions. In other words, the observed drop in consumption might practically be forced by the limited financial resources available. Hammermesh (1984), Hausman and Paquette (1987), and Bernheim (1993) have claimed that individuals are not saving enough to maintain their consumption levels after retirement, and the consumption levels therefore fall after retirement. After causal observation, the assumption could thus be made that an individual's sharp post-retirement drop in consumption might relate to insufficient financial retirement preparation.

#### Studies in Personal Financial Planning

Studies in the discipline of personal financial planning provide empirical evidence on the retirement experience issue. Harold and Patricia (1999) focused on the relationship between financial planning and retirement satisfaction. They found that thinking about retirement and attending planning meetings have a significant positive impact on satisfaction, even when income, wealth, and other factors are included as explanatory variables. Brunson, Snow, and Gustafson (1998) examined mid-life career changes in their retirement satisfaction model of career and non-career military personnel. Using a specialized sample, their study show that the adequacy level of financial planning has a significant positive impact on the level of satisfaction in retirement. Elder and Rudolph (1999) found that planning for retirement, as measured by how much the respondent thought about retirement and whether the person attended retirement planning meetings, is positively related to the level of retirement satisfaction. DeVaney and Kim (2003) examined retirement expectations of the older self-employed worker and suggested job skill programs and managerial training could improve the financial well-being of the older self-employed and enable him or her to plan for retirement.

#### Theoretical Framework

Ando and Modigliani (1963) described a life-cycle hypothesis of saving based on the utility function of the individual consumer: an individual's utility is assumed to be a function of the aggregate consumption in current and future periods based on the assumption that utility function is homogeneous with respect to consumption at different points in time. As discussed by Elder and Rudolph (1999), when applied to retirement issues, the life-cycle model implies that a retired individual's utility is a function of his or her ability to consume goods and services reflected in his or her current income and accumulated net worth. Moreover, combined saving behavior, education level, family relationship, and other factors also play an important role when determining retirement saving.

It is rational to expect that those who planned for retirement and those who actually save for retirement would more likely have a better retirement life than they expected. Often those who do not plan or save for

retirement would most likely find themselves in a retirement situation that is worse than they expected. This unexplained drop in consumption could represent negative experience during retirement.

### Methodology

#### Data

The Retirement Confidence Survey (RCS) conducted by Employee Benefit Research Institute (EBRI) is the country's most established and comprehensive survey gauging the views and attitudes of Americans regarding retirement and related issues. The 1999 RCS survey was conducted through 20-minute telephone interviews. Random digit dialing was used to obtain a representative cross-section of the U.S. population. A total of 1,002 individuals of age 25 and above were interviewed; 751 were workers and 251 were retirees (The 1999 Retirement, 1999). The sample of this study is limited to a subgroup of the 1999 original data set of retiree samples (those who answered retired).

#### Dependent Variables

The dependent variable of this study is post-retirement experience. Post-retirement experience is evaluated by using three questions in the 1999 RCS survey which ask respondents to answer their retirement experience in terms of (a) overall standard of living, (b) having enough money to cover medical expenses, and (c) having enough money to take care of basic expenses. Respondents were asked to assess their actual experience in retirement compared to their expectation in the above-mentioned three aspects, and their responses were scored on a 5-point Likert scale. Those respondents who answered "much better" to any of the questions were assigned a 5, whereas those who answered "much worse" were assigned a 1. Those who answered "Don't know," and "Refused" were assigned a missing value. A post-retirement experience scale was created using the corrected summation of the three items with a range of 3 to 15. To increase the accuracy of measurement, mean substitution was used so that a missing value on any question was replaced by a mean of the other two questions scores. Table-1 provides a frequency distribution table of these three questions used to construct the retirement experience scale. The mean score of this retirement experience scale of the sample is 9.86 (Table 2). To ensure internal consistency, a reliability analysis was performed. An Alpha 0.8083 shows these three questions have high internal consistency.

Table 1

Frequency distribution of questions measure dependent variable Retirement Experience Scale

Question: Compare to your pre-retirement expectation, your actual retirement experience is "much worse", "worse", "about the same", "same", "better", or "much better" than you expected in terms of?

	Much Worse	Worse	About the same	Better	Much Better	Don't know	Refused
Overall standard of living (N=251)					Mean (S.D.) 3.33(0.914)		
Frequency	7	33	95	88	20	6	2
Percentage	2.8	13.1	37.8	35.1	8.0	2.4	0.8
Have enough money to cover medical expenses (N=251)					Mean (S.D.) 3.20(0.984)		
Frequency	14	40	89	85	16	7	0
Percentage	5.6	15.9	35.5	33.9	6.4	2.8	0
Have enough money to cover basic expenses (N=251)					Mean (S.D.) 3.33(0.927)		
Frequency	5	41	92	88	23	2	0
Percentage	2.0	16.3	36.7	35.1	9.2	0.8	0

#### Independent Variables

The purpose of this research is to test the impact of pre-retirement financial planning on post-retirement experience. Pre-retirement financial planning is indicated by three questions from the 1999 RCS that asked

respondents if they (a) successfully prepared financially for retirement, (b) personally saved any money for retirement before retiring and (c) spouse/partner personally saved any money for retirement before retiring. These actual retirement savings do not include Social Security taxes or employer-provided money but do include money that individuals put into a retirement plan at work, such as a 401(k). Six socio-economic and demographic variables are also included in this research: age, gender, marital status, ethnicity, level of education, and income.

Age was measured as a continuous level. Two extreme responses (retirement ages 25 and 36) were treated as missing data to increase the generalization of this retiree sample. Gender, marital status, and ethnicity were dummy coded. Those respondents who were male, married, or White/Caucasian were coded 1; respondents who were female, unmarried, or of other ethnicities were coded 0. Due to the high percentage of White/Caucasian respondents (88.4%) in this retiree sample, ethnicity dummy variable was removed from the final regression model to better test the coefficients of other variables.

Table 2

Variable definitions and descriptive statistics of Retiree Sample (1999 RCS)

Variable name	Variable definition	Mean (S.D.)/% N=251
Dependent variable		
Rexpscal	Retirement experience scale	9.86 (2.40)
Independent variable		
Age	Coded actual age of 1999 calculated of year of birth	69.46 (8.93)
Ethnicity	Binary variable that takes on a value of one if the respondent is White/Caucasian and zero otherwise	88.4%
Gender	Binary variable that takes on a value of one if the respondent is male and zero otherwise	41.4%
Marital	Binary variable that takes on a value of one if the respondent is married and zero otherwise	55.0%
Education	Binary variable that takes on a value of one if the respondent has some college education or above and zero for high school graduate and less	52.2%
Income	Total household before taxes income in 1998	
	<\$15,000	14.7%
	\$15,000-\$24,999	15.5%
	\$25,000-\$34,999	14.7%
	\$35,000-\$49,999	16.3%
	\$50,000-\$74,999	8.0%
	\$75,000-\$99,000	2.0%
	\$100,000+	4.0%
Don't know	8.0%	
Refused	16.7%	
Saver	Those who answered they or their spouse/partner personally saved for retirement not include Social Security taxes or employer-provided money were coded 1 and zero otherwise.	73.5%
Retplan	Coded based upon the response to the question: How confident you are about statement: you did a good job of preparing financially for retirement.	
	Not at all confident	8.0%
	Not too confident	15.5%
	Somewhat confident	40.6%
	Very confident	34.7%
	Don't know	0.8%
Refused	0.4%	

The 1999 RCS measures individuals' 1998 household before-tax income in seven categories: (1) less than \$15,000; (2) \$15,000-24,999; (3) \$25,000-34,999; (4) \$35,000-49,999; (5) \$50,000-74,999; (6) \$75,000-\$99,999; and (7) \$100,000 or more. Two other choices ("don't know", and "refused") were also available to respondents and a significant percentage of respondents chose "don't know" and "refused" (24.7%, Table 2). To capture the behavior of those respondents who did not report their income, two dummy variables were created. Slightly less than half (44.9%, Table 2) of the respondents reported a less than \$35,000 1998 household before-tax income; therefore, respondents who reported having less than \$35,000 were coded 1 for the "incomelow" dummy variable and respondents who reported "don't know" and "refused" were coded 1 for the "income not reported" dummy variable. The omitted group consisted of respondents with reported income of more than \$35,000.

The 1999 RCS using six categories to measure the education level of respondents: (1) some high school or less; (2) high school graduate; (3) some college/trade or business school; (4) college graduate; (5) post-graduate work; and (6) graduate degree. Of those respondents who reported their education level, an education dummy variable was created. Those respondents who completed levels three to six were coded 1, and those respondents who only complete level one or two were coded 0.

Pre-retirement financial planning was measured by a question asking how confident they are in terms of they did a good job of preparing financially for their retirement. A 4-point Likert scale was used, ranging from "not at all confident" (coded 1) to "very confident" (coded 4); two non-response answers ("don't know" and "refused") were also provided. A higher score represents better pre-retirement financial planning than does a lower score.

Two questions in the 1999 RCS gauge the actual saving behavior of retirees: (1) not including Social Security taxes or employer-provided money, did you personally save any money for retirement before you retired? ; (2) did your spouse/partner personally save any money for retirement before they retired? A "Yes" answer to these two questions was coded 1, a "no" answer was coded 2, a "don't know" answer was coded 3, and a "refused" answer was coded 4. Those respondents who had no spouse or partner were coded as systematic missing value for the second question. To summarize household pre-retirement saving behavior, a saver dummy variable was created. Those respondents who answered "Yes" to either of two questions were coded 1 for saver dummy variable.

### **Statistical findings and discussion**

#### Results of preliminary tests for characteristics of different income reporting groups

Due to the fact that almost one-fourth of respondents did not report their retirement income (Reported "don't know" 8%, and "refused" 16.7%). It is necessary to compare the characteristics of those respondents to verify if there are any significant differences between those two groups. T-tests (table 3-A) and Chi-square (table 3-B) tests were conducted for continuous and categorical variables, respectively, to examine whether there were significant differences between respondents who reported their retirement income and those respondents who reported "don't know" and "refused" on retirement income question. The t-test and Chi-square tests indicated there were no significant differences regarding age, marital status, gender, ethnicity, and education levels between respondents who reported retirement and respondents who chose "don't know" and "refused".

#### Factors Affecting Retirement Experience: Regression Results

Table 4 shows regression results of factors related to retirees' post-retirement experience. Income and pre-retirement planning are significant factors. Those respondents who reported with good pre-retirement financial planning versus those without good pre-retirement financial planning were more likely to experience a better than expected retirement experience. Controlling other factors, income is positively related to retirement experience. Low income shows an inverse relationship with reported retirement experience. Those respondents with high income during retirement reported having better retirement experience than those with low income. Retirees who reported that they do not know their household income or refused to report their household income tended to have less positive retirement experience than those who reported their income. Age showed to have a marginal impact on retirement experience ( $p=0.054$ ). The trend in this sample shows older retirees are more likely to have positive retirement experience compared to younger retirees.

Table 3-A  
Means and results of t-tests

Variable	Income Reported (N=189)	Income Not Reported (don't know or refused) (N=62)
Age	68.89	69.92

\*p&lt;.10, \*\* p&lt;.05, \*\*\* p&lt;.01

Table 3-B  
Percentage distribution and results of Chi-square tests

Variables and significance	Income Reported (N=189)	Income Not Reported (don't know or refused) (N=62)	Fisher's Exact Test
Marital Status			0.465
Married (138)	73.2	26.8	
Otherwise (113)	77.9	22.1	
Gender			0.658
Female (147)	74.1	25.9	
Male (104)	76.9	23.1	
Ethnicity			1.000
Non-white (29)	75.9	24.1	
White (222)	75.2	24.8	
Education			0.308
High school or less (120)	78.3	21.7	
Some college and above (131)	72.5	27.5	

\*p&lt;.10, \*\* p&lt;.05, \*\*\* p&lt;.01

Table 4

Factors Affecting Retirement Experience: Regression Results for Retiree Sample (N=243)

Variables	b	Beta	t
Retirement planning	0.888	0.342	5.419*
Age	0.031	0.116	1.950
Gender	-0.152	-0.32	-0.499
Marital Status	0.147	0.031	0.633
Education level	0.345	0.072	1.185
Income is not reported	-1.053	-0.189	-2.749*
Income is low	-0.951	-0.199	-2.652*
Saver	-0.184	-0.034	-0.520
Constant	5.745		4.015*

Note: F=7.906\* Adjusted R<sup>2</sup>=0.185

\*p&lt;0.05

The regression sample size for retiree (N=243) was reduced from the entire retiree sample (N=251) due to missing values in certain variables.

### Limitation and Implication

The purpose of this study was to test the effect pre-retirement planning has on post-retirement experience. Previous research by MacEwen, Barling, Kelloway, and Higinbottom (1995) has identified personal retirement planning as a significant factor that determines retirement experience. Anderson's (1989) study shows that pre-retirement planning has a positive impact on retirement satisfaction. The finding of this paper also supports these previous research studies. Pre-retirement financial planning is one of the most significant factors affecting retirement experience. Policy makers and financial educators should keep emphasizing the importance of retirement planning.

The level of retirement income was a significant factor in this retiree sample, showing that the actual income during retirement plays a major role in determining retirement experience. Not surprisingly, those who have higher retirement income tend to live a comfortable retirement life. Financial educators and practitioners should stress the importance of appropriate investment planning to individuals. The ability to generate sufficient income during retirement is one of the main factors in achieving better retirement experience.

Pre-retirement planning was one of the significant variables that affect post-retirement experience and Beta shows its relative significance as the major factor. One limitation of this investigation is the impact of self-selection with respect to planning. In this case, self-selection would imply that the individuals who planned before retirement are more likely to report a positive retirement experience since both questions are self-reported perceptions. Future research with various measurements of pre-retirement planning is recommended to balance this possible over-estimation.

Intuitively, we would expect those who accumulated more money for retirement would be better off in retirement. The saver variable of this study shows to be an insignificant factor affecting the retirement experience. This saver variable is defined as personal or spousal saving for retirement, including 401(k), but not including Social Security taxes or employer-provided money. Therefore it does not capture other asset accumulation of respondents, such as real estate and investment in other asset forms. Another possible explanation would be that the measurement used to evaluate retirement experience in this study is a self-reported statement on how an individual feels about actual retirement experience compared to their expectations. Those who accumulated more money are those who have higher expectations about retirement, whereas their actual retirement life may not match their high expectations. Future research with interests in the relationship between retirement expectation and actual experience could be beneficial to broaden the understanding of this topic. Finally, for future research on the impact pre-retirement planning has on post-retirement experience, using more recent survey samples is recommended.

#### Endnote

<sup>1</sup> Dandan Zhu-Sams is a Ph.D. student in Consumer Economics at Texas Tech University.

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