

Perceived Adequacy of Retirement Income

Y. Lakshmi Malrouu,¹ University of New York
Jing J. Xiao,² University of Rhode Island

Data from the 1989 Survey of Consumer Finance were used to examine the effect of socio-demographic, human capital, work related, and objective variables on perceived adequacy of retirement income of preretirees. A multivariate probit analysis showed that younger respondents, whites, those with incomes between \$10,000 and \$19,999, females, and self-employed were less likely to perceive their future retirement income to be adequate than otherwise similar households. When subjective variables were added to the analysis, planning to save within 5 years was positively related to preretirees' perception of having adequate retirement income.

KEY WORDS: *retirement planning, future financial expectations, perceptions, income adequacy, Survey of Consumer Finance*

Older Americans' responses and reactions to retirement are determined to a large extent by their experiences, expectations, and planning behavior (Cockerham, 1991). Although the elderly have higher per capita income than the nonelderly, social and demographic changes such as increasing number of elderly, increased life expectancies, high divorce rates, changes in real wages, saving rates, and decreasing labor force participation may adversely effect their retirement incomes (Burns, 1990). These factors have impacted a substantial number of older Americans who are below or near the poverty level. About 12.2% of elderly in 1990 were below the poverty level, representing nearly 3.5 million persons (National Council on Aging, 1992).

One of the major issues in retirement is that many preretirees are reaching retirement age unprepared for retirement. They are unaware that 70% of their annual salary must be replaced for retirement. This is especially true for women, and single head of households because they lack information about retirement planning (Hayes & Parker, 1993). It is also expected that older Americans will spend more than 20 years in retirement making it a long time to support

oneself while not working. Having adequate retirement income is the key to minimizing some of the problems during retirement. The perceptions of persons can be crucial in determining whether retirement will be emotionally and financially satisfying as it creates an awareness or understanding of the problem.

There has been little research to date about preretirees, as most current literature on retirement is based on people who are now older. This study attempted to address the limitation. The purpose of this research is to study preretirees' perception of having adequate retirement income and to examine the effect of socioeconomic, and objective differentials on their perceptions.

Literature Review

Several studies have focused on the importance of financial status to both retirement preparation and satisfaction. While some studies measured the financial status of the elderly, financial planning for retirement requires evaluating the positions of preretirees relative to retirement needs. Many methods can be used and one of them is the life cycle hypothesis. The life-cycle

¹Y. Lakshmi Malrouu, Assistant Professor, Consumer Studies, Queens College, City University of New York, 65-30 Kissena Blvd, Flushing, NY 11367. Phone: (718) 997-4159. Email: malrouu@qcvaxa.acc.qc.edu.

²Jing Jian Xiao, Assistant Professor, Consumer Affairs Program, College of Human Science and Service, University of Rhode Island, Kingston, RI 02881. Phone: (401) 792-4036. FAX: (401) 792-2581. Email: xiao@uriacc.uri.edu.

The authors wish to thank three anonymous reviewers and the editor for suggestions.

economic approach implies that people try to vigorously save before retirement because they think they will be dissaving after retirement. However, economists have shown that retired persons are less likely to dissave than was originally posited (Ando & Modigliani, 1963; Kotlikoff, Spivak & Summers, 1982; Hogarth, 1991). Mirer (1979) implied that the life cycle theory of saving, in which wealth is accumulated during working years in order to finance consumption during retirement, is a simplistic form and suggested that precautionary, bequest, and other motives must be taken into consideration.

Economic differences among retired people are extensive. It has also been assumed that the public and private benefits programs are distributed more equally than the private earnings, and hence that economic inequality declines during the retirement years as the elderly tend to depend on public and private benefits (Hurd & Shoven, 1985). An alternative interpretation of the inequalities of income distribution among the elderly is the cumulative advantage/disadvantage model. Those who are initially advantaged are more likely to receive a good education, leading to good jobs, leading to better health and better pension coverage, leading to higher savings and better postretirement benefit income. The cumulative advantage/disadvantage perspective focuses attention on the very skewed postretirement distribution of such resources as private pensions and savings (Crystal & Shea, 1990).

Leon (1985) identified a recursive model of economic status in retirement that pointed to a sequence of factors where previous conditions influenced later ones. He found that the family's socioeconomic and demographic characteristics determine to a large extent the educational attainment, which then influences occupational achievement. At the same time family background and demographic characteristics influence the possession and level of personal economic and business assets.

Several studies suggest that retirement preparation typically increases with age and financial preparation for retirement is greater among older age groups (Evans, Ekerdt & Bosse, 1985; Kilty & Behling, 1986). Anticipatory planning may be initiated as early as fifteen years prior to retirement, but actual retirement preparation is not very common in the United States,

even among professionals (Kilty & Behling, 1986; Block, 1984). Furthermore, job mobility, employment in occupations characterized by low rates of pension coverage, and/or low wages can all undermine the retirement-income prospects of even those workers who spend most of their adult lives in the labor force (Rix, 1993).

Richardson and Kilty (1989) found that income was one of the important predictors of financial planning as well as age. The closer people were to retirement, the more likely they were to invest or save. The family life cycle also affects the ability to plan and invest. After children are raised and home mortgages are paid, resources are finally freed up for retirement saving. Attitudes towards retirement may be less important for pre-retirement planning than socioeconomic indices.

Beck's (1984) findings of retirement preparation programs revealed that it was the socially and economically advantaged worker who was most likely to have an opportunity to participate in these programs. Older workers who would benefit most from retirement preparation programs--those with less education, lower occupational status, no pension coverage, and consequently lower retirement income--are the least likely to have access to such programs and services. Retirement preparation consists of activity that some suggest is least pursued by those who need it the most, namely women, single head of households, and the economically disadvantaged (Hayes & Parker, 1993). Fillenbaum, George, and Palmore (1985) reported that the perceived adequacy of their incomes motivate those of upper economic levels to take action to preserve their current standard of living as much as possible during retirement. The less fortunate, on the other hand, may foresee little change in their living standards and those in the middle often feel strapped to do significant financial planning.

The limitations of this study are: 1) Data were limited to the 1989 survey. Comparisons between years or longitudinal data could provide a more thorough understanding of preretirees' awareness of the problem and if this awareness has resulted in actually saving for retirement; 2) Perceptions of preretirees were examined for this analysis, while future research should focus on actual saving behavior.

Methodology

Data and Sample

Data from the Survey of Consumer Finances collected in 1989 by the Survey Research Center, University of Michigan, and sponsored by the Federal Reserve Board and several other federal agencies were used. The data were collected from personal interviews with a large number of randomly selected households in the U.S. The 1989 survey had 2,277 households selected by a standard multi-stage area-probability sampling technique. In addition, it had a supplemental sample of 866 high income households drawn from federal income tax files (Kinnekeell & Shack-Marquez, 1992). The first copy of the data set was used for the analyses.

Since the primary objective of this study is to examine preretirees' perception of having adequate retirement income, employed respondents aged 65 years or younger were selected for the sample. The age delineation allowed representation of persons on the age continuum to compare those near retirement, 'the near phase' as well as those who have considerable time until retirement, 'the remote phase'. The sample size for the study was 1,971 and included only full time workers, with the premise that full time workers were more likely to plan and save for retirement. In the following analyses, weighted samples were used to be nationally representative of workers who were 65 years or younger.

Variables

Dependent Variable

The dependent variable was preretirees' perception of having adequate retirement income (ADEQUATE). The perception of preretirees was tested by asking if they felt they would have adequate retirement income. Respondents who felt they would have adequate retirement income were coded 1, otherwise 0.

Independent Variables

Based on the review of literature (Kilty & Behling, 1986; Richardson & Kilty, 1989; Crystal & Shea, 1990), the independent variables were identified. They include socio-demographic factors: age, gender, race, marital status, and household size; human capital-related factors: income, education, health status of respondent and spouse/partner, and tenure; work-related factors: employment status, and length of employment, and objective factors: saving habit, planning the time period

for saving, and reason for saving. The first model included socio-demographic, human capital, and work related factors as independent variables. The second model introduced the objective factors as independent variables, in addition to the variables in the first model.

Age was a categorical variable, consisting of six categories from less than 31 years to 60-65 years. Gender, race, marital status, tenure, and employment status were dummy variables; where males, whites, married, homeowners, and working for an employer were coded 1. Household size, education, and length of employment were continuous variables. The health status of the respondent and spouse or partner were combined and had three categories of excellent, good, fair or poor. Annual income had five categories ranging from less than \$10,000 to more than \$50,000.

The objective factors were measured using three indices: saving habit, planning horizon for saving, and reported reason for saving. The first two variables, saving habit and planning horizon for saving, are measures of saving behavior. Saving habit measured if respondents were saving at the present time. The variable was coded 1 if they were currently saving, otherwise 0. The planning horizon for saving is crucial for financial preparation. If respondents had a five year or longer planning horizon the variable was coded 1, otherwise 0. The third variable was a saving motive, the reported reason for saving. If the reported reason for saving was retirement, the variable was coded 1, and 0 if the saving was for other reasons. A detailed listing of variables is presented in Appendix A.

Analysis

Since the dependent variable was a dummy variable, probit was used rather than a linear probability model (Maddala, 1992, p. 327).

Results

The descriptive statistics of the sample were presented in Table 1. The majority of the sample was male, white, in good health, working for an employer, saving, and saving for reasons other than retirement. More than 60% of the respondents were married, aged less than 46 years, homeowners, earning \$20,000 or more annual incomes, planned to save after five years, and felt they would have inadequate retirement income. The mean household size was 3 members, and employment averaging 9 years.

Table 1
Descriptive Statistics of the Sample (n = 1,971)

	%	Mean (Std dev)
<i>Socio Demographic Variables</i>		
Age		
< 31 years	20.2%	
31-38 years	23.6	
39-45 years	23.6	
46-52 years	13.1	
53-59 years	12.9	
60-65 years	6.6	
Gender: Male	80.2%	
Race: White	77.9%	
Marital Status		
Married	63.3%	
Nonmarried	36.7	
Household size		3.07 (2.78)
<i>Human Capital Variables</i>		
Income		
< \$10K	7.3%	
\$10K - \$19,999	15.0	
\$20K - \$29,999	21.6	
\$30K - \$49,999	29.1	
> = \$50K	27.1	
Education		13.34 (4.70)
Health of resp/spouse		
Excellent	51.8%	
Good	40.1	
Fair/Poor	8.1	
Tenure: Homeowner	64.7%	
<i>Work Related Variables</i>		
Employment		
Employer	85.4%	
Self employed	14.6	
Length of employment		9.20 (1.49)
<i>Subjective Variables</i>		
Saving habit		
Saver (vs. nonsaver)	75.1%	
Planning horizon		
Within 5 years (vs. no plans)	39.4%	
Reason for saving		
Retirement (vs. other)	26.3%	
<i>Dependent Variable</i>		
Adequacy of retirement income		
Adequate	39.0%	
Inadequate	61.0	

The results of socio-demographic, human capital, and work related factors affecting preretirees' perception of having adequate retirement income are presented in Table 2. Preretirees' perception of having adequate income for retirement was significantly influenced by socio-demographic, human capital, and work related

factors. Preretirees less than 39 years, whites, and those having annual incomes between \$10,000 and \$19,999 were less likely to perceive having adequate retirement income than respondents not having those characteristics. Males, and preretirees working for employers were more likely to perceive having adequate income for retirement than females and those not working for employers.

In the second model, three objective factors were introduced as independent variables. One objective factor, planning horizon for saving, socio-demographic, and work related factors significantly influenced preretirees' perception of having adequate retirement income. Preretirees who planned to save within the next five years were more likely to perceive having adequate income for retirement. Younger preretirees (less than 39 years), and whites were less likely, while males, and employees working for employers were more likely to perceive having adequate retirement income (see Table 2).

Discussion

Perceived adequacy of retirement income differed significantly by age, gender, race, income, employment status, and planning horizon concurring with the results of previous research. Younger respondents were likely to perceive having inadequate retirement income. They may be affected by low paying jobs without benefits, security or pensions. Other barriers against younger workers include lack of information about retirement planning, lack of planning, or procrastination to saving for retirement.

The results of the study indicate that females were less likely to perceive having adequate retirement income. Women may not always have the choice about whether and where to work, and the breaks in their employment. The ability to find any employment, survive any cutbacks and layoffs, and negotiate benefits can be problematic to women. Previous studies have reported the differences in financial planning and preparation among women, displaced homemakers, and single female head of households (Hayes & Parker, 1993; Rix, 1993).

Race was also an important factor in predicting adequacy of retirement income. Whites were in a precarious position of not having adequate retirement

income. Even though nonwhites felt they would have adequate retirement income it is possible, they may foresee little change in their living standards and subsequently, feel they have retirement income (Fillenbaum, George & Palmore, 1985).

Table 2
Probit Analysis of Perceived Adequacy of Retirement Income; Models 1 and 2 (n = 1,971)

	Model 1	Model 2
<i>Socio Demographic</i>		
Age (vs. 60-65 years)		
< 31 years	-0.375**	-0.370*
31-38	-0.344*	-0.363**
39-45	-0.127	-0.117
46-52	-0.141	-0.159
53-59	0.147	0.123
Male (vs. female)	0.238*	0.240*
White (vs. nonwhite)	-0.271***	-0.279***
Married (vs. other)	0.075	0.068
Household size	-0.014	-0.010
<i>Human Capital</i>		
Income (vs. \$50K or more)		
< \$10K	0.155	0.205
\$10K - < \$20K	-0.216*	-0.169
\$20K - < \$30K	0.132	0.170
\$30K - < \$50K	-0.088	-0.064
Education	-0.017	-0.016
Health (vs. fair/poor)		
Excellent	0.126	0.102
Good	-0.006	-0.031
Homeowner (vs. other)	0.063	0.037
<i>Work Related</i>		
Employed (vs. self employed)	0.357***	0.371***
Employment length	0.005	0.005
Saver (vs. other)		0.039
Longer term planner (vs. other)		0.229***
Saving for retirement (vs. other)		0.002
Log likelihood	-1262.89	-1255.83
^a Reference category in parentheses * p < .05. ** p < .01. *** p < .001.		

In keeping with the cumulative advantage theory (Crystal & Shea, 1990), the results of this study indicate that income had a significant effect on adequacy of retirement income. Preretirees with less incomes were more likely to feel they have inadequate retirement income.

Self employed respondents did not perceive having adequate income for retirement. Although IRAs and

Keogh plans encourage self employed persons to start saving for retirement, they are underutilized and often overlooked. Preretirees employed in government jobs and in private industry are compelled to contribute a certain percentage of their salaries towards a retirement plan. Herein emerges a picture where preretirees lack the mental discipline to save for retirement unless involved in a mandatory retirement plan.

A matter of concern is the perception of having inadequate retirement income among different age groups, race, gender, and employment status. Thus, there is a need to recognize the consequences of financial insecurity in the larger context of age, class, gender, race, and its interactions. In the event that retirees are faced with a shortfall in retirement income they would have to depend on social security or other supplemental programs. Social security is often described as a program which was never intended to be the predominant income source on which retirees should rely, but rather to complement savings, private pensions, and other private sources of income, sources which in fact account for a large share of the resources on which older persons depend. The suggestion that social security should be reduced in favor of expanded private systems is often recommended. In light of the present results, it is evident that younger preretirees are not confident of having adequate income for retirement. When the time comes for these workers to retire they will have no other alternative but depend on social security as their primary source of retirement income.

Marital status, education, and health status were not significant in predicting the adequacy of retirement income. Previous studies have indicated that marital status affects the financial condition of women and many women retire prematurely because of poor health (Perkins, 1993; Rix, 1993). Future research can focus on factors such as gender, age, marital status, income, health status, and its interactions and its effects on retirement planning and preparation.

Implications

Implications for Policy Makers

It is important that policy makers understand the influence of pre-retirement socio-economic characteristics on post-retirement economic outcomes. This could serve as a background for policy formulation and, more broadly, in understanding the process of

socio-economic stratification among the elderly. Furthermore, policy makers should pay special attention to sub-groups of women, minorities, self-employed when formulating retirement policies. Women are living longer and many are in danger of outliving their economic resources. Policy makers concerned with aiding the well-being of preretirees should take into consideration that minorities and self-employed are not active in preparing for retirement. While intervention aimed at increasing participation in retirement preparation should continue to be vigorously supported, the recurrence of this finding infers that the problem is deeper and more systemic in nature than simply increasing an awareness for participation.

Implications for Retirement Counselors and Financial Planners

The formulation of financial planning for retirement may be important for preretirees particularly when it is being suggested that social security should be reduced in favor of expanded private pension plans. The development of any kind of financial resources is preferable to no preparation. Pre-retirement programs offered either by employers, educators, or private providers should be geared toward those who are in financial need for retirement. Financial planning programs must also present realistic assessments of pension benefits and social security. Even small annuities and IRAs, with limited annual contributions and short time periods for development, provide some financial security.

Implications for Preretirees

Preretirees themselves can strive for a more financially secure retirement by planning and preparing for it. Employees, especially women must become aware of the importance of fringe benefits, particularly pensions that accrue over time. They could start by saving some money for retirement on a regular basis. Even small savings can generate large returns over time. They should take every opportunity to learn how to maximize the return on their savings and investments by reading appropriate books and articles, by participating in financial planning seminars, and by taking advantage of retirement planning programs offered at work. In order to avoid financial insecurity during retirement they need to aggressively plan for their retirement. And, the earlier the preretirees participate in retirement planning

programs the more time they have to prepare for retirement.

Implications for Educators

Pre-retirement programs should take into account a worker's age, financial position, and stage in the family life cycle to effectively appeal to workers. Those who are unprepared for the economic realities during retirement must have access to educational and financial planning programs. These programs must address the economics needs of preretirees early in their lives. Early financial education and awareness may result in economically prepared preretirees.

Appendix A

Listing of Variables from the Survey of Consumer Finances Codebook

Variable	Original Variable from SCF Codebook
Age	X8022
Gender	X8021
Race	X5909
Marital Status	X8023
Household Size	X101
Education	X5901
Health of Respondent/Spouse	X6030, X6124
Tenure	X701
Employment Status	X4106
Length of Employment	X4115
Income	X5729
Reported Reason for Saving	X3006, X3007
Planning Horizon	X3009
Saving Habit	X3015, X3016
Perceived Adequacy of Retirement Income	X3023
Weight	X40125

References

Ando, A. & Modigliani F. (1963). The life-cycle hypothesis of savings: Aggregate implications and tests. *American Economic Review*, 53, 55-84.

Beck, S. (1984). Retirement preparation programs: Differentials in opportunity and use. *Journal of Gerontology*, 39, 596-602.

Block, M. R. (1984). Retirement preparation needs of women. In H. Dennis (Ed.), *Retirement Preparation*. Lexington, MA: Lexington.

Burns, S. A. (1990). Retirement savings of baby boomers and an earlier cohort: 1960 and 1983. *Proceedings of the 36th Annual Conference of the American Council on Consumer Interests* (pp. 322-328). Columbia, MO: ACCI.

Cockerham, W. C. (1991). *This aging society*. New Jersey: Prentice Hall.

- Crystal, S. & Shea, D. (1990). Cumulative advantage, cumulative disadvantage, and inequality among elderly people. *The Gerontologist*, 30, 437-443.
- Evans, L., Ekerdt, D. J. & Bosse, R. (1985). Proximity to retirement and anticipatory involvement: Findings from the normative aging study. *Journal of Gerontology*, 40, 368-374.
- Fillenbaum, G. G., George, L. K. & Palmore, E. B. (1985). Determinants and consequences of retirement among men of different races and economic levels. *Journal of Gerontology*, 40, 85-94.
- Hayes, C. L. & Parker, M. (1993). Overview of the literature on pre-retirement planning for women. *Journal of Women and Aging*, 4, 1-18.
- Hogarth, J. (1991). Asset management and retired households: Savers, dissavers, and alternators. *Financial Counseling and Planning*, 2, 97-121.
- Hurd, M. & Shoven, J. (1985). Inflation vulnerability, income, and wealth of the elderly, 1969-1979. In M. David & T. Smeeding (Eds.), *Horizontal Equity, Uncertainty, and Measures of Well Being*. Chicago: University of Chicago Press.
- Kilty, K. M. & Behling, J. H. (1986). Retirement financial planning among professional workers. *The Gerontologist*, 26, 525-530.
- Kinneckell, A. & Shack-Marquez, J. (1992). Changes in family finances from 1983 to 1989: Evidence from the Survey of Consumer Finances. *Federal Reserve Bulletin*, 78, 1-18.
- Kotlikoff, L. J., Spivak, A. & Summers, L. (1982). The adequacy of savings. *American Economic Review*, 72, 1056-1069.
- Leon, J. (1985). A recursive model of economic well-being in retirement. *Journal of Gerontology*, 40, 494-505.
- Maddala, G. S. (1992). *Introduction to econometrics*. New York: Macmillan.
- Mirer, T. W. (1979). The wealth-age relationship among the aged. *American Economic Review*, 69, 435-443.
- National Council on Aging. (1992). Poverty and income security among older person. *Perspective on Aging*, XXI, 13-20.
- Perkins, K. (1993). Recycling poverty: From the workplace to retirement. *Journal of Women and Aging*, 5, 5-23.
- Richardson, V. & Kilty, K. M. (1989). Retirement financial planning among black professionals. *The Gerontologist*, 29, 32-37.
- Rix, S. E. (1993). Women and well-being in retirement: What role for public policy? *Journal of Women and Aging*, 4, 37-56.

To order back issue of this journal, one copy may be ordered for \$35 (\$15 for a student member of AFCPE.) Any combination of multiple copies, e.g., 2 copies of one issue or 2 different issues, may be ordered at a discount: 2 copies for \$50, 3 copies for \$65, and more than 3 copies for \$65 plus \$10 for each copy beyond 3. Payments should be made out to AFCPE and sent to the Executive Director or the Editor, Sherman Hanna
College of Human Ecology, The Ohio State University, 1787 Neil Ave., Columbus, Ohio 43210-1295 Phone: (614) 292-4584 FAX: 292-7536 Email: hanna.1@osu.edu. Back issues include:

Financial Counseling and Planning: The Journal of the Association for Financial Counseling and Planning Education **Volume 5, 1994**

CONTENTS

Perspectives on Five Years of Financial Counseling and Planning <i>Sherman Hanna</i>	1
The Usefulness of Financial Ratios as Predictors of Household Insolvency: Two Perspectives <i>Sharon A. DeVaney</i>	5
Perceived Saving Motives and Hierarchical Financial Needs <i>Jing J. Xiao and Franziska E. Noring</i>	25
Saving Behavior of U.S. Households in the 1980s: Results from the 1983 and 1986 Survey of Consumer Finance <i>Y. Regina Chang</i>	45
Net Worth Change: Beginning and Expanding Life Cycle Stages <i>Vicki Schramm Fitzsimmons and Lauren J. Leach</i>	65
Significance of Sources of Retirement Planning Information for Farmers <i>William C. Bailey and M. Jean Turner</i>	83
The Pension Penalty Associated With Changing Employers <i>Walt Woerheide and Rich Fortner</i>	101
Accuracy Differences as a Function of Preparer Status: An Analysis of Money's Tax Test <i>Frances L. Ayres and Kathleen Blackburn Hethcox</i>	117
Parental Perceptions of Children's Financial Socialization <i>Sharon Danes</i>	127
Money Management Needs of Elderly Living in the Community <i>Jean W. Bauer and Marlene S. Stum</i>	147
Antecedents and Consequences of Newlyweds' Cash Flow Management <i>Deborah D. Godwin</i>	161
Married Women's Labor Force Participation as Divorce Insurance <i>Catherine Phillips Montalto</i>	191
Index of Abstracts and Keywords, Volumes 1-5 <i>Sherman Hanna</i>	207