

**RETIREMENT SAVINGS OF THE HIP GENERATION:
A STUDY OF RETIREMENT PREPARATION AMONG
INDIVIDUALS IN THEIR FIFTIES**

*M. Kabir Hassan, University of New Orleans
Shari B. Lawrence, Nicholls State University*

ABSTRACT

Longer retirement periods coupled with the inadequacy of the Social Security system, low personal savings rates, and a decreasing trend in the prevalence of defined benefit retirement plans threaten to put a financial strain on individuals approaching retirement. To that end, we investigate retirement preparation among individuals in their fifties. Probit analysis was conducted using data from the 1995 Survey of Consumer Finances. Regarding individuals in their fifties, the findings indicate that good health and work history have significant positive effects on retirement plan eligibility. In addition, income has a significant positive effect on retirement plan eligibility for both men and women in their fifties. In contrast, age and education levels have significant negative effects regarding pension plan eligibility for both sexes in their fifties.

The findings regarding retirement plan contributions indicate significant positive effects regarding income and women. Therefore, the findings generally support the hypothesis of income as a predictor of retirement plan preparation for women in their fifties. In addition, the findings indicate that women who are married or living with a partner are more likely to contribute to their pension plans through work.

Education is also significant as a predictor of the decision to contribute to a pension plan for women in their fifties. In addition, the findings regarding work history (length of employment and number of weeks worked per year) and household size were significant and negative for women in their fifties. Finally, health and household status is not significant as a predictor of the decision to contribute to a pension plan. Therefore, the findings do not support the hypotheses of excellent health and homeownership as a predictor contributing to an employer sponsored pension plan.

INTRODUCTION

During the 1990's, the average life expectancy for a fifty year old male was 77 years. A fifty year old woman could expect to live even longer – to an average age of 82 years.¹ The gradual rise in life expectancies over the last century, coupled with the fact that present day retirees are likely to lead more active and independent lives compared to past generations, makes it even more imperative for individuals to adequately prepare for retirement. Since the contemporary retiree is healthier and

more active compared to retirees of past generations, one can expect the retirement years to be costlier.

Retirement income generally comes from three sources: Social Security, employer sponsored retirement plans, and individual savings. While Social Security pays medical, disability, death, and retirement benefits, the amount of compensation is inadequate for most consumers. Employer sponsored retirement plans have become the main source of retirement income in recent decades due to the inadequacy of the Social Security system and low levels of personal savings. Unfortunately, the prevalence of traditional employer sponsored pension plans such as defined benefit plans are decreasing in favor of defined contribution plans.

Since the early 1980's, there has been a gradual shift away from defined benefit pension plans in which employees receive a guaranteed sum upon retirement, toward defined contribution plans where the employee's retirement benefit is simply whatever his or her account balance is upon retirement. The motivation for this trend is two fold. First, employers are increasingly trying to lower their pension costs. An effective way to achieve such cost savings is to terminate defined benefit plans which obligate the firm to make actuarially based annuity payments, in favor of defined contribution plans in which the firm has the discretion to make voluntary contributions. These employer contributions are generally in the form of profit sharing or matching contributions. Second, employers are trying to shift the burden of investment risk to the employees. If investment returns in a defined benefit plan are less than anticipated, the plan may become underfunded and the firm will be required to make an additional contribution to restore the plan to a fully funded level. However, with a defined contribution plan the employee is only entitled to his or her account balance, regardless of investment performance.

The motivation for this study is to investigate the factors affecting retirement preparation for men and women in their fifties, using data obtained from the 1995 Survey of Consumer Finances. Adequate preparation for retirement has become increasingly important over the last couple of decades for this age group since the typical fifty year old of the 1990's can expect a longer retirement period than fifty year olds of past generations and will likely have less reliance on Social Security. Previous studies have focused on the effect of factors such as age, marital status, work history, education, income, family/household composition and occupation on retirement savings over the life course. However, none of these studies have focused on retirement preparation of individuals in this specific age group. Our purpose is to investigate the factors affecting retirement savings among individuals in their fifties in relation to work history, marital status, income level, education, family/household composition and occupation. The goal of the research is to determine if any of these factors do indeed have an impact on the level of retirement savings.

It should be noted that retirement preparation among women in this age group is of particular concern. Prior research by Burkhauser and Duncan (1989) and Magenheim (1993) has focused on retirement savings issues specific to women. Due to divorce and longer life expectancies among women, it is likely that women will spend the last part of their lives alone. However, women generally are less prepared for retirement compared to men. This discrepancy is due to the fact that, on average, women earn less money than men. In addition, women tend to have more interrupted work histories compared to men. Finally, women are less likely than men to be covered by an employer retirement plan.

The remainder of this paper is organized as follows. In Section II we provide a brief overview of relevant literature. In Section III we give a description of the data and methodology used. In Section IV we present empirical results. In the final section, we summarize the conclusions.

LITERATURE REVIEW

Considerable research has focused on retirement preparation [Springstead and Wilson (2000), Clark and Scheiber (1998), Malroux and Xiao (1995a), Andrews (1992), Palmer, George and Fillenbaum (1982), Bixby (1976), and Parnes and Nestel, (1971)]. In general, the findings indicate that retirement plan participation increases with age, earnings and education. In addition, participation rates are higher for men, whites, and individuals who are married.

Springstead and Wilson (2000) analyze participation rates of the various types of tax deferred investment accounts in addition to investor characteristics. They found participation rates to be highest in federal Thrift Savings Plans, followed by 401(k) plans and IRAs. The authors also investigate factors affecting participation in IRAs, 401(k)s and Thrift Savings Plans (TSP). Their findings indicate that participants in retirement savings vehicles tend to be male, higher wage earners, older, full-time employees, and either white or nonblack minorities.

A related study by Andrews (1992) analyzes participation in 401(k) plans using data from the May 1988 Current Population Survey (CPS). Her findings indicate that plan eligibility increases with age, earnings, family income, and tenure. Regarding contribution levels, Andrew's findings indicate that older and better paid employees have higher contribution rates. However, increases in annual earnings did not appear to affect contribution rates. Interestingly, the employer matching feature actually has a negative impact on employee contribution rates. That is, workers tend to contribute less if their plan has a matching feature.

Clark and Scheiber (1998) use personal data records of workers eligible to participate in 401(k) plans. Their study examines the factors associated with variations in both participation rates and employee contribution levels among the eligible employees. Their findings indicate that plan characteristics and communication have the largest impact on employee participation and contribution levels. Hence, this study suggests that employers can improve both plan participation rates and employee contribution levels by implementing a program to better inform employees about the details of the company retirement plan.

Malroux and Xiao (1995a) analyze the overall financial preparation of preretirees. Using data from the 1989 Survey of Consumer Finances, the authors analyze the effect of socioeconomic variables on retirement preparation. The results of the probit analysis indicate that age, education, race, job tenure, and employment status have a significant effect on retirement preparation. Specifically, financial preparation is significantly influenced by both human capital and socio-demographic factors. The authors find that whites, preretirees between 31-59 with higher education, and homeowners are more likely to have retirement or pension plans. Conversely, self employed and married preretirees are less likely to have retirement or pension plans. Regarding contribution rates, preretirees with higher education and longer job tenure are more likely to contribute to their pension plans. In contrast, whites, married preretirees, and respondents in good health are less likely to contribute to pension plans.

Studies using multivariate analysis suggest five groups of predictors that are related to retirement: demographic characteristics, socioeconomic status, health, job characteristics, and attitudes toward work and retirement. Palmore, George and Fillenbaum (1982) compare the importance of structural and subjective variables in predicting both early and normal retirement for men. The structural variables are defined as demographic, socioeconomic and job characteristics. Conversely, self-rated health and attitudes make up the subjective variables. The earlier studies by Parnes and Nestel (1971) and Bixby (1976) both find subjective variables to be more significant as predictors of early retirement. However, Bixby (1976) finds both subjective and structural variables to be equally significant for those retiring at normal retirement age. Conversely, Palmore (1971) finds subjective variables to be more statistically significant.

Burkhauser and Duncan (1989) provide an overview of the life cycle patterns of family income. They focus on the individual changes experienced by men and women over the life cycle. They point out that even though men and women may reside in the same household, they should be looked at as individuals because of the possibility of a sudden change in family composition over one's life course. The authors hypothesize that in today's society women face a significantly greater chance of experiencing an event that will dramatically reduce their economic well-being compared to men. The authors go on to suggest that one factor for this discrepancy is the uneven protection provided by the current mixture of social insurance and social welfare programs, which were developed under the assumption of a continuous stable family.

Data for the Burkhauser and Duncan (1989) study was taken from the cross-year 1984 response-nonresponse file of the Panel Study of Income Dynamics (PSID). The PSID has interviewed a representative sample of five thousand families since 1968. First, the authors examined trends and stability of family income over the ten year period between 1974 and 1983, using PSID. The findings indicate that family income peaked for individuals who began the 10 year period in their prime earnings years of 36 to 45 and then falls for the 46 to 55 year old group. The next period, 56 to 65, is when the most retirements occur. As expected, family income is lower for this group. Those beyond age 65 have the lowest incomes of all. Furthermore, the ratio of the average family income of women to that of men decreases over the life cycle. For the 26-35 year age group, there is basically no difference in the income ratio. However, from age 36 onward the ratio gradually decreases, reaching a ratio of .72 for the 66 years and over age group. The authors attribute this decreasing ratio of womens' family income to mens' to the increasing proportion of women without spouses who head their own households. Finally, when adjustments for family size are made, the differences in the income-to-needs average of the older age groups compared to the younger age groups, and the gap between the sexes are somewhat reduced due to the emptying of the nest. In sum, the results indicate that the experiences of men and women across their lifetimes are very different. Although the income-to-needs ratios for the youngest men and women are essentially the same, thereafter the ratio falls dramatically for women compared to that of men. Furthermore, the risk of a decrease in income to a near-poverty level is consistently greater for women, especially during the child-bearing years. Hence, one can conclude that women on average are not as adequately prepared for retirement compared to men.

Whereas Burkhauser and Duncan (1989) gave an overview of life cycle patterns of family income, this study will look specifically at individuals in their fifties. Rather than looking at the impact of life events on retirement preparation, however, our focus is on how socio-economic variables correlate with retirement preparation.

DATA AND METHODOLOGY

The data for this study were obtained from the 1995 Survey of Consumer Finances (SCF) available from the Federal Reserve System in cooperation with the Statistics of Income Division at the Department of Treasury. The SCF is a triennial type of survey and is designed to provide information on households regarding their personal finances, pension plan coverage, labor force participation, and various demographic characteristics. In order to provide accurate information on characteristics that are widely distributed in the population as well as characteristics that are concentrated in a small part of the population, such as home ownership versus investment real estate, a dual frame sample design is used. The purpose is to provide an adequate descriptive base for the analysis of household assets and liabilities. The first part is a geographically based standard multi-stage probability sample whereas the second part is a special oversample of wealthy families taken from tax records. The second part is necessary because wealthy families hold a disproportionately large share of certain assets, such as tax exempt bonds. The response rate is approximately 70% for the standard probability sample and about 34% for the special sample. The survey was conducted by the National Opinion Research Center at the University of Chicago. The Survey consists of 4,299 households, 2,780 from the area probability sample and 1,519 from the list sample. Furthermore, the time frame for the interviews averaged 90 minutes. In addition, there are 4,967 variables and 21,495 observations in the survey. Aside from demographic characteristics, other variables in the survey encompass detailed information on financial assets, nonfinancial assets, and liabilities. Some examples include information on savings bonds, stocks, mutual funds, retirement accounts, life insurance, vehicles, real estate, business assets, and credit card debt.

In order to accommodate for nonresponse error statistical methods are used to impute the missing data. Specifically, the missing data in the survey was imputed five times by drawing repeatedly from an estimate of the conditional distribution of the data. These imputations are stored as five successive replicates of each data record. Thus, the number of observations in the dataset, 21,495, is five times the actual number of respondents, 4,299.

With data from the 1995 SCF, we use probit analysis and the multiple regression model to observe the statistical significance of socio-demographic and work related variables on retirement savings for a sub-sample of individuals ranging in age from 50-59 years.

The dependent variables for analysis were grouped into two categories: retirement plan eligibility and whether or not contributions are being made. The independent variables were also broken down into two categories: socio-demographic variables and work-related variables. Below is a description of the independent variables used in the study:

Socio-Demographic Variables

- Age of respondent (50-59 years)
- Gender
- Marital status (married, never married, living with partner, separated, divorced, widowed)
- Household size (number of persons)
- Health (categories range from excellent to poor)
- Income (amount of income)
- Household status (rent versus own)
- Education (highest grade completed)

Work-Related Variables

- Employment (employer, self-employed, partnership, other)
- Length of employment (number of years)
- Number of weeks worked per year

Initially, we had a larger number of work related variables in our data set. For example, current employment status, length of full-time versus part-time employment, and the number of full-time jobs lasting over one year were some of the additional independent variables in our regression model. However, we ultimately eliminated these variables due to errors associated with multi-collinearity.

We hypothesize that age, education and income will be positively correlated with retirement plan eligibility and participation. In addition, we expect work history to be directly related to retirement eligibility and participation. Work history refers to the amount of uninterrupted time one has in the work-force. Thus, we expect to see greater participation among individuals with stable work histories. In contrast, the correlation of household size to retirement savings is expected to be negative for women and insignificant for men. The reason is that women are traditionally the caregivers for a large family and therefore are more likely to leave employment for this reason compared to men. Finally, because men tend to have longer and uninterrupted work histories compared to women, their overall retirement savings is expected to be greater.

FINDINGS

The findings that follow highlight the socio-demographic and work-related variables affecting whether or not individuals aged 50-59 are eligible to participate in their respective employer sponsored retirement plans. We also discuss our findings regarding factors affecting an individual's decision to contribute to a retirement plan.

Retirement Plan Eligibility

Table 1 illustrates the descriptive statistics for individuals who are eligible to participate in a retirement plan. Regarding this particular dependent variable, respondents were asked if they were included in any pension plans through work. The descriptive statistics indicate that men in their fifties have higher reported income and net worth than women of the same age group. In addition, our findings show men

Retirement Savings of the HIP Generation: A Study of Retirement Preparation Among Individuals in their Fifties

in this age group to have longer work histories and more education compared to women.

TABLE 1				
Descriptive Statistics of Variables taken from the 1995 Survey of Consumer Finances Regarding Retirement Plan Eligibility				
Data taken from the 1995 SCF available from the Federal Reserve System in cooperation with the Statistics of Income Division at the Department of Treasury were used to calculate the mean and standard deviation for the variables listed below.				
Variable	Men age 50-59		Women age 50-59	
	Mean	Standard Deviation	Mean	Standard Deviation
Length of employment in years	17	11	11	11
Household size	3	1	3	1
Income of Respondent	98326	372175	85811	1361465
Education of Respondent in years	15	3	14	2
Net worth	9151304	30455311	4459881	25619797
Number of weeks worked per year	51	4	50	7
Age * Education	792	144	619	247
Age * Income	5336872	20576664	4691318	85756465
Age * Net worth	500504986	1653603410	284418019	1782612624
Men age 50-59: n=2666				
Women age 50-59: n=2445				

Table 2 illustrates the probit regression for retirement plan participation. Regarding men and women in their fifties, the findings indicate that excellent health and work history (length of employment and number of weeks worked per year) have significant positive effects on retirement plan eligibility. In addition, income has a significant positive effect on eligibility for men and women in their fifties. Significant positive effects regarding pension plan eligibility are reported for divorced women whereas significant negative effects are reported among women who are married, widowed or living with their partner. In addition, household size has significant positive effects on pension plan eligibility for both men and women. Finally, the effects on eligibility for individuals in the 50-59 year age group are significant and negative regarding age and education. Although our findings provide different conclusions regarding age and education, our results tend to agree in general with Springstead and Wilson (2000), Andrews (1992) and Malroux and Xiao (1995a).

TABLE 2

TABLE 2						
Probit Analysis of Factors Affecting Retirement Plan Eligibility						
A probit two-stage least squares procedure was employed using data taken from the 1995 SCF. The coefficient, marginal effect, and P values of each of the independent variables tested in relation to the dependent variable, pension plan eligibility, are listed below.						
Dependent variable: Included in pension plans through work						
	Men age 50-59			Women age 50-59		
Independent Variables	Coefficient	Marginal Effect	Value	Coefficient	Marginal Effect	Value
Length of employment	.3565524519E-01	.142241819E-01	0000	.3665063079E-01	.1432833829E-01	0000
Age						
Respondent	-.590851910E-01	-.235711764E-01	0000	-.8215475101E-01	-.3211789373E-01	0000
Spouse	.1200330047E-01	.4788555760E-02	0696	-.3030985052E-02	-.1184944931E-02	1791
Marital status						
Married	-.2076399751	-.8283518326E-01	.6205	-.1573970594E-02	-.6153341061E-03	.9864
Living with partner	-.5164197255	-.2060187243	2275	-.2207893046	-.8631621829E-01	0242
Separated	-.9923659436E-02	-.3958910856E-02	9842	-.6487971373E-01	-.2536432434E-01	4727
Divorced	.4931405035E-01	.1967317909E-01	8590	.2279994692	.8913498772E-01	0001
Widowed	-.2132083598	-.8505661602E-01	6492	-.3569455936	-.1395456806	0004
Household size	.1593799779E-01	.6358250492E-02	6287	.2479235088E-01	.9692416823E-02	0545
Income						
Respondent	.3878601166E-05	.1547315923E-05	0008	.1810341874E-05	.7077420018E-06	0000
Spouse	.7588166813E-07	.3027197393E-07	5702	.8351025439E-06	.3264781942E-06	2268
Education of Respondent	-.2935699624E-01	-.1171157978E-01	.6109	-.2034635520	-.7954282208E-01	0000
Respondent's health						
Good	.3840323355E-01	.1532045504E-01	.7350	.2325318360	.9090688858E-01	0000
Excellent	.7744539367E-01	.3089580126E-01	5117	.2723644180	.1064791911	0000
Household status						
Rent	-.9732784711E-01	-.3882763944E-01	7537	-.1482557331	-.5795966541E-01	0184
Own	.2088439811	.08331550566E-01	7786	.1226162844	.4793608093E-01	0428
Number of weeks worked per year	.4073686334E-02	.1625142535E-02	5414	.1098541414E-01	.4294679975E-02	0000
Age * Education	.2712796877E-03	.1082233936E-03	8058	.4834353151E-02	.1889960579E-02	0000
Age * Income	-.7380321981E-07	-.2944280484E-07	0005	-.2841656211E-07	-.1110927987E-07	0000
Age * Net worth	.3120438137E-08	.1244856850E-08	0000	-.6600140667E-09	-.2580284329E-09	0000
Men age 50-59:	Log Likelihood = -1299.502	Chi-squared = 1096.675	Predictability = .75			
Women age 50-59:	Log Likelihood = -6106.322	Chi-squared = 4621.969	Predictability = .75			

Retirement Plan Contributions

Table 3 illustrates the descriptive statistics for individuals who are contributing to a retirement plan. Respondents were asked if they are currently making contributions to their pension plans. As in Table 1, the men in their 50's had higher incomes and longer work histories compared to women.

Retirement Savings of the HIP Generation: A Study of Retirement Preparation Among Individuals in their Fifties

TABLE 3				
Descriptive Statistics of Variables taken from the 1995 Survey of Consumer Finances Regarding Retirement Plan Contributions				
Data taken from the 1995 SCF available from the Federal Reserve System in cooperation with the Statistics of Income Division at the Department of Treasury were used to calculate the mean and standard deviation for the variables listed below.				
Variable	Men age 50-59		Women age 50-59	
	Mean	Standard Deviation	Mean	Standard Deviation
Length of employment in years	21	10	13	10
Household size	3	1	3	1
Income of Respondent	123002	387688	101282	952546
Education of Respondent in years	14	3	14	2
Net worth	7201722	32854403	2252796	11801371
Number of weeks worked per year	51	3	50	5
Age * Education	769	155	618	199
Age * Income	6690524	21235982	5565822	61198574
Age * Net worth	397530467	1811044074	134222231	759474998
Men age 50-59: n=575				
Women age 50-59: n=1783				

In Table 4, we present the probit analysis regarding individuals who are contributing to their retirement plans. Unfortunately, the tests for this dependent variable did not yield meaningful results for men due to the small sample size. However, the results obtained for women are described below.

The strongest results are the findings for the income variable and the decision to contribute to a pension plan. Indeed, the results indicate significant positive effects regarding income and women in their fifties who are making contributions to their pension plans. In addition, the results are significant and positive regarding the decision to contribute to a pension plan among women who are married or living with their partner. Education and household size were also significant and positive as predictors of the decision to contribute to a pension plan for women in their fifties.

The findings regarding work history, defined as length of employment and the number of weeks worked per year, and the decision to contribute to a pension plan yielded significant negative results. In addition, we divided the ages of individual women in subgroups and found that women in their early 50's are more likely to contribute to a pension plan compared to women in their late 50's. Finally, health and homeownership were insignificant as predictors of the contribution decision.

TABLE 4			
Probit Analysis of Factors Affecting Retirement Plan Contributions			
A probit two-stage least squares procedure was employed using data taken from the 1995 SCF. The coefficient, marginal effect, and P values of each of the independent variables tested in relation to the dependent variable, pension plan eligibility, are listed below.			
Dependent variable: Is employee currently contributing to plan?			
Women age 50-59			
Independent Variables	Coefficient	Marginal Effect	Value
Length of employment	-.3166697680E-02	-.1249768846E-02	.5057
Age			
Respondent	-.9765357142E-02	-.3853995664E-02	.4507
Spouse	.4525308774E-02	.1785958275E-02	.5032
Marital status			
Married	.1636789669	.6459753795E-01	.5628
Living with partner	.1292450110	.5100783360E-01	.6989
Separated	.3995966112	.1577017910	.0681
Divorced	.4771874659	.1883267962	.0001
Household size	.1642449892E-01	.6482092431E-02	.6341
Income			
Respondent	.8710895632E-05	.3437841904E-05	.0061
Spouse	.1245636931E-04	.4916030477E-05	.0000
Education of respondent	.3591394556E-01	.1417379707E-01	.3312
Respondent's health			
Good	.4194298872	.1655321913	.0049
Excellent	.4931675779	.1946335069	.0012
Household status			
Rent	.8538356964	.3369747797	.0000
Own	.5523405924	.2179867277	.0010
Number of weeks worked per year	-.5218391985E-01	-.2059490482E-01	.0000
Age * Education	.9970588841E-03	.3934992403E-03	.3128
Age * Income	-.1825045609E-06	-.7202724652E-07	.077
Age * Net worth	-.2839172851E-09	-.1120507 904E-09	.2606

Retirement Savings of the HIP Generation: A Study of Retirement Preparation Among Individuals in their Fifties

TABLE 5
Relevant Empirical Literature

Author(s)	Objective	Methodology	Results
Springstead & Wilson (2000)	Examine participation in IRAs, 401(k)s and Thrift Savings Plans.	Analyze data from the Department of Labor, the Employee Benefit Research Institute, and the Federal Retirement Thrift Investment Board.	Participants in retirement savings vehicles tend to be male, higher wage earners, older, full-time employees, and either white or nonblack minorities.
Clark & Schieber (1998)	Examine factors affecting 401(k) participation.	Logit estimation and OLS using data from personal data records.	Plan characteristics and communication have a positive effect on plan participation.
Bajtelsmit & Bernasek (1996)	Literature review of gender differences in retirement preparation.		All explanations of gender differences in retirement preparation are rooted in discrimination and/or individual preferences.
Bajtelsmit & VanDerhei (1996)	Examine gender differences in investment of pension based assets.	Analyze 1993 pension plan data on 20,000 management level employees.	Women are significantly more likely to invest pension assets in fixed income alternatives.
Hinz, McCarthy, & Turner (1996)	Examine gender differences regarding asset allocation.	Logit analysis using survey data from a 1990 government DC plan	Men are significantly more likely to hold risky assets.
Jianakoplos & Bernasek (1996)	Compare risk aversion between men and women.	Regression analysis using data from the 1989 Survey of Consumer Finances.	Single women are most risk averse, followed by married women, single men, and married men.
Burkhauser & Duncan (1989)	Examine life cycle patterns of family income.	Analyze a cross-year 1984 response-nonresponse file of the PSID.	Family income peaks during the prime earning years (36-45).
Fethke (1989)	Examine the impact of divorce on savings patterns and the resulting effect on retirement.	Analyze data from the 1984 U.S. Census using a representative agent model and a noncooperative game model.	Divorce adversely affects savings rates and results in poorer economic well-being in retirement.
Skinner (1987)	Examine the effect of socio-economic factors on consumption and savings.	Analyze data from the CES.	Fifty-six percent of aggregate life-cycle savings are precautionary.
Palmore, George, & Fillenbaum (1982)	Examine predictors of retirement.	Multivariate analysis using data from the RHS and the NLS.	Age, education, occupation, poverty ratio, and health are significant predictors of retirement.
Katlikoff & Summers (1981)	Examine family income flows.	Analyze longitudinal profiles from 1900-1974 using the life-cycle model of savings.	Expenditures parallel income prior to age 45. There is positive savings between ages 45-60 and negative savings after age 60.
Bixby (1976)	Examine predictors of retirement among men	Multiple classification analysis using data from the RHS.	Health is the strongest predictor of early retirement.
Parnes & Nestel (1971)	Examine predictors of early retirement.	Multiple classification analysis using data from the NLS.	Work commitment, health, second pension coverage, and job satisfaction are significant predictors of early retirement.
Ando & Modigliani (1963) Modigliani & Brumberg (1954)	Examine lifetime saving patterns.	Life Cycle Model.	Purpose of savings results from the need to defer consumption from income earning years until retirement.

CONCLUSION

The purpose of this study is to examine retirement preparation among individuals in their fifties. Probit analysis was conducted using data from the 1995 SCF. The findings indicate that men in their fifties have higher reported income and longer work histories than women of the same age group.

The main findings regarding pension plan eligibility indicate that good health and work history have significant positive effects on retirement plan eligibility for individuals in their fifties. In addition, income has a significant positive effect on retirement plan eligibility for both men and women in their fifties. Furthermore, significant positive effects regarding pension plan eligibility were reported for divorced women. This may be the result of a disproportionate amount of divorced women in the workforce compared to married women. Finally, age and education levels have significant negative effects regarding pension plan eligibility for both sexes in their fifties.

Although our findings indicate that divorced women in the 50-59 age group are more likely to be eligible to participate in a retirement plan, when it comes to the issue of contributions we find that women who are married or living with a partner are more likely to contribute to their respective plans. This may be due to the fact that even though more divorced women are eligible to participate in a retirement plan, they may not be contributing to the plan because of economic factors. Indeed it stands to reason that women who are married or living with a partner will likely have more discretionary household income, on average, compared to divorced women.

The findings regarding retirement plan contributions indicate significant positive effects regarding income and women in their fifties who are making contributions to their pension plans. Therefore, the findings generally support the hypothesis of income as a predictor of retirement plan participation. Education was also found to be significant as a predictor of the decision to contribute to a pension plan for women in their fifties. Therefore, the findings regarding education support our hypothesis. The findings regarding work history (length of employment and number of weeks worked per year) and the decision to contribute to a pension plan are significant and negative for women in their fifties. Conversely, household size is significant and positive as a predictor of the decision to contribute for women in their fifties.

The findings have policy implications for public policy makers. The government can promote higher pension plan eligibility rates by making the rules governing entry into company sponsored pension plans more lenient. In addition, legislation focusing on increasing contribution rates among middle to low income workers should be considered. Finally, policies that encourage firms to include features in their retirement plans that promote employee contributions should be instituted. In general, employees will be more likely to make retirement plan contributions if such contributions have a direct impact on the level of employer contributions. The optimal way to accomplish this is for an employer to tie a matching contribution to the employee's contributions. For example, if an employer offers a 100% match up to 5% of compensation, employees will be motivated to contribute the full 5% in order to receive the maximum matching contribution. If employers were able to receive additional tax incentives for matching contributions, they may be motivated to institute a matching policy or increase the matching amount if they are already providing matching dollars. This should lead to an overall increase

in employee contribution rates. It is also a win/win situation for employers. Not only will they receive tax breaks for their contributions, they may also be able to benefit from higher levels of employee recruitment and retention if their retirement plan contribution rates are higher than the norm.

ENDNOTES

- ¹ Source: Department of Health and Human Resources (1996). From the website, (<http://www.efmoody.com/estate/lifeexpectancy.html>)

REFERENCES

- Abel, A. (1985). Precautionary Saving and Accidental Bequests. *American Economic Review* 75, 777-791.
- Ando, A., & Modigliani, F. (1963). The Life-Cycle Hypothesis of Savings: Aggregate Implications and Tests. *American Economic Review* 53, 55-84.
- Andrews, E. S. (1992). The Growth and Distribution of 401(k) Plans. *Trends in Pensions*. Washington, D.C., U.S. Department of Labor.
- Bajtelsmit, V. L., & Bernasek, A. (1996). Why do Women Invest Differently Than Men? *Financial Counseling and Planning* 7, 1-10.
- Bajtelsmit, V. L., & VanDerhei, J. A. (1996). Risk Aversion and Retirement Income Adequacy. Forthcoming in *Positioning Pensions for the Twenty-First Century*. Philadelphia: University of Pennsylvania Press.
- Barro, R. J. (1974). Are Government Bonds Net Wealth? *Journal of Political Economy* 82, 1095-1117.
- Beck, S. H. (1984). Retirement Preparation Programs: Differentials in Opportunity and Use. *Journal of Gerontology* 39(5), 596-602.
- Becker, G. S. (1974). A Theory of Marriage Part II. *Journal of Political Economy* 82, 11-26.
- Bixby, L. (1976). Retirement Patterns in the United States. *Social Security Bulletin* 39, 3-19.
- Burkhauser, R. V., & Duncan, G. J. (1989). Economics Risks of Gender Roles: Income Loss and Life Events Over Life Course. *Social Science Quarterly* 70(1), 3-23.
- Burns, S. A. (1990). Retirement Savings of Baby Boomers and an Earlier Cohort: 1960 and 1983. *The Proceedings of the 36th Annual Conference of the American Annual on Consumer Interests*, 322-328. Columbia, MO.
- Clark, R. L. & Scheiber, S. J. (1998). Factors Affecting Participation Rates and Contribution Levels in 401(k) Plans. In Olivia S. Mitchell and Sylvester J Schieber, eds., *Living with Defined Contribution Pensions*, University of Pennsylvania Press: Philadelphia.
- DeVaney, S. A. (1995). Retirement Preparation of Older and Younger Baby Boomers. *Financial Counseling and Planning* 6, 25-33.
- Engen, E. M., Gale, W. G. & Scholz, J. K. (1996). The Illusory Effects of Saving Incentives on Saving. *Journal of Economic Perspectives* 10(4), 113-138.

- Fethke, C. C. (1989). Life Cycle Models of Saving and the Effect of the Timing of Divorce on Retirement Economic Well Being. *Journal of Gerontology*, 44(3), 121-128.
- 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(1), 85-94.
- Flavin, M. A. (1981). The Adjustment of Consumption to Changing Expectations about Future Income. *Journal of Political Economy* 89, 974-1009.
- Friedman, M. (1957). *A Theory of the Consumption Function*. New Jersey: Princeton University Press.
- Garfinkel, I., & McLanahan, S. (1987). *Single Mothers and Their Children: A New American Dilemma*. Urban Institute, Washington, D.C.
- Hatcher, C. B. (1995). Wealth, Reservation Wealth, and the Decision to Retire. *Consumer Interests Annual* 41, 244-245.
- Hatten, M. L. (1986). *Macroeconomics for Management*, 90-92. New Jersey: Prentice-Hall.
- Hubbard, R. G. (1984). Do IRAs and Keoghs Increase Savings? *National Tax Journal* 37, 43-54.
- Hubbard, R. G., Skinner, J., & Zeldes, S. P. (1995). Precautionary Saving and Social Insurance. *Journal of Political Economy* 103(2), 360-399.
- Jianakoplos, N., & Bernasek, A. (1996). Are Women More Risk Averse? Working Paper, Colorado State University.
- Kim, C. S., Wong, K. M. (1997). Asset Allocation Strategies for Personal Pension Contributions. *Financial Practice and Education*, 35-46.
- Kokrda, E., & Cramer, S. (1995). Factors Affecting Retirement Savings of Women in Two Age Groups. *Family Economics and Resource Management Biennial*, 115-120.
- Kotlikoff, L. J. (1982). The Adequacy of Savings. *American Economic Review* 72, 1056-1069.
- Kotlikoff, L. J., & Summers, L. H. (1981). The Role of Intergenerational Transfers in Aggregate Capital Accumulation. *Journal of Political Economy* 89, 706-732.
- Leland, H. (1968). Savings and Uncertainty: The Precautionary Demand for Saving. *Quarterly Journal of Economics* 82, 465-473.
- Logue, B. J. (1991). Women at Risk: Predictors of Financial Stress for Retired Women Workers. *The Gerontologist* 31(5), 657-665.
- Maddala, G. S. (1992). *Introduction to Econometrics*, 327-330. New York: MacMillan.
- Malroux, Y. L., & Xiao, J. J. (1995a). Financial Preparation for Retirement. *Consumer Interests Annual* 41, 49-54.
- Malroux, Y. L., & Xiao, J. J. (1995b). Perceived Adequacy of Retirement Income. *Financial Counseling and Planning* 6, 17-23.
- Modigliani, F. (1988). The Role of Intergenerational Transfers and Life Cycle Savings in the Accumulation of Wealth. *The Journal of Economic Perspectives* 2, 15-40.
- Modigliani, F., & Brumberg, R. (1954). Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data. *Post-Keynesian Economics*. New Brunswick.

- Montalto, C. P., & Sung, J. (1996). Multiple Imputation in the 1992 Survey of Consumer Finances. *Financial Counseling and Planning* 7, 133-146.
- Murray, J. (1979). Subjective Retirement. *Social Security Bulletin* 42, 1-7.
- Palmore, E. (1971). Why do People Retire? *Aging and Human Development* 2, 269
- Palmore, E. B., George, L. K., & Fillenbaum, G. G. (1982). Predictors of Retirement. *Journal of Gerontology* 37, 733-742.
- Parnes, H. (Ed.). (1981). Introduction and Overview. *Work and Retirement: A Longitudinal Study of Men*, Cambridge, MA.: MIT Press.
- Parnes, H., & Nestel, G. (1971). Retirement Expectations of Middle-Aged Men. *Center for Human Resources Research*, Ohio State University, Columbus, Ohio.
- Poterba, J. M., Venti, S. V. & Wise, D. A. (1996). How Retirement Saving Programs Increase Saving. *Journal of Economic Perspectives* 10(4), 91-112.
- Rix, S. E. (1993). Women and Well-Being in Retirement: What Role for Public Policy. *Journal of Women and Aging* 4, 37-56.
- Schwab, C. R. (2001). *You're Fifty-Now What? Investing for the Second Half of Your Life*, 7-26. New York: Crown Business.
- Skinner, J. (1987). Risky Income, Life-Cycle Consumption and Precautionary Savings. Working Paper No. 2336. Cambridge, MA.: National Bureau of Economic Research.
- Springstead, G. R. & Wilson, T. M. (2000). Participation in Voluntary Individual Savings Accounts: An Analysis of IRAs, 401(k)s, and the TSP. *Social Security Bulletin* 63(1), 34-39.
- Yaari, M. E. (1965). Uncertain Lifetime, Life Insurance, and the Theory of the Consumer. *Review of Economic Studies* 32, 137-150.

