

# **Women's Retirement Income Satisfaction and Saving Behaviors**

Chungwen Hsu

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Irene E. Leech, Chair  
Sophia T. Anong  
Julia O. Beamish  
Patti J. Fisher

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## **ABSTRACT**

Retirement saving research frequently has investigated the differences between working men and working women and primarily focused on the near retirement and retirement years. There is limited research targeting young to old working-age women including those who do not work for pay and are unemployed.

The purpose of this study was to examine what factors affect non-retired working-age (25 years and older) women's retirement saving behaviors, retirement savings, and retirement income satisfaction. To implement the study, a research framework was developed based on Deacon and Firebaugh's Family Resource Management Model. The research framework for this study consisted of three major sections: (a) input (demographics, saving motives, retirement saving involvement level, retirement information seeking, current financial assets and debts, and future expectations), (b) throughput (retirement saving behaviors such as calculating needed retirement savings, being a retirement saver, starting saving for retirement age, and being a regular retirement saver), and (c) output (the objective retirement savings and the subjective retirement income satisfaction).

An online survey instrument was developed to obtain data for the study. Two pilot tests were conducted to confirm the validity and reliability of the instrument. Data for this study were collected from a national population between May 25, 2012 and May 30, 2012 with 591 valid responses. Several statistical methods were employed: descriptive statistics, one-way between-groups analysis of variance (ANOVA), direct logistic regression, and standard multiple regression.

From the results of the study, only about one-third of the women (31.8%) reported they expect to get the full amount of Social Security retirement income that today's retirees get. However, around 60% of the women only save less than \$25,000 or none in employer-provided retirement accounts or in personal investments and savings. There is an un-addressed gap between the cognition of the need to save for retirement and real saving action. A regular retirement saver is more likely to save more in employer-provided retirement accounts and to feel more satisfied with that retirement income. Yet, regular retirement savers have less savings in personal investments and savings, possibly because they believe their work investments will be sufficient or some women may make direct deposits to meet the annual limits of retirement plans. Other researchers have not reported this relationship.

Those women who are more cognitively involved with saving for retirement are more likely to calculate needed retirement savings and to be a retirement saver, but they are less satisfied with retirement income from Social Security and from personal investments and savings. Satisfaction level is subjective; thus, those who expect to own more types of assets in retirement may have a higher satisfaction level with the expected income from both employer-sponsored retirement accounts and personal investments and savings. Generally, greater satisfaction with expected retirement income is associated with higher accumulation in retirement savings, and the female savers have much more retirement savings than non-savers. However, there is no difference in the retirement income satisfaction of savers and non-savers.

These findings have implications for financial educators, counselors and advisors, researchers, employers, and policy makers. There are recommendations for women and future research.

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# CHAPTER 1

## INTRODUCTION

The worldwide population is growing older which is the result of longer life expectancy because of improvements in medical care and technology and lower fertility rates due to socio-economic changes. In most developed countries, there are more men in the younger portion of the population and more women in the older portion since women live longer than men because of relatively lower risk jobs, behaviors, and activities. Also, many women marry men who are older than themselves. As a result of these factors, more women are widows in later life. Furthermore, it is hard to predict whether the longer life is a healthy life, and women may require additional resources to obtain needed care and assistance.

Traditionally, a public pension (e.g., Social Security in the U.S.), a private pension (e.g., defined benefit (DB) or defined contribution (DC) plans provided by employers), and individual investments and savings compose the so-called three-legged stool of retirement income security. Most public or private DB or DC pension plans use some combination of the average or final salary and the years of employment to calculate benefits. Most major companies offer 401k plans and match a percentage (from 25% to 100%) of employees' contributions, up to 6% of the salary (Clark & Block, 2012). Therefore, personal income plays a key role in accumulating retirement savings.

In 2010, the female-to-male earnings ratio for full-time year-round workers ages 15 years and older was 77% (DeNavas-Walt, Proctor, & Smith, 2011). This is caused both by the kinds of jobs women have and the fact that women are more likely to move in and out of paid work when their male counterparts are climbing up to higher positions and earning higher salaries or to work part-time as a result of care-taking responsibilities at different life stages such as the birth of a child or chronic illness of an elder family member. Women tend to have

lower pay and less financial independence, which are essential requirements to enjoy the freedom and opportunities of later life.

A report from the Employee Benefit Research Institute (EBRI) showed that retired households' average earnings are about 57% that of working households; however, they spend about 80% of what working households spend (Banerjee, 2012). EBRI provided a sense of the consumption patterns in retirement for Americans aged 50 and older. The largest expenditures are for home and home-related costs which require 40% to 45% of the budget, followed by health care costs which require 10% of the budget for those between age 50 to 60 and 20% for those age 85 and over for long-term care and private health insurance (Banerjee, 2012). Overall, the cost of retirement is increasing because of longer life expectancy, increasing healthcare costs, lower interest rates, and more investment risk from employees' DC plans (Prudential, 2012).

To achieve this long term financial goal – saving an adequate amount for a comfortable retirement – people need to put sufficient money in retirement accounts early in their working years so that it has decades to build up value and gain the benefits of time and compounding interest. Workers need to pay attention to the values of both their employer provided or supplemented and their individual retirement accounts. These are likely to be influenced by market forces, so they are just as likely to decrease as to increase in value. Workers often have the opportunity to liquidate retirement accounts when they switch employment and many do this, even when they have to pay a large penalty. These workers focus on “now” and are unaware or ignore the challenges that current retirees do not have but that they will face in retirement such as the income shortage from Social Security benefits.

During 2010, an estimated 156 million workers paid the Social Security tax, while 160 million workers paid the Medicare tax (Social Security and Medicare Boards of Trustees,

2011). Social Security is designed as a foundation of retirement income which provides only very basic living expenses. According to AARP (2009), the average Social Security retirement benefit is just about 40% of preretirement earnings; however, 96% of retired Americans rely on it as a major source of their retirement income (EBRI, 2012a). Also, Social Security and Medicare are primarily dependent upon those currently working to pay the benefits for those currently retired. There will be fewer workers per retiree contributing money for retirees through Social Security. The ratio of covered workers to beneficiaries was 159.4 workers to one retiree in 1940, 41.9 in 1945, and 16.5 in 1950; after 1955 the ratio was less than 10, while today there are only 2.9 workers for each person who receives Social Security benefits (Social Security Online, 2011). By 2036, the ratio will be 2.1 workers for each beneficiary (AARP, 2012). While a Social Security Trust Fund was created, Congress and Presidents have repeatedly used that money for current expenses and have not replaced the funds. Although they are due to be replaced with interest, the money will have to primarily come from future taxes and taxpayers will make up the money that should have been earned over time. Many workers are concerned that Social Security will not be able to provide the level of resources to future retirees that current retirees receive. Some financial advisors even recommend that consumers plan their retirement so that Social Security, if it is received, is “extra” rather than part of the dependable income.

Health care costs tend to rise with age and, as previously stated, represent an increasing portion of income. Medicare provides basic health care insurance for those aged 65 and older with or without a monthly premium based on the choices made by the elder. Like Social Security, it is primarily supported by those currently working and its Trust Fund has likewise not been funded. Those citizens who have few or no resources can qualify for Medicaid to pay for their basic long term care.

These government supported resources were never intended to take care of all expenses for everyone and as the number of retirees grows substantially in the coming years while the number of workers decreases, there will be increasing pressure on them. Congress is currently discussing a number of proposals including the possibility of both increasing the age when these benefits may be obtained and of decreasing the level of support they provide. The costs of required contributions to get the full benefit of Medicare health insurance rise annually and the criteria for qualifying for Medicaid for long term care also changes from time to time; future changes will be more significant.

To obtain adequate health care, most consumers must purchase Medigap health insurance policies to help cover the health care costs that Medicare does not include. Consumers must also plan ahead and start purchasing long term care insurance early enough that the premiums are affordable. Most long term care insurance policies limit what they provide to two and a half years and also limit the types of services covered. There is a growing realization that “aging in place” allows people to stay in their homes longer and that it may be less expensive. However, today many long term care insurance policies only cover care provided in a nursing home.

Employer provided DB retirement plans are disappearing for employees in both the private and public sectors and being replaced with DC plans that employees must fund and manage. Therefore, savings and investments made during a person’s working years are the key to having a comfortable retirement life. Many consumers are either not aware of the growing importance of investing for their retirement or believe that they cannot afford to retire. Also consumers are accustomed to having things now and paying later, and too few realize that to afford to retire they will need to invest more than they are already forced to invest in retirement.

## **Statement of the Problem**

According to the Administration on Aging (2011), almost 3.5 million elderly persons were below the poverty level in 2010, and older women had a higher poverty rate than older men. Compared with men, much evidence shows that women earn less and work fewer years for pay, resulting in less retirement savings. Furthermore, women live longer than men which means they are more likely to live alone in later life and to have chronic health problems. Retirement saving research frequently has investigated the differences between working men and working women and primarily focused on the near retirement and retirement years. There is limited research targeting the young to old working-age women including those who do not work for pay and are unemployed.

## **Significance of the Study**

The National Endowment for Financial Education (NEFE) (2011) conducted a Quarter Century Project in 2008 and identified the need for gender-focused research in financial education. The current study focuses on understanding women's financial preparedness for retirement to provide implications for financial counselors and advisors, financial educators, employers, financial researchers, and policy makers to supplement this gap in the literature.

## **Purpose of the Study**

The purpose of this study was to explore how women prepare financially for retirement using the Family Resource Management Model as the theoretical framework to examine what factors affect women's retirement saving behaviors, retirement savings, and retirement income satisfaction. Factors investigated included the influence of demographics, saving motives, saving for retirement involvement level, retirement planning information seeking, current assets and debts, and future expectations on retirement saving behaviors, and

the influence of all of the above factors on retirement savings and retirement income satisfaction. An online survey of non-retired working-age women (25 years and older) was developed to obtain the data for the study.

### Theoretical Basis of the Study

The Family Resource Management Model proposed by Deacon and Firebaugh (1988) was adapted as the theoretical framework (Figure 1) to explain how women manage resources to save for retirement. The Deacon and Firebaugh Model has been used in a number of studies on financial topics. Inputs, throughputs, outputs, and feedback are four processes in the model. Inputs for this study include demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations. Throughputs consist of retirement saving behaviors. Outputs are the objective amount saved/invested for retirement and the subjective satisfaction with the retirement income. Feedback and its influence on future decisions were not studied.

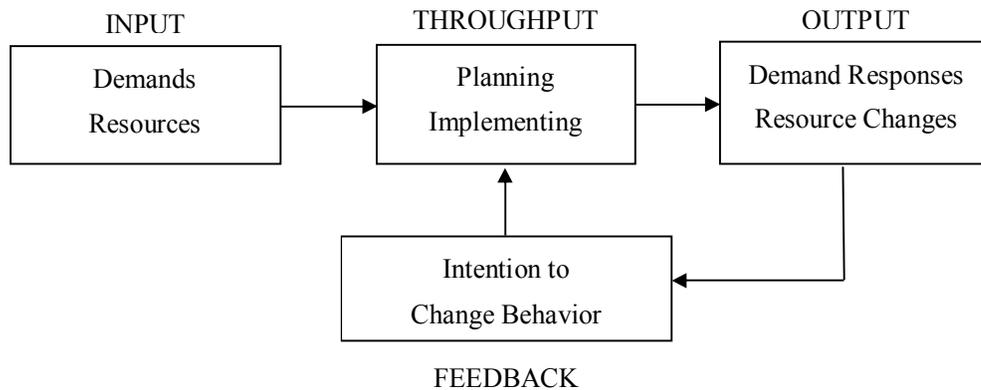


Figure 1. Simplified Family Resource Management Model

## **Limitations and Delimitations**

There are several limitations on online surveys, the method used to collect data. First, those who were not using the internet were excluded. Second, because it was impossible to obtain an internet users' list, we could not conduct random sampling, the procedure considered to produce the most accurate representation of the population, to select our sample. Another limitation was that the survey was self-reported. The same question may be interpreted in different ways by different respondents. Therefore, the findings of this study may not be generalized to the whole population. The study was delimited to a sample of American working-age women between 25 years and older who were not retired.

## **Definitions of Terms**

### **Working-Age**

There are several definitions of working-age. The U.S. Census Bureau (2011a) views people aged 18 to 64 as working age while EBRI (2009) assumes people between the ages of 21 to 64 are at working age. In this study, working-age is defined as those whose age is 25 and older. The reasons for selecting this age group are because it seems that consumers are likely to begin saving for retirement by the time they are 25 years old (EBRI, 2011) and there are 2.8 million of women aged 65 years and older are still working full-time or part-time (U.S. Census Bureau, 2011b).

### **Demographics**

Age, health status, education level, employment status, race/ethnicity, annual personal income, annual household income, marital status, household size, and homeownership are demographic characteristics.

## **Involvement Level**

The involvement level is a motivational state of involvement with saving for retirement. The involvement can also be divided into two subscales: affective involvement and cognitive involvement.

## **Information Seeking**

The ways consumers seek information related to retirement include reading any statement (from Social Security, employer provided DB pension, or federal employee benefits) and using any sources to learn about retirement planning (e.g., the internet, television, newspapers, radio, magazines, books, a course (either for credit or non-credit), discussions with friends and/or relatives, information from financial advisors, training sessions provided by employers, seminars led by financial professionals, and other sources).

## **Current Assets**

“Resources are whatever is available to be used” (Goldsmith, 2005) for retirement in this study. Current assets refer to any financial resources owned which include employer provided retirement benefits (e.g., traditional employer provided defined benefit pension, employer provided defined benefit pension to which I also contribute, and employer-sponsored defined contribution retirement plan), personal investments and savings (e.g., personal IRA (Individual Retirement Account) or Roth IRA, personal investment - mutual funds, personal investment - individual stocks and/or bonds, personal savings - certificate of deposit (CD), savings accounts, etc., annuities, and life insurance with cash value), and real estate (e.g., my home and other real estate).

## **Current Debts**

Debts are ways consumers borrow to supplement current utility. The types of current debts consist of mortgage, home equity loan, auto loan, credit card debt, education loan, personal loan, payday loan, car title loan, and other loans.

## **Expected Assets**

The resources are expected to be used in retirement. The expected assets include employer provided retirement benefits, personal investments and savings, real estate (e.g., use the equity in my home for a reverse mortgage, sell my home, rent from real estate or other property, or sell my real estate), Social Security (e.g., Social Security from my work record, or Social Security from my husband/ex- husband's record), and job and family related sources (e.g., part time job, support from husband or ex-husband's pension, support from other family members, or inheritance).

## **Retirement Saving Behaviors**

Retirement saving behaviors include any financial behavior related to saving for retirement such as calculating needed retirement savings, being a retirement saver, starting saving for retirement age, and being a regular retirement saver.

## **Retirement Savings**

Retirement savings comprise amounts consumers contribute to their employer-sponsored retirement accounts and those they saved and invested in other accounts which are planned to be used for their retirement years.

## **Retirement Income Satisfaction**

Retirement income satisfaction is consumers' current subjective satisfaction level with expected retirement income during retirement years. The retirement income satisfaction is influenced by the expected income from Social Security, from all employer-sponsored sources and plans (job pensions, 401k, etc.), and from all personal savings and investments that are expected to have for use in retirement.

### **Summary**

Saving for retirement should be a lifelong financial goal for American consumers. It is extremely important to women because they tend to live longer, and have fewer working years, lower pay, and less savings compared to men. The findings of this study will increase understanding of factors that affect women's saving behaviors, retirement savings, and retirement income satisfaction. Women can use these findings to become cognizant of the importance of preparing financially for retirement; financial counselors and advisers can better understand their female clients' needs; financial educators can use them to design effective curricula for women; and employers and policy makers can develop plans to promote retirement savings for the female population.

## **CHAPTER 2**

### **LITERATURE REVIEW**

The purpose of this study was to examine what factors affect non-retired working-age women's retirement saving behaviors, retirement savings, and retirement income satisfaction. The factors included the influence of demographics, saving motives, saving for retirement involvement level, retirement information seeking, current assets and debts, and future expectations. Family Resource Management Theory and Personal Involvement Inventory (PII) as guiding theoretical frameworks were also reviewed.

#### **Theoretical Framework**

##### **Family Resource Management Theory**

Deacon and Firebaugh (1988) proposed the Family Resource Management Model, based on systems theory, to explain how families and individuals within the family manage resources to achieve goals. The essential concepts of the systems theory are inputs, throughputs, outputs, and feedback. Inputs include demands, goals, values, events, and resources which enter the family system. Throughputs consist of personal subsystem and the managerial subsystem. There is an input-throughput-output-feedback process in personal subsystems, and the planning and implementing processes are conducted in the managerial subsystem. Demand responses, resource changes, and satisfaction or dissatisfaction are outputs. Positive feedback promotes change and negative feedback leads to maintaining the status quo.

Many researchers have applied the Family Resource Management Theory to investigate financial satisfaction. For example, Parrotta and Johnson (1998) examined the impact of financial attitudes and knowledge on financial behavior and satisfaction of 194 newly married Canadians. Financial knowledge, income, age, and other demographic

variables were seen as inputs. In the throughput process, financial attitudes were the personal subsystems and financial behaviors were the management subsystems. Output was the satisfaction with financial status. Lown and Ju (1992) studied the relationship between credit attitudes and behaviors and financial satisfaction of 274 credit unit members. Inputs of socio-economic characteristics, throughputs of credit attitudes and behaviors, and output of financial satisfaction were included in the model. Titus, Fanslow, and Hira (1989) tested this model using money managers of 123 households as the sample. Age, household size, net income, and knowledge were viewed as inputs, throughputs included planning and implementing, and net worth and satisfaction were outputs. Sumarwan and Hira (1992) employed this model as the conceptual framework to explore what factors affected 297 rural household money managers' satisfaction with preparation for financial emergencies. Input was represented by age, monthly income, employment status, marital status, and household size, net income; throughput was represented by financial management practices; output was represented by satisfaction with preparation for financial emergencies.

### **Personal Involvement Inventory (PII)**

Zaichkowsky (1985, 1994) developed the Personal Involvement Inventory, a 20 item scale with bipolar word pairs, which “measures the motivational state of involvement” with products, advertisements, or purchase decisions. Then, she reduced the scale to 10 items which can be classified as two subscales: affective involvement (interesting, exciting, appealing, fascinating, and involving) and cognitive involvement (important, relevant, valuable, means a lot to me, and needed). The PII is an interdisciplinary measurement which was theoretically developed as a tool to account for individual's involvement level (Zaichkowsky, 1985). The ten item PII is a simple seven point Likert scale and can be completed within five minutes.

Researchers have used different scales to evaluate the involvement levels of consumers with specific financial decisions/behaviors; there is no consistent instrument to measure financial involvement. Hira and Loibl (2008) applied five questions to investigate gender differences in investment behavior by computing an investor involvement index. Danes, Fitzgerald, and Doll (2000) used seven questions to calculate financial decision involvement for both the husband and wife and to indicate who was involved in the discussions about the farm family business. Edwards (1991) employed fifteen questions to measure men and women's involvement levels with selected aspects of estate planning.

There is a need to develop an involvement scale to measure consumers' attitudes, needs, and values of various financial decisions/behaviors. The Personal Involvement Inventory is the scale that we can borrow from another discipline to test customers' involvement level on retirement saving. This study investigated the scale's usefulness for measuring the involvement with the concept of saving for retirement.

### **Input Variables**

In this section the related literature of the demographics and other five input variables (i.e. saving motives, involvement level, information seeking, current assets and debts, and future expectations) were discussed. The demographic characteristics included age, health status, education level, employment status, race/ethnicity, annual personal income, annual household income, marital status, household size, and homeownership. The relationships or likelihoods of relationships with these demographics were discussed in the input, throughout, and output variable sections to avoid repetition.

#### **Saving Motives**

Workers have various demands on their paycheck rather than focusing on one purpose. Different saving motives can coexist and are not necessarily mutually exclusive (Dyanan,

Skinner, & Zeldes, 2004). According to the 2010 Survey of Consumer Finances (SCF) (Bricker, Kennickell, Moore, & Sabelhaus, 2012), reasons respondents gave as most important for their families' saving were retirement (30.1%), liquidity (35.2%), purchases (11.5%), education (8.2%), for the family (5.7%), not saving (3.5%), buying own home (3.2%), no particular reason (1.4%), and investments (1.2%). Sallie Mae's (2010) national study found that for those parents of children with some likelihood of going to college, the ranking of the top savings priority was retirement (22%), college for my child(ren) (21%), none/not saving (14%), house or home (11%), other (11%), emergencies or rainy day (8%), and general savings (5%). Fisher and Anong (2012) applied six saving motives (necessities, emergencies, children, house, holidays/vacation, and retirement) proposed by Katona (1975) using 2007 SCF to explore how saving motives are related to saving habits (i.e. save regularly, save irregularly, and do not save).

### **Involvement Level**

About half (47%) of American working adults are uncomfortable selecting investments, and women (54%) are more uncomfortable than men (41%) when making this kind of financial decision (PwC, 2012). Bernasek and Bajtelsmit (2002) used a sample with 319 completed responses from university faculty employed at five Colorado universities to examine the factors that increase women's involvement in household savings and investment decisions within married and cohabitating couple households. The results showed that as women contributed a larger income share to the household they had more involvement in financial decisions. Hira and Loibl (2008) reported that for women participants, the single event that changed their involvement in saving and investing was the arrival of children (18%), divorce (11%), the death of a family member (11%), sudden financial gain (8%), and retirement (6%).

## **Information Seeking**

Because women tend to be less comfortable making financial decisions, they may seek information before deciding. Seeking information about retirement planning probably will encourage women to save for retirement, save more for retirement, and have higher satisfaction with expected retirement income.

## ***Read Statement***

Consumers, who pay the Social Security tax, can find a personalized annual Social Security statement on-line. In the past few years, all consumers who paid the tax received an annual Social Security statement about three months before their birthday. However, because of budget cuts, currently only those workers aged 60 and older receive the mailed printed statement and other workers can calculate their retirement benefits through Social Security Administration's website. Consumers who contribute to an employer-sponsored DB plan or are federal employees may receive a monthly statement or have access to this information via an employer provided website. Reading this information can help consumers better understand the progress they are making toward their retirement goals, and give them an idea of how much income they can expect to receive in retirement.

## ***Information Sources***

The sources consumers used to learn about economic topics were surveyed by Blinder and Krueger (2004), and they ranked eleven sources from the most frequently used to the least frequently used: (1) television, (2) newspapers, (3) discussions with friends or relatives, (4) statements by political leaders, (5) radio, (6) statements by economists, (7) the internet, (8) statements by business leaders, (9) statements by civic or religious leaders, (10) magazines, and (11) books. However, the statements by professionals (i.e. political leaders, economists,

business leaders, and civic or religious leaders) might be via mass media channels such as television, radio, newspapers, magazines, and the internet.

Twenty-one percent of workers surveyed in the 2012 Retirement Confidence Survey (RCS), which includes those aged 25 and older, reported obtaining investment advice from a professional financial advisor (EBRI, 2012a). Compared to men, women were more likely to hire a financial adviser to seek advice than men (Ackerman, 2012).

Attending training sessions about retirement is a good way to start understanding retirement plans for new workers and for those nearing retirement. According to a survey, when the respondent's employer provided financial education, the participation rates in retirement plans and retirement accumulation were significantly higher (Bernheim & Garrett, 2003). Another survey had a similar finding and showed that workplace financial education resulted in better financial wellness for workers (Garman, Kim, Kratzer, Brunson, & Joo, 1999).

## **Current Assets**

For Family Resource Management Theory, a resource is whatever is available to be used to achieve goals. Financial asset ownership directly reflects the current saving for retirement, emergencies, and other goals and may influence the current ability to save.

### ***Employer Provided Retirement Benefits***

There are three typical types of employer-provided retirement benefits.

(1) *A traditional employer provided defined benefit pension* is a retirement plan which employers provide for employees and to which employees do not have to contribute any money. The employee must be vested (work a specified period of time) to get any benefits.

(2) *An employer provided defined benefit pension to which employees also contribute* is the retirement plan which an employer provides for employees and into which employees also put money. The employee may be able to take her contributions and invest them differently if she leaves the employer.

(3) *An employer-sponsored defined contribution retirement plan* is one that the employer provides or sponsors. The employee puts money into the account(s) which is portable once she leaves the employer. The ways employees can make contributions are 401ks, 403bs, 457s, Thrift Savings Plans, deferred compensation, and company stock.

Recently, DB plans are gradually disappearing, and DC plans have become mainstream. Most employees now contribute to their retirement plans, with or without their employers' contributions, and take on more investment management and risks. 401k plans are the most popular and most used employer-sponsored plan for those who work in private industry; 403b plans are offered to employees of government and tax-exempt groups, such as schools, hospitals and churches; 457 plans are available to state and local public employees as well as certain nonprofit organizations (CNN Money, 2012). Most major companies that offer 401k plans match a percentage (from 25% to 100%) of employees' contributions, up to 6% of the salary (Clark & Block, 2012). That means the immediate return of investment for the employee who contributes to the plan is at least 25%. In the 2012 RCS, 38% of the worker sample reported that they enrolled in such a DC plan with their current company (EBRI, 2012a). Yuh and DeVaney (1996) reported that the characteristics of consumers that are positively related with higher DC retirement fund levels include being a couple with higher income, having longer years of employment, and being White.

### ***Personal Investments and Savings***

There are various savings and investments vehicles which can be chosen by consumers to accumulate assets for use during retirement, including retirement savings accounts (e.g., personal IRA or Roth IRA), investments (e.g., mutual funds, stocks, or bonds that are not part of 401k, 403b, or 457 programs), general savings accounts, certificates of deposit (CDs), annuities, and life insurance with cash value. IRAs were created in 1974 for workers without access to pension plans to save for retirement; in 1981, IRAs were expanded to all workers with or without pension plans (Bernstein, 2004).

### ***Real Estate***

Housing supports human life in all stages, and it is an important demand for individuals and families. In the United States, the “American Dream” represents the aspiration of homeownership. For the majority of homeowners, especially those with middle or moderate income and those who are minorities, housing is their largest asset (Colton, 2003). Housing is a need (demand) as well as a resource. When a consumer is a first-time homebuyer, housing is a demand; when consumers plan to relocate, they generally sell the current dwelling and use the proceeds as a resource to buy another home. The money (resource) spent on housing changes its format as real estate (resource changes); however, purchasing a home does not affect the household’s net worth. Besides the primary residence, some people may have other real estate for use as an investment tool. It can be the previous residence, a condominium close to a child’s university, a vacation house, or a joint ownership of a property with relatives or friends. In the retirement saving context, a home can also be an owner’s major retirement asset and may affect retirement savings behavior (Lichtenstein, 2010).

### ***Hold an Adequate Emergency Fund***

An emergency fund can be a cushion to avoid consumers' taking on unaffordable debt that may become a cycle of debt or raiding their retirement savings because of a layoff, illness, or unexpected crises. Not having sufficient emergency savings for unexpected expenses (54%) is the main financial concern for employees (PwC, 2012), while half (52%) of employees reported not having an emergency fund (Financial Finesse, 2012). It is important to define the appropriate amount of an emergency fund in order to examine households' preparation for financial emergencies (Bhargava & Lown, 2006). The Survey of Consumer Finances, the national data set most commonly used in emergency fund research, provides three months of income as criterion (Bhargava & Lown, 2006). Kipling's Personal Finance (Clark & Block, 2012) suggests an emergency fund that will cover at least six months' worth of basic expenses. In the current study, three to six month's take home income was used as the standard of holding an adequate emergency fund.

### **Current Debts**

Because resources are limited, credit is a way to supplement current utility. The number of debts is influential on overall financial decisions and affects how women invest for their later life. According to the 2012 RCS (EBRI, 2012a), 62% of workers report their current level of debt is a major or minor problem. A report from the PwC (2012) reveals that 26% of working adults say too much debt is the reason for delaying retirement, and not being able to keep up with my debts (14%) is their second financial concern. The 2012 RCS also shows that almost two-thirds (62%) of workers report feeling financially stressed, and the level of debt is a major problem for 20% of the workers and a minor problem for 42% of them (EBRI, 2012a). According to the Federal Reserve Bank of New York (2012a), the total amount of household debt and credit was \$11.38 trillion at the end of the second quarter of

2012, and the composition of the total debt balance was: mortgage (72%), student loan (8%), auto loan (7%), credit card (6%), home equity revolving (5%), and other (3%).

### ***Mortgage***

The mortgage probably is the largest debt for most people, and it is normal to spend 20 to 30 years to pay it off. Traditionally, people expected to pay off their mortgages by the time they retired, which led to reduced living costs in retirement. However, today people move more frequently, and for many, paying off the mortgage is not a high priority goal. A report from EBRI provides a sense of the consumption patterns in retirement for Americans aged 50 and older, and indicates that the largest expenditure is for the home and home-related costs which require 40% to 45% of the budget (Banerjee, 2012).

### ***Education Loan***

From the life cycle hypothesis of savings' perspective, younger consumers are more likely to borrow to invest in education or human capital. Loans are the largest source of funding for postsecondary students in the United States (Hart & Mustafa, 2008), and student loan debt has become the second largest form of consumer debt (Federal Reserve Bank of New York, 2012b). Seventy-three percent of colleges reported more than 90% of the Class of 2010 graduated with debt that is estimated to average \$25,250 (Reed, 2011). Some people were repaying their own student loan, and some were repaying for children or grandchildren's debt. The Federal Reserve Bank of New York (2012b) reported that there were 2.2 million people aged 60 and older still paying off student loans with an average of \$19,225 in the first quarter of 2012. Not being able to pay for college (6%) was workers' third financial concern (PwC, 2012).

### ***Credit Card Debt***

Over 177 million people aged 18 or older (72%) own a credit card, with the average cardholder having 3.7 cards and an outstanding debt of \$4,679 (Center for Responsible Lending, 2012a). Almost half (49%) of employees cannot regularly pay off credit card balances in full (Financial Finesse, 2012). In an AARP study (2012), over one-third of respondents (33%) said that they had two to three credit cards, and 20% reported owning four or more credit cards. The aging population (respondents age 50 and over) (27%) reported having four or more credit cards (16%) (AARP, 2012). Almost half (48%) of the respondents between the ages of 18 to 49 years reported that they did not pay the full amount on their credit cards each month in comparison to 35% of the age 50 and over population who did not pay in full (AARP, 2012). Over 7 out of 10 (72%) adults said that in the past six months they did not pay at least the minimum amount due on any owned credit cards (AP-GfK, 2011). The average credit card interest rate in 2011 was 13.44% annually (Center for Responsible Lending, 2012a).

### ***Secured Loans***

A home equity loan or second mortgage is a special type of secured loan which uses the built-up equity in the home as collateral against the loan, and the amount is generally from 50% to 80% of the equity (i.e. home value minus first mortgage balance) (Keown, 2010). This kind of loan can be used as an emergency fund; however, when customers do this they also risk losing their homes if they cannot repay the loan. The typical interest rate for home equity loans is similar to or a little lower than that for credit cards.

An automobile loan is another secured loan which is for those who purchase an automobile which will be used as the collateral (Keown, 2010). The national average auto loan rate for a 60-month new-car loan was 4.47%, while the 36-month used-car loan was

5.12% (Bell, 2012). More consumers today have longer term auto loans so they can have more expensive vehicles and they often roll the unpaid portion of the loan for the previous vehicle into the new loan for the new vehicle. This means they pay more for vehicles, which makes less money available for other goals, including retirement.

### ***Short-term Loans***

Personal loans, payday loans, and car title loans are examples of loans which are short-term (usually up to 30 days) with high interest rates, but that fulfill customers' desperate need of quick cash. A personal loan typically is rarely secured with an asset, and the average annual personal loan interest rate from a commercial bank in 2011 was 11.47% (Center for Responsible Lending, 2012b).

Those who are unbanked may choose to use payday loans and car title loans - so-called predatory loans since they draw the borrower into a cycle of debt from which it is difficult to escape. The Consumer Federation of America (2012) describes payday loans as short-term cash loans that are based on the borrower's personal check which is held for future deposit or on electronic access to the borrower's bank account. The amount of a payday loan is usually \$100 to \$500 to support the borrowers over one or two weeks or until the next "payday." Many borrowers find themselves paying the interest and fees and taking out another loan when they cannot afford to repay the whole loan so quickly. "The typical payday loan borrower is indebted for more than half of the year with an average of nine payday loan transactions at annual interest rates over 400%" (Center for Responsible Lending, 2012c). Payday lending totals \$40.3 billion in loans and an estimated \$7.4 billion in revenue (Consumer Federation of America, 2012). In the United States, there are more than two payday-lending stores for every Starbucks (Center for Responsible Lending, 2012c).

The average car title loan is made for about 25% of the vehicle's retail value, and most car title loans are due within 30 days (Center for Responsible Lending, 2012d). "On a \$500 title loan, this average customer will pay back \$650 in interest over eight months; the principal borrowed will be in addition" (Center for Responsible Lending, 2012d). If the borrower cannot repay the money within the terms of the loan, he/she will lose the vehicle and with it, lose the ability to drive to work, school, the doctor or grocery store. Consumers living in communities with no or limited public transportation often lose their jobs after their vehicles are repossessed so these loans are also very risky for consumers.

## **Future Expectations**

### ***Planned Retirement Age and Life Expectancy***

Planned retirement age and life expectancy are key numbers which individuals need to estimate so they can make reasonable preparations for their retirement income. According to EBRI (2012a), 8% of workers expected to retire before they are 60 years old, 16% expected to retire between ages 60 to 64, 26% expected to retire at 65 years, 11% expected to retire between ages 66 to 69, and 33% expected to retire at 70 years or older or never retire. T. Rowe Price (2012) found that investors aged 21 to 50 expected to retire at an average age of 62 and they expected to live an average of 22 years in retirement, while the Administration on Aging (2011) found that American women reaching age 65 were expected to live 20 additional years. These results showed a longer life expectancy compared with the U.S. Census Bureau's (2011c) projection of women living an average of 81.4 years in 2015.

According to PwC's survey (2012), the reasons for delaying retirement include: 60% have not saved enough, 34% had retirement investments decline in value, 26% had too much debt, 21% needed to keep healthcare coverage, 14% supported children/grandchildren, 13%

did not want to retire, and 2% had other reasons. “Not being able to retire when I want to” (37%) was workers’ top financial concern (PwC, 2012).

As the participation of the older generation in the workforce increases, the participation of younger workers relatively decreases. In 2010, nearly 1 in 5 workers (aged 16 years and older) was 55 and over; in 2020, it is predicted to increase to 1 in 4 (Toossi, 2012). “The aging older workforce has also changed the potential capacity to replace older workers” (Carrière & Galarneau, 2011). In 1990, there were 1.5 younger workers ages 16 to 34 years for each worker 55 years or over, and the ratio has decreased gradually over time: 1.3 in 2000 and 1.1 in 2010. It is predicted to fall to 0.9 by 2020 (Toossi, 2012).

### ***Expected Needed Retirement Income***

Garman and Forgue (2010) indicated that people typically need at least 80% of their pre-retirement gross income to meet their expenses in retirement and maintain their desired lifestyle. Kiplinger’s Personal Finances (Clark & Block, 2012) noted that most Baby Boomers greatly underestimate how much income they will need in retirement. Retirees may save on commuting and work related costs; however, the basic living expenses (e.g., food, groceries, and utilities and gas) will still exist, the demand for health care increases, and some may still have mortgage payments. Fidelity Investment estimates that health care will cost \$240,000 for the average 65-year-old retired couple (Clark & Block, 2012).

### ***Social Security and Medicare Expectations***

The 2012 RCS (EBRI, 2012a) asked about workers’ confidence about benefits they will receive in retirement from Social Security and Medicare. The results showed that in 2012, 35% of workers were somewhat or very confident that Social Security and Medicare would continue to provide benefits of at least equal value to benefits received by current retirees.

## ***Expected Assets***

Besides the assets discussed in the *Current Assets* section, consumers could have additional assets that they could use in retirement. Women are at higher risk of poverty in later life when entering retirement with fewer assets for longer years (Rowland & Lyons, 1996). When people expect to have more assets in retirement, they are more likely to build assets for retirement during their working years.

### ***(1) Expected Real Estate***

A reverse mortgage is a special type of loan for those homeowners ages 62 and older to borrow against their home equity to supplement their retirement resources and remain in their home. For retirees, selling the big house and moving to a smaller place may be a way to downsize and save thousands of dollars a year in taxes, utility costs, maintenance, and home insurance. Income from other real estate or other property could be a resource in retirement, providing regular income from rent or a lump sum may become available after selling the real estate.

### ***(2) Social Security***

Social Security retirement benefits are designed to provide a basic living allowance to older Americans. They are primarily financed by payments of current workers through a payroll tax system. The amount of Social Security benefits a person receives is based on the highest 35 years of earnings which means for those working longer, higher paid years would displace some of the lower-earning years (Clark & Block, 2012). For women, there are five ways Social Security retirement benefits may be calculated. The variables include their own working record, marital status and history, and their husband's or ex-husband's (when present) working record. Based upon marital status, the alternatives to weigh include:

(1) Never married women: Receive the retirement benefit based on their record.

(2) Married women: If they are eligible for their own retirement benefit and a spouse's benefit, they will get the higher one or they can choose to receive the spouse's benefit and delay receiving their own retirement benefit to take advantage of delayed retirement credits. The maximum benefit for the spouse is 50% of the benefit the husband would receive at full retirement age. If their child is receiving benefits and they are taking care of the child, they can receive the spouse's benefit at any age until the child is 16 years old.

(3) Divorced women: Like married women, if they are eligible for benefits based on an ex-husband's record (their marriage lasted ten years or more and they have not remarried) or their own retirement benefit, they may choose to receive only the spouse's benefit and delay receiving their own retirement benefit. If their ex-husband dies, they can get benefits just the same as a widow.

(4) Remarried women: If they remarry after reaching age 60 (age 50 if disabled), the remarriage will not affect their eligibility for the survivor's benefit.

(5) Widows: The full retirement age for survivors is 65 years, and the age gradually increases 2 months for each year of age for those who were born in 1940 or later. The women can receive the survivor's benefit at any age if they are taking care of the deceased husband's child who is under age 16 or is disabled and receives benefits on the husband's record. If they are eligible for their own retirement benefit and a survivor's benefit, they will get the higher one or they can choose to receive the survivor's benefit and delay receiving their own retirement benefit to take advantage of delayed retirement credits.

### ***(3) Job and Family Related Sources***

Besides Social Security, employer-sponsored plans, and individual savings, the current economic trend views earnings from work in retirement as the fourth primary source of retirement income. More and more American retirees continue to work; 6.2 million people aged 65 and older are still employed (U.S. Census Bureau, 2011b). Some want to stay active, and others need the income or health insurance the employer provides. According to an online survey conducted by T. Rowe Price (2012), 43% of 860 participants aged 21 to 50 who had at least one investment account expected to work part-time during their retirement years because 75% of them wanted to stay active and involved and 23% assumed that they will not have saved enough money to fully retire. In the 2012 CRS, EBRI (2012a, 2012b) found that 70% of all workers and 68% of women expected to work for pay in retirement. Furthermore, Toossi (2012) projected that between 2010 and 2020, the number of women aged 16 to 44 in the civilian labor force will decrease, while those women aged 55 years and older in the work force will increase. Support from a husband or ex-husband's pension, support from other family members, or receiving inheritance are other possible sources of retirement income.

The 2012 RCS revealed that the major or minor sources of income workers expected to receive in retirement included Social Security (79%), employment (79%), employer-sponsored retirement savings plan (72%), IRA (64%), other personal savings and investments (62%), and employer-provided traditional pension or cash balance plan (56%) (EBRI, 2012a). Fifteen years earlier, Junk, Fox, Einerson, and Taff (1997) examined pre-retirees' (aged 50 to 70) retirement income sources, and found that women who were younger, better educated, healthier, widowed, had more income, and were living in nonmetropolitan locations were more likely to have a higher number of retirement income sources. Regarding the type of retirement income sources, younger women with higher income were more likely to expect a pension, while better educated women with higher income were more likely to expect

annuities, IRAs and mutual funds. Women who were healthier, married, and living in a nonmetropolitan location were more likely to expect life insurance as a retirement income source. Women with higher incomes were more likely to expect savings, stocks, and real estate, while those with lower income were more likely to expect Social Security as a primary retirement income source (Junk et al., 1997).

### **Throughput Variables**

Retirement saving behaviors i.e. calculating the amount of money a person needs to accumulate by the time of retirement and being a retirement saver or non-saver were the primary throughput variables in the retirement saving decision-making process. Among the retirement savers, starting saving for retirement age and being a regular retirement saver were examined.

### **Calculate Needed Retirement Savings**

“Calculating retirement savings needs is often viewed as an essential first step in retirement planning” (Mayer, Zick, & Marsden, 2011). It is also a complicated task because of the uncertainty of inflation, employment status, health status, and so forth. However, many websites provide free and easy-to-use retirement income estimator calculators. According to the 2012 Retirement Confidence Survey (EBRI, 2012a), only 42% of workers and/or their spouse had tried to calculate how much they will need to have a comfortable retirement. Mayer, Zick, and Marsden (2011) examined the relationship between retirement savings needs calculation and retirement savings, and results showed that as the likelihood of having calculated one’s retirement needs increases the retirement savings increases.

## **Retirement Savers**

The 2012 Retirement Confidence Survey revealed that 66% of workers say they and/or their spouses have saved for retirement, and 58% report currently saving for this purpose (EBRI, 2012a). According to the 2007 Survey of Consumer Finances, only 46% of workers were savers (spending less than income in previous year), 48% saved regularly, and 53% had a saving motive for retirement (Hsu & Anong, 2010). Women in poor health were significantly less likely to report being a saver in the previous year (Fisher, 2010).

## **Start Saving for Retirement Age**

As Keown (2010) indicated, time value of money is the most important concept in personal finance. The money saved can grow, i.e. interest will compound, over time. That is why saving earlier has more power than saving longer. According to Kiplinger's Personal Finance (Clark & Block, 2012), to have the same income in retirement, consumers in their twenties need to contribute 13% of their salary to retirement funds, those who delay saving until age 45 need to contribute 29% of the salary to catch up, and those who delay until age 55 need to contribute 43% of the salary. In the 2012 RCS (EBRI, 2012a), among those retirees who said they did some type of retirement planning, 34% of them said that they started planning 20 years or more before they retired, 27% reported starting saving for retirement between 10 and 19 years before retirement, 17% reported starting saving between 5 and 9 years before retirement, and 15% reported starting saving less than five years before retirement.

## **Regular Retirement Savers**

Whether consumers deposit money to retirement accounts on a regular schedule or as the budget allows may influence the amount saved and retirement income satisfaction. Having some income automatically deducted from the paycheck is a good way for consumers

to not spend money that is needed for retirement because it never becomes part of liquid assets and they learn to live within a budget (Keown, 2010). Those who invest every month or on a planned regular schedule, no matter what is happening in the markets, buy shares at a lower average price. Fisher and Montalto (2010) indicated that the retirement saving motive was found to significantly increase the likelihood of saving regularly. Fisher and Anong (2012) explored the relationship of saving motives and saving habits (i.e. save regularly, save irregularly, or not saving). The results showed that the emergency saving motive, retirement saving motive, poor health, education, age, and race/ethnicity were significant factors among the three groups.

## **Output Variables**

### **Retirement Savings (RS)**

Among the savers, the average amount saved is very minute. According to the 2012 Retirement Confidence Survey (EBRI, 2012a), 60% of workers saved less than \$25,000, excluding the value of their primary home and any defined benefit plans. This includes 30% who reported they had less than \$1,000 in savings. There were around 10% in each of the following savings brackets: \$25,000–\$49,999 (10%), \$50,000–\$99,999 (10%), \$100,000–\$249,999 (11%), and \$250,000 or more (10%). As household income increased, the amounts workers had saved money for retirement increased (EBRI, 2012a). The median value of assets for families holding assets was \$25,300 in 2009 (Bucks, Kennickell, March, & Moore, 2009).

Age, education, income, marital status, race/ethnicity, homeownership, debt level, and saving regularly affect retirement savings. DeVaney and Zhang (2001) examined age and cohort effects on the amounts saved in different retirement plans, and found that older age groups were more likely to have higher amounts in their retirement accounts. DeVaney, Su,

Kratzer, and Sharpe (1997) concluded that consumers who were older and had higher income were more likely to have a greater amount saved for retirement. Rowland and Lyons (1996) assumed that better educated people were more likely to have better retirement benefits and more personal savings from their working years. DeVaney and Chiremba (2005) found that the amount in retirement savings was larger for those who were better educated, those who were married, and those who saved regularly. Cavanagh and Sharpe (2002) indicated that the relationship between consumer debt levels and retirement savings was negative. DeVaney and Chiremba (2005) also found that homeowners had more in retirement savings than renters. Compared with White women aged 65 and older (49%), 75% of Hispanic older women, 74% of African-American older women, and 61% of Asian older women lived below the Elder Index which is “a measure of the income older adults need to make ends meet” (Wider Opportunities for Women, 2012).

### **Retirement Income Satisfaction (RIS)**

Age, gender, health status, education, self-employment, race/ethnicity, income, marital status, being a saver, saving regularly, and life expectancy are found to affect retirement income satisfaction. According to EBRI (2012a), in 2012 over half of workers (52%) reported being somewhat or very confident of having enough money to live comfortably in retirement. Workers who were not confident about their retirement financial security planned to retire later than those who expressed confidence (EBRI, 2012a).

Schmitt, White, Coyle, and Rauschemberger (1979) surveyed 353 retirees and found that healthier and better educated individuals were more likely to be financially satisfied in retirement. According to Sundali, Westerman, and Stedham (2008), if the self-reported health of the primary respondent and spouse were better, and the level of worry about having enough income in retirement was lower, respondents felt more satisfied with retirement.

Kupperbusch, Levenson, and Ebling (2003) also showed that health status was positively correlated with retirement satisfaction of both husbands and wives.

Malroux and Xiao (1995) examined the factors that affected perceived adequacy of expected retirement income of full time workers who were not more than 65 years old using the 1989 SCF. The results showed that those pre-retirees who were younger, white, female, self-employed, and had incomes between \$10,000 and \$19,999 were less likely to perceive their future retirement income to be adequate than otherwise similar households. Marital status, household size, education, health condition of respondent and that of spouse or partner, homeownership, length of employment, having a goal to save for retirement, planning horizon, and being a saver did not impact perceived adequacy of retirement income.

Hsu and Anong (2010) and Hsu and Leech (2012) applied the same question as Malroux and Xiao (1995) using the 2007 SCF to investigate the factors that affected retirement income satisfaction of retirees, workers, and retired workers. Workers were divided into four age groups: young (18 to 34 years), middle (35 to 54 years), older (55 to 62 years), and senior (older than 62 years). The factors examined in their studies were the same, including expected or current retirement savings from job pensions and other retirement plans, saving regularly, having a retirement savings motive, spending behavior (i.e. saving habit in Malroux and Xiao (1995)), the health status of respondents and of their spouse or partner, life expectancy, the employment status of spouse or partner, homeownership, age, gender, income, marital status, and education. The results indicated that those retirees who were younger, not healthy, expecting to live longer, and whose spending exceeded income were less likely to have higher retirement income satisfaction. Middle-aged, older, and senior workers who did not save regularly and had less income were less likely to have higher retirement income satisfaction levels. Older workers without a retired spouse or partner were less likely to have higher retirement income satisfaction. Retired workers who were younger,

female, with lower education level, with poorer health, expecting to live longer, and spending exceeded income were less likely to have a higher retirement income satisfaction.

### **Hypotheses**

Based upon the Family Resource Management Model and the literature, three hypotheses were proposed. The research framework was shown in Figure 2. In the saving for retirement process, inputs included demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations. Throughputs consisted of saving behaviors such as calculating needed retirement savings, being a retirement saver, starting saving for retirement age, being a regular retirement saver. Outputs were objective retirement savings and subjective satisfaction on retirement income. The intention to change the saving behavior (feedback) was not examined in the current study.

H<sub>1</sub>: The demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations have statistically significant relationships with retirement saving behaviors: (a) calculating needed retirement savings, (b) being a retirement saver, (c) starting saving for retirement age, and (d) being a regular retirement saver.

H<sub>2</sub>: The demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations, and retirement saving behaviors have statistically significant relationships with (a) retirement savings and (b) retirement income satisfaction.

H<sub>3</sub>: There are statistically significant positive relationships between retirement savings and retirement income satisfaction.

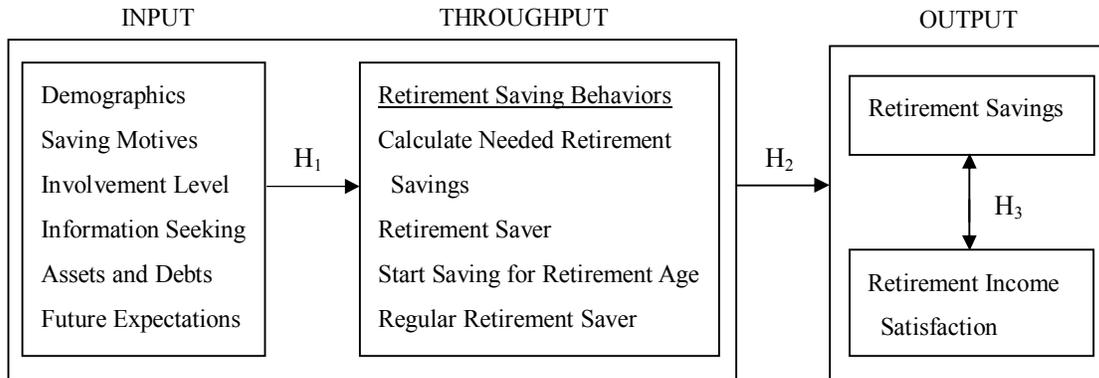


Figure 2. Research Framework of the Study

## **CHAPTER 3**

### **METHODOLOGY**

The purpose of this study was to explore how women prepare financially for retirement using the Family Resource Management Model as the theoretical framework to examine what factors affect women's retirement saving behaviors, retirement savings, and retirement income satisfaction. Factors investigated include the influence of saving motives, retirement saving involvement level, information seeking, current financial assets and debts, future expectations, and demographics factors on retirement saving behaviors and the influence of all of that on retirement savings and retirement income satisfaction. An online survey instrument for women aged 25 years and older was developed to obtain the data for the study. This study was designed as a quantitative study, using a self-administered questionnaire to conduct a cross-sectional online survey with SurveyMonkey, an online web panel provider. This chapter includes description of the survey instrument, data collection, data preparation, and preliminary analyses.

#### **Survey Instrument**

The Women's Retirement Income Satisfaction and Savings Behaviors Survey (Appendix A) was created to collect data specifically for this study. The instrument measured saving motives, retirement saving involvement level, information seeking, current financial assets and debts, future expectations, demographics, retirement saving behaviors, retirement savings, and retirement income satisfaction. The survey consisted of 18 content questions as well as 12 demographic characteristic items, and required 10 to 15 minutes for participants to complete.

Appendix B contains a Research Questions and Survey Questions Matrix (Table B1) illustrating which survey question(s) correlates with each hypothesis as well as the statistics

techniques employed to evaluate the data. Appendix C presents the Scoring System for the Saving for Retirement PII with the score range from 10 to 70. The score range of low involvement is from 10 to 29; medium involvement is from 30 to 50; and high involvement is from 51 to 70 (Zaichkowsky, 1985).

Financial satisfaction has been measured by a single item or multiple items (Joo, 2008), and either single-item or multiple items have been found to be equally representative (Joo & Grable, 2004). In the current study, the retirement income satisfaction question included three retirement income sources: Social Security, employer-sponsored retirement accounts, and personal investments and savings. Participants were asked about the amount in employer-sponsored retirement accounts and personal investments and savings, separately.

### **Validity and Reliability of the Instrument**

Validity is “whether one can draw meaningful and useful inferences from scores on the instruments” (Creswell, 2009). Three faculty members in Consumer Studies and one faculty member in Housing at Virginia Tech evaluated the questionnaire and made suggestions for improvement to obtain the face validity. Two pilot tests were conducted to enhance the content validity.

The reliability of a scale is “how free it is from random error” (Pallant, 2010) which means whether the scale will produce the same results each time it is administered to the same person in the same setting. Cronbach’s alpha was employed to assess reliability and consistency of the scales in the survey, and the accepted reliability standard was 0.7.

## **Data Collection**

The first step to conduct the survey was obtaining approval of the Virginia Tech (VT) Institutional Review Board (IRB) for research involving human subjects. The final approval is shown in Appendix D.

The rationale for choosing an online survey as the method to collect data in this study was based on the requirement of resources including time, money, and human resources. First, online surveys are fast because participants have the flexibility to complete the questionnaire at any time during the appointed time period and researchers can obtain the sufficient responses in days. Second, online surveys are inexpensive because the costs of paper, copying, postage and/or telephone bills are saved. Third, there is no manpower demand for the tasks of copying, preparing mailings, collecting questionnaires, and entering data. Fourth, the errors of keying in the wrong numbers and missing data can be decreased to minimal. The function of forcing participants to answer every question is provided by the online survey service provider.

However, potential survey errors that occur with online data collection include coverage error, sampling error, nonresponse error, and measurement error (Tuten, 2010); these errors may have happened in this study. First, although 76% of women aged 18 years and older use the internet (Pew Research Center, 2012), there was still a chance that some members of the target population were not covered. Second, because there is no list of internet users and no way to use random-digits to select the sample, online surveys have more limitations related to sampling error (Tuten, 2010). Third, with higher response rates the nonresponse error decreases; however, the response rates for online surveys tend to be low compared with mail surveys (Tuten, 2010). The fourth potential survey error is the chance that the participants' responses do not represent their true values. To reduce this possibility,

the study employed two pilot tests to reduce the biases caused by question wording, webpage language, using different web browsers (e.g., Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or Apple Safari), and using different computers (Macs and PCs may show the same page in different ways).

### **Participant Recruitment**

Participants in this study were women aged 25 years and older who were not retired, recruited as a convenience sample by SurveyMonkey. According to the U.S. Census (2011b) the population included 103.5 million females aged 25 years and older. The sample size needed for this survey with the 95% confidence level was 384 (Dillman, Smyth, & Christian, 2009).

### **Pilot Tests**

Two pilot tests were conducted with different female groups. The first pilot test was processed using a convenience sample of Virginia Association of Family and Consumer Sciences (VAFCS) members. An invitation email was sent out on May 7, 2012. Thirteen completed responses were collected by May 8. Some valuable suggestions were made and flaws were pointed out so revisions were made. The revised survey instrument was sent to VT IRB and it was approved. The second pilot test was conducted from May 17 to May 19, 2012 targeting SurveyMonkey members to obtain 50 completed responses. Participants' suggestions for how the questions could be improved or clarified were requested at the end of each of the three sections of the questionnaire. Based on the participants' suggestions and survey results, minor wording corrections were made before getting VT IRB approval again.

## **Formal Survey**

The formal online survey was launched on May 25, 2012, and 591 valid responses were collected by May 30, 2012. According to the report for the data collection from SurveyMonkey, 4,414 invitations were emailed which resulted in a 13% response rate in 6 days. The overview of valid respondents including the geographic distribution is presented in Appendix E. As an incentive to participate, SurveyMonkey donated \$0.50 to a participating charity of respondents' choice, and respondents also got a chance to win a \$100 Amazon.com gift card.

## **Data Preparation**

After collecting sufficient completed responses, the numerical data were obtained. A codebook for screening and cleaning the data was prepared and the required steps were conducted.

## **Preparing the Codebook**

### ***Demographics***

Variables related to demographics included age, health status, education level, employment status, years of employment, race/ethnicity, annual personal income, annual household income, marital status, household size, presence of child, and homeownership (Table 1).

Table 1  
*Codebook for Demographics*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Year of Birth	birthyear	number	21
Age	age	2012 – birthyear	21
Health Status	health	1=poor, 2=fair, 3=good, 4=excellent	24
Education Level	edu	1=no grades completed to 19=doctoral degree	30
Employment Status	work	1=full-time, 2=part-time, 3=not work for pay, 4=seeking employment	22
Years of Employment	year_work	number	23
Race/Ethnicity	race	1=non-Hispanic White, 2=non-Hispanic Black, 3=Hispanic/Latino, 4=Asian, 5=Other	29
Personal Income	inc_personal	1=under \$25,000 to 14=\$145,000	27
Household Income	inc_household	1=under \$25,000 to 24=\$245,000 and over	28
Marital Status	marital	1=never married, 2=co-habiting 3=married 4=separate, 5=divorced, 6=widowed	19
Married	marital_married	1=yes, 0=no	
Household Composition	size_husband, size_partner size_kid_under5, size_kid_5_13, size_kid_14_18, size_kid_19_24, size_kid_25over, size_parent, size_other	number	20

(continued)

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Household Size	size_total	1+size_husband+size_partner+size_kid_under5+size_kid_5_13+size_kid_14_18+size_kid_19_24+size_kid_25over+size_parent+size_other	20
Presence of Child	havekid	add items size_kid_under5, size_kid_5_13, size_kid_14_18, size_kid_19_24, size_kid_25over, recode range 1 to 8 as 1, otherwise as 0	20
Homeowner	own_c1	1=yes, 0=otherwise	4

### ***Saving Motives***

Participants were asked to select their first and second most important saving purposes from nine options (retirement, college for a family member(s) or myself, house or home, home improvement or furnishings, emergencies or rainy day, general savings, automobile, vacation, paying off debt), one “none/not saving” option, and one open-end option (i.e. other, please specify) (Table 2). The percentage of respondents selecting each saving motive was reported. For regressions, if saving for retirement was checked as the most or the second most important saving motive it was coded 1, otherwise it was coded 0. Other saving motives followed the same coding rule.

Table 2  
*Codebook for Saving Motives*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
First Saving Motive	motive_1	1.1/2.1=retirement 1.2/2.2=college 1.3/2.3=house	17
Second Saving Motive	motive_2	1.4/2.4=home improvement 1.5/2.5=emergencies 1.6/2.6=general savings 1.7/2.7=automobile 1.8/2.8=vacation 1.9/2.9=paying off deb 1.10/2.10=not saving 1.11/2.11=other	
Retirement Saving Motive	motive _retirement	add items motive _1.1 and motive _2.1, then recode the range 1 to 2 as 1, otherwise=0	17
College Saving Motive	motive _college	add items motive _1.2 and motive _2.2, then recode the range 1 to 2 as 1, otherwise=0	17
House Saving Motive	motive _house	add items motive _1.3 and motive _2.3, then recode the range 1 to 2 as 1, otherwise=0	17
Home Improvement Saving Motive	motive _homeimprove	add items motive _1.4 and motive _2.4, then recode the range 1 to 2 as 1, otherwise=0	17
Emergencies Saving Motive	motive _emergency	add items motive _1.5 and motive _2.5, then recode the range 1 to 2 as 1, otherwise=0	17
General Savings Saving Motive	motive _general	add items motive _1.6 and motive _2.6, then recode the range 1 to 2 as 1, otherwise=0	17
Automobile Saving Motive	motive _auto	add items motive _1.7 and motive _2.7, then recode the range 1 to 2 as 1, otherwise=0	17

(continued)

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Vacation Saving Motive	motive _vacation	add items motive _1.8 and motive _2.8, then recode the range 1 to 2 as 1, otherwise=0	17
Paying Off Debt Saving Motive	motive _debt	add items motive _1.9 and motive _2.9, then recode the range 1 to 2 as 1, otherwise=0	17

### ***Involvement Level***

A 10 item scale with bipolar word pairs was used to estimate the involvement level for the “Saving for Retirement” concept. High scores indicate high involvement. Six sub-questions were negatively worded (high scores indicate low involvement) and the values for the responses needed to be reversed (see Appendix C). The involvement score range was from 10 to 70 and it was divided into three involvement levels: low (score 10 to 29), medium (score 30 to 50), and high (score 51-70). The scale was divided into two subscales (Table 3): affective involvement (interesting, exciting, appealing, fascinating, and involving) and cognitive involvement (important, relevant, valuable, means a lot to me, and needed) which ranged from 5 to 35. The categorical involvement level and continuous involvement score were reported in descriptive statistics. The affective involvement and cognitive involvement were treated as continuous variables in regression models.

Table 3  
*Codebook for Involvement Level*

Variable Name	SPSS Variable Name		Coding Instructions	Survey Question
	Original	Revised		
Involvement	PII_1	PII_1R	1=unimportant, 7=important	18
	PII_2	--	1=boring, 7=interesting	18
	PII_3	PII_3R	1=irrelative, 7=relevant	18

(continued)

Variable Name	SPSS Variable Name		Coding Instructions	Survey Question
Involvement	PII_4	PII_4R	1=unexciting, 7=exciting	18
	PII_5	--	1=means nothing, 7=means a lot to me	18
	PII_6	PII_6R	1=unappealing, 7=appealing	18
	PII_7	PII_7R	1=mundane, 7=fascinating	18
	PII_8	--	1=worthless, 7=valuable	18
	PII_9	PII_9R	1=uninvolving, 7=involving	18
	PII_10	--	1= not needed, 7= needed	18
Involvement Score	PII_score	--	add items PII_1R, PII_2, PII_3R, PII_4R, PII_5, PII_6R, PII_7R, PII_8, PII_9R, PII_10	18
Involvement Level	PII_level	--	1=low (score 10-29), 2=medium (score 30-50), 3=high (score 51-70)	18
Affective Involvement	PII_affective	--	add items PII_2, PII_4R, PII_6R, PII_7R, PII_9R	18
Cognitive Involvement	PII_cognitive	--	add items PII_1R, PII_3R, PII_5, PII_8, PII_10	18

### ***Information Seeking***

Respondents were asked about three retirement benefit statements: Social Security, employer-sponsored DB plans, and federal benefits. There were 12 sources of information listed as response options: the internet, television, newspapers, radio, magazines, books, a course (either for credit or non-credit), discussions with friends and/or relatives, information from my financial advisor(s), training sessions provided by my employer, seminars led by financial professionals, and other (Table 4). Another choice was “none” which meant not using any source. The total number of sources was treated as continuous in regression tests.

Table 4  
*Codebook for Information Seeking*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Read Social security Statement	state_SS	1=yes, 0=no 3=doesn't apply	13
Read DB statement	state_DB	1=yes, 0=no 3=doesn't apply	13
Read federal benefits statement	state_federal	1=yes, 0=no 3=doesn't apply	13
Sources of information			16
1. the internet	info_1	1=yes, 0=no	
2. television	info_2	1=yes, 0=no	
3. newspapers	info_3	1=yes, 0=no	
4. radio	info_4	1=yes, 0=no	
5. magazines	info_5	1=yes, 0=no	
6. books	info_6	1=yes, 0=no	
7. a course (either for credit or non-credit)	info_7	1=yes, 0=no	
8. discussions with friends and/or relatives	info_8	1=yes, 0=no	
9. information from my financial advisor(s)	info_9	1=yes, 0=no	
10. training sections provided by employer	info_10	1=yes, 0=no	
11. seminars led by financial professionals	info_11	1=yes, 0=no	
12. other	info_12	1=yes, 0=no	
Number of information sources	info_total	add items info_1 to info_12	16

### ***Current Assets***

Financial asset ownership was classified to three types and consisted of 11 financial assets (Table 5). Another current asset was holding an adequate emergency fund. The total number of financial assets owned was treated as continuous in regression tests.

Table 5  
*Codebook for Current Assets*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Current Assets			4
<i>a. Employer Provided Retirement Benefits</i>			
1. Traditional employer provided defined benefit pension	own_a1	1=yes, 0=no	
2. Employer provided defined benefit pension to which I also contribute	own_a2	1=yes, 0=no	
3. Employer-sponsored defined contribution retirement plan	own_a3	1=yes, 0=no	
<i>b. Personal Investment and Savings</i>			
1. Personal IRA (Individual Retirement Account) or Roth IRA	own_b1	1=yes, 0=no	
2. Personal investment - mutual funds	own_b2	1=yes, 0=no	
3. Personal investment - individual stocks and/or bonds	own_b3	1=yes, 0=no	
4. Personal savings - certificate of deposit, savings accounts, etc.	own_b4	1=yes, 0=no	
5. Annuities	own_b5	1=yes, 0=no	
6. Life insurance with cash value	own_b6	1=yes, 0=no	
<i>c. Real Estate</i>			
1. My home	own_c1	1=yes, 0=no	
2. Other real estate.	own_c2	1=yes, 0=no	
Number of Current Assets	own_total	add all items	4
Hold An Emergency Fund	emergency	1=yes, 2=have some, 3=no	7
Hold An Adequate Emergency Fund	Emergency_Y	1=yes, 0=no	7

### ***Current Debts***

There were nine types of debt listed as response options: mortgage, home equity loan, auto loan, credit card debt, education loan, personal loan, payday loan, car title loan, and other loan (Table 6). Another choice was “none,” which indicated not having any loan or debt. Each

loan or debt was viewed as a categorical variable. The total number of current debts and remaining years of mortgage were treated as continuous variables in regression tests.

Table 6  
*Codebook for Current Debts*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Current Debts			8
1. Mortgage	debt_1	1=yes, 0=no	
2. Home equity loan	debt_2	1=yes, 0=no	
3. Auto loan	debt_3	1=yes, 0=no	
4. Credit card debt	debt_4	1=yes, 0=no	
5. Education loan	debt_5	1=yes, 0=no	
6. Personal loan	debt_6	1=yes, 0=no	
7. Payday loan	debt_7	1=yes, 0=no	
8. Car title loan	debt_8	1=yes, 0=no	
9. Other loan	debt_9	1=yes, 0=no	
None	nodebt	1=yes, 0=no	
Number of Current Debts	debt_total	add items debt_1 to debt_9	8
Remaining Years of Mortgage	year_mortgage	number	9

### ***Future Expectations***

Planned retirement age and life expectancy were reported with a number in years (Table 7). Expected needed retirement income, Social Security benefit expectation, and Medicare benefit expectation were treated as categorical variables. Expected assets were classified in five types: employer provided retirement benefits, personal investments and savings, real estate, Social Security, and job and family related sources. The current assets question was used to collect this information and it included 19 potential expected assets.

Each financial asset was viewed as a categorical variable. The total number of expected assets was treated as continuous in regression tests.

Table 7  
*Codebook for Future Expectations*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Planned Retirement Age	age_retire	number	25
Life Expectancy	age_life	number	26
Expected Needed Retirement Income	need	1=less, 2=same, 3=more	11
Expected Needed Retirement Income: Less Than Current Earning	need_less	1=less, 0=otherwise	11
Social Security Expectation	SS	1=full, 2=some,	12
Medicare Expectation	Medicare	3=nothing, 4=don't know	12
Social Security Expectation: Full	SS_full	1=full, 0=otherwise	12
Medicare Expectation: Full	Medicare_full	1=full, 0=otherwise	12
Expected Assets		For frequency analysis,	10
a. Employer Provided Retirement Benefits		code 1=yes, 2=no, 3=don't know; for regression tests, code 1=yes, 0=otherwise	
1. Traditional employer provided defined benefit pension	exp_a1		
2. Employer provided defined benefit pension to which I also contribute	exp_2		
3. Employer-sponsored defined contribution retirement plan	exp_a3		
b. Personal Investments and Savings			
1. Personal IRA/ Roth IRA	exp_b1		
2. Personal investment - mutual funds	exp_b2		
3. Personal investment - individual stocks and/or bonds	exp_b3		
4. Personal savings - certificate of deposit, savings accounts, etc.	exp_b4		
5. Annuities	exp_b5		
6. Life insurance with cash value	exp_b6		

(continued)

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
c. Real Estate		For frequency	10
1. Use the equity in my home for a reverse mortgage	exp_c1	analysis, code 1=yes, 2=no, 3=don't know;	
2. Sell my home	exp_c2	for regression tests,	
3. Rent from real estate or other property	exp_c3	code 1=yes, 0=otherwise	
4. Sell my real estate	exp_c4		
d. Social Security			
1. Social Security from my work record	exp_d1		
2. Social Security from my husband/ex- husband's record	exp_d2		
e. Job and Family Related Sources			
1. Part time job	exp_e1		
2. Support from husband or ex-husband's pension	exp_e2		
3. Support from other family members	exp_e3		
4. Inheritance	exp_e4		
Number of Expected Assets	exp_total	add all exp items	10

### ***Retirement Saving Behaviors***

Calculating needed retirement savings was treated as categorical variable in regression models. Participants were also asked “Have you saved any money for retirement?” This money excluded Social Security tax or employer provided defined benefit plans. If the answer was “yes,” the response was coded 1, identifying a retirement saver; the answer “no” was coded 0 as non-saver. Two skip logic questions were only for retirement savers: the age they first started saving for retirement and the contribution methods they used (Table 8).

Table 8

*Codebook for Saving Behaviors*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
Calculate Needed Retirement Savings	calculate	1=yes, 0=no	14
Retirement Saver	saver	1=yes, 0=no	1
Start Saving for Retirement Age	startage	1=before age 25 to 10=age 65 or older	2
Method			3
1. Automatically deposit regularly from my income	method_1	1=yes, 0=no	
2. Automatically deposit regularly from spouse/partner (S/P)	method_2	1=yes, 0=no	
3. Make a deposit myself regularly from my income	method_3	1=yes, 0=no	
4. Make a deposit myself regularly from S/P	method_4	1=yes, 0=no	
5. Make a deposit myself, as the budget allows from my income	method_5	1=yes, 0=no	
6. Make a deposit myself, as the budget allows from S/P	method_6	1=yes, 0=no	
Regular Retirement Saver	method_regular	add items method_1 to method_4, recoded range 1 to 4 as 1, otherwise=0	3

***Retirement Savings (RS) and Retirement Income Satisfaction (RIS)***

The objective retirement savings (from employer-sponsored retirement account(s) and personal investments and savings) and subjective satisfaction with retirement income (from Social Security, all employer-sponsored sources and plans, and all personal savings and investments that the respondent expected to have for use in retirement) were the output variables (Table 9). The frequency of each retirement savings bracket and each retirement income satisfaction level and the mean of retirement savings and retirement income

satisfaction were reported in descriptive statistics. The RS and RIS were treated as continuous variables in regression models and t-tests.

Table 9

*Codebook for Retirement Savings and Retirement Income Satisfaction*

Variable Name	SPSS Variable Name	Coding Instructions	Survey Question
RS in Employer-Sponsored Accounts	RS_employer	1=none to 12=\$250,000 or more	5
RS in Personal Investments and Savings	RS_personal	1=none to 12=\$250,000 or more	6
RIS from Social Security	RIS_SS	1=very dissatisfied to 5=very satisfied	15
RIS from Employer-Sponsored Accounts	RIS_employer	1=very dissatisfied to 5=very satisfied	15
RIS from Personal Investments and Savings	RIS_personal	1=very dissatisfied to 5=very satisfied	15

**Screening and Cleaning the Data**

There are two steps in the screening process: first, inspecting the frequencies for each categorical variable and the range for each continuous variable to identify errors; second, finding and correcting the error in the data file (Pallant, 2010).

When conducting the online survey, the function of going back to previous questions/pages was utilized. It allowed the survey to be more like responding to a physical paper questionnaire because participants could turn pages and change answers. However, some errors happened on the logic skip questions that may have been caused by changed answers.

Several logic or conflict answer choices were used to check for errors. For example, concerning expected retirement age and life expectancy, life expectancy should not be smaller than expected retirement age. Another example was that the “none” choice for the debt ownership and source of information used to learn retirement planning questions. Because these were multiple-choice questions, if participants checked “none” and other choice(s) that meant an error occurred. If so, the “none” option was kept and the other choice was deleted.

### **Preliminary Analyses**

Preliminary analyses were conducted prior to testing the research hypotheses to thoroughly understand the sample.

### **Descriptive Statistics**

Descriptive statistics can be used to describe the characteristics of the sample and check errors related to coding and outliers. For categorical variables, coding errors were identified from the output of the frequencies. This type of mistake most often happens in the manual key-in process and has very low possibility of occurring in an online survey. For continuous variables, the range information was checked for outliers, and most of the outliers were errors. For example, in the household composition question, participants were asked to key in the number of family member(s) for each category because of the limitation of the online survey platform function. One participant keyed in 5 in the “husband” category, one keyed in 27 in the “children aged 25 years and over,” and one keyed in 10 for the “other” category. These were not reasonable numbers and were removed from the data.

Only completed responses were included in this study; thus, complete data was obtained from every participant. However, some missing data resulted from the descriptive statistics process. Some answers were removed because of the unreasonable numbers. Also,

some logic skip questions did not have answers for each case. For example, “first start saving for retirement age” and “regular retirement saver” were questions asked only of retirement savers (those who said they had saved any money for retirement), and the “remaining years of mortgage” question was only asked for those who checked that they had a mortgage. “SPSS will recognize any blank cell as missing data” (Pallant, 2010, p. 33).

### **Internal Reliability of Scale**

In this study, the Personal Involvement Inventory scale was used. According to Zaichkowsky (1994), a good internal reliability score from a 10-item PII is a Cronbach’s alpha coefficient of 0.9. In the current study, the Cronbach’s alpha coefficient was 0.86 (Table 10) which was a preferable value (above 0.8). The “alpha if the item was deleted” was used to make the decision of whether to remove any item from the scale (Table 10). The value would have been lowered if any item was removed, so all 10 items were kept.

Table 10

*Inter-item Reliability: Personal Involvement Inventory (PII)*

	Number of Items Included	Cronbach’s Alpha	Alpha If Item Deleted
PII Word Pair	10	.857	
important-unimportant			.846
interesting-boring			.847
relevant-irrelevant			.845
exciting-unexciting			.843
means a lot to me-means nothing			.839
appealing-unappealing			.838
fascinating-mundane			.841
valuable-worthless			.846
involving-uninvolving			.836
needed-not needed			.850

## Data Analysis of Hypotheses

The purpose of this study was to examine what factors affect women's retirement saving behaviors, retirement savings, and retirement income satisfaction. This phase consisted of analyzing the cleaned and coded data using the Statistical Package for the Social Sciences (SPSS) 20 program. In all significance tests,  $p < 0.05$  was the minimum criterion used.

A tolerance value less than 0.10 and a VIF value above 10 were applied to determine the presence of multicollinearity in the multiple regression models following the recommendation of Pallant (2010). According to Stevens (2002), "For social science researches, about 15 subjects per predictor are needed for a reliable equation." Thus, if an individual predictor had less than 15 respondents (i.e. the frequency less than 2.54% in this study), it was removed.

For all of the direct logistic regression tests, the Hosmer and Lemeshow Test was used to determine if the model was worthwhile by having a significant value greater than 0.05 (Pallant, 2010). SPSS states that the Hosmer and Lemeshow Test is the most reliable test of model fit available in SPSS (Pallant, 2010).

**H<sub>1</sub>: The demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations have statistically significant relationships with retirement saving behaviors: (a) calculating needed retirement savings, (b) being a retirement saver, (c) starting saving for retirement age, and (d) being a regular retirement saver.**

Direct logistic regressions were used to examine the dichotomous dependent variables: calculate needed retirement savings, retirement saver, and regular retirement saver. Multiple

regression was used to assess the impact of a set of predictors on the continuous dependent variable: start saving for retirement age.

**H<sub>2</sub>: The demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations, and saving behaviors have statistically significant relationships with (a) retirement savings and (b) retirement income satisfaction.**

Multiple regressions were used to assess the impact of a set of predictors on the continuous dependent variables: retirement savings and retirement income satisfaction.

**H<sub>3</sub>: There are statistically significant positive relationships between retirement savings and retirement income satisfaction.**

One way between-groups analyses of variance (ANOVA) post-hoc comparisons using the Tukey HSD test were conducted to explore the relationship between retirement income satisfaction (RIS) and amount of retirement savings (RS). The effect size, or “the strength of the difference between groups,” was calculated using eta-squared (Pallant, 2010, p. 207). Cohen (1988) defines .01 as a small effect, .06 as a medium effect, and .14 as a large effect.

There were five levels of retirement income satisfaction (RIS) for the respondents in the sample (Group A: very dissatisfied; Group B: dissatisfied; Group C: neutral; Group D: satisfied; Group E: very satisfied). Three types of retirement income were included: (1) from the Social Security, (2) from employer-sponsored retirement accounts, and (3) from personal investments and savings. Mean comparisons of the amount of retirement savings (RS) (1) from employer-sponsored retirement accounts and (2) from personal investments and savings were performed through ANOVA across all groups of the three RIS measures.

## **Summary**

In this chapter, the methodology for the study was described. Standards related to the presence of multicollinearity for multiple regression tests and whether the model was worthwhile for direct logistic regression tests were set.

## **CHAPTER 4**

### **FINDINGS**

This study was designed to examine women's retirement saving behaviors, retirement savings, and retirement income satisfaction. The Family Resource Management Model developed by Deacon and Firebaugh (1988) was used as the theoretical framework for the study. The data were collected in May 2012. Within six days after 4,414 email invitations were sent, 591 completed responses (13%) were submitted by non-retired women who were 25 years and older. This chapter presents the descriptive data and results of the hypothesis testing. Tables with the descriptive statistics and hypotheses results are presented in Appendix F.

#### **Sample Description**

##### **Demographics**

As shown in Table F1, the average age of the women in the sample was 48 years, and 95% were between the ages of 25 and 64 years. The mean health status was slightly over three (1=poor to 4=excellent), indicating good health, and only 14% of the sample reported their health as poor or fair. The mean education level was 16.5, which is equal to more than 3 years of college. The lowest level of education completed in the sample was 11<sup>th</sup> grade, with only one case, 38% had a college degree, 25% had a master's degree, and 5% had a doctoral degree. Over two-thirds of the respondents (68%) worked full-time, 18.3% worked part-time, 7.6% were unemployed and seeking employment, and 6.1% were not working for pay and not seeking employment. The average length of employment of women in the sample was 28 years, and the majority (93%) had worked for more than 10 years. Most of the women (89%) were non-Hispanic Whites. The mean annual personal income before taxes was between

\$45,000 and \$54,999, while the mean annual household income before taxes was between \$75,000 and \$84,999.

Over half (51%) of the women were married, followed by 17.8% who were divorced, 16.2% who were never married, 8.8% who were cohabitating, 3.7% who were widowed, and 2.5% who were separated. The average size of the household was three people. Forty-eight percent of the sample had children living in the same household, with 10% having a child aged under 5 years, 20.3% having a child aged 5 to 13 years, 15.7% having a child aged 14 to 18 years, 11.2% having a child aged 19 to 24 years, and 9.1% having a child aged 25 years or over. Seventy percent of the participants were homeowners (Table F1).

### **Saving Motives**

As shown in Table F2, retirement was ranked by 25% of the participants as the most important saving motive. Other items ranked as most important were: 17.8% for paying off debt, 13.2% for general savings, 10.3% for emergencies or a rainy day, 7.4% for college for a family member(s) or oneself, 5.8% for house or home, 2.5% for home improvements or furnishings, 1.7% for vacation, 1.4% for automobile, and 1.4% for another motive. About 14% of the women reported that they were not currently saving for any purpose.

The ranking for the second most important saving motive was 16.6% for paying off debt, 13.7% for general savings, 13% for retirement, 12.7% for emergencies or rainy day, 8.3% for college for a family member(s) or myself, 6.8% for house or home, 5.4% for vacation, 5.2% for home improvement or furnishings, 2.4% for automobile, and 1.4% for another motive. About 15% of the women reported that they were not currently saving for a second most important purpose (Table F2).

## **Involvement Level**

According to the Personal Involvement Inventory (PII) score (Table F3), 60.4% of the sample had a high retirement saving involvement level, 38.2% had a medium involvement level, and 1.4% had a low involvement level. The average score of the PII was 52.4, which was classified as high involvement. When the score was divided into affective and cognitive involvements, the mean score for affective involvement was 21.4 and it was 30.9 for cognitive involvement.

## **Information Seeking**

Most of the respondents (82%) reported that they read their Social Security statement, 41% read their federal employee benefits statement, and 13% read their employer-provided DB pension statement. The information sources used for learning about retirement planning by women were: discussion with friends and/or relatives (53%), the Internet (51%), information from my financial advisor(s) (40%), training sessions provided by my employer (25%), magazines (22%), newspapers (20%), books (19%), television (18%), seminars led by financial professionals (18%), radio (10%), a course (either for credit or non-credit) (9%), and other (1%). There were 16% of women in this sample who said they did not use any information source to learn about retirement planning. The average number of information sources the sample used was three (Table F4).

## **Current Assets and Debts**

The most common assets owned by the respondents were a home (70%); personal savings in certificates of deposit (CDs), savings accounts, etc. (58%); an employer-sponsored DC plan (44%); personal IRA or Roth IRA (41%); life insurance with cash value (39%); an employer-provided DB pension to which the respondent also contributes (34%); personal investments in individual stocks and/or bonds (30%); personal investments in

mutual funds (29%); a traditional employer-provided DB pension (28%); annuities (14%); and other real estate (14%). The average number of financial assets owned among the women in this sample was four (Table F5).

Nearly 40% of the respondents did not have the recommended emergency fund of at least 3-6 months' take-home income, with 32% having some savings in an emergency fund but not that much and 28% having the recommended amount. Only about 11% of the sample did not have any debt currently (Table F6). The types of financial debts held were mortgage (57%), credit card debt (53%), auto loan (39%), education loan (28%), home equity loan (16%), personal loan (9%), car title loan (3%), payday loan (2%), and other loan (2%). The average number of current debts the sample held was two. The mean remaining years on a mortgage was 18 years.

### **Future Expectations**

The average planned retirement age and life expectancy in the sample were 66.7 years and 85.7 years, respectively, which resulted in an average of 19 years expected in retirement (Table F7). About 8% planned to retire before 60 years of age, 17.3% planned to retire between 60 and 64 years, 27.6% planned to retire at age 65, 12.2% planned to retire between ages 66 to 69, and 35.2% planned to retire at age 70 and older.

About 38% expected that their needed amount of retirement income would be as much as they were currently earning, 34% thought the amount would be less than current earnings, and 28% assumed they would need more than their current earning. Nearly one-third (32%) of the respondents expected to get the full amount today's retirees get, approximately 40% expected to get some Social Security income but not as much as today's retirees get, 11% expected they will not get anything, and 18% reported that they did not know how much Social Security benefits they will get when they retire. Concerning

expectations for Medicare benefits, 29% expected to get the full amount today's retirees get, more than one-third (35%) of the sample expected to get some Medicare benefits, 10% did not expect to get anything, and 26% said they did not know how much Medicare benefits they will get in retirement (Table F7).

When thinking about the financial assets expected to be used in retirement, most (81%) was anticipated getting Social Security from their own work record, personal savings (55%), part-time job (53%), personal IRA or Roth IRA (43%), Social Security from a husband or ex-husband's record (40%), employer-sponsored DC retirement plan (39%), employer-provided DB pension to which the respondent also contributes (33%), traditional employer-provided DB pension (31%), personal investment in mutual funds (31%), personal investment in individual stocks and/or bonds (29%), support from a husband or ex-husband's pension (25%), life insurance with cash value (22%), selling their home (19%), inheritance (17%), annuities (14%), rent from real estate or other property (11%), selling other real estate (10%), support from other family members (8%), and using the equity in my home with a reverse mortgage (4%). The average number of financial assets the sample expected to use in retirement was close to six (Table F7).

### **Retirement Saving Behaviors**

Only 41% of the sample had calculated the amount they needed to save to have a comfortable retirement (Table F8). About two-thirds of the respondents (64%) were retirement savers (reporting having saved money for retirement), and over one-third of the women (36%) reported being non-savers.

Among the savers, 18% first started saving for retirement before age 25, 43% started saving between age 25 and 34, 27% started saving between age 35 and 44, 10% started saving

between age 45 and 54, and 3% started saving at age 55 and older. The average first start saving for retirement age was between ages 30 and 34 (Table F8).

The retirement savers used an average of one deposit method, with 82% reporting that they saved regularly. Most of the women savers (73%) used the automatic deposit method on a regular set schedule from their own income, while almost 30% of them made deposits by themselves as the budget allowed from their own income. Twenty percent of respondents made automatic deposits on a set schedule from their spouse/partner's income, 9% made a deposit by themselves on a set schedule from their own income, 7% made a deposit by themselves as the budget allowed from their spouse/partner's income, and 3% made a deposit by themselves on a set schedule from her spouse/partner's income (Table F8).

### **Retirement Savings**

For the objective retirement savings, about one-third of the sample (31%) did not save any money in an employer-sponsored account, and nearly one-third (30.5%) saved less than \$25,000, which resulted in a mean amount located in the \$25,000 to \$49,999 range (Table 19). For retirement savings in personal investments and savings, 24% of the sample saved nothing and over one-third (35.4%) saved less than \$25,000, with a mean amount located in the bracket of \$25,000 to \$49,999. The t-test results show a significant difference between female retirement savers and non-savers on both of the retirement savings categories, revealing that the savers had much more retirement savings than non-savers (Table F9).

### **Retirement Income Satisfaction**

The mean subjective retirement income satisfaction with Social Security (2.39 on a 5 point scale), employer-sponsored retirement accounts (2.66), and personal investments and savings (2.61) all tended toward dissatisfied. The results of the t-tests showed no significant

difference between female retirement savers and non-savers on satisfaction with the three sources of retirement income (Table F10).

### **Results of the Hypothesis Tests**

The results of the tests of the three hypotheses are presented in this section. The tolerance value (less than 0.10) and VIF value (above 10) were used to determine the presence of multicollinearity in multiple regression models, and predictor size (at least 15 participants) was also checked (Pallant, 2010). The Hosmer-Lemeshow Test, which SPSS states is the most reliable test of model fit available in SPSS, was used with a *p*-value larger than 0.05 required to show significance (Pallant, 2010).

**Hypothesis 1: The demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations have statistically significant relationships with retirement saving behaviors: (a) calculating needed retirement savings, (b) being a retirement saver, (c) starting saving for retirement age, and (d) being a regular retirement saver.**

Four saving behavior dependent variables were examined in Hypothesis 1: calculate needed retirement savings, retirement saver, start saving for retirement age, and regular retirement saver. Direct logistic regression was performed to assess the impact of the factors of categorical variables on the likelihood of respondents reporting that they had calculated needed retirement savings, saved for retirement, and saved regularly. Standard multiple regression was used to explore which was the best predictor of start saving for retirement age. The results showed that the Hypothesis 1 was partially supported.

### ***H<sub>1a</sub>: Calculate Needed Retirement Savings***

The model for *Calculate Needed Retirement Savings* that contained all 35 input predictors was statistically significant,  $\chi^2 (35, N = 591) = 227.209, p < .001$ , indicating that the model could distinguish between respondents who reported and did not report calculating needed retirement savings (Table F11). The model as a whole correctly classified 76.6% of cases.

Seven major factors influenced whether a woman in the sample reported calculating how much she needs to save for retirement: age, household income, retirement saving motive, cognitive involvement, read Social Security statement, number of information sources, and planned retirement age. For every additional one year respondents aged, they were 1.04 times more likely to calculate needed retirement savings. With every one household income bracket increased, respondents were 1.1 times more likely to calculate needed retirement savings. Women who had a retirement saving motive were 2.4 times more likely to say they calculated their retirement savings needs. With each one level of cognitive involvement increased, the women in the sample were 1.1 times more likely to indicate having calculated the amount needed for retirement. Compared to those who did not read the Social Security statement, those who read it were 2.3 times more likely to calculate needed retirement savings. For each one more information source used to learn about retirement planning, the women were 1.3 times more likely to calculate needed retirement savings. For each additional year increase of planned retirement age, these women were 0.96 times less likely to calculate needed retirement savings.

### ***H<sub>1b</sub>: Retirement Saver***

The model for *Retirement Saver* that contained all 35 input predictors was statistically significant,  $\chi^2 (35, N = 591) = 314.038, p < .001$ , indicating that the model could distinguish

between respondents who reported and did not report saving for retirement (Table F12). The model as a whole correctly classified 82.4% of cases.

The major factors influencing whether a woman reported saving for retirement were: retirement saving motive, cognitive involvement, number of current assets, and hold an adequate emergency fund. Those who had a retirement saving motive were five times more likely to report being a retirement saver, controlling for other factors in the model. For the involvement level, with one additional level of cognitive score, respondents were 1.1 times more likely to report saving for retirement. For each additional asset owned, respondents were 1.7 times more likely to report being a retirement saver. Those holding an adequate emergency fund were three times more likely to report being retirement savers.

***H<sub>1c</sub>: Start Saving for Retirement Age (Among Retirement Savers)***

About 41.5% of total variance in *Start Saving for Retirement Age* was accounted for by the 35 input variables ( $R^2 = .415$ ,  $F(35, 377) = 6.911$ ,  $p < .001$ ). Based on the standardized regression coefficient of each variable, the effect of age, household size, paying off debt saving motive, and number of current assets had a statistically significant relationship with start saving for retirement age (Table F13).

Those who were older, had a bigger family, and had an emergency saving motive were more likely to start saving for retirement at an older age. Those who had a larger number of current assets were more likely to start retirement saving at younger age.

***H<sub>1d</sub>: Regular Retirement Saver (Among Retirement Savers)***

The model for *Regular Retirement Saver* containing all 35 input predictors was statistically significant,  $\chi^2(35, N = 377) = 78.140$ ,  $p < .001$ , indicating that the model could

distinguish between respondents who reported and did not report saving regularly for retirement (Table F14). The model as a whole correctly classified 84.6% of cases.

The major factors influencing whether a woman reported saving regularly for retirement were: age, employment status (full-time), vacation saving motive, read DB plan statement, and planned retirement age. For each additional year of age, women retirement savers were 0.96 times less likely to be regular retirement savers. Full-time working women were almost four times more likely to be regular retirement savers. Compared to those who did not have a vacation saving motive, those who had this saving motive were 0.2 times less likely to be regular retirement savers. Those who had read a DB pension statement were three times more likely to be regular retirement savers. With one additional year of planned retirement age, respondents were 0.92 times less likely to report being a regular retirement saver.

### ***Summary of Hypothesis 1***

For calculating needed retirement savings, among the input variables, seven variables influenced whether a woman in the sample reported calculating how much she needs to save for retirement: age and household income (demographic), retirement saving motive (saving motives), cognitive involvement (involvement level), read Social Security statement and number of information sources (information seeking), and planned retirement age (future expectation).

For being a retirement saver, among the input variables, four variables influenced whether a woman reported saving for retirement: retirement saving motive (saving motives), cognitive involvement (involvement level), and number of current assets and hold an adequate emergency fund (assets and debts).

For starting saving for retirement age, four variables affected a women’s age of starting saving for retirement: age and household size (demographic), paying off debt saving motive (saving motives), and number of current assets (assets and debts).

For being a regular retirement saver, among the input variables, five variables influenced whether a woman reported saving for retirement regularly: age and full-time worker (demographic), vacation saving motive (saving motives), read DB pension statement (information seeking), and planned retirement age (future expectation).

From the findings, some input variables had some amount of influence on each of the four throughput variables. Thus, hypothesis one was partially accepted, and the summary of results is shown in Table 11.

Table 11  
*Summary of Results for Hypothesis 1*

Variable	Test Result
H <sub>1</sub> a. Calculate Needed Retirement Savings	$\chi^2 (35, N = 591) = 227.209, p < .001$
H <sub>1</sub> b. Retirement Saver	$\chi^2 (35, N = 591) = 314.038, p < .001$
H <sub>1</sub> c. Start Saving for Retirement Age (among savers, n = 377)	$R^2 = .415, F (35, 377) = 6.911, p < .001$
H <sub>1</sub> d. Regular Retirement Saver (among savers, n = 377)	$\chi^2 (35, N = 377) = 78.140, p < .001$

**Hypothesis 2: The demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations, and saving behaviors have statistically significant relationships with (a) retirement savings and (b) retirement income satisfaction.**

Standard multiple regression was used to explore which was the best predictor of retirement savings in employer-provided retirement accounts and personal investments and savings, and retirement income satisfaction from Social Security, employer-provided pensions, and personal investments and savings. The results show some evidence to support the hypothesis.

***H<sub>2a</sub>: Retirement Savings***

***H<sub>2a</sub> (1): Retirement Savings in Employer-Provided Retirement Accounts.*** About 47.0% of total variance in *Retirement Savings in Employer-Provided Retirement Accounts* was accounted for by the input and throughput variables ( $R^2 = .470$ ,  $F(39, 591) = 12.545$ ,  $p < .001$ ). Based on the standardized regression coefficient of each variable, the effect of age, personal income, read DB pension statement, read federal employee benefits statement, number of current assets, number of current debts, planned retirement age, and regular retirement saver had statistically significant relationships with retirement savings in employer-sponsored retirement accounts (Table F15).

Those women who were older, had greater personal income, had read their DB pension statement, had not read a federal employee benefits statement, owning more types of assets, borrowing fewer types of debts, not planning to retire late, and being a regular retirement saver were more likely to report having higher retirement savings in employer-sponsored retirement accounts.

***H<sub>2a</sub> (2): Retirement Savings in Personal Savings and Investments.*** About 50.3% of total variance in *Retirement Savings in Personal Savings and Investments* was accounted for by the 39 inputs and throughput variables ( $R^2 = .503$ ,  $F(39, 591) = 14.310$ ,  $p < .001$ ). Based on the standardized regression coefficient of each variable, the effect of age, education, household income, number of current assets, hold an adequate emergency fund, number of current debts, retirement saver, start saving for retirement age, and regular retirement saver had statistically significant relationships with retirement savings in personal savings and investments (Table F16).

Those women who were older, better educated, had greater household income, owned more types of assets, held an emergency fund, borrowed fewer types of debts, were retirement savers, started saving at earlier age, and were not regular retirement savers were more likely to report having more retirement savings in personal savings and investments.

***H<sub>2b</sub>: Retirement Income Satisfaction***

***H<sub>2b</sub> (1): Retirement Income Satisfaction from Social Security.*** About 20.0% of total variance in *Retirement Income Satisfaction from Social Security* was accounted for by the inputs and throughput variables ( $R^2 = .200$ ,  $F(39, 591) = 3.536$ ,  $p < .001$ ). Based on the standardized regression coefficient of each variable, the effect of cognitive involvement, expected needed retirement income, and Social Security expectation had statistically significant relationships with retirement income satisfaction from Social Security (Table F17).

Those women who had lower cognitive involvement, expected to need less than current earning in retirement, and expected to get the full amount today's retirees get from Social Security were more likely to report having higher retirement income satisfaction from Social Security.

***H<sub>2b</sub> (2): Retirement Income Satisfaction from All Employer-Sponsored Sources and Plans.*** About 30% of total variance in *Retirement Income Satisfaction from All Employer-Sponsored Sources and Plans* was accounted for by the inputs and throughput variables ( $R^2 = .300$ ,  $F(39, 591) = 6.062$ ,  $p < .001$ ). Based on the standardized regression coefficient of each variable, the effect of age, personal income, general savings saving motive, read DB pension statement, number of expected assets, and regular retirement saver had statistically significant relationships with retirement income satisfaction from all employer-sponsored sources and plan (Table F18).

Those women who were younger, had greater personal income, had a general savings saving motive, had read a DB pension statement, expected to have more assets in retirement, and were regular retirement savers were more likely to report having higher retirement income satisfaction from all employer-sponsored sources and plans.

***H<sub>2b</sub> (3): Retirement Income Satisfaction from Personal Savings and Investments.*** About 35.4% of total variance in *Retirement Income Satisfaction from Personal Savings and Investments* was accounted for by the input and throughput variables ( $R^2 = .354$ ,  $F(39, 591) = 7.759$ ,  $p < .001$ ). Based on the standardized regression coefficient of each variable, the effect of age, household size, general savings saving motive, home improvement or furnishings saving motive, retirement saving motive, affective involvement, cognitive involvement, number of current assets, and number of expected assets had statistically significant relationships with retirement income satisfaction from personal savings and investments (Table F19).

Those women who were younger, had fewer members living in the same household, had a general savings saving motive, had a home improvement or furnishings saving motive, had a retirement saving motive, had higher affective involvement, had lower cognitive

involvement, owned more types of assets, and expected more types of assets in retirement were more likely to report having a higher retirement income satisfaction from personal savings and investments for retirement.

***Summary of Hypothesis 2***

For retirement savings, seven input variables and one throughput variable affected a women’s retirement savings in employer-sponsored retirement accounts, and six input variables and three throughput variables affected a women’s retirement savings in personal investments and savings.

For retirement income satisfaction, three input variables affected a women’s retirement income satisfaction from Social Security, five input variables and one throughput variable affected a women’s retirement income satisfaction from employer-sponsored retirement accounts, and eight input variables affected a women’s retirement income satisfaction from personal investments and savings.

The results indicate that some input and throughput variables affected each of the five output variables. Thus, there was evidence to partially support Hypothesis 2, and the summary of results is reported in Table 12.

Table 12  
*Summary of Results for Hypothesis 2*

Variable	Test Result
<b>H<sub>2a</sub>. Retirement Savings</b>	
H <sub>2a</sub> (1). Retirement Savings in Employer-Provided Retirement Accounts	$R^2 = .470$ , $F(39, 591) = 12.545$ , $p < .001$
H <sub>2a</sub> (2). Retirement Savings in Personal Savings and Investments	$R^2 = .503$ , $F(39, 591) = 14.310$ , $p < .001$

(continued)

Variable	Test Result
<b>H<sub>2</sub>b. Retirement Income Satisfaction</b>	
H <sub>2</sub> b (1). Retirement Income Satisfaction from Social Security	$R^2 = .200, F(39, 591) = 3.536, p < .001$
H <sub>2</sub> b (2). Retirement Income Satisfaction from All Employer-Sponsored Sources and Plans	$R^2 = .300, F(39, 591) = 6.062, p < .001$
H <sub>2</sub> b (3). Retirement Income Satisfaction from Personal Savings and Investments	$R^2 = .354, F(39, 591) = 7.759, p < .001$

**Hypothesis 3: There are statistically significant positive relationships between retirement savings and retirement income satisfaction.**

ANOVA was used to test for differences in the average amounts of retirement savings across RIS groups for anticipated benefits from Social Security, employer-sponsored retirement plans, and personal investments and savings. Mean plots present the actual difference in mean amounts between the groups. Small differences can look dramatic in mean plots, but the relationships between groups may not be statistically significantly different (Pallant, 2010).

The ANOVA test revealed significant differences between *RIS from Social Security* and average *RS in Personal Investments and Savings* ( $F(4, 590) = 5.070, p < .01$ ), between *RIS from Employer-Sponsored Retirement Accounts* and average *RS in Employer-Sponsored Retirement Accounts* ( $F(4, 590) = 29.623, p < .001$ ) and average *RS in Personal Investments and Savings* ( $F(4, 590) = 9.071, p < .001$ ), and between *RIS from Personal Investments and Savings* and average *RS in Employer-Sponsored Retirement Accounts* ( $F(4, 590) = 7.502, p < .001$ ) and average *RS in Personal Investments and Savings* ( $F(4, 590) = 23.606, p < .001$ ). The only insignificant relationship was between *RIS from Social Security* and average *RS in Employer-Sponsored Retirement Accounts* ( $F(4, 590) = 1.921, p < .105$ ). The results showed that the hypothesis was partially supported (Table 13).

Table 13

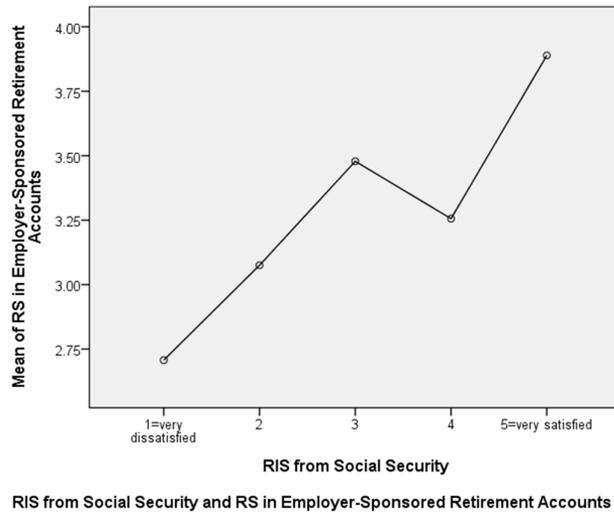
*Results of ANOVA Comparing the Means of Retirement Savings Across Retirement Income Satisfaction Levels (N = 591)*

Variable	Retirement Income Satisfaction					F-test P-value
	A = very dissatisfied	B = dissatisfied	C = neutral	D = satisfied	E = very satisfied	
<b>RIS: Social Security</b>						
RS: Employer-Sponsored Accounts	2.71	3.08	3.48	3.26	3.89	.105
RS: Personal Investments and Savings (AE, BD, BE)	3.23	2.99	3.85	4.51	5.61	.001**
<b>RIS: Employer-Sponsored Retirement Accounts</b>						
RS: Employer-Sponsored Accounts (AB, AC, AD, AE, BD, BE, CD, CE, DE)	1.67	2.61	3.25	4.58	6.24	.000***
RS: Personal Investments and Savings (AC, AD, AE, BD, CD)	2.52	3.29	3.56	4.85	4.79	.000***
<b>RIS: Personal Investments and Savings</b>						
RS: Employer-Sponsored Accounts (AC, AD, AE, BD)	2.17	2.90	3.49	3.99	4.09	.000***
RS: Personal Investments and Savings (AB, AC, AD, AE, BD, BE, CD, CE, )	2.03	3.22	3.57	5.19	6.60	.000***

*Note.* (a) \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . (b) The pairs of letters A, B, C, D, E represent the means of the retirement savings that are significantly different from each other. For example, for the retirement savings in personal investments and savings, the average amount held by those who felt very dissatisfied with retirement income from Social Security is significantly different from that of those who felt very satisfied.

***H<sub>3a</sub>: RIS from Social Security and RS in Employer-Sponsored Retirement Accounts***

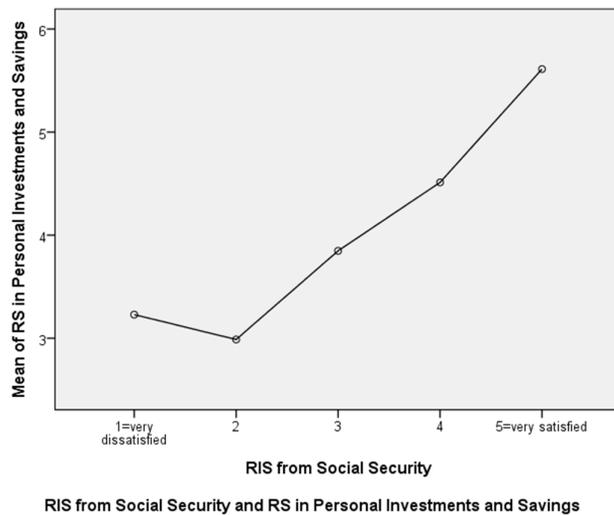
The relationship between *RIS from Social Security* and *RS in Employer-Sponsored Retirement Accounts* was not statistically significant. According to Figure 3, in terms of the amount of retirement savings in employer-sponsored retirement accounts, those who felt satisfied held less than those who felt neutral. However, the mean plots also demonstrated that the actual difference in mean amounts between the groups was quite small (2.71, 3.08, 3.48, 3.26, and 3.89) (Table 13).



*Figure 3.* Mean Plots: Retirement Income Satisfaction (RIS) from Social Security and Retirement Savings (RS) in Employer-Sponsored Retirement Accounts

***H<sub>3b</sub>: RIS from Social Security and RS in Personal Investments and Savings***

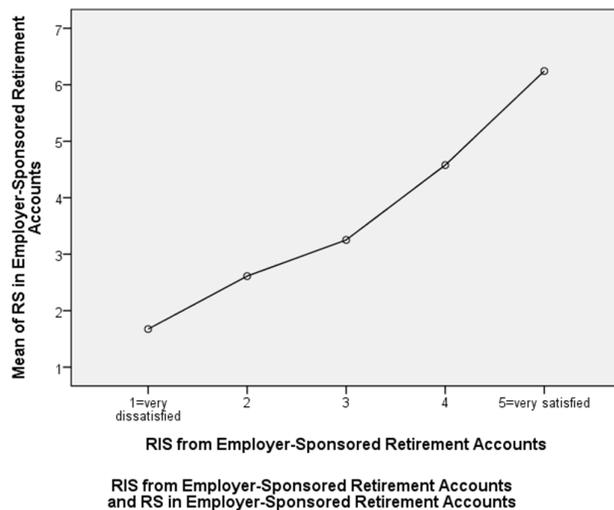
The effect size was .03, indicating a small effect. The mean amounts of retirement savings in employer-sponsored retirement accounts held by those who felt very dissatisfied ( $M = 3.23$ ) and those who felt dissatisfied ( $M = 2.99$ ) were significantly lower than those who felt very satisfied ( $M = 5.61$ ). Those who felt dissatisfied also had significantly lower amounts in retirement savings than those who felt satisfied ( $M = 4.51$ ). The mean retirement savings in employer-sponsored retirement accounts ( $M = 3.85$ ) of the neutral group in retirement income satisfaction from Social Security did not differ significantly from the mean employer-sponsored retirement savings of other groups. Mean plots are shown in Figure 4.



*Figure 4.* Mean Plots: Retirement Income Satisfaction (RIS) from Social Security and Retirement Savings (RS) in Personal Investments and Savings

***H<sub>3c</sub>: RIS from Employer-Sponsored Retirement Accounts and RS in Employer-Sponsored Retirement Accounts***

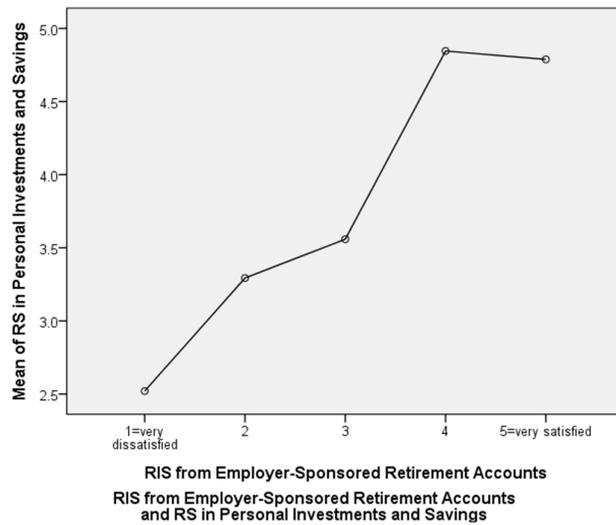
The effect size was .17, indicating a large effect. The average amount of retirement savings in employer-sponsored retirement accounts held by those who felt very dissatisfied ( $M = 1.67$ ) was close to none and significantly lower than the other four groups. The mean RS in employer-sponsored retirement accounts of those who felt dissatisfied ( $M = 2.61$ ) or were neutral ( $M = 3.25$ ) in their RIS from employer-sponsored accounts were significantly lower than the RS of those who felt satisfied ( $M = 4.58$ ) or very satisfied ( $M = 6.24$ ). Those who felt satisfied had significantly less savings in their employer-sponsored accounts on average than those who felt very satisfied with the income expected from their employer-sponsored retirement accounts. The results indicated that women who saved more in employer-sponsored retirement accounts were more likely to feel satisfied with expected retirement income from employer-sponsored retirement accounts. Mean plots are shown in Figure 5.



*Figure 5.* Mean Plots: Retirement Income Satisfaction (RIS) from Employer-Sponsored Retirement Accounts and Retirement Savings (RS) in Employer-Sponsored Retirement Accounts

***H<sub>3d</sub>: RIS from Employer-Sponsored Retirement Accounts and RS in Personal Investments and Savings***

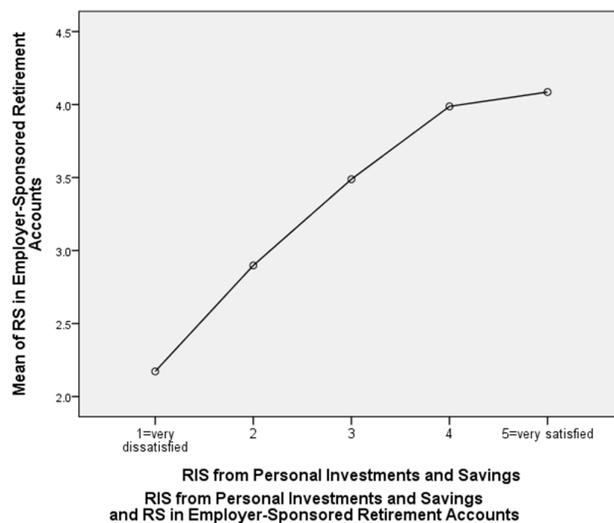
The effect size was .06, indicating a medium effect. The average retirement savings in personal investments and savings held by those who felt very dissatisfied ( $M = 2.52$ ) was significantly lower than that of those who felt neutral ( $M = 3.56$ ), satisfied ( $M = 4.85$ ), or very satisfied ( $M = 4.79$ ). Those who felt dissatisfied ( $M = 3.29$ ) had significantly lower mean retirement savings than those who felt satisfied. Those who felt neutral had significantly lower mean savings than those who felt satisfied. Mean plots are shown in Figure 6.



*Figure 6.* Mean Plots: Retirement Income Satisfaction (RIS) from Employer-Sponsored Retirement Accounts and Retirement Savings (RS) in Personal Investments and Savings

***H<sub>3e</sub>: RIS from Personal Investments and Savings and RS in Employer-Sponsored Retirement Accounts***

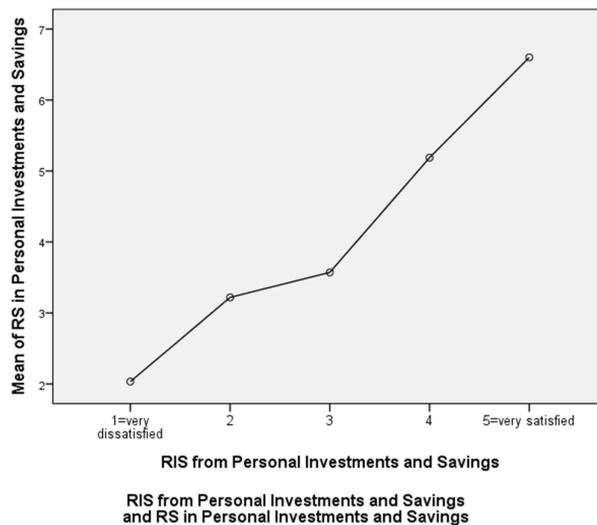
The effect size was .05, indicating a small effect. The mean retirement savings in personal accounts held by those who felt very dissatisfied ( $M = 2.17$ ) with the expected retirement income from their personal investments and savings was significantly lower than that of those who felt neutral ( $M = 3.49$ ), satisfied ( $M = 3.99$ ), or very satisfied ( $M = 4.09$ ). Those who felt dissatisfied ( $M = 2.90$ ) had significantly less in employer-sponsored savings than those who felt satisfied. The results indicate that women who saved more in employer-sponsored retirement accounts were more likely to feel satisfied with retirement income from personal investments and savings. Mean plots are shown in Figure 7.



*Figure 7.* Mean Plots: Retirement Income Satisfaction (RIS) from Personal Investments and Savings and Retirement Savings (RS) in Employer-Sponsored Retirement Accounts

***H<sub>3f</sub>: RIS from Personal Investments and Savings and RS in Personal Investments and Savings***

The effect size was .14, indicating a large effect. The average retirement savings in personal accounts held by those who felt very dissatisfied ( $M = 2.03$ ) with the retirement income expected from personal investments and savings was significantly less than that of all other four groups. Those who felt dissatisfied ( $M = 3.22$ ) or neutral ( $M = 3.57$ ) had significantly lower mean savings than those who felt satisfied ( $M = 5.19$ ) or very satisfied ( $M = 6.60$ ). The results indicate that women who saved more in personal investments and savings were more likely to feel satisfied with retirement income expected from personal investments and savings. Mean plots are shown in Figure 8.



*Figure 8.* Mean Plots: Retirement Income Satisfaction (RIS) from Personal Investments and Savings and Retirement Savings (RS) in Personal Investments and Savings

### ***Summary of Hypothesis 3***

Five out of the six ANOVA tests performed were statistically significant. Generally, the mean comparisons depicted in the mean plots and the significant differences seen in Table 13 between mean retirement savings and RIS levels from different retirement income sources provided evidence to support Hypothesis 3. As expected, higher mean savings were associated with higher RIS from the different sources of retirement income. The summary of results is shown in Table 14.

Table 14  
*Summary of Results for Hypothesis 3*

Variable	Test Result
H <sub>3a</sub> . RIS from Social Security and RS in Employer-Sponsored Retirement Accounts	$F(4, 590) = 1.921, p < .105$
H <sub>3b</sub> . RIS from Social Security and RS in Personal Investments and Savings	$F(4, 590) = 5.070, p < .01$
H <sub>3c</sub> . RIS from Employer-Sponsored Retirement Accounts and RS in Employer-Sponsored Retirement Accounts	$F(4, 590) = 29.623, p < .001$
H <sub>3d</sub> . RIS from Employer-Sponsored Retirement Accounts and RS in Personal Investments and Savings	$F(4, 590) = 9.071, p < .001$
H <sub>3e</sub> . RIS from Personal Investments and Savings and RS in Employer-Sponsored Retirement Accounts	$F(4, 590) = 7.502, p < .001$
H <sub>3f</sub> . RIS from Personal Investments and Savings and RS in Personal Investments and Savings	$F(4, 590) = 23.606, p < .001$

### **Summary**

In this chapter, the sample was described and the findings were reported. The empirical results of tests of the three hypotheses all provided some evidence in support of each hypothesis (Table 15).

Table 15  
*Tests of Hypotheses*

Hypotheses	Statistical Decision
<b>H<sub>1</sub>: The demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations have statistically significant relationships with retirement saving behaviors: (a) calculating needed retirement savings, (b) being a retirement saver, (c) starting saving for retirement age, and (d) being a regular retirement saver.</b>	
H <sub>1</sub> a: Calculate Needed Retirement Savings	Partially supported
H <sub>1</sub> b: Retirement Saver	Partially supported
H <sub>1</sub> c: Start Saving for Retirement Age (Among Retirement Savers)	Partially supported
H <sub>1</sub> d: Regular Retirement Saver (Among Retirement Savers)	Partially supported
<b>H<sub>2</sub>: The demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations, and retirement saving behaviors have statistically significant relationships with (a) retirement savings and (b) retirement income satisfaction.</b>	
H <sub>2</sub> a: Retirement Savings	
H <sub>2</sub> a (1): Retirement Savings in Employer-Provided Retirement Accounts	Partially supported
H <sub>2</sub> a (2): Retirement Savings in Personal Savings and Investments	Partially supported
H <sub>2</sub> b: Retirement Income Satisfaction	
H <sub>2</sub> b (1): Retirement Income Satisfaction from Social Security	Partially supported
H <sub>2</sub> b (2): Retirement Income Satisfaction from All Employer-Sponsored Sources and Plans	Partially supported
H <sub>2</sub> b (3): Retirement Income Satisfaction from Personal Savings and Investments	Partially supported
(continued)	

Hypotheses	Statistical Decision
<b>H<sub>3</sub>: There are statistically significant positive relationships between retirement savings and retirement income satisfaction.</b>	
H <sub>3a</sub> . RIS from Social Security and RS in Employer-Sponsored Retirement Accounts	Not supported
H <sub>3b</sub> . RIS from Social Security and RS in Personal Investments and Savings	Partially supported
H <sub>3c</sub> . RIS from Employer-Sponsored Retirement Accounts and RS in Employer-Sponsored Retirement Accounts	Partially supported
H <sub>3d</sub> . RIS from Employer-Sponsored Retirement Accounts and RS in Personal Investments and Savings	Partially supported
H <sub>3e</sub> . RIS from Personal Investments and Savings and RS in Employer-Sponsored Retirement Accounts	Partially supported
H <sub>3f</sub> . RIS from Personal Investments and Savings and RS in Personal Investments and Savings	Partially supported

## **CHAPTER 5**

### **SUMMARY, DISCUSSION, CONCLUSIONS, AND IMPLICATIONS**

This chapter provides a summary of the study, discussion of hypotheses tests, conclusions, implications, and recommendations for women and directions for future studies on this topic.

#### **Summary of the Study**

The purpose of this study was to examine what factors affect non-retired working-age (25 years and older) women's retirement saving behaviors, retirement savings, and retirement income satisfaction. To implement the study, a research framework was developed based on Deacon and Firebaugh's Family Resource Management Model. The research framework for this study consisted of three major sections: (a) input (demographics, saving motives, retirement saving involvement level, retirement information seeking, current financial assets and debts, and future expectations), (b) throughput (retirement saving behaviors such as calculating needed retirement savings, being a retirement saver, starting saving for retirement age, being a regular retirement saver), and (c) output (the amount of retirement savings and retirement income satisfaction level).

An online survey instrument was developed to obtain data for the study. Two pilot tests were conducted to confirm the validity and reliability of the instrument. Data for this study were collected between May 25, 2012 and May 30, 2012 with 591 valid responses, a 13% response rate from 4,414 invitations. Descriptive statistics (frequencies, percentages, means, and t-tests) were used to provide a profile of the participants. Direct logistic regression was used to examine the dichotomous dependent variables, standard multiple regression was used to assess the impact of a set of predictors on the continuous dependent

variables, and ANOVA was conducted to explore the relationships between continuous variables.

Typical respondents of the sample can be described as non-Hispanic White working women (either full-time or part-time), with an average age of 48, at least 3 years of college, good health, homeowner, personal annual income between \$45,000 and \$54,999, and household annual income between \$75,000 and \$84,999. Half of them were married and lived with one child in the same household.

Compared with the data from the U.S. Census Bureau and U.S. Bureau of Labor Statistics, women in the current study were younger and better educated, and a higher proportion were working. In the study, 95% of the women ages 25 years and older were between ages 25 to 64 years, with 37.6% in the ages 25 to 44 group and 57% in the ages 45 to 64 group. The 2010 U. S. Census shows that among the female population aged 25 years and older, 80% of women were between ages 25 to 64 years, with 40% in the ages 25 to 44 group and 40% in the ages 45 to 64 group (Howden & Meyer, 2011). While 68% of the women in the current study had a college or higher degree, only 40.5% of women in the U.S. population who are ages 25 years and older have a college or higher degree (U.S. Census Bureau, 2012). Among women ages 25 years and older, 86% in the study worked full-time or part-time, and 55% of them were working according to the U.S. Bureau of Labor Statistics (2012). However, the data from the U.S. Census Bureau and the U.S. Bureau of Labor Statistics include retired women so direct comparisons cannot be made.

Four findings of the current study (planned retirement age, calculating needed retirement savings, being a retirement saver, and retirement savings in personal investments and savings) are similar to those of the 2012 Retirement Confidence Survey although the 2012 RCS does not just focus on women. In terms of the planned retirement age, the

percentages were very close for each age category in the two studies. In the current study, 41% of the women had tried to calculate retirement savings needed to support a comfortable retirement life, and 44% of workers and/or their spouses who participated in the 2012 RCS have done the retirement needs calculation (EBRI, 2012a). Sixty-four percent of the participants in this study were retirement savers, while the 2012 RCS reports that 66% of workers say they and/or their spouses have saved for retirement (EBRI, 2012a). Regarding the retirement savings in personal investments and savings, 60% of women in both the current study and the 2012 RCS save none or less than \$25,000.

Women in this study expected to live longer (86 years) than the 81.4 years the U.S. Census Bureau (2011c) projects as the typical life expectancy for women in 2015. The top reason for saving in this study is retirement (37.6%), which is consistent with the findings of the 2010 SCF (Bricker et al., 2012) and Sallie Mae (2010).

The mean involvement level for saving for retirement (score 52) was slightly over the minimum standard for high involvement (score 50-70). However, the mean score for cognitive involvement (score 31 out of 35) was much higher than the mean affective level (score 21 out of 35) which showed that the women in the sample understood the importance of saving for retirement, but this did not mean that they were comfortable with saving for retirement on the affective aspect. These findings were similar to those in PwC's (2012) study: about half (47%) of American working adults are uncomfortable about selecting investments, and women (54%) are more uncomfortable making this kind of financial decision than men (41%).

Concerning Social Security, over two-thirds of the women in the sample did not expect to get the full amount today's retirees get, which is reflected in the lowest retirement income satisfaction score (2.39) among the three retirement income sources. Satisfaction was

measured on a five point Likert scale where 1 equaled “very dissatisfied” and 5 equaled “very satisfied.” However, the other two sources also showed below average satisfaction; 2.66 for employer-sponsored accounts and 2.61 for personal investments and savings. The results were lower but consistent with those of the 2007 Survey of Consumer Finances; the mean retirement income satisfaction was 2.52 for workers of both genders. The results of t-tests in this study reveal that even retirement savers who have more savings in retirement accounts, there is no difference in satisfaction with the three sources of retirement income. This means that regardless of the level of savings these women own, they all feel dissatisfied with the expected retirement income.

## **Discussion of Hypothesis Test Results**

### **Discussion of Hypothesis 1**

The first hypothesis proposed relationships between the input variables (demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations) and throughput variables (retirement saving behaviors: calculate needed retirement savings, retirement saver, start saving for retirement age, and regular retirement saver). Standard multiple regression and logistic regression were used to test Hypothesis 1. Table 16 provides a summary of significant predictors of saving behaviors.

#### ***Calculate Needed Retirement Savings***

Older women are more likely to calculate needed retirement savings because older women may be closer to the retirement stage and understand the importance of knowing how much they need to save for a comfortable retirement life and then, know how much more they need to save to catch up or how much longer they will need to work. Women with greater household income are more likely to calculate needed retirement savings because they have

more income to allocate and are more likely to plan for retirement. They may have more income because there is more than one earner in the household.

Women in this study who reported having a retirement saving motive, more cognitive involvement with saving for retirement, and using more information sources to learn about retirement planning are more likely to calculate retirement savings needs. While previous researchers have not reported on the influence of these variables together, others have recognized the importance of having the saving motive (e.g. Fisher & Anong, 2012). It makes sense that motive, involvement level, and information seeking affect the behavior. Those who have paid the Social Security tax and read the statement are more likely to calculate the amount needed in retirement. The statement estimates the amount the receiver will get when retired and reminds the receiver to think about whether this income can support their desired lifestyle in retirement. Social Security has been viewed by many consumers as the major source of income in retirement but future retirees face uncertainty that the system will support them well, if at all, so half of the women expressed dissatisfaction with the Social Security benefits they expect to receive during retirement. Only about one-third of the women (31.8%) reported they expect to get the full amount today's retirees get. It is a good thing that people increasingly recognize their individual responsibilities to save for retirement and recognize that they will have to rely more on their own retirement investments on employer provided pensions or government programs.

Those who plan to retire late are less likely to calculate needed retirement savings. The plan to retire late may reduce the apparent need to save or it may result from not having much savings and realizing that they cannot afford to retire. Other possibilities are that those women have less financial capability and do not understand the importance of calculating retirement saving needs or do not have income available to contribute to retirement saving.

Table 16

*Summary of the Significant Predictors on Saving Behaviors*

Dependent Variable	Significant Predictor
Calculate Needed Retirement Savings (n = 591)	age (+), household income (+), retirement saving motive (+), cognitive involvement (+), read Social Security statement (+), number of information sources (+), planned retirement age (-)
Retirement Saver (n = 591)	retirement saving motive (+), cognitive involvement (+), number of current assets (+), hold an adequate emergency fund (+)
Start Saving for Retirement Age (among savers, n = 377)	age (+), household size (+), paying off debt saving motive (+), number of current assets (-)
Regular Retirement Saver (among savers, n = 377)	age (-), full-time (+), vacation saving motive (-), read DB pension statement (+), planned retirement age (-)

*Note.* (+) meant positively related. (-) meant negatively related.

***Retirement Saver***

Women who have a retirement saving motive and hold an adequate emergency fund are more likely to be a retirement saver. It is logical that if they have the motive to save for later life, they are more likely to put a plan into action, and if they are more cautious they are more likely to save for retirement. If they have an emergency fund, emergencies are less likely to take precedence over saving for retirement.

Those who have higher cognitive involvement with saving for retirement and more types of current assets are more likely to be retirement savers. Because retirement planning requires rational decision-making, when people are more perceptively involved in saving for retirement, they may be more likely to take action. There is no surprise that those with more types of financial assets are more likely to have saved for retirement.

### ***Start Saving for Retirement Age***

Among the women retirement savers, being older, being in a bigger household, and having a pay off debt saving motive makes it more likely that they will start retirement saving late. Across the life cycle, people have to balance multiple goals. They may save for various reasons and money initially intended for one purpose may be used for other purposes, such as borrowing money from the 401k to pay for the first home's down payment and then borrowing again for children's college expenses. People may start over several times for saving for retirement.

Women who have a paying off debt saving motive start saving for retirement at older ages because they may choose to pay off the debt first and then save for later life. Those who start saving earlier can gain the benefits of time and compounding interest. Compounding doesn't assure consumers get more kinds of assets, but does give them more assets and they can then put the money into more kinds of assets.

### ***Regular Retirement Saver***

Saving is a habit and many Americans are very focused on having things now instead of waiting to have them in the future. Those who are older and plan to retire at later ages are less likely to be regular retirement savers. Not having adequate savings for retirement and therefore needing more working years to save is a consequence of not being a regular retirement saver.

Full-time working women are more likely to have a DB plan to which they must contribute on a regular set schedule. Thus, strategies that set up a regular pattern of putting money into retirement accounts are important.

While it may seem logical that those who have a vacation saving motive may develop a retirement saving goal after having success with their vacation goal, these findings indicate that those with a vacation motive are less likely to save for retirement. This may be a result of focusing on having things now and failing to develop the habit of saving for long term goals.

## **Discussion of Hypothesis 2**

The second hypothesis proposed relationships among input variables (demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations), throughput variables (retirement saving behaviors: calculate needed retirement savings, retirement saver, start saving for retirement age, and regular retirement saver), and output variables (retirement savings and retirement income satisfaction). The dependent variables in Hypothesis 2 were all continuous, so standard multiple regressions were applied. Table 17 contains the summary of significant predictors of retirement savings and retirement income satisfaction.

### ***Retirement Savings***

Similar to previous studies, age (DeVaney et al., 1997; DeVaney & Zhang, 2001), education (Rowland & Lyons, 1996; DeVaney & Chiremba, 2005), and income (DeVaney et al., 1997) had a positive relationship with retirement savings in employer-sponsored accounts and personal investments and savings. However, personal income had an impact on the amount held in employer-sponsored accounts, and household income had an impact on the amount held in personal investments and savings. On the contrary, current debts had a negative relationship with retirement savings in both of these two accounts, and the results are the same as Cavanagh and Sharpe (2002). DeVaney and Chiremba (2005) found that retirement savings were larger for those who saved regularly, and this is consistent with the retirement savings in employer-sponsored accounts in the current study. Yet, being a regular

retirement saver had a negative relationship with retirement savings in personal investments and savings. Other researchers have not reported this relationship. It could be that most regular retirement savers do so through employer-sponsored accounts rather than through their own personal investments and savings. It is possible that the ability to set up an automatic mechanism for putting money in retirement accounts is critical to actually saving. Money is more likely to be saved when the saver does not actually get the money in an easily spent form and then diverted from the retirement goal. This may point to a need to better educate women about estimating their needs in retirement and helping them identify more ways to prepare for retirement beyond those available through employment.

Table 17

*Summary of the Significant Predicators on Retirement Savings and Retirement Income Satisfaction (N=591)*

Dependent Variable	Significant Predictor
RS in Employer-Sponsored Retirement Accounts	age (+), personal income (+), read DB pension statement (+), read federal employee benefits statement (-), number of current assets (+), number of current debts (-), planned retirement age (-), regular retirement saver (+)
RS in Personal Investments and Savings	age (+), education (+), household income (+), number of current assets (+), hold an adequate emergency fund (+), number of current debts (-), retirement saver (+), start saving for retirement age (-), regular retirement saver (-)
RIS from Social Security	cognitive involvement (-), expected needed retirement income: less than current earning (+), Social Security expectation: full (+)
RIS from Employer-Sponsored Retirement Accounts	age (-), personal income (+), general savings saving motivate (+), read DB pension statement (+), number of expected assets (+), regular retirement saver (+)
RIS from Personal Investments and Savings	age (-), household size (-), general savings saving motivate (+), home improvement or furnishings saving motivate (+), retirement saving motivate (+), affective involvement (+), cognitive involvement (-), number of current assets (+), number of expected assets (+)

*Note.* (+) meant positively related. (-) meant negatively related.

***RS: Employer-Sponsored Retirement Plans.*** Those who are regular retirement savers are more likely to save more in employer-sponsored accounts such as 401k, 403b, and 457. This may be because the contributions are deducted from payroll automatically every month. Older people were more likely to have more savings in employer-sponsored plans. They have probably worked more years and thus had more opportunities to save. Also, there are income tax advantages to encourage those who are age 50 and over to contribute more to catch up for not contributing as much when they were younger. Most employer-sponsored plans are contributed to by employees and/or employers based on the percentage of the employee's income, so those who earn more are more likely to have a greater amount saved in these kinds of accounts.

Those who have read an employer-provided DB pension statement own a DB pension which offers more foreseeable and stable retirement income and employees do not generally have to actively manage these funds or suffer the investment risk. These conditions may even encourage people to save more for retirement because it may seem to be a realistic goal. However, women who have read a federal employee benefits statement are more likely to have less savings in employer-sponsored accounts. This is not intuitively logical. It is possible that the federal retirement benefits are perceived to be sufficient and additional personal saving is not required. Another possibility is that earnings of those in jobs that provide federal benefits may be lower so these workers do not feel that they can afford to save personally for retirement while meeting current needs.

Women with more kinds of financial assets and fewer kinds of debts are more likely to save more in employer-provided accounts. There may be a relationship between debt and ability to put money aside for retirement.

Those who have an older planned retirement age are more likely to have less savings in employer-sponsored accounts, possibly because they perceive the inadequacy of their retirement savings and know they need to work for more years to support their later life. It is also possible that they do not plan to retire.

***RS: Personal Investments and Savings.*** Similarly to savings in an employer-sponsored pension, older women with more kinds of financial assets and fewer kinds of debts also save more in personal investments and savings. Those who have greater household income may also save more because these women may benefit from sharing their husband or partner's investments and savings. The 2012 RCS has similar findings; as household income increased, the amounts workers saved for retirement increased (EBRI, 2012a).

Better educated women may have more knowledge about preparing for emergencies and retirement planning so they know the importance of holding an adequate emergency fund and how to invest to raise their savings and investments. Having more education can also result in earning more and thus having more opportunity to save. Being a retirement saver in the current study excludes the money saved in employer provided DB plans; thus, the savings in personal investments and savings is justly higher for the savers. When women start saving for retirement earlier, they use the time value of money to have greater amounts in personal investments and savings. However, regular retirement savers are less likely to save more in personal investments and savings. This may be because they hope they save enough in employer-sponsored DC accounts or maybe they are more likely to deposit manually up to the maximum annual limit to retirement plans.

### ***Retirement Income Satisfaction***

Similar to previous studies, age (Malroux & Xiao, 1995; Hus & Anong, 2010; Hsu & Leech, 2012) and life expectancy (Hsu & Anong, 2010) had a negative relationship with

retirement income satisfaction although these studies did not only target women. Income (Hsu & Anong, 2010), planned retirement age (EBRI, 2012a) and saving regularly (Hsu & Anong, 2010) had a positive relationship with retirement income satisfaction. In the current study, women were asked about their satisfaction level.

***RIS: Social Security.*** Those women with more cognitive involvement in saving for retirement may be more likely to suspect that Social Security will not be a significant source of retirement income. Women who expect to spend less than current earning are more likely to feel satisfied with Social Security income, which is good since Social Security is only designed to offer some basic living expenses for retirees. It is reasonable that those who expect that they will get the full amount today's retirees get from Social Security are more likely to be satisfied with Social Security income.

***RIS: Employer-Sponsored Retirement Accounts.*** Not surprisingly, those who have read a DB pension statement are more likely to have a higher satisfaction level with the expected income from employer-sponsored plans because they have a DB plan which can offer stable retirement income with no investment risk. Older people are less likely to feel satisfied with retirement income from these plans. Maybe their DC plans have suffered from the investment loss in the economic recession from 2007 or their companies made them retire earlier than they planned so they receive less than expected income or their retirement income is not increasing with the cost of living as they expected.

Those women who have a general savings saving motive are more likely to feel satisfied with the income from employer-sponsored plans. Maybe the fact that they have multiple assets that could be used in retirement makes them less dependent upon the employer-sponsored plan and leads to higher satisfaction. Once they retire, besides the savings in employer-sponsored accounts, they also have this savings to live on. The more

financial assets a worker expects, the more satisfaction they have with the income from employer-sponsored plans. If people are more optimistic about future assets, they tend to be more satisfied with expected retirement incomes. Being a regular saver also increases the satisfaction level with retirement income from these plans. Most of the retirement plans sponsored by employers are deducted from payroll which requires workers to be regular savers if they participate.

***RIS: Personal Investments and Savings.*** Older women are less likely to feel satisfied with retirement income from personal investments and savings. This may be because they are close to retirement and realize their savings are insufficient for later life. They may also have had fewer years in the workforce, more gaps in pay, and lower pay and they may know other women who have struggled financially in retirement.

Younger women still have decades to accumulate savings for retirement. Those who have more family members are less likely to feel satisfied with the savings in their personal investments and savings because more people cause more demands and decrease the resources every family member can get. Needing to physically support those additional family members may mean that the woman does not have the opportunity to work outside the home or otherwise earn money to personally invest. If these women do earn money, it may be needed for other things to support family members and not be available for the women's retirement saving.

Those women who have a general savings saving motive, a home improvement or furnishings saving motive, and a retirement saving motive are more likely to feel satisfied with income from personal investments and savings. As previously discussed this may be because they have developed the saving habit which can be used when needed to accumulate savings. Those women who have a home improvement or furnishings saving motive are more

likely to feel satisfied with income from personal investments and savings. According to Maslow's (1943) hierarchy of human needs, lower needs must be satisfied before higher level needs can be addressed. Housing supports human life in all five levels, and home improvement or furnishings are addressed after basic living needs. Thus, those who have this saving motive may have developed more financial capability as they took care of their basic needs. It makes sense that those women who see retirement as a saving motive are more likely to save and feel satisfied.

Women who are more involved in saving for retirement from the affective aspect are more likely to have higher retirement income satisfaction from personal investments and savings. Maybe this is because they need to make more financial decisions such as which financial products to purchase and when to buy or sell the shares. When women feel saving for retirement is interesting, exciting, appealing, fascinating, and involving, they are more engaged with retirement planning and feel satisfied with their investments and savings.

On the contrary, women who are more involved in saving for retirement from the cognitive aspect are less likely to have higher retirement income satisfaction from personal investments and savings. When people rationally know how important saving for retirement is, sometimes it becomes a pressure and decreases the satisfaction level. Or maybe they can really perceive the inadequacy and understand the gap between what they have and what they need. Recent stock market losses have reduced the value of many retirement accounts and those who are more aware of the full impact of those losses may have greater concern about how they will have the resources needed in retirement.

Both the total number of financial asset ownerships and expected ownerships have a positive relationship with satisfaction with personal investments and savings as retirement income. It is logical that the more assets a person has and the more assets they expect, the

more satisfied they feel. Also, when they have more different financial resources, they may be less likely to experience difficulties if one asset fails to provide expected resources.

### **Discussion of Hypothesis 3**

Hypothesis 3 proposed relationships between three retirement income satisfaction groups and two retirement savings groups. These were tested using one-way between-groups ANOVA with post-hoc tests. With the exception of the relationship between *RIS from Social Security* and *RS in Employer-Sponsored Retirement Accounts*, all relationships were significantly different. The effect size between *RIS from Employer-Sponsored Retirement Accounts* and *RS in Employer-Sponsored Retirement Accounts*, and between *RIS from Personal Investments and Savings* and *RS in Personal Investments and Savings* were large, indicating strong strength of the mean differences in retirement savings between groups. In terms of the *RIS from Social Security* and *RS in Personal Investments and Savings*, those who felt neutral in *RIS from Social Security* had no significant difference in average retirement saving amounts in personal investments and savings from the other four groups.

Generally, retirement income satisfaction and retirement savings were positively related. Higher levels of satisfaction with expected retirement income from all sources were associated with higher average amounts saved for retirement. There were three exceptions. However, these three relationships were not statistically significant.

(1) *RIS from Social Security* and *RS in Employer-Sponsored Retirement Accounts*

The average retirement savings of those who felt neutral was more than those who felt satisfied.

(2) *RIS from Social Security* and *RS in Personal Investments and Savings*

The mean retirement savings of those who felt very dissatisfied was more than those who felt dissatisfied.

(3) *RIS from Employer-Sponsored Retirement Accounts and RS in Personal Investments and Savings*

The mean retirement savings of those who felt satisfied was greater than the mean savings of those who felt very satisfied.

### **Conclusions**

Deacon and Firebaugh's Family Resource Management Model was supported when applied to women's retirement saving in this study. The input variables affected the throughput variables, and the output variables were influenced by the input and throughput variables.

Half of the women expressed dissatisfaction with the Social Security benefits they expect to receive during retirement. However, around 60% of the women save less than \$25,000 or none in employer-provided retirement accounts or in personal investments and savings. There is an un-addressed gap between the cognition of the need to save for retirement and real saving action.

Age is definitely related to women's saving for retirement, and it is the strongest predictor in this study. Older women are more likely to calculate needed retirement savings although they may start saving for retirement at a later age. Older women have more retirement savings both in employer- provided accounts and personal accounts, but they are less satisfied with the income they expect from those accounts. These women are near retirement and do not have decades to accumulate savings for later life. Contrarily, the younger women are more optimistic and more satisfied with the retirement income they expect from these two accounts although they have less saved now. Also the younger women are less likely to calculate savings needs for retirement and possibly have not encountered life

events which may negatively influence retirement saving accumulation or leakage by causing withdrawing or borrowing from retirement savings before retirement.

Income plays an important role as women save for retirement. Personal income positively affects retirement savings and retirement income satisfaction in employer-sponsored retirement plans. Household income positively affects women's retirement saving behaviors of calculating needed retirement savings and accumulation in personal investments and savings.

The more types of information-seeking activities women engage in about retirement planning, the higher possibility that they will estimate retirement savings needs which is an essential first step in retirement planning.

Women who start saving for retirement earlier are more likely to have more assets and feel more satisfied with retirement income from personal investments and savings which play a more and more important role in supporting retirement. Also, those women who have more types of current assets are more likely to be retirement savers. Debts negatively affect retirement savings in both employer-sponsored and personal accounts. Satisfaction level is subjective; thus, those who expect to own more types of assets in retirement have a higher satisfaction level with the income in both employer-sponsored retirement accounts and personal investments and savings.

Those women who are more cognitively involved with saving for retirement are more likely to calculate needed retirement savings and to be retirement savers. Yet, they have lower satisfaction levels with retirement income from Social Security and from personal investments and savings. Those who have read a DB pension statement are three times more likely to be regular retirement savers, to save more in their employer-sponsored retirement accounts, and to have higher satisfaction levels with those accounts. Those women who have

a retirement saving motive are two times more likely to calculate needed retirement savings and five times more likely to be retirement savers. That means the retirement behaviors are influenced by the retirement motive.

A regular retirement saver is more likely to save more in employer-provided retirement accounts and feel more satisfied with that retirement income. However, regular retirement savers have less savings in personal investments and savings. Maybe they believe their work investments will be sufficient or they may make direct contribution to meet the annual limits of retirement plans. Although the women savers have much greater retirement savings than non-savers, there is no difference in the retirement income satisfaction between savers and non-savers.

Generally, greater satisfaction with expected retirement income is associated with higher accumulation in retirement savings, and the female savers have much more retirement savings than non-savers. However, there is no difference in the retirement income satisfaction of savers and non-savers.

### **Implications**

The results of this study have implications for financial educators, counselors and advisors, researchers, employers, and policy makers.

#### **Implications for Financial Educators**

The cognitive involvement level (important, relevant, valuable, means a lot to me, and needed) of saving for retirement affects women's retirement saving behaviors and retirement income satisfaction. Financial educators can share these findings with women they work with so the women better understand the importance of personal saving for retirement in more relevant ways and motivate them to take action to save. If educators could design a resource

to easily show consumers how much needs to be saved for retirement and provide suggested amounts to save at different life stages, it would be valuable.

### **Implications for Financial Counselors and Advisors**

From the findings of this study, financial counselors and advisors can know that working-age women with fewer current financial assets, fewer expected financial assets, and more kinds of debts are less likely to have positive retirement saving behaviors, less retirement savings, and lower retirement income satisfaction levels. Financial counselors and advisors need to help these women learn how to pay off the debts and invest in diverse assets at the same time. A quality retirement planning guide should cover portfolio diversity and risk assessments. In the life course there are many incidents which may entice or force women to withdraw retirement savings before retirement for purposes such as buying a home, the arrival of a child, paying for child's college, and so forth. Financial counselors and advisors have to provide alternative options to help them avoid this. If the cash must be taken out of retirement plans, consumers need enough time will power and time to replenish the accounts.

### **Implications for Financial Researchers**

The Family Resource Management Model was used to explore women's retirement saving behaviors, retirement savings, and retirement income satisfaction by applying the process of input, throughput, and output. When developing similar studies on retirement saving, the research framework in this study can be useful. The survey instrument used in this study was developed for the non-retired working-age female population. When developing similar studies on retirement saving, the instrument can be helpful.

Clearly additional research is needed on this important topic. Little has been done, and as the proportion of older women in the population continues to grow, their needs are going to be a major societal challenge. There are many signs that retirement will be different for future

retirees than it is for current retirees and financial issues loom large. Researchers need to provide as much information as possible to aid individuals, employers, financial educators, counselors and advisors, and policy makers.

### **Implications for Employers**

Saving for retirement through payroll deduction helps consumers regularly save for retirement, develop a retirement saving habit, and lead to having more retirement saving. Information on retirement saving needs, goals, and strategies that is provided by employers often leads to positive actions by employees. Employers should understand the importance of the retirement plans and education they provide to employees and seek to make these available to their employees.

Although delayed retirement is a worldwide trend, some employees, who reach retirement age but need to continue to work, are at their highest earning level and this increases employers' cost for salaries and fringe benefits (Amsel, 1998). Thus, providing workplace financial education and encouraging employees to save an adequate amount for a comfortable retirement will not only help employees but also employers.

### **Implications for Policy Makers**

Those women who have a retirement saving motive are more likely to calculate their needed retirement savings and to be retirement savers. Among the retirement savers, women who start saving for retirement at an earlier age are more likely to have more assets, and those who have more assets have greater retirement savings and a higher retirement income satisfaction level. Since there is a positive cycle from having a retirement saving motive, that results in retirement saving behaviors, and retirement savings and retirement income satisfaction, policy makers need to promote the importance of saving for retirement and

provide incentives for all citizens, but especially non-savers, to start saving early and regularly for later life.

Because retirement saving is a lifelong goal and it takes years to accumulate the required savings, policy makers can consider ways to incentivize consumers to save by implementing strategies such as allowing younger workers to use the retirement plans' catch up policy so these investments have longer to grow, and increasing the maximum of allowed tax advantaged retirement investments. At the same time, policy makers can consider whether current penalties for spending retirement savings prior to retirement are sufficient to motivate consumers to keep those resources invested for retirement as they change employers and are otherwise tempted to use them now instead of allowing them to increase in value for future use.

Social Security and Medicare continue to be important programs for retirees. As policy makers address national and state budgetary challenges, they need to remember this. Because women are more likely to earn less than men, to have employment gaps to take care of family members, and to live longer than men, these programs are especially important to women. If they are not going to be programs future retirees can depend upon, new strategies to meet these needs must be designed and fully communicated to citizens. Although policy makers never intended for anyone to depend upon these programs as the primary sources of retirement support, citizens have never understood that fact. Respondents in the current study who were optimistic that they would receive the same benefits that today's retirees receive were had higher retirement income satisfaction. Policy makers must recognize this relationship as they make budget decisions or they may have to deal with citizens who find themselves unable to adequately meet their financial responsibilities in retirement or even able to retire.

Policy makers need to encourage the provision of financial education in every way possible from the beginning of consumers' working years so that consumers fully understand the growing importance of their personal saving for retirement across their entire work lifespans. Because Americans are used to focusing on the present time, having things now and to using credit to do so, the society is less focused on saving for anything, much less saving for retirement, which may seem to be very far away. Also, today's workers observe that most of today's retirees have sufficient resources to meet their retirement needs and do not think about the differences in the retirement plans today's retirees have compared with those they will have when they retire (if they are able to afford to retire). If the government is to avoid having too many citizens in need of support, it must act quickly to get all consumers to make retirement saving a focus across the lifespan.

By partnering with financial researchers, educators, counselors and advisors, employers, and workers, policy makers may develop effective new tools to position all citizens to be self-sufficient and financially secure in retirement.

### **Recommendations**

Based on the findings of this study, the following suggestions are recommended for women and future research.

#### **Recommendations for Women**

This study provided insight into factors affecting women's retirement saving. The findings are valuable for women who are saving or not saving for their later life, and who are in every position between those habits. If they understood these findings, recent changes in retirement plans, and the potential impact of these changes on their retirement income, more women might decide to start saving or to save more.

The items included in the survey questionnaire address important retirement saving concepts. The questions it contains can be a helpful resource for women to use to guide their thinking about their retirement planning, and considering the questions and the results of this study may help motivate women to calculate realistic estimates of their financial needs for retirement and to take actions to assure they are prepared.

### **Recommendations for Future Research**

1. This was the first time the Personal Involvement Inventory was applied to a personal financial topic. The 10-item PII obtained good internal reliability, with a Cronbach alpha coefficient of 0.86. Future study could examine the ten bipolar word pairs to possibly find better fits for personal financial behaviors.
2. Age was a powerful predictor in this study. Future studies could compare different age groups or generations to examine the differences in retirement saving, particularly starting age and anticipated life expectancy which affect saving action and accumulation.
3. Factors that affect consumers' current and expected financial assets and information sources used could be further investigated.
4. Consumers use various information sources to learn about retirement planning. The relationships among the types of information sources used, retirement saving behaviors, retirement savings and retirement income satisfaction can be further explored to provide consumers the reliable information sources which can really increase retirement savings and satisfaction levels.
5. Retirement saving habits, i.e. save regularly, save irregularly, and do not save, could be compared for women of different ages, in different personal and professional situations, etc.

6. The current study targeted women's retirement saving. Future studies could include gender comparisons.
7. The characteristics of women in each retirement income satisfaction level can be further explored. The results can help consumers relate to themselves, and help financial educators, counselors and advisors better understand their clients, ultimately resulting in higher retirement income satisfaction.
8. The sample for this study was obtained from an appeal to consumers to voluntarily participate in an online survey and was found to have higher education levels than the general population. The same research could be replicated with a more representative sample with less education, for example.
9. It could also be useful to conduct similar studies with targeted samples from populations that are likely to have particular needs or face specific situations during their future retirement years.

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**APPENDIX A:**  
**WOMEN'S RETIREMENT INCOME SATISFACTION**  
**AND SAVING BEHAVIORS SURVEY**

## **Welcome!**

Thank you for participating in this Women's Retirement Income Satisfaction and Savings Behavior survey. The results will be used to help you and other women prepare financially for retirement with enough savings for a satisfactory income in retirement.

## **Information and Consent**

When women are working for pay, they are more likely to earn less, work part-time, and work fewer years than men which results in less retirement savings. When women are in retirement, they are more likely to outlive their husband, live alone, and have more risk of chronic health issues which results in needing more resources. The purpose of this research is to explore how women prepare financially for retirement and their satisfaction with retirement savings.

Your decision to participate in this research is voluntary. The survey is anonymous. Your answers will never be connected with your name. There are no risks in participating in this research beyond those experienced in everyday life. It will take 10-15 minutes of your time to complete the questionnaire.

Your response is important. We hope that you enjoy the opportunity to voice your thoughts and opinions about your satisfaction with your retirement income. By continuing this survey and submitting it, it means you have read this form and are consenting to answer the survey under the conditions described above.

Chungwen Hsu  
Ph.D. Candidate in Consumer Studies  
Apparel, Housing, and Resource Management  
Virginia Tech  
chungwen@vt.edu

Dr. Irene Leech  
Associate Professor of Consumer Studies and Ph.D. Advisor  
Apparel, Housing, and Resource Management  
Virginia Tech

**Please begin answering questions on the next page.**

**Section 1: As you answer, please think about what each question means in relation to your particular situation. The only right answer is the one that is right for you.**

1. Have you saved any money for retirement?

(Please don't include the Social Security tax or employer provided defined benefit plans.)

- Yes
- No (**Skip to Question 4**)

2. At what age did you first start saving for retirement?

- Before age 25
- Age 25-29
- Age 30-34
- Age 35-39
- Age 40-44
- Age 45-49
- Age 50-54
- Age 55-59
- Age 60-64
- Age 65 or older

3. Which best describes all the way(s) you contribute to saving funds for retirement?

(Check all that apply)

	From my income	From my spouse/ partner's income
Automatically deposit, on a regular set schedule	<input type="checkbox"/>	<input type="checkbox"/>
Make a deposit myself, on a regular set schedule	<input type="checkbox"/>	<input type="checkbox"/>
Make a deposit myself, as the budget allows	<input type="checkbox"/>	<input type="checkbox"/>

**Before answering Question 4, please read the definitions of terms.**

**Traditional employer provided defined benefit pension** is the retirement plan which your employer provides for you and you don't have to put any money in it. You must be vested to get any benefits if you leave the employer by retirement.

**Employer provided defined benefit pension to which I also contribute** is the retirement plan which your employer provided for you and you also put money in it. You may be able to take your contributions and invest them differently if you leave the employer.

**Employer-sponsored defined contribution retirement plan** is that your employer provides or sponsors. You put money into the account(s) which is portable once you leave the employer. 401ks, 403bs, 457s, the Thrift Savings Plans, deferred compensation, and stock are ways you can make contributions.

4. Which of the following financial assets do you have?

a. Employer Provided Retirement Benefits

	Yes	No
Traditional employer provided defined benefit pension	<input type="radio"/>	<input type="radio"/>
Employer provided defined benefit pension to which I also contribute	<input type="radio"/>	<input type="radio"/>
Employer-sponsored defined contribution retirement plan	<input type="radio"/>	<input type="radio"/>

b. Personal Investments and Savings

	Yes	No
Personal IRA (Individual Retirement Account) or Roth IRA	<input type="radio"/>	<input type="radio"/>
Personal investment - mutual funds	<input type="radio"/>	<input type="radio"/>
Personal investment - individual stocks and/or bonds	<input type="radio"/>	<input type="radio"/>
Personal savings - certificate of deposit, savings accounts, etc.	<input type="radio"/>	<input type="radio"/>
Annuities	<input type="radio"/>	<input type="radio"/>
Life insurance with cash value	<input type="radio"/>	<input type="radio"/>

c. Real Estate

	Yes	No
My home	<input type="radio"/>	<input type="radio"/>
Other real estate	<input type="radio"/>	<input type="radio"/>

5. Approximately, what is the total amount of money in your employer-sponsored retirement accounts at this time? (Exclude your Social Security and employer provided defined benefit programs)

- None
- Less than \$ 25,000
- \$ 25,000 to \$ 49,999
- \$ 50,000 to \$ 74,999
- \$ 75,000 to \$ 99,999
- \$ 100,000 to \$ 124,999
- \$ 125,000 to \$ 149,999
- \$ 150,000 to \$ 174,999
- \$ 175,000 to \$ 199,999
- \$ 200,000 to \$ 224,999
- \$ 225,000 to \$ 249,999
- \$ 250,000 or more

6. Approximately, what is the total amount of money you have saved in your personal investments and savings for retirement at this time? (e.g., IRAs, mutual funds, stocks, bonds, CDs, annuities, cash value life insurance)

- None
- Less than \$ 25,000
- \$ 25,000 to \$ 49,999
- \$ 50,000 to \$ 74,999
- \$75,000 to \$ 99,999
- \$ 100,000 to \$ 124,999
- \$ 125,000 to \$ 149,999
- \$ 150,000 to \$ 174,999
- \$ 175,000 to \$ 199,999
- \$ 200,000 to \$ 224,999
- \$ 225,000 to \$ 249,999
- \$ 250,000 or more

7. Do you currently have an emergency fund of at least 3-6 month's take home income?

- Yes
- I have some but not that much
- No

8. Which of the following loans or debts do you have? (Check all that apply)

- Mortgage
- Home equity loan
- Auto loan
- Credit card debt
- Education loan
- Personal loan
- Payday loan
- Car title loan
- None
- Other loan, please specify\_\_\_\_\_

9. How many years are remaining before your mortgage is paid off?

Please report only whole numbers. (For example, if you have 20 months left to pay off the home mortgage, please key in 2 years.) **(Only show to those who have mortgage on**

**Question 9)** \_\_\_\_\_

10. Which of the following sources of money do you expect to depend on in retirement?

a. Employer Provided Retirement Benefits

	Yes	No	Don't know
Traditional employer provided defined benefit pension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer provided defined benefit pension to which I also contribute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer-sponsored defined contribution retirement plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

b. Personal Investments and Savings

	Yes	No	Don't know
Personal IRA (Individual Retirement Account) or Roth IRA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal investment - mutual funds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal investment - individual stocks and/or bonds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal savings - certificate of deposit, savings accounts, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annuities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Life insurance with cash value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

c. Real Estate

	Yes	No	Don't know
Use the equity in my home for a reverse mortgage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sell my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rent from real estate or other property	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sell my real estate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

d. Social Security

	Yes	No	Don't know
Social Security from my work record	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Security from my husband/ex- husband's record	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

e. Job and Family Related Sources

	Yes	No	Don't know
Part time job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support from husband or ex-husband's pension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support from other family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inheritance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. How much income do you think you will need every year in retirement?

- Less than I am earning now
- As much as I am earning now
- More than I am earning now

12. Concerning Social Security income and Medicare, in retirement, do you expect:

Social Security

- To get the full amount today's retirees get
- To get some amount, but not as much as today's retirees get
- Will not get anything
- Don't know

Medicare

- To get the full amount today's retirees get
- To get some amount, but not as much as today's retirees get
- Will not get anything
- Don't know

13. Have you ever read anything that tells you how much retirement income you can expect from?

	Yes	No	Doesn't apply
Social Security statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer provided defined benefit pension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Federal employee benefits statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Have you tried to calculate, or had a financial advisor calculate for you, how much money you need to save for a comfortable retirement?

- Yes
- No

15. How satisfied are you with the following retirement incomes you are receiving or expect to receive during retirement?

	Very dissatisfied				Very satisfied
a. From Social Security	<input type="radio"/>				
b. From all employer-sponsored sources and plans (job pensions, 401k, etc.)	<input type="radio"/>				
c. From all personal savings and investments that you expect to have for use in retirement	<input type="radio"/>				

16. Which of the following sources of information do you use to learn about retirement planning? (Check all that apply)

- The internet
- Television
- Newspapers
- Radio
- Magazines
- Books
- A course (either for credit or non-credit)
- Discussions with friends and/or relatives
- Information from my financial advisor(s)
- Training sessions provided by my employer

- Seminars led by financial professionals
- None
- Other, please specify\_\_\_\_\_

17. Thinking about money you are currently saving for any purpose...

What are you saving for the most and the second most right now?

The most

The second most

- |  |  |
|--|--|
| <input type="radio"/> Retirement                               | <input type="radio"/> Retirement                               |
| <input type="radio"/> College for a family member(s) or myself | <input type="radio"/> College for a family member(s) or myself |
| <input type="radio"/> House or home                            | <input type="radio"/> House or home                            |
| <input type="radio"/> Home improvement or furnishings          | <input type="radio"/> Home improvement or furnishings          |
| <input type="radio"/> Emergencies or rainy day                 | <input type="radio"/> Emergencies or rainy day                 |
| <input type="radio"/> General savings                          | <input type="radio"/> General savings                          |
| <input type="radio"/> Automobile                               | <input type="radio"/> Automobile                               |
| <input type="radio"/> Vacation                                 | <input type="radio"/> Vacation                                 |
| <input type="radio"/> Paying off debt                          | <input type="radio"/> Paying off debt                          |
| <input type="radio"/> None/not saving                          | <input type="radio"/> None/not saving                          |
| <input type="radio"/> Other                                    | <input type="radio"/> Other                                    |

**Section 2: In this section, questions 1 to 10, we ask questions which make use of rating scales with seven choices; click in the place that best describes your opinion.**

**In making your ratings, please think about what that question means in relation to your particular situation. The only right answer is the one that is right for you.**

18. To me, **saving for retirement** is:

- |               |   |                   |
|---------------|---|-------------------|
| Important     | <input type="radio"/> | unimportant       |
| Boring        | <input type="radio"/> | interesting       |
| Relevant      | <input type="radio"/> | irrelevant        |
| Exciting      | <input type="radio"/> | unexciting        |
| means nothing | <input type="radio"/> | means a lot to me |
| Appealing     | <input type="radio"/> | unappealing       |
| Fascinating   | <input type="radio"/> | mundane           |
| Worthless     | <input type="radio"/> | valuable          |
| Involving     | <input type="radio"/> | uninvolving       |
| not needed    | <input type="radio"/> | needed            |

**Section 3: Questions in this section pertain to personal information. Again, we remind you that this questionnaire is confidential. Neither your name nor any other identifying information will be revealed in reporting the findings.**

19. What is your present marital status?

- Never married
- Co-habiting
- Married
- Separated
- Divorced
- Widowed

20. Who lives with you in the same house? (Please key in the number for each category. If no other people live with you, please put 0 (zero) in each category.)

Husband	_____
Partner	_____
Children aged under 5 years of age	_____
Children aged 5 to 13	_____
Children aged 14 to 18	_____
Children aged 19 to 24	_____
Children aged 25 years and over	_____
Parent	_____
Others	_____

21. What is the year of your birth? (Please key in 4 digits)

\_\_\_\_\_

22. Thinking about all your current work for pay, do you consider yourself to be ...

- Working full-time (usually work 35 hours or more per week)
- Working part-time (usually work less than 35 hours per week)
- Do not work for pay and not seeking employment
- Seeking employment

23. How many total years have you worked for pay since age 16?

(Please round to a whole number. For example, if you have worked 6 years and 3 months, please key in 7 years.)

\_\_\_\_\_

24. Would you say your health is

- Poor
- Fair
- Good
- Excellent

25. At what age do you plan to retire? (Please round to a whole number.)

\_\_\_\_\_

26. At what age do you expect to live? (Please round to a whole number.)

\_\_\_\_\_

27. Which of the following categories best describes your annual personal income before taxes?

- Under \$ 25,000
- \$ 25,000 to \$ 34,999
- \$ 35,000 to \$ 44,999
- \$ 45,000 to \$ 54,999
- \$ 55,000 to \$ 64,999
- \$ 65,000 to \$ 74,999
- \$ 75,000 to \$ 84,999
- \$ 85,000 to \$ 94,999
- \$ 95,000 to \$ 104,999
- \$ 105,000 to \$ 114,999
- \$ 115,000 to \$ 124,999
- \$ 125,000 to \$ 134,999
- \$ 135,000 to \$ 144,999

- Over \$ 145,000

28. Which of the following categories best describes your total annual household income before taxes?

- Under \$ 25,000
- \$ 25,000 to \$ 34,999
- \$ 35,000 to \$ 44,999
- \$ 45,000 to \$ 54,999
- \$ 55,000 to \$ 64,999
- \$ 65,000 to \$ 74,999
- \$ 75,000 to \$ 84,999
- \$ 85,000 to \$ 94,999
- \$ 95,000 to \$ 104,999
- \$ 105,000 to \$ 114,999
- \$ 115,000 to \$ 124,999
- \$ 125,000 to \$ 134,999
- \$ 135,000 to \$ 144,999
- \$ 145,000 to \$ 154,999
- \$ 155,000 to \$ 164,999
- \$ 165,000 to \$ 174,999
- \$ 175,000 to \$ 184,999
- \$ 185,000 to \$ 194,999
- \$ 195,000 to \$ 204,999
- \$ 205,000 to \$ 214,999
- \$ 215,000 to \$ 224,999
- \$ 225,000 to \$ 234,999
- \$ 235,000 to \$ 244,999
- Over \$ 245,000

29. What is your race/ethnicity?

- Non-Hispanic White
- Non-Hispanic Black
- Hispanic or Latino
- Asian
- Other, please specify \_\_\_\_\_

30. Which is the highest level of education that you have completed?

- No grades completed
- 1st grade
- 2nd grade
- 3rd grade
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- 9th grade
- 10th grade
- 11th grade
- High school diploma or GED
- 1 year of college or technical school
- 2 years of college or technical school
- 3 years of college
- College degree
- Master's degree
- Doctoral degree (including medical and law)

31. Please write any additional comments you have about your expected retirement income and/or saving for retirement.

**Thank you for participating in the survey!**

**APPENDIX B:**  
**RESEARCH QUESTIONS AND SURVEY QUESTION MATRIX**

Table B1

*Research Questions and Survey Question Matrix*

Hypothesis	Variable	Survey Question	Analysis
H <sub>1</sub> : The demographics, saving motives, involvement level, information seeking, current assets and debts, and future expectations have statistically significant relationships with retirement saving behaviors: (a) calculating needed retirement savings, (b) being a retirement saver, (c) starting saving for retirement age, and (d) being a regular retirement saver.	<ul style="list-style-type: none"> <li>▪ Demographic</li> <li>▪ Saving Motives</li> <li>▪ Involvement Level</li> <li>▪ Information Seeking</li> <li>▪ Current Assets and Debts</li> <li>▪ Future Expectations</li> <li>▪ Calculate Needed Retirement Savings</li> <li>▪ Retirement Saver</li> <li>▪ Start Saving for Retirement Age</li> <li>▪ Regular Retirement Saver</li> </ul>	19-24, 27-30, 4c-1 17 18 13, 16 4, 7-9 10-12, 14, 25-26 14 1 2 3	-Direct logistic regression -Standard multiple regression
H <sub>2</sub> : The demographics, saving motives, involvement level, information seeking, current assets and debts, future expectations, and retirement saving behaviors have statistically significant relationships with (a) retirement savings and (b) retirement income satisfaction.	<ul style="list-style-type: none"> <li>▪ Demographic</li> <li>▪ Saving Motives</li> <li>▪ Involvement Level</li> <li>▪ Information Seeking</li> <li>▪ Current Assets and Debts</li> <li>▪ Future Expectations</li> <li>▪ Calculate Needed Retirement Savings</li> <li>▪ Retirement Saver</li> <li>▪ Start Saving for Retirement Age</li> <li>▪ Regular Retirement Saver</li> <li>▪ RS*</li> <li>▪ RIS*</li> </ul>	19-24, 27-30, 4c-1 17 18 13, 16 4, 7-9 10-12, 14, 25-26 14 1 2 3 5-6 15	-Direct logistic regression -Standard multiple regression
H <sub>3</sub> : There are statistically significant positive relationships between retirement savings and retirement income satisfaction.	<ul style="list-style-type: none"> <li>▪ RS</li> <li>▪ RIS</li> </ul>	5-6 15	ANOVA

*Note.* \* refers to dependent variable.

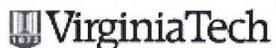
**APPENDIX C:**  
**PERSONAL INVOLVEMENT INVENTORY WITH CODING**

To me, **saving for retirement** is:

important	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	unimportant
boring	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	interesting
relevant	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	irrelevant
exciting	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	unexciting
means nothing	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	means a lot to me
appealing	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	unappealing
fascinating	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	mundane
worthless	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	valuable
involving	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	uninvolving
not needed	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	needed

*Note.* The score range of low involvement is from 10 to 29; medium involvement is from 30 to 50; high involvement is from 51 to 70.

**APPENDIX D:**  
**VIRGINIA TECH INSTITUTIONAL REVIEW BOARD APPROVAL LETTER**



Office of Research Compliance  
Institutional Review Board  
2000 Kraft Drive, Suite 2000 (0497)  
Blacksburg, VA 24060  
540/231-4606 Fax 540/231-0959  
email irb@vt.edu  
website <http://www.irb.vt.edu>

**MEMORANDUM**

**DATE:** May 16, 2012  
**TO:** Chungwen Hsu, Irene Leech  
**FROM:** Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)  
**PROTOCOL TITLE:** Women's Retirement Satisfaction and Savings Behavior  
**IRB NUMBER:** 12-376

Effective May 16, 2012, the Virginia Tech Institutional Review Board (IRB) Administrator, Carmen T Green, approved the Amendment request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<http://www.irb.vt.edu/pages/responsibilities.htm>

(Please review responsibilities before the commencement of your research.)

**PROTOCOL INFORMATION:**

Approved As: **Exempt, under 45 CFR 46.110 category(ies) 2**  
Protocol Approval Date: **May 4, 2012**  
Protocol Expiration Date: **N/A**  
Continuing Review Due Date\*: **N/A**

\*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

**FEDERALLY FUNDED RESEARCH REQUIREMENTS:**

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

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VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
*An equal opportunity, affirmative action institution*

**APPENDIX E:**  
**OVERVIEW OF THE VALID RESPONSES**

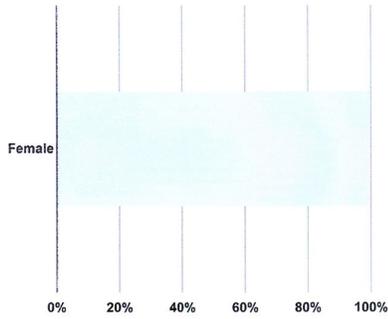
Project Details

Survey Title: Women's Retirement Income Satisfaction  
Responses Requested: 500  
Date Started: 5/25/12  
Date Finished: 5/30/12  
Invitations Emailed: 4,414  
Responses Delivered: 591  
Response Rate: 13%

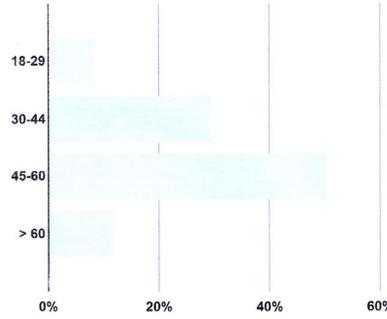
Targeting Criteria

Gender: Women  
Age: 25 and older  
Employment status: work full-time, work part-time, not in labor force

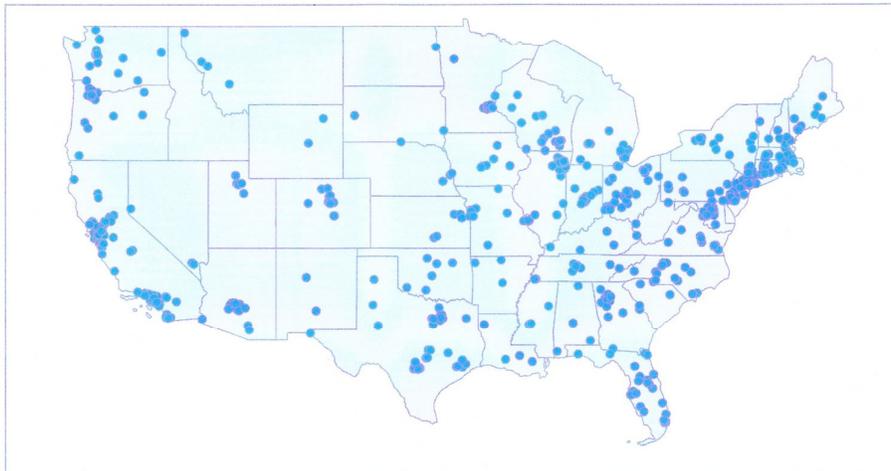
Gender



Age



Geography



**APPENDIX F:**

**TABLES**

Table F1

*Descriptive Statistics of Input Variables: Demographic Characteristics of Working-Age Women (N=591)*

Variable	n	Mean (SD) or Frequency %
Age	591	47.91(11.55)
25-34 years	91	15.4
35-44 years	131	22.2
45-54 years	166	28.1
55-64 years	171	28.9
65+ years	32	5.4
Health Status	591	3.12 (0.68)
Poor	12	2.0
Fair	72	12.2
Good	343	58.0
Excellent	164	27.7
Education Level	591	16.46 (1.69)
11 <sup>th</sup> grade	1	0.2
High school diploma	53	9.0
1 year of college	48	8.1
2 years of college	68	11.5
3 years of college	24	4.1
College degree	223	37.7
Master's degree	145	24.5
Doctoral degree	29	4.9
Employment Status		
Working full-time	402	68.0
Working part-time	108	18.3
Neither work for pay nor seek employment	36	6.1
Seeking employment	45	7.6
Years of Employment	590	27.66 (12.34)
< 10 years	42	7.1
10-19 years	122	20.6
20-29 years	151	25.5
30-39 years	153	25.9
40-49 years	107	18.1
50 years +	16	2.7

(continued)

Variable	n	Mean (SD) or Frequency %
Race/Ethnicity		
Non-Hispanic White	525	88.8
Non-Hispanic Black	28	4.7
Hispanic or Latino	23	3.9
Asian	8	1.4
Other	7	1.2
Annual Personal Income	591	4.19 (3.24)
Annual Household Income	591	7.16 (5.36)
Marital Status		
Never married	96	16.2
Co-habiting	52	8.8
Married	301	50.9
Separated	15	2.5
Divorced	105	17.8
Widowed	22	3.7
Household Size	591	2.75 (1.43)
Presence of Child		
Child aged under 5	59	10.0
Child aged 5-13	120	20.3
Child aged 14-18	93	15.7
Child aged 19-24	66	11.2
Child aged 25+	54	9.1
Homeowner	411	69.5

Table F2

*Descriptive Statistics of Input Variables: Saving Motives of Working-Age Women (N=591)*

Variable	First Saving		Second Saving		Saving Motive	
	Motive		Motive		n	%
	n	%	n	%		
Retirement	148	25.0	77	13.0	222	37.6
College	44	7.4	49	8.3	93	15.7
House/Home	34	5.8	40	6.8	74	12.5
Home Improvement/ Furnishings	15	2.5	31	5.2	46	7.8
Emergencies	61	10.3	75	12.7	136	23.0
General Savings	78	13.2	81	13.7	156	26.4
Automobile	8	1.4	14	2.4	22	3.7
Vacation	10	1.7	32	5.4	42	7.1
Paying Off Debt	105	17.8	98	16.6	198	33.5
Not Saving	80	13.5	86	14.6	102	17.3
Other	8	1.4	8	1.4	13	2.2

Table F3

*Descriptive Statistics of Input Variables: Involvement Level of Working-Age Women (N=591)*

Variable	n	Mean (SD) or Frequency %
Involvement Level	591	52.37 (9.58)
Low (score 10-29)	8	1.4
Medium (score 30-50)	226	38.2
High (score 51-70)	357	60.4
Affective Involvement	591	21.43 (6.44)
Cognitive Involvement	591	30.94 (4.99)

Table F4

*Descriptive Statistics of Input Variables: Information Seeking of Working-Age Women  
(N=591)*

Variable	n	Mean (SD) or Frequency %
Read Social Security Statement		
Yes	484	81.9
No	98	16.6
Doesn't apply	9	1.5
Read Employer-Provided DB Pension Statement		
Yes	242	40.9
No	231	39.1
Doesn't apply	118	20.0
Read Federal Employee Benefits Statement		
Yes	77	13.0
No	277	46.9
Doesn't apply	237	40.1
Information Sources		
The internet	304	51.4
Television	109	18.4
Newspapers	120	20.3
Radio	58	9.8
Magazines	132	22.3
Books	112	19.0
A course	55	9.3
Discussions with friends/relatives	314	53.1
Information from my financial advisor(s)	235	39.8
Training sessions provided by employer	145	24.5
Seminars led by financial professionals	107	18.1
None	96	16.2
Other	8	1.4
Number of Information Sources	591	2.87 (2.19)

Table F5

*Descriptive Statistics of Input Variables: Current Assets of Working-Age Women (N=591)*

Variable	n	Mean (SD) or Frequency %
<b>Current Assets</b>		
<b>a. Employer Provided Retirement Benefits</b>		
a1. Traditional employer provided DB pension	168	28.4
a2. Employer provided DB pension to which I also contribute	201	34.0
a3. Employer-sponsored DC plan	258	43.7
<b>b. Personal Investment and Savings</b>		
b1. Personal IRA or Roth IRA	241	40.8
b2. Personal investment - mutual funds	173	29.3
b3. Personal investment - individual stocks and/or bonds	178	30.1
b4. Personal savings- CD, savings accounts, etc.	342	57.9
b5. Annuities	85	14.4
b6. Life insurance with cash value	228	38.6
<b>c. Real Estate</b>		
c1. My home	411	69.5
c2. Other real estate	85	14.4
Number of current assets	591	4.01 (2.49)
<b>Hold An Adequate Emergency Fund</b>		
Yes	165	27.9
Some but not that much	191	32.3
No	235	39.8

Table F6

*Descriptive Statistics of Input Variables: Current Debts of Working-Age Women (N=591)*

Variable	n	Mean (SD) or Frequency %
Current Debts		
Mortgage	335	56.7
Home equity loan	95	16.1
Auto loan	229	38.7
Credit card debt	314	53.1
Education loan	167	28.3
Personal loan	54	9.1
Payday loan	12	2.0
Car title loan	16	2.7
None	64	10.8
Other	12	2.0
Number of Current Debts	591	2.09 (1.27)
Remaining Years of Mortgage	591	18.27 (8.64)

Table F7

*Descriptive Statistics of Input Variables: Future Expectations of Working-Age Women (N = 591)*

Variable	n	Mean (SD) or Frequency %
Planned Retirement Age	591	66.70 (7.43)
Before 60 years	46	7.8
60-64 years	102	17.3
65 years	163	27.6
66-69 years	72	12.2
70+ years	208	35.2
Life Expectancy	589	85.74 (9.28)
Years in Retirement	591	19.03 (10.75)
Expected Needed Retirement Income		
Less than current earning	198	33.5
Same as current earning	226	38.2
More than current earning	167	28.3
Social Security Expectation		
To get the full amount today's retirees get	188	31.8
To get some amount, but not as much as today's retirees get	234	39.6
Will not get anything	64	10.8
Don't know	105	17.8
Medicare Expectation		
To get the full amount today's retirees get	170	28.8
To get some amount, but not as much as today's retirees get	209	35.4
Will not get anything	56	9.5
Don't know	156	26.4
Expected Assets		
a. Employer Provided Retirement Benefits		
a1. Traditional employer provided DB pension	185	31.3
a2. Employer provided DB pension to which I also contribute	193	32.7
a3. Employer-sponsored DC retirement plan	233	39.4

(continued)

Variable	n	Mean (SD) or Frequency %
b. Personal Investments and Savings		
b1. Personal IRA/Roth IRA	256	43.3
b2. Personal investment - mutual funds	183	31.0
b3. Personal investment - individual stocks and/or bonds	173	29.3
b4. Personal savings - CDs, savings accounts, etc.	327	55.3
b5. Annuities	85	14.4
b6. Life insurance with cash value	129	21.8
c. Real Estate		
c1. Use the equity in my home for a reverse mortgage	26	4.4
c2. Sell my home	111	18.8
c3. Rent from real estate or other property	67	11.3
c4. Sell my real estate	61	10.3
d. Social Security		
d1. Social Security from my work record	480	81.2
d2. Social Security from my husband/ex- husband's record	236	39.9
e. Job and Family Related Sources		
e1. Part time job	313	53.0
e2. Support from husband or ex-husband's pension	147	24.9
e3. Support from other family members	46	7.8
e4. Inheritance	103	17.4
Number of Expected Assets	591	5.68 (2.96)

Table F8

*Descriptive Statistics of Throughput Variables: Retirement Saving Behaviors of Working-Age Women (N = 591)*

Variable	n	Mean (SD) or Frequency %
Calculate Needed Retirement Savings	243	41.1
Retirement Savers	377	63.8
<b>(among savers, n = 377)</b>		
Start Saving for Retirement Age	377	3.32 (1.90)
Before age 25	67	17.8
Age 25-29	85	22.5
Age 30-34	76	20.2
Age 35-39	52	13.8
Age 40-44	49	13.0
Age 45-49	19	5.0
Age 50-54	19	5.0
Age 55-59	6	1.6
Age 60-64	2	0.5
Age 65 or older	2	0.5
Deposit Method		
Automatically deposit regularly - from my income	274	72.6
Automatically deposit regularly - from spouse/partner	77	20.4
Manually deposit regularly - from my income	34	9.0
Manually deposit regularly- from spouse/partner	11	2.9
Manually deposit irregularly - from my income	110	29.2
Manually deposit irregularly - from spouse/partner	27	7.2
Regular Retirement Saver	309	82.0

Table F9

*Descriptive Statistics and t-tests of Output Variables: Difference Between Savers and Non-savers on Retirement Savings of Working-Age Women (N = 591)*

Variable	Total Sample (N=591)	Savers (N=377)	Non-savers (N=214)	Significant difference
	Mean (SD) or Frequency %	Mean (SD) or Frequency %	Mean (SD) or Frequency %	
RS: Employer-Sponsored Accounts	3.18 (2.87)	3.93 (3.14)	1.87 (1.62)	$F=92.481$ , $p=0.000$
None	31.0			
Less than \$25,000	30.5			
\$25,000 - \$49,999	11.0			
\$50,000 - \$74,999	7.6			
\$75,000 - \$99,999	3.4			
\$100,000 - \$124,999	4.2			
\$125,000 - \$149,999	2.5			
\$150,000 - \$174,999	1.4			
\$175,000 - \$199,999	1.2			
\$200,000 - \$224,999	2.5			
\$225,000 - \$249,999	0.8			
\$250,000 or more	3.9			
RS: Personal Investments and Savings	3.57 (3.20)	4.52 (3.49)	1.89 (1.55)	$F=171.180$ , $p=0.000$
None	24.0			
Less than \$25,000	35.4			
\$25,000 - \$49,999	10.0			
\$50,000 - \$74,999	5.8			
\$75,000 - \$99,999	4.7			
\$100,000 - \$124,999	4.2			
\$125,000 - \$149,999	2.5			
\$150,000 - \$174,999	1.9			
\$175,000 - \$199,999	2.4			
\$200,000 - \$224,999	1.2			
\$225,000 - \$249,999	1.0			
\$250,000 or more	6.9			

Table F10

*Descriptive Statistics and t-tests of Output Variables: Difference Between Savers and Non-savers on Retirement Income Satisfaction of Working-Age Women (N = 591)*

Variable	Total Sample (N=591)	Savers (N=377)	Non-savers (N=214)	Significant difference
	Mean (SD) or Frequency %	Mean (SD) or Frequency %	Mean (SD) or Frequency %	
RIS: Social Security	2.39 (1.02)	2.47 (1.06)	2.25 (0.94)	$F=3.067,$ $p=0.080$
1 very dissatisfied	23.7			
2	27.1			
3	38.9			
4	7.3			
5 very satisfied	3.0			
RIS: Employer- Sponsored Accounts	2.66 (1.14)	2.91 (1.14)	2.23 (1.02)	$F=0.048,$ $p=0.827$
1 very dissatisfied	20.8			
2	19.6			
3	37.6			
4	16.4			
5 very satisfied	5.6			
RIS: Personal Investments and Savings	2.61 (1.13)	2.88 (1.12)	2.13 (0.98)	$F=0.971,$ $p=0.325$
1 very dissatisfied	20.6			
2	23.2			
3	36.7			
4	13.5			
5 very satisfied	5.9			

Table F11

*Results of the Direct Logistic Regression of Input Variables on Calculate Needed Retirement Savings (N = 591)*

Variable	B	S.E.	Wald	df	p-value	Odds 95% C.I. for		
						Ratio	Odds Ratio	Lower Upper
<b><u>Demographics</u></b>								
Age	.042	.013	10.569	1	.001 **	1.043	1.017	1.070
Health Status	.280	.177	2.497	1	.114	1.323	.935	1.871
Education	.105	.068	2.337	1	.126	1.110	.971	1.270
Full-time Worker	.100	.267	.139	1	.709	1.105	.654	1.865
Non-Hispanic White	.249	.377	.437	1	.508	1.283	.613	2.688
Personal Income	-.007	.052	.019	1	.891	.993	.896	1.100
Household Income	.065	.031	4.277	1	.039 *	1.067	1.003	1.135
Married	-.314	.261	1.445	1	.229	.731	.438	1.219
Household Size	-.074	.089	.685	1	.408	.929	.780	1.106
Homeowner	.186	.357	.270	1	.603	1.204	.598	2.424
<b><u>Saving Motives</u></b>								
Automobile Saving Motive	.316	.565	.313	1	.576	1.372	.453	4.155
College Saving Motive	.205	.358	.330	1	.566	1.228	.609	2.476
Emergency Saving Motive	-.016	.274	.003	1	.955	.985	.575	1.685
General savings Saving Motive	.309	.286	1.169	1	.280	1.362	.778	2.385
House Saving Motive	-.044	.285	.024	1	.878	.957	.548	1.672
Home Improvement Saving Motive	.454	.415	1.195	1	.274	1.574	.698	3.552
Paying Off Debt Saving Motive	.441	.363	1.472	1	.225	1.554	.763	3.166
Retirement Saving Motive	.873	.289	9.153	1	.002 **	2.394	1.360	4.215
Vacation Saving Motive	-.240	.442	.294	1	.588	.787	.331	1.873
<b><u>Involvement Level</u></b>								
Affective	-.008	.018	.174	1	.677	.992	.957	1.029
Cognitive	.111	.029	14.381	1	.000 ***	1.118	1.055	1.184
<b><u>Information Seeking</u></b>								
Read Social Security Statement	.832	.353	5.551	1	.018 *	2.299	1.150	4.594
Read DB Pension Statement	.233	.246	.901	1	.343	1.263	.780	2.044
Read Federal Employee Benefits Statement	.208	.324	.414	1	.520	1.232	.653	2.324
Number of Information Sources	.231	.053	19.000	1	.000 ***	1.260	1.136	1.398

(continued)

Variable	B	S.E.	Wald	df	p-value	Odds Ratio	95% C.I. for Odds Ratio	
							Lower	Upper
<b><u>Assets and Debts</u></b>								
Number of Current Assets	-.056	.074	.582	1	.445	.945	.818	1.092
Hold An Adequate Emergency Fund	.484	.273	3.135	1	.077	1.622	.950	2.771
Number of Current Debts	.162	.113	2.063	1	.151	1.176	.943	1.466
Remaining Years of Mortgage	.006	.012	.237	1	.626	1.006	.982	1.030
<b><u>Future Expectations</u></b>								
Planned Retirement Age	-.041	.016	6.163	1	.013 *	.960	.930	.992
Life Expectancy	.016	.012	1.769	1	.184	1.017	.992	1.041
Expected Needed Income: Less	-.165	.239	.477	1	.490	.848	.530	1.355
Social Security Expectation: Full	-.178	.372	.230	1	.632	.837	.403	1.735
Medicare Expectation: Full	-.007	.366	.000	1	.984	.993	.484	2.034
Number of Expected Assets	.045	.052	.751	1	.386	1.046	.945	1.159
Constant	-10.101	2.056	24.146	1	.000	.000		

Note. \* p<.05; \*\* p<.01; \*\*\* p<.001.

Table F12

*Results of the Direct Logistic Regression of Input Variables on Being A Retirement Saver (N = 591)*

Variable	B	S.E.	Wald	df	p-value	Odds 95% C.I. for		
						Ratio	Odds Ratio	Lower Upper
<b><u>Demographics</u></b>								
Age	.012	.014	.651	1	.420	1.012	.984	1.040
Health Status	.334	.198	2.865	1	.091	1.397	.949	2.058
Education	.096	.076	1.610	1	.205	1.101	.949	1.278
Full-time Worker	.258	.301	.734	1	.392	1.294	.717	2.334
Non-Hispanic White	.426	.398	1.147	1	.284	1.531	.702	3.337
Personal Income	.118	.068	3.018	1	.082	1.125	.985	1.284
Household Income	-.033	.039	.724	1	.395	.968	.897	1.044
Married	-.029	.300	.009	1	.924	.972	.540	1.748
Household Size	.118	.091	1.668	1	.197	1.125	.941	1.346
Homeowner	-.679	.394	2.975	1	.085	.507	.235	1.097
<b><u>Saving Motives</u></b>								
Automobile Saving Motive	.116	.615	.035	1	.851	1.123	.336	3.746
College Saving Motive	-.239	.386	.383	1	.536	.788	.370	1.677
Emergency Saving Motive	.287	.277	1.074	1	.300	1.333	.774	2.295
General savings Saving Motive	-.302	.302	.998	1	.318	.740	.409	1.337
House Saving Motive	.156	.309	.255	1	.614	1.169	.638	2.139
Home Improvement Saving Motive	.607	.479	1.605	1	.205	1.835	.717	4.694
Paying Off Debt Saving Motive	.132	.357	.137	1	.711	1.141	.567	2.296
Retirement Saving Motive	1.597	.352	20.587	1	.000 ***	4.940	2.478	9.849
Vacation Saving Motive	-.773	.483	2.559	1	.110	.462	.179	1.190
<b><u>Involvement Level</u></b>								
Affective	-.040	.022	3.362	1	.067	.961	.921	1.003
Cognitive	.060	.027	5.187	1	.023 *	1.062	1.008	1.119
<b><u>Information Seeking</u></b>								
Read Social Security Statement	.029	.325	.008	1	.929	1.029	.545	1.945
Read DB Pension Statement	.500	.293	2.912	1	.088	1.649	.928	2.928
Read Federal Employee Benefits Statement	-.411	.415	.980	1	.322	.663	.294	1.496
Number of Information Sources	.055	.060	.830	1	.362	1.056	.939	1.188

(continued)

Variable	B	S.E.	Wald	df	p-value	Odds Ratio	95% C.I. for Odds Ratio	
							Lower	Upper
<b><u>Assets and Debts</u></b>								
Number of Current Assets	.555	.095	34.249	1	.000 ***	1.742	1.447	2.098
Hold An Adequate Emergency Fund	1.121	.362	9.587	1	.002 **	3.068	1.509	6.238
Number of Current Debts	-.129	.129	1.011	1	.315	.879	.683	1.131
Remaining Years of Mortgage	.021	.015	1.913	1	.167	1.021	.991	1.052
<b><u>Future Expectations</u></b>								
Planned Retirement Age	-.023	.018	1.644	1	.200	.978	.944	1.012
Life Expectancy	-.008	.013	.387	1	.534	.992	.967	1.017
Expected Needed Income: Less	-.178	.295	.366	1	.545	.837	.470	1.491
Social Security Expectation: Full	.877	.477	3.382	1	.066	2.404	.944	6.125
Medicare Expectation: Full	-.880	.464	3.589	1	.058	.415	.167	1.031
Number of Expected Assets	-.059	.056	1.100	1	.294	.943	.845	1.052
Constant	-4.571	1.987	5.293	1	.021	.010		

Note. \* p<.05; \*\* p<.01; \*\*\* p<.001.

Table F13

*Results of the Standard Multiple Regression on Starting Saving Age (N = 377)*

Variable	B	S.E.	$\beta$	p-value
Constant	-.018	1.587		.991
<b><u>Demographics</u></b>				
Age	.112	.011	.644	.000 ***
Health Status	.097	.140	.033	.489
Education	-.053	.055	-.046	.330
Full-time Worker	.143	.208	.032	.494
Non-Hispanic White	-.243	.302	-.036	.422
Personal Income	-.036	.037	-.063	.321
Household Income	-.028	.022	-.082	.200
Married	.097	.204	.025	.637
Household Size	.178	.072	.132	.014 *
Homeowner	-.268	.292	-.056	.359
<b><u>Saving Motives</u></b>				
Automobile Saving Motive	-.672	.490	-.062	.171
College Saving Motive	-.052	.283	-.010	.855
Emergency Saving Motive	.571	.231	.141	.014 *
General savings Saving Motive	-.131	.245	-.028	.594
House Saving Motive	.150	.235	.035	.525
Home Improvement Saving Motive	.046	.319	.007	.886
Paying Off Debt Saving Motive	.212	.310	.035	.494
Retirement Saving Motive	.148	.237	.039	.532
Vacation Saving Motive	.191	.360	.025	.596
<b><u>Involvement Level</u></b>				
Affective	.016	.014	.052	.265
Cognitive	-.019	.023	-.041	.402
<b><u>Information Seeking</u></b>				
Read Social Security Statement	.208	.265	.036	.434
Read DB Pension Statement	-.125	.184	-.033	.497
Read Federal Employee Benefits Statement	-.189	.242	-.036	.437
Number of Information Sources	-.018	.039	-.021	.646
<b><u>Assets and Debts</u></b>				
Number of Current Assets	-.160	.058	-.186	.006 **
Hold An Adequate Emergency Fund	-.181	.200	-.046	.366
Number of Current Debts	-.080	.085	-.054	.351

(continued)

Variable	<i>B</i>	<i>S.E.</i>	$\beta$	p-value
Remaining Years of Mortgage	.009	.009	.050	.348
<b><u>Future Expectations</u></b>				
Planned Retirement Age	.005	.013	.017	.710
Life Expectancy	-.010	.010	-.047	.305
Expected Needed Income: Less	.107	.179	.028	.550
Social Security Expectation: Full	.320	.275	.081	.244
Medicare Expectation: Full	-.296	.275	-.072	.283
Number of Expected Assets	-.015	.043	-.022	.724

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table F14

*Results of the Direct Logistic Regression of Input Variables on Being A Regular Retirement Saver (N = 377)*

Variable	B	S.E.	Wald	df	p-value	Odds 95% C.I. for		
						Ratio	Odds Ratio	Lower Upper
<b><u>Demographics</u></b>								
Age	-.046	.021	4.696	1	.030 *	.955	.917	.996
Health Status	.061	.265	.052	1	.819	1.062	.632	1.787
Education	.098	.112	.761	1	.383	1.103	.885	1.373
Full-time Worker	1.377	.384	12.852	1	.000 ***	3.964	1.867	8.416
Non-Hispanic White	.692	.591	1.372	1	.241	1.998	.628	6.359
Personal Income	-.043	.070	.377	1	.539	.958	.835	1.099
Household Income	.045	.043	1.072	1	.301	1.046	.961	1.138
Married	.620	.408	2.312	1	.128	1.859	.836	4.136
Household Size	-.034	.145	.054	1	.816	.967	.728	1.284
Homeowner	.193	.542	.126	1	.722	1.213	.419	3.508
<b><u>Saving Motives</u></b>								
Automobile Saving Motive	-.276	.970	.081	1	.776	.759	.113	5.075
College Saving Motive	-.702	.559	1.574	1	.210	.496	.166	1.484
Emergency Saving Motive	-.524	.454	1.333	1	.248	.592	.243	1.441
General savings Saving Motive	-.406	.459	.782	1	.377	.666	.271	1.639
House Saving Motive	-.027	.455	.004	1	.952	.973	.399	2.372
Home Improvement Saving Motive	-.105	.663	.025	1	.874	.900	.246	3.300
Paying Off Debt Saving Motive	.101	.681	.022	1	.882	1.107	.291	4.207
Retirement Saving Motive	.078	.469	.027	1	.868	1.081	.431	2.712
Vacation Saving Motive	-1.440	.638	5.097	1	.024 *	.237	.068	.827
<b><u>Involvement Level</u></b>								
Affective	.031	.027	1.329	1	.249	1.032	.978	1.089
Cognitive	.003	.043	.006	1	.938	1.003	.923	1.091
<b><u>Information Seeking</u></b>								
Read Social Security Statement	.306	.457	.449	1	.503	1.359	.554	3.330
Read DB Pension Statement	1.134	.383	8.782	1	.003 **	3.107	1.468	6.576
Read Federal Employee Benefits Statement	-.083	.537	.024	1	.877	.920	.321	2.637
Number of Information Sources	.083	.075	1.222	1	.269	1.087	.938	1.259

(continued)

Variable	B	S.E.	Wald	df	p-value	Odds	95% C.I. for	
						Ratio	Odds Ratio	Lower
<b><u>Assets and Debts</u></b>								
Number of Current Assets	.076	.117	.422	1	.516	1.079	.858	1.356
Hold An Adequate Emergency Fund	-.620	.383	2.617	1	.106	.538	.254	1.140
Number of Current Debts	.135	.177	.581	1	.446	1.144	.809	1.619
Remaining Years of Mortgage	-.005	.018	.072	1	.788	.995	.961	1.030
<b><u>Future Expectations</u></b>								
Planned Retirement Age	-.080	.027	8.921	1	.003	**	.923	.875 .973
Life Expectancy	.021	.022	.880	1	.348		1.021	.978 1.065
Expected Needed Income: Less	.101	.367	.076	1	.783		1.107	.539 2.273
Social Security Expectation: Full	.123	.539	.052	1	.819		1.131	.393 3.250
Medicare Expectation: Full	.213	.565	.143	1	.706		1.238	.409 3.743
Number of Expected Assets	-.079	.087	.805	1	.370		.924	.779 1.097
Constant	2.316	3.095	.560	1	.454		10.133	

Note. \* p<.05; \*\* p<.01; \*\*\* p<.001.

Table F15

*Results of the Standard Multiple Regression of Input and Throughput Variables on Retirement Savings in Employer-Provided Retirement Accounts (N = 591)*

Variable	B	S.E.	$\beta$	p-value
Constant	1.111	1.541		.471
<b><u>Demographics</u></b>				
Age	.038	.012	.153	.002 **
Health Status	.129	.148	.031	.383
Education	-.068	.058	-.040	.247
Full-time Worker	.108	.226	.018	.633
Non-Hispanic White	-.160	.303	-.018	.598
Personal Income	.371	.045	.419	.000 ***
Household Income	.009	.027	.017	.730
Married	.051	.227	.009	.823
Household Size	-.133	.074	-.068	.072
Homeowner	.199	.303	.032	.513
<b><u>Saving Motives</u></b>				
Automobile Saving Motive	.027	.496	.002	.956
College Saving Motive	.539	.294	.069	.067
Emergency Saving Motive	.156	.227	.026	.492
General savings Saving Motive	.200	.240	.029	.403
House Saving Motive	.240	.237	.037	.310
Home Improvement Saving Motive	.549	.365	.051	.134
Paying Off Debt Saving Motive	.167	.299	.019	.576
Retirement Saving Motive	.306	.265	.052	.249
Vacation Saving Motive	.125	.377	.011	.740
<b><u>Involvement Level</u></b>				
Affective	.007	.016	.017	.634
Cognitive	.008	.021	.013	.722
<b><u>Information Seeking</u></b>				
Read Social Security Statement	-.078	.265	-.010	.770
Read DB Pension Statement	1.013	.223	.174	.000 ***
Read Federal Employee Benefits Statement	-.741	.289	-.087	.011 *
Number of Information Sources	.016	.045	.013	.718
<b><u>Assets and Debts</u></b>				
Number of Current Assets	.163	.067	.142	.015 *
Hold An Adequate Emergency Fund	-.366	.244	-.057	.135

(continued)

Variable	<i>B</i>	<i>S.E.</i>	$\beta$	p-value
Number of Current Debts	-.249	.095	-.109	.009 **
Remaining Years of Mortgage	.005	.011	.019	.639
<b><u>Future Expectations</u></b>				
Planned Retirement Age	-.027	.013	-.073	.042 *
Life Expectancy	.006	.010	.020	.560
Expected Needed Income: Less	-.148	.213	-.024	.489
Social Security Expectation: Full	-.124	.332	-.020	.710
Medicare Expectation: Full	-.249	.328	-.039	.449
Number of Expected Assets	-.028	.044	-.028	.528
<b><u>Retirement Saving Behaviors</u></b>				
Calculate Needed Retirement Savings	-.117	.220	-.020	.595
Retirement Saver	-.457	.427	-.077	.285
Start Saving for Retirement Age	-.068	.069	-.052	.323
Regular Retirement Saver	.935	.311	.163	.003 **

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table F16

*Results of the Standard Multiple Regression of Input and Throughput Variables on Retirement Savings in Personal Savings and Investments for Retirement (N = 591)*

Variable	B	S.E.	$\beta$	p-value
Constant	-3.809	1.663		.022
<b><u>Demographics</u></b>				
Age	.049	.013	.175	.000 ***
Health Status	-.125	.160	-.027	.433
Education	.125	.063	.066	.047 *
Full-time Worker	-.166	.244	-.024	.497
Non-Hispanic White	-.328	.327	-.032	.316
Personal Income	.016	.048	.016	.746
Household Income	.119	.029	.199	.000 ***
Married	.008	.245	.001	.974
Household Size	-.065	.080	-.030	.417
Homeowner	-.239	.327	-.034	.466
<b><u>Saving Motives</u></b>				
Automobile Saving Motive	-.934	.535	-.055	.082
College Saving Motive	-.010	.317	-.001	.975
Emergency Saving Motive	.138	.245	.020	.573
General savings Saving Motive	.172	.259	.023	.507
House Saving Motive	.250	.255	.035	.328
Home Improvement Saving Motive	.674	.394	.057	.087
Paying Off Debt Saving Motive	.153	.322	.016	.636
Retirement Saving Motive	.491	.286	.074	.087
Vacation Saving Motive	.059	.406	.005	.884
<b><u>Involvement Level</u></b>				
Affective	.001	.017	.001	.966
Cognitive	.031	.023	.049	.174
<b><u>Information Seeking</u></b>				
Read Social Security Statement	-.308	.286	-.037	.283
Read DB Pension Statement	.303	.241	.047	.209
Read Federal Employee Benefits Statement	-.346	.312	-.037	.267
Number of Information Sources	.029	.049	.020	.560
<b><u>Assets and Debts</u></b>				
Number of Current Assets	.396	.072	.309	.000 ***
Hold An Adequate Emergency Fund	.551	.264	.077	.037 *

(continued)

Variable	<i>B</i>	<i>S.E.</i>	$\beta$	p-value
Number of Current Debts	-.316	.102	-.125	.002 **
Remaining Years of Mortgage	.010	.011	.036	.364
<b><u>Future Expectations</u></b>				
Planned Retirement Age	-.002	.014	-.004	.912
Life Expectancy	.004	.011	.013	.697
Expected Needed Income: Less	-.103	.230	-.015	.654
Social Security Expectation: Full	.559	.359	.082	.120
Medicare Expectation: Full	-.463	.354	-.066	.191
Number of Expected Assets	.055	.047	.050	.245
<b><u>Retirement Saving Behaviors</u></b>				
Calculate Needed Retirement Savings	.331	.237	.051	.163
Retirement Saver	1.266	.460	.191	.006 **
Start Saving for Retirement Age	-.190	.074	-.131	.011 *
Regular Retirement Saver	-.722	.335	-.113	.032 *

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table F17

*Results of the Standard Multiple Regression of Input and Throughput Variables on Retirement Income Satisfaction from Social Security (N = 591)*

Variable	B	S.E.	$\beta$	p-value
Constant	2.594	.674		.000
<b><u>Demographics</u></b>				
Age	.008	.005	.091	.129
Health Status	.074	.065	.050	.250
Education	-.014	.026	-.023	.586
Full-time Worker	-.152	.099	-.070	.125
Non-Hispanic White	.196	.132	.060	.140
Personal Income	.015	.020	.049	.429
Household Income	-.005	.012	-.024	.694
Married	-.121	.099	-.059	.225
Household Size	.054	.032	.078	.095
Homeowner	-.167	.133	-.076	.207
<b><u>Saving Motives</u></b>				
Automobile Saving Motive	-.232	.217	-.043	.284
College Saving Motive	-.208	.129	-.074	.106
Emergency Saving Motive	-.013	.099	-.006	.893
General savings Saving Motive	-.101	.105	-.042	.334
House Saving Motive	.122	.103	.053	.239
Home Improvement Saving Motive	.081	.160	.021	.610
Paying Off Debt Saving Motive	-.105	.131	-.034	.421
Retirement Saving Motive	.090	.116	.043	.440
Vacation Saving Motive	.141	.165	.035	.394
<b><u>Involvement Level</u></b>				
Affective	.013	.007	.081	.061
Cognitive	-.032	.009	-.157	.001 ***
<b><u>Information Seeking</u></b>				
Read Social Security Statement	-.142	.116	-.054	.221
Read DB Pension Statement	-.009	.098	-.004	.926
Read Federal Employee Benefits Statement	.069	.126	.023	.583
Number of Information Sources	.000	.020	-.001	.990
<b><u>Assets and Debts</u></b>				
Number of Current Assets	.022	.029	.055	.444
Hold An Adequate Emergency Fund	.020	.107	.009	.855

(continued)

Variable	<i>B</i>	<i>S.E.</i>	$\beta$	p-value
Number of Current Debts	-.043	.041	-.053	.298
Remaining Years of Mortgage	-.003	.005	-.037	.471
<b><u>Future Expectations</u></b>				
Planned Retirement Age	-.005	.006	-.040	.363
Life Expectancy	.001	.004	.007	.874
Expected Needed Income: Less	.271	.093	.125	.004 **
Social Security Expectation: Full	.411	.145	.188	.005 **
Medicare Expectation: Full	.144	.143	.064	.316
Number of Expected Assets	.032	.019	.090	.098
<b><u>Retirement Saving Behaviors</u></b>				
Calculate Needed Retirement Savings	.080	.096	.039	.405
Retirement Saver	-.141	.187	-.066	.451
Start Saving for Retirement Age	.015	.030	.032	.620
Regular Retirement Saver	.138	.136	.068	.310

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table F18

*Results of the Standard Multiple Regression of Input and Throughput Variables on Retirement Income Satisfaction from All Employer-Sponsored Sources and Plans (N = 591)*

Variable	B	S.E.	$\beta$	p-value
Constant	3.158	.705		.000
<b><u>Demographics</u></b>				
Age	-.014	.006	-.138	.014 *
Health Status	.132	.068	.079	.052
Education	-.030	.027	-.044	.265
Full-time Worker	.157	.104	.064	.131
Non-Hispanic White	.254	.139	.070	.068
Personal Income	.053	.020	.151	.009 **
Household Income	-.004	.012	-.021	.720
Married	.141	.104	.062	.175
Household Size	-.024	.034	-.031	.475
Homeowner	.077	.139	.031	.581
<b><u>Saving Motives</u></b>				
Automobile Saving Motive	.239	.227	.040	.294
College Saving Motive	.120	.135	.038	.372
Emergency Saving Motive	.007	.104	.003	.948
General savings Saving Motive	.026	.110	.010	.811
House Saving Motive	.284	.108	.110	.009 **
Home Improvement Saving Motive	.269	.167	.063	.108
Paying Off Debt Saving Motive	.080	.137	.023	.558
Retirement Saving Motive	.094	.121	.040	.438
Vacation Saving Motive	.120	.172	.027	.486
<b><u>Involvement Level</u></b>				
Affective	.008	.007	.044	.278
Cognitive	-.017	.010	-.073	.088
<b><u>Information Seeking</u></b>				
Read Social Security Statement	-.086	.121	-.029	.479
Read DB Pension Statement	.459	.102	.198	.000 ***
Read Federal Employee Benefits Statement	-.053	.132	-.016	.691
Number of Information Sources	-.004	.021	-.008	.844
<b><u>Assets and Debts</u></b>				
Number of Current Assets	.031	.031	.068	.308
Hold An Adequate Emergency Fund	-.194	.112	-.076	.083

(continued)

Variable	<i>B</i>	<i>S.E.</i>	$\beta$	p-value
Number of Current Debts	-.039	.043	-.043	.371
Remaining Years of Mortgage	-.002	.005	-.021	.658
<b><u>Future Expectations</u></b>				
Planned Retirement Age	-.009	.006	-.061	.138
Life Expectancy	-.002	.005	-.014	.713
Expected Needed Income: Less	.177	.098	.073	.071
Social Security Expectation: Full	.152	.152	.062	.318
Medicare Expectation: Full	-.178	.150	-.071	.236
Number of Expected Assets	.062	.020	.157	.002 **
<b><u>Retirement Saving Behaviors</u></b>				
Calculate Needed Retirement Savings	-.036	.101	-.015	.722
Retirement Saver	-.129	.195	-.055	.508
Start Saving for Retirement Age	.007	.032	.013	.834
Regular Retirement Saver	.374	.142	.164	.009 **

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table F19

*Results of the Standard Multiple Regression of Input and Throughput Variables on Retirement Income Satisfaction from Personal Savings and Investments for Retirement (N = 591)*

Variable	B	S.E.	$\beta$	p-value
Constant	2.830	.671		.000
<b><u>Demographics</u></b>				
Age	-.024	.005	-.245	.000 ***
Health Status	.120	.064	.073	.063
Education	-.007	.025	-.011	.781
Full-time Worker	-.030	.099	-.012	.764
Non-Hispanic White	-.069	.132	-.019	.600
Personal Income	.029	.019	.083	.139
Household Income	.006	.012	.027	.631
Married	.097	.099	.043	.328
Household Size	-.066	.032	-.085	.042 *
Homeowner	.002	.132	.001	.987
<b><u>Saving Motives</u></b>				
Automobile Saving Motive	-.092	.216	-.015	.669
College Saving Motive	.132	.128	.042	.304
Emergency Saving Motive	.121	.099	.050	.224
General savings Saving Motive	-.034	.104	-.012	.748
House Saving Motive	.242	.103	.094	.019 *
Home Improvement Saving Motive	.477	.159	.113	.003 **
Paying Off Debt Saving Motive	.075	.130	.022	.567
Retirement Saving Motive	.244	.116	.104	.035 *
Vacation Saving Motive	.012	.164	.003	.941
<b><u>Involvement Level</u></b>				
Affective	.015	.007	.085	.030 *
Cognitive	-.028	.009	-.125	.002 **
<b><u>Information Seeking</u></b>				
Read Social Security Statement	-.011	.116	-.004	.927
Read DB Pension Statement	-.010	.097	-.004	.918
Read Federal Employee Benefits Statement	.003	.126	.001	.983
Number of Information Sources	.014	.020	.026	.490
<b><u>Assets and Debts</u></b>				
Number of Current Assets	.060	.029	.133	.038 *
Hold An Adequate Emergency Fund	.176	.106	.070	.099

(continued)

Variable	<i>B</i>	<i>S.E.</i>	$\beta$	p-value
Number of Current Debts	-.068	.041	-.076	.099
Remaining Years of Mortgage	-.006	.005	-.058	.200
<b><u>Future Expectations</u></b>				
Planned Retirement Age	-.005	.006	-.034	.389
Life Expectancy	.006	.004	.050	.176
Expected Needed Income: Less	.030	.093	.013	.744
Social Security Expectation: Full	.269	.145	.111	.063
Medicare Expectation: Full	-.250	.143	-.100	.081
Number of Expected Assets	.090	.019	.230	.000 ***
<b><u>Retirement Saving Behaviors</u></b>				
Calculate Needed Retirement Savings	.173	.096	.075	.072
Retirement Saver	.204	.186	.087	.274
Start Saving for Retirement Age	.004	.030	.008	.887
Regular Retirement Saver	-.013	.135	-.006	.924

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .