

FACTORS THAT INFLUENCE FINANCIAL
PLANNING AND PERCEPTIONS OF
FINANCIAL STABILITY IN
RETIREMENT

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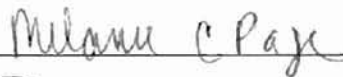
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Chapter I

Factors that Influence Financial Planning and Perceptions of Financial Stability in Retirement

The next 30 to 40 years will be a time of great change in the demographic characteristics of the United States. According to the United States Social Security Administration (1997), the number of individuals over 65 will double in the next three decades to represent 20% of the population. This means that over the next 30 years proportionally more Americans will be retiring from the workforce. Although this in itself is not a problem, many of these retirees will find themselves ill prepared for retirement. Some will find they are not prepared psychologically, and in some instances, physically, but many more will find they lack adequate financial resources to support themselves throughout their retirement (Ferraro & Su, 1999; Poterba, 1996). This demographic change requires that researchers begin to more thoroughly investigate the factors that influence retirement planning (Hudson, 1994). Recently, there has been a call for research in areas such as social adjustment, psychological adjustment, life style changes, and financial planning (Butler, 1999; United States Department of Labor, 1998). Although all these factors are of great importance, this thesis focuses specifically on aspects pertaining to financial planning for retirement. The rationale for selecting this topic is that financial security plays a significant role in all areas of retirement planning and subsequent adjustment (Coyle, 1990; MacEwen, Barling, Kelloway, & Higginbottom, 1995; Shouksmith, 1983).

Individuals often fail to accumulate adequate savings for retirement. In fact, nearly 20% of American age 60-64 are living in poverty, this number increases to 40%

for those 80 to 84 (Lumsdaine, 1996). Poterba (1996) demonstrated that upon reaching retirement age individuals have often only accumulated assets worth less than two times their pre-retirement annual income. Keating and Marshall (1980) reported that on average people do not become interested in retirement planning until around 48 years of age. In addition to this finding, Perry (1980) found that 53% of retirees surveyed had not planned for retirement. More recent research indicates that baby boomers are only saving at a rate of 33% of what will be needed to fund their retirement (Glass & Kilpatrick, 1998a), and the younger baby boomers are saving less than the older boomers (Warner, 1996). In addition to the lack of personal savings, individuals are retiring earlier (Rust & Phelan, 1997), saving less than in the past (Wise, 1996), and are unaware of their financial needs in retirement. For example, Hershey, Walsh, Brougham, Carter, and Farrell (1998) found individuals make unacceptably large errors when assessing their ability to retire. Given this relatively late age of interest and lack of adequate financial planning, many pre-retirees do not have the benefits of watching their money grow exponentially through the miracle of compounding. In fact, it has been shown many individuals fail to understand the miracle of compounding and perceive money as growing in a linear fashion (Hershey, 1995). These findings combined paint a bleak picture for future retirees' late-life financial stability. However, many researchers have focused on ways to change the future by offering intervention and training programs aimed at providing pre-retirees with information about financial planning, with the hopes increasing savings behaviors.

Much of the research on retirement planning focuses on training people to make sound financial decisions through intervention programs designed to promote savings

behaviors (Jones, Manion, & McIntire, 1983; Kamouri & Cavanaugh, 1986; Shouksmith, 1983). Some research has shown individuals who attend pre-retirement planning programs are more knowledgeable and more active in retirement planning (Kamouri & Cavanaugh, 1986). Although some programs have been successful in the short-run, many have failed to promote long-term savings behaviors. One major limitation of many of the current intervention programs is that they are oriented towards men and fail to acknowledge that men and women have different perceptions and understandings of the importance of retirement planning (Richardson, 1993). Other limitations of these programs are they are not available to everyone, only cover a narrow range of topics, and often do not address the needs of those attending (Siegel & Rees, 1992).

Jones et al. (1983) examined people's explanations of why they do not save. They found that avoidance was one of the greatest causes of the lack of financial planning. In addition, individuals reported they do not save because they lack time or money, or find the subject threatening. Although researchers are developing intervention programs to combat these barriers, basic research examining the interrelationships between factors that influence retirement planning is lacking. Understanding these factors could lead to the development of more effective programs.

The goals of this thesis are two-fold. The first goal is to better understand of how demographic variables influence individuals' perceptions of late-life financial stability. The second goal is to gain a greater understanding of how various factors interact to influence whether or not a person has saved for retirement. However, before these goals are described in detail, a review of the current literature on financial planning for retirement is provided. This review begins by discussing the literature on the sources of

income in retirement and concludes with an examination of research on the factors that influence savings behaviors.

Sources of Income

The majority of the literature on sources of income in retirement focuses on pension plans, Social Security, and personal savings (Devaney & Su, 1997). These sources are often referred to as the three-legged stool of retirement income (Liebig, 1984). In theory, individuals should have sufficient financial resources between these three sources to fund their retirement. However, research has shown that this is often not the case (Lumsdaine, 1996; Poterba, 1996).

Pension plans. Currently, retirees receive approximately 19% of their income from pension plans (Kleinman, Anadarajan, & Lawrence, 1999). Literature on pensions indicates the percentage of individuals who have plans will increase from 55% in 1988, to 88% by the year 2018 (Wiatrowski, 1993). This increase in the number of individuals who can expect to receive income from pensions appears to be a positive step in changing future retirees financial stability. Unfortunately, the characteristics of many pension plans limit how helpful these plans will be to future retirees.

One of the main limitations of many pension plans is that they are not adjusted in step with the cost of living; that is, they do not increase as inflation rises (Wiatrowski, 1993). In other words, the amount of money the individual receives from the pension does not change, but the amount of goods and services the person can buy with that money reduces as inflation rises. Another problem with many plans is they often encourage early retirement (Wise, 1996), thus, reducing the number of working years a person has to increase savings and earn Social Security benefits. Another limitation of

pensions is that not all companies provide them to their employees. For example, individuals employed by small businesses are less likely to have a company sponsored plan than those employed by large corporations (United States Department of Labor, 1998). In addition, many companies do not offer any type of pension to part-time employees. Not only are these limitations an important factor, research has also shown that demographic variables are related to the amount of income an individual can expect to receive from pension plans.

The predicted increase in the number of individuals that will receive pensions is not due to substantially more pension plans being offered by employers but to the increase of women in the workforce (Wiatrowski, 1993). However, because the amount of money an individual receives from pensions is based on the number of years worked at a given company, those who change jobs (Wiatrowski, 1993) or have discontinuous work histories (Rix, 1990) can expect to receive less post-retirement income from this source. This is especially problematic for women. On average, throughout their work history men spend 1.3 years out of the workforce, whereas women average 11.5 years out of the workforce (Glass and Kilpatrick, 1998a). Furthermore, women also tend to earn less money than men. Thus, women can expect much less of their retirement income to come from pensions than men (Talaga & Beehr, 1995). Unfortunately, women are not the only segment of the population that can expect only a small amount of retirement income from pension plans.

Research shows that individuals with low levels of education are less likely to receive income from pension plans than those with high levels of education (Devaney & Su, 1997). Furthermore, people with low levels of pre-retirement income are less likely

to receive significant income from pension plans than those with high pre-retirement incomes (Woods, 1996). In addition to these factors, age is also related the amount of retirement income from pension plans.

In recent years, there has been a shift from defined benefits plans to defined contribution pension programs. Defined benefit plans (DB) are pension plans in which the amount of money an worker receives upon retirement is based on the number of years s/he worked for a given company. Defined contribution plans (DC) are plans in which individuals invest part of their income and the company may match a certain percentage of the investment. The amount of money the person will receive in retirement greatly depends on how much money s/he personally invested into the plan. Research shows that individuals who have DB plans generally receive more income in retirement than those that participate in DC plans (Blank, 1999). Furthermore, younger employees are less likely to participate in DC plans than older employees (Bassett, Fleming, & Rodrigues, 1998). This suggests that younger workers will receive less income from pension plans upon retirement than older workers due in part to the shift from DB plans to DC plans, and younger employees' resistance to participating in DC plans.

Social Security. When Social Security was first designed it was not meant to be a sole source of funding for retirement (Costa, 1998). Rather, it was conceived to be a savings program to be used in conjunction with personal savings and pension plans. Unfortunately, over time many retirees have become dependent on the program as their sole source of income.

Currently, most retirees receive more income from Social Security than any other source (Kleinman et al. 1999). Those who are most likely to depend on Social Security

have a high school education or less, low pre-retirement incomes, they are older, and pessimistic about the future (Devaney & Su, 1997). Compared to their male counterparts, women are more likely to be dependent on Social Security and at the same time receive less money from the program. For example, in 1995 retired women received 57% of their income from Social Security, whereas men received 37% (Devaney & Su, 1997). Key reasons that women receive less money from Social Security than men include lower pay scales over the history of their work careers and often interrupted or intermittent work patterns (Block, 1984; Rix, 1990).

Although Social Security can help individuals finance their retirement, it was not designed to be a sole source of support. For example, people with a pre-retirement income of \$15,000 can expect Social Security to supply 45% of their post-retirement income, whereas those earning \$45,000 a year can expect Social Security to supply 25% (Wiatrowski, 1993). Moreover, those who opt for early retirement actively choose to decrease the amount of money they will receive from Social Security by a full 20% (Rust & Phelan, 1997; Wise, 1996). This means early retirees will have to rely more on income from pensions and personal savings.

With the aging of the baby boom generation, the future of Social Security is uncertain (Ramsey, 1984). It is estimated that by 2010, the current Social Security system will become strained due to an increase in the number of beneficiaries and a reduction in the number of workers who pay into the system. Much of the current literature on Social Security has addressed the future of the program and ways it can be changed. For example, major proposed changes to the program include allowing more immigrants into the United States to increase the size of the workforce, rewarding women

for having more children, reducing benefits for current retirees, and placing a greater burden on workers by raising FICA taxes (Beck, 1996). Although each of these solutions are plausible, it seems it would also be reasonable to educate people, especially women, about the importance of establishing a life-long pattern of personal savings. This suggestion has been echoed by current retirees who believe that people should start saving at an early age (Hershey, Brown, Jacobs, & Jackson, 2001).

Personal savings. As mentioned above, people often fail to recognize the importance and benefits of beginning to save early in life. Although it has been demonstrated that future retirees are going to have to save more and gain a greater understanding of their savings (Mitchell, 1998), there has been a decline in the percentage of money Americans save (Wiatrowski, 1993). Surprisingly, Americans are aware they are not saving enough money for retirement and are less secure about their saving behaviors than in the past. For example, in 1955, 22% of people felt confident about having enough money in retirement and 52% were somewhat confident, whereas in 1996, 19% were confident and 43% were somewhat confident (Devaney & Su, 1997). Although many Americans are aware they are not saving enough, they are not taking the appropriate steps necessary to improve their future financial situation. This is demonstrated by the fact that in 1992, individuals nearing retirement had only accumulated total assets valuing \$7,000 to fund their retirement (Wise, 1996). In the following section, the factors that influence personal savings are considered.

Factors that Influence Personal Saving Behaviors

With the fate of Social Security uncertain and a lack of adequate pension plans, most individuals will be largely dependent on personal savings to fund their retirement

expenses. Research on retirement saving behaviors has indicated that pre-retirees' savings are influenced by a number of factors. These factors include age, income, gender, and perceptions of retirement.

Age and savings behaviors. Gendell and Siegel (1992) reported the average age of retirement for men is decreasing, while it is increasing for women. This increase in age for women must be interpreted cautiously because in the past women were not well represented in the workforce. For men, however, it is clear that as a group they are retiring earlier. It also appears younger individuals have the goal of retiring early. For example, Singleton and Keddy (1991) found that workers under 35 years of age want to retire between 50 and 54. Given this decrease in retirement age, it seems that young individuals would start saving at an early age in order to meet an increased financial need. For example, an individual that retires at 65 years of age and lives to be 90 will have to sufficient funds to last 25 years, whereas someone who retires at 50 years of age and lives to 90 will need to have amassed enough money to last 40 years. Thus, it seems logical that if younger individuals are planning to retire at an early age, they would begin saving at a young age in order to meet their future financial needs. However, this has not been the case.

There is a tendency for younger people to save less, or "dissave" by going into debt (Devaney & Su, 1997). For example, younger individuals often find themselves going into debt by buying a house or starting a family. Among baby boomers, those between the ages of 45 to 51 are saving more money than those between the ages of 32 to 41 (Warner, 1996). Not only are those further from retirement less active savers, they are more anxious about retirement (Hayslip, Bezerlein, & Nichols, 1997). Hayslip et al.

speculated that younger people were anxious because they lacked accurate information about retirement. The combination of early retirement on the one hand and insufficient saving on the other (Wise, 1996) will cause many individuals to experience financial hardships in the post employment period.

Current income and saving. An individual's current financial situation influences their saving behavior in numerous ways. For example, younger people report they do not actively save because they perceive they do not have any "extra" money (Devaney & Su, 1997). Surprisingly, individuals with lower incomes want to retire earlier than those who earn over \$30,000 (Singleton & Keddy, 1991). Also, there is a correlation between income, age, and education with both older and more educated individuals earning more money (Hayslip et al., 1997), and men earning more money than women (Rix, 1990). Clearly, one's income has a dramatic impact on the amount of money an individual has available to save. For example, those in the lowest income brackets can only expect a small amount of their post retirement income to come from 401(k) plans, whereas for those in the highest brackets, 401(k) plans provide a substantial source of income (Francis, 1998). Not only does actual income play a role in how much money is available for saving, but an individual's income adequacy can also be an important determinant of savings behaviors. Income adequacy refers to the amount of expendable income an individual has available (George, 1992). For example, someone with a high income may have a relatively lower income adequacy due to a large household or over spending. Thus, they will have less expendable income available to save.

Current income is not only related to the amount of money someone has to save, but it is also related to the perceived importance of financial planning. Specifically,

individuals with higher incomes perceive financial planning as being more important than individuals who have lower incomes (Kragie, Gerstein, & Lichtman, 1989). Not only do high-income individuals perceive planning to be important, they also tend to save more than low-income individuals (Glass & Kilpatrick, 1998b).

Gender differences in saving. After the age of 65, men can expect to live 17 years, whereas on average, women can expect to live 19 years (Rix, 1990). It would seem that because women can expect to live longer in retirement that much of the research would focus on women's retirement savings behavior. However, research on retirement planning has traditionally focused on men (Costa, 1998; Glass & Kilpatrick, 1998b; Richardson, 1993). Given women's more prominent presence in the workforce, there have been calls for research that examines their retirement planning practices (Coyle, 1990; Richardson, 1993; Sterns & Gray, 1999).

Numerous studies have demonstrated a relationship between gender, marital status, post-employment planning behaviors (Champion, 1987; Sudin & Surette 1998) and financial stability in retirement (Rix, 1990). In general, married individuals tend to combine their resources (Henkens, 1999) and save more for retirement (Glass & Kilpatrick, 1998b). In fact, Rix (1990) reports the poverty rate for single men and women in retirement is 3½ times greater than that of married individuals. However, because women generally live longer than their male counterparts, they often find themselves living in poverty after the death of their spouse (Hurd & Wise, 1989), and thus, make up a much larger percentage of those living in poverty. In fact, in 1988 single women represented 72% of all aged individuals classified as poor.

Although some researchers have examined women's retirement savings behaviors, most have primarily focused on identifying differences between the genders. This comparative research has shown that women tolerate less risk when making financial decisions than men (Powell & Ansic, 1997; Sudin & Surette, 1998), and men are better prepared because they have more retirement resources than women (Glass & Kilpatrick, 1998a). One possible explanation that has been offered for this lack of preparedness among women is that they tend to view financial planning as more of a man's job (Glass & Kilpatrick, 1998a). A second possible explanation is that women, in general, view retirement planning as less important (Kragie et al., 1989). Only recently have researchers begun to seriously examine women's savings behaviors, however, there have yet to be studies that examine how factors such as income, perceptions of retirement, and expected age at retirement influence their savings practices. Studies are also needed which examine how women's perceptions of sources of retirement income differ from those of men.

Perceptions of retirement and savings. Thus far, financial planning for retirement has been discussed in terms of sources of income, age, current income, and gender differences. However, one important aspect of financial planning that has not been discussed involves individuals' general perceptions of retirement. Attitudes towards retirement have been shown to be positively correlated with perceptions of financial future, current life situation ratings, and retirement preparedness (Glamser, 1976; Mac Ewen et al, 1995; Taylor-Carter, Cook, & Weinberg, 1997). Glamser (1981) proposed that positive attitudes towards retirement were important predictors of retirement planning. In an earlier paper (Glamser, 1976), he suggested that "attitude toward

retirement is better understood as a response to the workers' individual situation" (p. 107). Furthermore, Devaney & Su (1997) found that future expectations were positively related to savings behaviors. This indicates that factors such as general perceptions of financial stability in retirement and perceptions of one's current financial situation need to be taken into account when attempting to explain individuals' savings behaviors.

Statement of Purpose

The goals of this thesis are to develop a better understanding of the factors that influence financial planning for retirement. The primary objective is to create a *wholistic* model that includes several individual difference variables believed to influence saving behaviors. These variables include age, gender, current income, level of education, marital status, perceptions of one's current financial situation, perceptions of the importance of personal savings as a source of income in retirement, the number of years from retirement, and perceptions of one's ability to meet financial obligations in retirement. These variables will be examined using structural equation modeling techniques to determine how they interact with one another and the extent to which they predict whether or not someone has saved for retirement. This study stands to make a unique contribution to the literature on retirement planning because much of the past research has explored how these different factors operate independently of one another, rather than how they interact with one another to jointly influence retirement saving behaviors.

The second goal of this thesis is to obtain a better understanding of individuals' perceptions of late-life financial stability. These analyses will be exploratory in nature because past research has focused more attention on retirees' actual sources of retirement

income, as opposed to future retirees' perceptions of various income streams. From an applied perspective, information on perceptions of retirement income could be used to help design more effective training and intervention programs aimed at promoting savings behaviors.

Hypotheses

The hypotheses tested in this thesis examine two sets of theoretically different research questions. The first set of hypotheses examines group differences in pre-retirees' perceptions of financial stability in retirement. The second set of hypotheses entail testing and refining a conceptual model that describes how various factors influence individuals' saving behaviors.

Group differences. The first set of research questions in this thesis examines how several demographic variables influence pre-retirees perceptions of late-life financial stability. However, due to a lack of prior research on pre-retirees' perceptions of financial stability in late-life, the hypotheses presented below are exploratory in nature.

Hypothesis one examines how age, gender, current income, and educational level combine to influence individuals' perceptions of how difficult it will be to have enough money in retirement.

Hypothesis two examines how age, gender, current income, and educational level influence perceptions of the importance of personal savings and investments as source of income in retirement.

Hypothesis three explores the joint effects of age, current income, gender, and educational level on perceptions of the importance of Social Security as a source of income in retirement.

Finally, hypothesis four explores how perceptions of the importance of retirement income from job benefits (i.e. pension plans) personal savings and investments are influenced by age, gender, current income, and educational level.

Conceptual model of factors that influence retirement planning. The second set of analyses consists of testing the conceptual model shown in Figure 1, which describes how various demographic and psychological factors influence savings behaviors. The variables used in the model include individuals' age, educational level, gender, income, marital status, perception of current financial situation, years from retirement, perception of the ability to meet expenses in retirement, perceptions of how much personal savings and investments will contribute to financial stability in retirement, and prior personal saving behaviors. Due to a lack of existing empirical research that indicates the how these factors interact with one another, several of the hypothesized relationships in the model are intuitively based.

Whether or not an individual has saved for retirement will serve as the criterion variable in the analysis (designated as "savings behaviors" on the far right side of the model shown in Figure 1). It is expected that age, perceived ability to meet retirement expenses, perceived current financial situation, marital status, number of years from retirement, and educational level will all be significant predictors of individuals' retirement savings practices (represented by paths a, b, c, d, e, and f in Figure 1). Age is expected to be a strong predictor of saving (path a) because as age increases so should the likelihood that an individual will have saved for retirement. This hypothesis has received some support in the literature (Devaney & Su, 1997; Warner, 1996). Individuals' perceptions of their ability to meet their needs in retirement is also expected to be

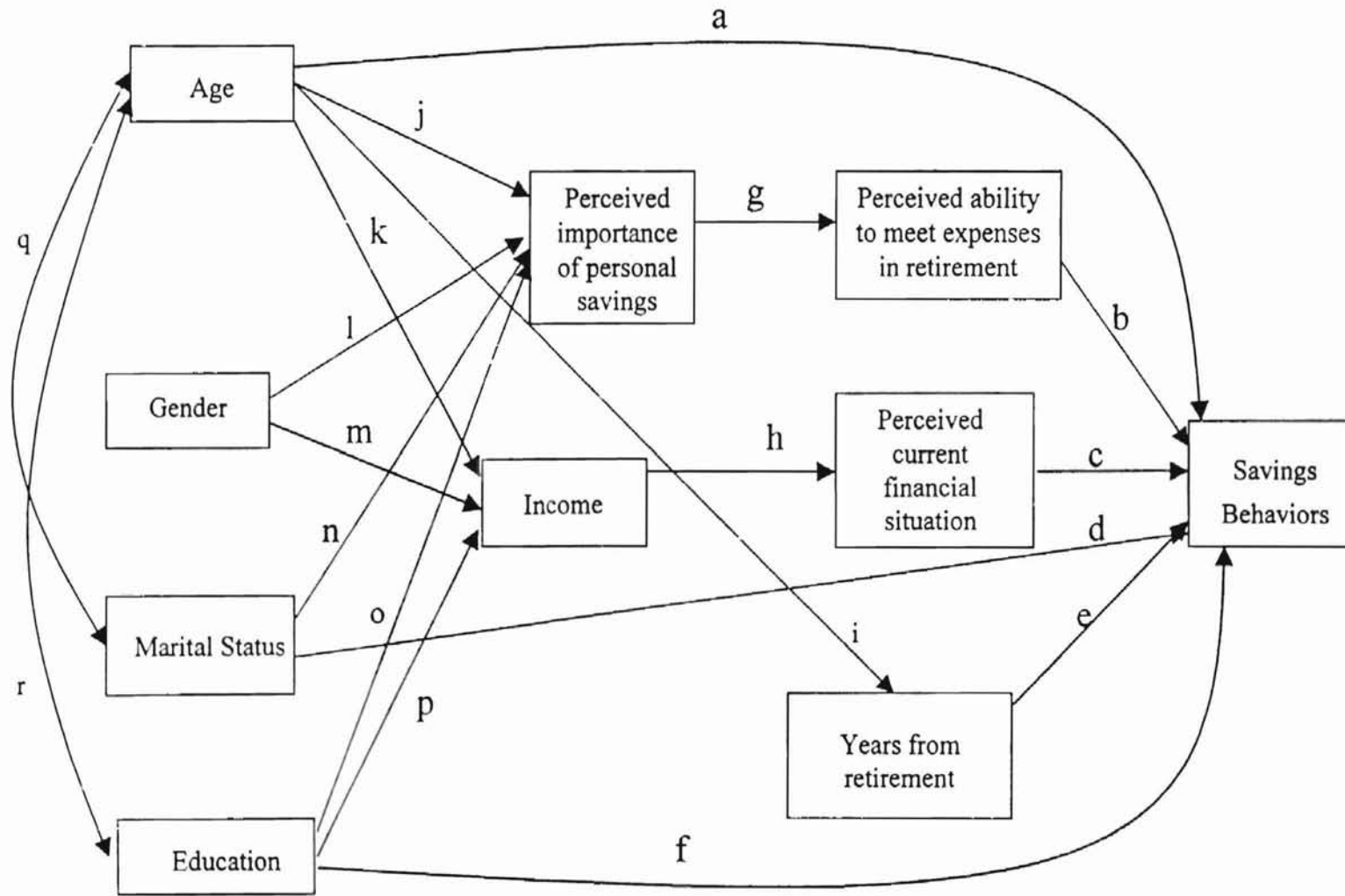


Figure 1: Proposed Conceptual Model

predictive of saving behaviors (path b). Specifically, those with a positive view of their financial situation in retirement probably have some money saved, whereas those that feel that they will not have sufficient income in retirement probably will not have saved. Path c, perceptions of current financial situation predicting savings behaviors, is hypothesized because previous researchers have proposed that measures of income adequacy are often a better measure of income than actual income (George, 1992). In this study, individuals' perceptions of their current financial situation serves as a subjective measure of income adequacy. Thus, it is expected that people who feel secure about their current financial situation should have some money saved because they perceive they have the money to do so. On the other hand, those who do not feel financially secure may not have any money saved for retirement because they may feel they have no discretionary income available for this purpose. Marital status is hypothesized to be predictive of saving behaviors (path d) because previous research (Glass & Kilpatrick, 1998b) has demonstrated that married couples are more likely to save than single individuals. Number of years from retirement is expected to be a predictor of savings (path e), such that the closer someone is to retirement the more likely he/she will have saved. Education is also hypothesized to be predictive of saving behaviors (path f), based on the expectation that as one's educational level increases, so will the likelihood of having saved for retirement.

The importance of personal savings as a source of income in retirement is expected to be predictive of individuals' perceptions of their ability to meet expenses in retirement (path g). This is because those who perceive personal savings to be an important component of late-life financial security should have a more optimistic view of

their financial future than those who do not. Path h is hypothesized because, in general, individuals with higher incomes should perceive their current financial situation to be more secure than those with lower incomes. Path i is predicted because as age increases the number of years from retirement is expected to decrease.

The final aspect of the model consists of a number of exogenous variables (on the left side of the model) that are hypothesized to predict current income and the perceived importance of personal savings as a source of income in retirement. These variables include age, gender, marital status, and educational level. The proposed relationships involving these exogenous markers are represented by paths j through p in Figure 1.

Path j specifies that age will be predictive of the perceived importance of personal savings. This is based on the previous finding that as age increases so does the likelihood of one's having saved (Devaney & Su, 1997). Gender is expected to be a predictor of perceived importance of personal savings, path l, because compared to men, women often underestimate the importance of personal savings in retirement (Kragie et al., 1989). Marital status is expected to be predictive of the importance of savings, path n, because it has been shown that married workers are more likely to save than single workers, thus, it seems logical that former would view savings as more important than latter. It is expected that a positive linear relationship will exist between educational level and the importance of savings (path o). This is expected because it seems that individuals with a higher educational levels would have a better understanding of the need for personal savings in retirement than their counterparts with lower levels of education.

Path k (age predicting income) is hypothesized because prior research has indicated a positive relationship between these two variables (Hayslip et al., 1997).

Path m (gender predicting income) is expected because previous literature has shown that women in the workforce earn less than men (Rix, 1990). The final relationship in the model, educational level predicting income (path p), is hypothesized because researchers have found that as educational level increases individuals' level of income also increases (Hayslip et al., 1997). Furthermore, two correlations are predicted, age and marital status (path q) and age and educational level (path r).

Since age is expected to be a significant predictor of several of the variables in the model, it is expected that the conceptual model described above might be better analyzed as a two-group yoked structural model. Therefore, if any significant age effects are identified, this between-subjects analysis approach will be employed. It is possible that more variance will be explained in the criterion by separating the sample into young and old pre-retirees, the parameter estimates will be more stable, and a more precise model will be achieved.

Chapter II

Method

Participants

Princeton Research Associates collected the data analyzed in this thesis through extensive telephone interviews with individuals from across the United States.¹ To ensure that a representative sample was drawn, a random-digit system was used to create a prospective list of participants. With this system, the first eight digits of the telephone numbers selected were chosen in proportion to the total number of telephone numbers in a given county. The last two digits were selected randomly, thereby creating an equal probability of selecting unlisted and listed phone numbers. When contacted, participants were asked a series of qualifying questions (e.g. age, gender, race, income) to ensure that the ultimate sample would be nationally representative. If the potential volunteer met the criteria for participation and agreed to respond to the survey, a thorough interview was conducted. The overall response rate for the sample was 49%. This rate is comparable to a similar study that used mail surveys to examine retirement planning behaviors (Szinovacz & Washo, 1992).

The final sample consisted of 2006 participants, however, only those individuals who were between the ages of 18 and 64 were used in this thesis. This subsample included 1002 employed men ($n = 550$) and women ($n = 452$). The mean age of the sample was 37.8 ($SD = 11.1$), and the mean educational level and income of the respondents were 14 years ($SD = 2.3$) and \$46k ($SD = \$31k$), respectively. Of the 1002 respondents, 55.9% reported being married at the time of the interview. Approximately

80% of the participants were white, 12% were African American, 2% were Asian, and 6% were biracial.

Measurement Instrument

Participants were asked how important income from Social Security, job benefits, and personal savings will be in terms of funding their retirement, and how difficult it will be for them to have enough money in retirement. These four questions were rated on a 4-point scale (1 = not all, 4 = a lot). Participants were also asked to rate their current financial situation on a 4-point scale of (1 = poor, 4 = great) and what they expected their financial status would be in retirement (1 = not enough money to meet expenses, 4 = have enough money to live comfortably with money left over). In addition to these questions, participants were asked how many years they were from retirement, and if they had personally saved for retirement. Also included in the survey were several demographic markers. Among these markers were age, gender, current income, educational level, and marital status.

Variable Coding

Depending on the type of analysis, age, current income, and educational level, were used as either categorically-based grouping variables or continuous variables. For the ANOVA analyses, the three variables were each recoded as dichotomous variables. The age groups were designated as follows: distant pre-retirees (DPRs, age 18 – 40, $n = 599$), and near pre-retirees (NPRs, age 41 – 64, $n = 403$). Current income was recoded as follows: low-income (less than \$40k, $n = 493$) and high-income (\$40k and higher, $n = 509$). The third variable, educational level was recoded as follows: less-educated (12 years or less, $n = 353$) and more-educated (some college and above, $n = 649$).

In the structural equation analyses of the conceptual model, the three variables were used as continuous variables. Income was coded on 1 - 6 scale ranging from below \$20k to \$100k, and educational level was coded as the number of years of formal education the individual had received. In the structural modeling analyses, gender and marital status were coded as follows: men = 0, women = 1; not married = 0, married = 1. The criterion variable, savings behaviors, was coded as 0 = no, (which corresponds to the statement "I have not yet personally saved any money for retirement") or 1 = yes ("I have personally saved money for retirement").

Data Analysis

Due the conceptual differences between the ANOVA and structural modeling analyses, the corresponding results and discussion are presented separately. Chapter 3 contains the results of the group difference analyses and a brief discussion of the main findings. Chapter 4 contains the results of the structural modeling efforts and a separate discussion of the implications of those findings.

Chapter III

Group Differences in Late-Life Financial Stability: Results and Discussion

Data Analysis of Group Differences

Four separate four-way factorial ANOVAs were computed. These 2 (Age) x 2 (Gender) x 2 (Income) x 2 (Educational Level) full-factorial designs were calculated to examine group differences in (a) perceptions of how difficult it will be to fund retirement, (b) perceptions of the importance of income from personal savings, (c) Social Security, and (d) job benefits in old age. This allowed for examination of all potential main effects and higher order interactions for each question. Due to the large number of main effects and interactions associated with these analyses, only the means associated with statistically significant effects are discussed. However, all F-ratios derived from these ANOVAs are reported in Tables 1-4.

The analysis of individuals' perceived difficulty in funding their retirement revealed three significant main effects (refer to Table 1). The significant main effect of gender showed that women ($M = 2.6$, $SD = 0.88$) perceived more problems in having sufficient income in retirement than men ($M = 2.4$, $SD = 0.91$). The main effect of income demonstrated that low-income individuals ($M = 2.8$, $SD = 0.90$) perceived greater difficulty in having enough financial resources in retirement than pre-retirees with high incomes ($M = 2.3$, $SD = 0.85$). The main effect of education indicated that less-educated workers ($M = 2.8$, $SD = 0.90$) perceived greater difficulty in their ability to fund their retirement than more-educated individuals ($M = 2.3$, $SD = 0.87$).

The analysis of the perceived importance of personal savings as a source of retirement income revealed four statistically significant effects, three main effects and

Table 1.

Analysis of Variance Results for Perceived Difficulty in Funding Retirement.

Source	<u>df</u>	<u>F</u>	p level
Gender (G)	1	12.85	.01
Age (A)	1	0.798	n.s.
Income (I)	1	36.76	.01
Educational level (E)	1	36.36	.01
G x A	1	0.51	n.s.
G x I	1	0.55	n.s.
G x E	1	3.81	n.s.
A x I	1	0.01	n.s.
A x E	1	0.05	n.s.
I x E	1	1.18	n.s.
G x A x I	1	0.15	n.s.
G x A x E	1	3.36	n.s.
G x I x E	1	1.33	n.s.
A x I x E	1	0.002	n.s.
G x A x I x E	1	0.000	n.s.
Error	983	(.729)	

one significant two-way interaction (results are displayed in Table 2). The main effect of gender demonstrated that men ($\underline{M} = 3.5$, $\underline{SD} = 0.79$) perceived personal savings to be more important than women ($\underline{M} = 3.3$, $\underline{SD} = 0.86$). The main effect of age showed that NPRs ($\underline{M} = 3.3$, $\underline{SD} = 0.88$) viewed personal savings as means of ensuring late-life financial stability as less important than DPRs ($\underline{M} = 3.5$, $\underline{SD} = 0.78$). The final main effect, income, indicated that low-income individuals ($\underline{M} = 3.3$, $\underline{SD} = 0.88$) perceived personal savings and investments as less important than high-income individuals ($\underline{M} = 3.5$, $\underline{SD} = 0.75$). The significant two-way ordinal interaction demonstrated that high-income DPRs ($\underline{M} = 3.6$, $\underline{SD} = 0.72$) viewed personal savings as more important than any other group. Low-income NPRs ($\underline{M} = 3.0$, $\underline{SD} = 0.96$) perceived personal savings as less important than the other three groups. There were only very small differences between the mean ratings of low-income DPRs ($\underline{M} = 3.38$, $\underline{SD} = 0.81$) and high-income NPRs ($\underline{M} = 3.44$, $\underline{SD} = 0.78$).

The analysis of the perceived importance of Social Security as a source of retirement income revealed no higher order interactions and three statistically significant main effects (age, income, and educational level). These results are displayed in Table 3. The main effect of age showed that NPRs ($\underline{M} = 2.4$, $\underline{SD} = 0.82$) viewed Social Security as more important than DPRs ($\underline{M} = 2.0$, $\underline{SD} = 0.88$). The main effect of income demonstrated that low-income individuals ($\underline{M} = 2.3$, $\underline{SD} = 0.92$) perceived income from Social Security as more important than high-income individuals ($\underline{M} = 2.1$, $\underline{SD} = 0.81$). The final main effect indicated that less-educated individuals ($\underline{M} = 2.4$, $\underline{SD} = 0.89$) perceived Social Security as more important than more-educated individuals ($\underline{M} = 2.1$, $\underline{SD} = 0.84$).

Table 2.

Analysis of Variance Results for the Perceived Importance of Personal Savings.

Source	df	F	p level
Gender (G)	1	4.67	.03
Age (A)	1	18.65	.01
Income (I)	1	27.79	.01
Educational level (E)	1	3.37	n.s.
G x A	1	1.47	n.s.
G x I	1	0.62	n.s.
G x E	1	0.43	n.s.
A x I	1	4.63	.03
A x E	1	0.86	n.s.
I x E	1	0.04	n.s.
G x A x I	1	0.05	n.s.
G x A x E	1	3.04	n.s.
G x I x E	1	2.07	n.s.
A x I x E	1	0.22	n.s.
G x A x I x E	1	0.004	n.s.
Error	986	(.642)	

Table 3.

Analysis of Variance Results for the Perceived Importance of Income from Social Security.

Source	<u>df</u>	<u>F</u>	<u>p level</u>
Gender (G)	1	0.61	n.s.
Age (A)	1	29.62	.01
Income (I)	1	10.03	.01
Educational level (E)	1	18.54	.01
G x A	1	0.35	n.s.
G x I	1	3.61	n.s.
G x E	1	0.01	n.s.
A x I	1	1.38	n.s.
A x E	1	1.51	n.s.
I x E	1	0.00	n.s.
G x A x I	1	0.80	n.s.
G x A x E	1	0.13	n.s.
G x I x E	1	0.38	n.s.
A x I x E	1	1.77	n.s.
G x A x I x E	1	0.01	n.s.
Error	983	(.704)	

Table 4.

Analysis of Variance Results for the Perceived Importance of Income from Job Benefits.

Source	df	F	p level
Gender (G)	1	0.26	n.s.
Age (A)	1	0.24	n.s.
Income (I)	1	5.70	.02
Educational level (E)	1	0.35	n.s.
G x A	1	0.10	n.s.
G x I	1	1.79	n.s.
G x E	1	0.36	n.s.
A x I	1	2.26	n.s.
A x E	1	0.26	n.s.
I x E	1	0.65	n.s.
G x A x I	1	0.71	n.s.
G x A x E	1	2.89	n.s.
G x I x E	1	0.21	n.s.
A x I x E	1	0.53	n.s.
G x A x I x E	1	0.03	n.s.
Error	984	(.885)	

The analysis of the perceived importance of job benefits as a source of income in retirement revealed no higher order interactions. Of the four potential main effects, only the effect of income was found to be statistically significant (see Table 4). This main effect demonstrated that low-income individuals ($M = 2.9$, $SD = 0.94$) perceived income from job benefits as less important than high-income individuals ($M = 3.0$, $SD = 0.95$).

Discussion of Group Differences

As can be seen from the results presented above, demographic variables do influence perceptions of future financial stability and retirement income. Although most previous research has focused on current retirees' actual financial stability, many of the results from this study parallel trends in how much money retirees currently receive from personal savings, Social Security, and job benefits. However, several of the results did not correspond to findings reported in previous literature.

Women, individuals with low-incomes, and less-educated pre-retirees perceived that funding their retirement would be more difficult than men, high-income, and more-educated pre-retirees, respectively. These findings may be explained by research that shows women are more likely than men to be dependent on Social Security in retirement (Devaney & Su, 1997) and less likely to have sufficient amounts of income from personal savings (Glass & Kilpatrick, 1998a) and pension plans (Talaga & Beehr, 1995). Research has also demonstrated that retirees with low pre-retirement incomes receive less money from personal savings (Francis, 1998) and are more likely to be dependent on money from Social Security (Devaney & Su, 1997) than those retirees who have higher pre-retirement incomes. It may be that women and low-income individuals perceive more

difficulty in having sufficient funds in retirement because they will be more dependent on Social Security and have less income from personal savings and pensions than men and high-income retirees. Thus, due to a lack of income from two legs of the retirement stool, members of the former groups expect to have more trouble funding their retirement than members of the latter group. Furthermore, less-educated retirees are also likely to receive a substantial amount of their retirement income from Social Security, which reveals in part why members of this group perceive that it will be difficult to fund their retirement.

A comparison of individuals' perceptions of the importance of personal savings in funding their retirement with published research on savings behaviors leads to several interesting findings. In the present analyses, women viewed personal savings as less important than men. This finding may explain why women are less prepared for retirement than men (Glass & Kilpatrick, 1998). Perhaps, women are less financially prepared for retirement than men because women fail to recognize the importance of personal savings. The analysis of individuals' perceptions of importance of personal savings also revealed that low-income workers viewed savings as less important than high-income workers. This result is also consistent with existing studies that show low-income retirees receive less income from personal savings than high-income retirees (Francis, 1998). However, the reasons for the interaction between age and income are not as clear-cut.

High-income distant pre-retirees perceived income from personal savings as more important than high-income NPRs, low-income DPRs, and low-income NPRs. As a group, the low-income NPRs perceived personal savings as least important. This reveals that age plays an important role in individuals' perceptions of the importance of personal

savings; however, this effect does not mirror previous research on savings behaviors. In this analysis it was shown that DPRs viewed personal savings as more important than NPRs, whereas in actuality, younger people are less likely to save than those who are closer to retirement (Devaney & Su, 1997; Warner, 1996). Logically, it would seem that NPRs should perceive savings to be more important than DPRs because NPRs are more likely to be saving for retirement. Perhaps one explanation for this finding is that younger generations are aware of the importance of saving for retirement but they are “dissaving” (Devaney & Su, 1997) by going into debt. Thus, they may currently be unable to save due to a lack of disposable income, but at the same time, they are aware of the fact that personal saving will be an important source of income when they retire.

Individuals’ perceptions of the importance of Social Security in retirement generally mirrored previous research on those who are most dependent on Social Security. For example, retirees with either low levels of education or pre-retirement income tend to be the most dependent on Social Security (Devaney & Su, 1997). The current study showed that those with low incomes or low levels of education perceived Social Security to be more important than those with high incomes or high levels of education, respectively. In addition to the main effects of income and educational level for this question, there was also a significant age effect. The NPRs viewed income from Social Security as more important than DPRs. It may be that DPRs reported income from Social Security as less important than NPRs because of the recent focus on proposed changes to the Social Security program. Attention in the media may have led younger individuals to worry that Social Security will not be available when they reach retirement age. This could also explain why DPRs viewed personal savings as more important than

NPRs. Specifically, it may be that DPRs are aware that the Social Security program may not be solvent when they retire, and thus may feel that personal savings will take on a greater role in meeting their financial needs. Interestingly, there was not a gender difference in perceptions of the importance of Social Security in funding retirement. Because women tend to be more dependent on Social Security in retirement than men (Devaney & Su, 1997), one would have expected that women would have perceived it to be more important than did men. However, it may be that the women were aware that they cannot depend on a substantial amount of income from Social Security, and therefore, did not rate it as more important than men. A second possible explanation could be that the women were not aware that they are more likely than men to find themselves dependent on Social Security in late life.

As stated in the literature review, current older workers are more likely to receive a pension plan in retirement than current younger workers (Devaney & Su, 1997). In addition, men tend to receive more income from pensions than women (Talaga & Beehr, 1995). However, there were no significant age or gender differences in individuals' perceptions of the importance of job benefits as a source of retirement income. In addition, there was not a significant effect of educational level, nor were there any significant interaction effects. The only statistically significant finding was that low-income pre-retirees perceived job benefits to be less important than high-income pre-retirees. This is consistent with the existing economic literature that shows when compared to low-income pre-retirees, pre-retirees with high incomes are more likely to receive pensions benefits (Woods, 1996).

The above discussion highlights several key issues about individuals' perceptions of financial stability in retirement. Based on the obtained results it is apparent that pre-retirees view their financial futures differently based on their age, gender, educational level, and income. These findings have several implications for intervention programs aimed at promoting savings behaviors. Because individuals' perceptions of late-life financial stability differ across demographic groups, it would seem important to present subgroups of individuals with intervention programs designed specifically for them. For example, people who perceive great difficulty in funding their retirement may need to learn about the benefits of beginning to save early (regardless of the amount they can contribute to a plan). Or, for those groups that fail to recognize the importance of personal savings, the intervention could be tailored to demonstrate that savings represent a major component of late-life financial stability.

Although previous research has provided insights into why perceptions of financial stability in late life differ, more research will be needed if we are to fully understand why certain segments of the population hold different views. Specifically, future research needs to examine why women think personal savings are less important than men, and why less educated individuals feel it will be more difficult to fund their retirement than their more educated counterparts. By understanding the psychological factors that underlie individual's perceptions, we may be better able to combat some of the more significant barriers to retirement planning.

Chapter IV

Structural Modeling: Results and Discussion

Structural Modeling Results

The conceptual model presented in Figure 1 was tested using Structural Equation Modeling (SEM) techniques. The modeling program used was Amos version 3.6. To ensure that a model of good fit was achieved, several fit indices were used: χ^2 , GFI, AGFI, TLI, and RMSEA. In a good fitting model, the obtained χ^2 value should be small and non-significant, and GFI, AGFI, and TLI (which can range between 0 and 1) should approach unity. For the purpose of this analyses, GFI, AGFI, and TLI values above .9 were considered to represent a good fit. An exact fitting model would have a RMSEA value of .00, however, most researchers consider values below .08 representative of a good fitting model (Arbuckle, 1997).

In order to test the reliability of the final model, initial models were computed using only half of the sample. This subsample, which will be referred to as the exploratory sample, was created using the random number generator option in SPSS 9.0. Once an adequate model was identified based on the exploratory sample, it was then tested in a replication analysis using the holdout sample.

Exploratory analyses. The exploratory sample consisted of 274 men and 225 women. Of the 499 participants, 268 were married at the time of the interview. The mean age of the sample was 37.1 years (SD = 11.0). The mean educational level and income of the sample was 14.1 years (SD = 2.3) and \$46k (SD = \$31k), respectively.

Analysis of the conceptual model presented in Figure 1 revealed poor fit indices, $\chi^2 (27, N = 499) = 323.04, p < .01, \text{GFI} = .88, \text{AGFI} = .78, \text{TLI} = .64, \text{RMSEA} = .15$. To

achieve a better fitting model, modification indices reported by AMOS were used to make adjustments. However, only those indices that were theoretically feasible were considered acceptable and adopted into the model. Pathways in initial runs that were not statistically significant were eliminated. Due to the dynamic nature of structural modeling, a number of preliminary models were computed before a “best-fitting” model was decided upon.

The indices for the most favored revised model revealed a good fit, $\chi^2(16, N = 499) = 29.48, p < .05, GFI = .99, AGFI = .97, TLI = .96,$ and $RMSEA = .04$. A comparison of the fit indices from the proposed model and the revised model, revealed the latter to be a much better fit to the data. In addition, the revised model explained 32% of the variance in savings behaviors, whereas the proposed model only explained 18% of the variance. The path diagram presented in Figure 2 displays the regression coefficients and explained variance values for the revised model. Of the 18 hypothesized relationships, 11 were found to be significant and included in the revised model. These include paths a, b, c, g, h, j, k, l, p, q, and r in Figure 1. A comparison of the revised and proposed models reveal that several pathways were added and one variable (years from retirement) was removed.

The revised model contained four statistically significant age pathways. These paths were (a) age to income, (b) age to individuals’ perceptions of their current financial situation, (c) age to savings behaviors, and (d) age to the perceived importance of personal savings. These significant age pathways suggested that a more accurate representation of the data could be achieved if a two age group yoked modeling analysis was conducted.

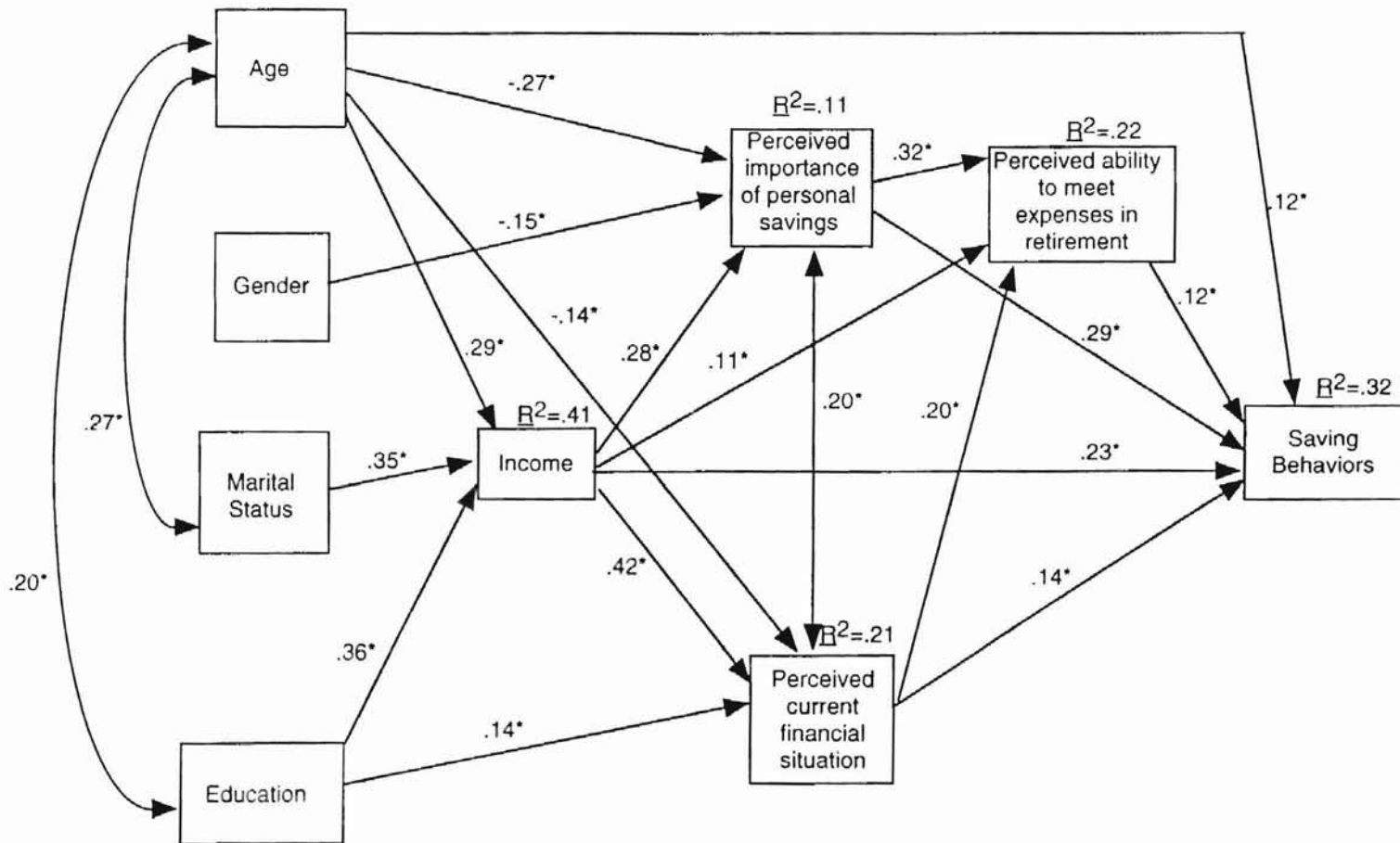


Figure 2. Revised model with standardized beta weights and R^2 values.
 * indicates paths that were significant at $p < .05$

To determine if a better fitting model could be achieved by separating the participants into two age groups, the sample was divided into near pre-retirees (NPRs, age 18-40, $N = 314$) and distant pre-retirees (DPRs, age 41-64, $N = 185$). To test for differences between NPRs and DPRs, the variable “age” and all paths associated with age were removed from the modified model and separate path diagrams were drawn for each age group. All other relationships remained unchanged.

A two-step process is involved in testing the adequacy of a two-group model. First, a “fully constrained” model is estimated such that all variances and beta weights are constrained to be equivalent across young and old groups, and all parameters are estimated simultaneously. This model is computed in order to establish baseline fit indices for the purpose of comparison. In the second step, a “freely estimated” model is calculated in which all parameters and variances are allowed to vary across the age groups. If the second model reveals significantly improved fit indices based on a Chi-square difference test, then it is concluded the two-group yoked model provides a better fit to the data.

The fully constrained analysis revealed a reasonably good fit to the data, $\chi^2(50) = 122.73$, $p < .01$, $GFI = .95$, $AGFI = .93$, $TLI = .90$, and $RMSEA = .05$. The freely estimated model was also a good fit to the data, $\chi^2(28) = 39.67$, $p = n.s.$, $GFI = .98$, $AGFI = .95$, $TLI = .97$, and $RMSEA = .03$. However, the Chi-square difference test, $\chi^2_{diff}(22) = 83.06$, $p < .05$, demonstrated that the freely estimated model was a statistically significant better fit than the constrained model. Figure 3 displays the standardized beta weights for each of the paths in the two-group model, and the R^2 values for each variable included in the path diagram. Once it was determined that the overall path diagram

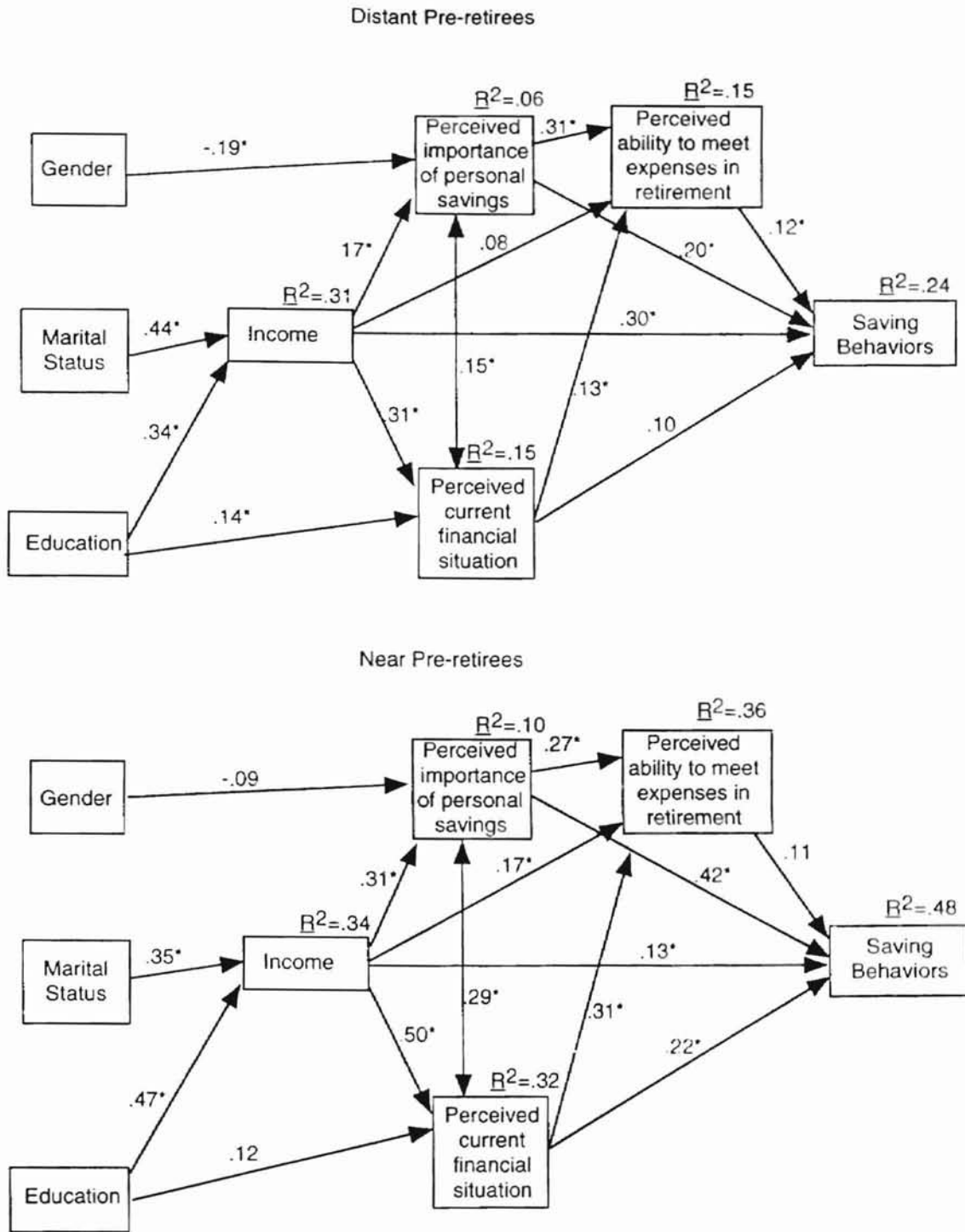


Figure 3. Standardized beta weights and R^2 values for the two-group yoked exploratory model
 * indicates paths that were significant at $p < .05$

differed for the DPRs and NPRs. analyses were conducted to determine which specific paths differed significantly across groups.

Comparisons of the beta weights for the two-group yoked model were conducted using the critical difference command in the AMOS 3.6 program. The analysis revealed that four paths were statistically different across the two groups. These pathways were: (a) income to the perceived importance of savings, $t = 2.23$, $p < .05$, (b) income to savings behaviors, $t = -2.06$, $p < .05$, (c) income to perceived current financial situation, $t = -3.57$, and (d) perceived current financial situation to perceived ability to meet expenses in retirement, $t = 1.98$, $p < .05$.

Confirmatory analyses. As stated above, the original sample of 1002 was divided into two samples, one to be used for the exploratory analyses and the second to be used in a confirmatory analysis. Because the exploratory analysis demonstrated that the best fitting model differed for DPRs and NPRs, the confirmatory analyses were conducted at the level of two age groups.

The sample for the confirmatory analysis consisted of 276 men and 227 women. Of the 503 participants, 292 reported being married at the time of the interview. The mean age of the sample was 38.5 ($SD = 11.1$). The mean educational level and income were 14.1 years ($SD = 2.3$) and \$47k ($SD = \$31k$), respectively. There were 218 NPRs and 285 DPRs in the sample.

A fully constrained two age group yoked model was estimated first. Conceptually, this model corresponded to the final two-group model calculated using the exploratory sample. The fit indices revealed a relatively good fit to the data, $\chi^2(50) = 126.15$, $p < .01$, $GFI = .94$, $AGFI = .92$, $TLI = .89$, and $RMSEA = .06$. The freely

estimated model also revealed a good fit to the data, $\chi^2(28) = 67.14, p < .01, \text{GFI} = .97, \text{AGFI} = .92, \text{TLI} = .90, \text{RMSEA} = .05$. Next, a Chi-square difference test was used to determine if the freely estimated model was superior. The results of this test, $\chi^2_{\text{diff}}(22) = 59.01, p < .05$, showed that the unconstrained model was indeed a better fit. This result confirmed the exploratory finding that separate models for DPRs and NPRs more accurately represent the pattern of covariances among the variables.

Inspection of the yoked confirmatory model revealed that the variance accounted for differed for the DPRs and NPRs. In the DPRs path diagram, the multiple R^2 values were as follows: (a) 30% of the variance was accounted for in savings behaviors; (b) 18% of the variance was accounted for in the perceived ability to meet retirement expenses; (c) 22% of the variance was accounted for in perceived current financial situation; (d) 2% of the variance was accounted for in the perceived importance of savings; and (e) 36% of the variance was accounted for in income. For NPRs the multiple R^2 were as follows: (a) 25% of the variance was accounted for in savings behaviors; (b) 25% of the variance was accounted for in the perceived ability to meet retirement expenses; (c) 16% of the variance was accounted for in perceived current financial situation; (d) 11% of the variance was accounted for in perceived importance of personal savings; and (e) 42% of the variance was accounted for in income. The next stage of analyses involved determining which specific paths in the confirmatory model were significantly different across age groups.

Comparisons of the beta weights across groups in the confirmatory analysis were again conducted using the critical difference command in the AMOS 3.6 program. The results of this analysis and standardized beta weights for each pathway are presented in

right hand column of Table 5. The left hand column contains the standardized beta weights and indicates which paths were statistically different for DPRs and NPRs for the two-group exploratory model. The paths that differed for the DPRs and NPRs are noted by the dagger (“†”) symbol next to the standardized beta weights for each of the models. For example, the dagger next to the coefficient (.27) for the DPRs’ path “current financial situation to savings behaviors” in the confirmatory column means that beta weights for the DPRs and NPRs differed for this path (note a parallel dagger next to the .00 weight for the NPRs). By comparing the pattern of group differences in beta weights across the exploratory and confirmatory analyses, it is apparent that the models contain more similarities than differences. This finding further validates the conclusion that the confirmatory analysis did replicate the results of the exploratory analyses.

Discussion of the Structural Modeling Analyses

The model shown in Figure 1 was developed on the basis of past research and researcher intuition. It was designed to portray a subset of factors that influence individuals’ retirement savings behaviors. However, the original model was shown to be an inaccurate representation of the data, thus, several modifications were required. These modifications lead to the development of the model shown in Figure 2. Comparison of the conceptual model of savings behaviors shown in Figure 1 with the revised model in Figure 2 reveals that 11 of the 20 hypothesized paths in the former appear in the latter. Furthermore, one variable was removed from the revised model, and several new pathways were added. The most notable characteristic of this revised single group model is that it contained four significant age pathways. It was because of these paths that the

Table 5.
Beta Weights and Fit Indices for Exploratory and Confirmatory Models.

Age Group	Pathway	Standardized Beta Weight	
		Exploratory	Confirmatory
Distant Pre-retirees			
	Perceived Expenses → Saving Behaviors	.12*	.14*
	Import of Savings → Saving Behaviors	.20*	.06
	Income → Saving Behaviors	.30* [†]	.28*
	Current Financial Situation → Saving behaviors	.10	.27* [†]
	Import of Savings → Perceived Expenses	.31*	.29*
	Income → Perceived Expenses	.08	.06
	Current Financial Situation → Perceived Expenses	.13* [†]	.19*
	Income → Current Financial Situation	.31* [†]	.42*
	Educational level → Current Financial Situation	.14*	.11*
	Income → Import of Savings	.17* [†]	.09 [†]
	Gender → Import of Savings	-.19*	.10 [†]
	Marital Status → Income	.44*	.53*
	Educational Level → Income	.34*	.29*
	Current Financial Situation ↔ Import of Savings	.15*	.29*
Near Pre-retirees			
	Perceived Expenses → Saving Behaviors	.11	.20*
	Import of Savings → Saving Behaviors	.42*	.21*
	Income → Saving Behaviors	.13* [†]	.24*
	Current Financial Situation → Saving behaviors	.22*	.00 [†]
	Import of Savings → Perceived Expenses	.27*	.31*
	Income → Perceived Expenses	.17*	.18*
	Current Financial Situation → Perceived Expenses	.31* [†]	.15*
	Income → Current Financial Situation	.50* [†]	.36*
	Educational level → Current Financial Situation	.12	.09
	Income → Import of Savings	.31* [†]	.33* [†]
	Gender → Import of Savings	-.09	-.07 [†]
	Marital Status → Income	.35*	.48*
	Educational Level → Income	.47*	.43*
	Current Financial Situation ↔ Import of Savings	.29*	.37*
Fit Indices	χ^2	39.67	67.14
	df	28	28
	GFI	.98	.97
	AGFI	.95	.92
	TLI	.97	.90
	RMSEA	.03	.05

*indicates paths that were statistically significant at $p < .05$.

[†] represents paths that differed at $p < .05$ across NPRs and DPRs.

sample was divided into two age groups to determine if a yoked model would better characterize the data. It was found that the two age group model shown in Figure 3 did, in fact, better represent the data as compared to the single group representation. Thus, it is necessary to discuss the findings at the level of the two separate age groups.

Several similarities are apparent when comparing the structure of the models for DPRs and NPRs. The path diagram for both age groups include the same variables and pathways to explain savings behaviors. This seems to indicate that the overall structure of the models that explain the savings behaviors of DPRs and NPRs are identical. However, although the structures of the path diagrams are the same, there are some important differences in the characteristics of the models, including the values of the beta weights across the two groups.

For both NPRs and DPRs, there was a positive relationship from income to savings behaviors. However, this relationship was significantly larger for the DPRs than the NPRs. This finding may be due to the fact that older individuals are more likely to have saved for retirement than their younger counterparts (Warner, 1996). If this is in fact the case, it is possible that DPRs savings behaviors were more contingent on how much income was available to save, whereas although income plays a role in NPRs behaviors, due to their age and proximity to retirement, the relationship between income and savings behaviors was much smaller.

The second path that differed for NPRs and DPRs was income to perceived current financial situation. Again, the coefficient for this path was positive for both groups, but it was larger for NPRs. This finding may be explained by research that has shown that younger individuals are likely to be “dissavers” when compared to older

individuals (Devaney & Su, 1997). For example, a young individual with an income of \$30k, who has just entered the workforce and is setting up a household of his/her own, may perceive his/her financial situation as poor. Thus, s/he is accumulating large amounts of debt and may rate his/her current financial situation as poor for this reason. An older individual making \$30k is likely to be more established and have fewer bills, therefore, his/her perceived financial situation should be more positive than that of their younger counterparts. Thus, for the older workers, there should be a stronger relationship between actual income and perceived current financial situation.

The other two paths that differed for the DPRs and NPRs were (a) the positive relationship between perceived financial stability to expected expenses in retirement and (b) the positive relationship between income and perceptions of the importance of personal savings in retirement. In both instances, the magnitudes of the regression coefficients were larger for the NPRs than the DPRs. These differences and the two discussed above underscore the notion that when attempting to understand the factors that underlie savings behaviors, age must be considered.

Although there were only four path coefficients that were significantly different for the DPRs and NPRs in the exploratory analysis, several paths were statistically significant for one age group but not the other. For example, perceived ability to meet retirement expenses was a significant predictor of savings behaviors, gender was a significant predictor of the importance of personal savings as a means of income, and education was a significant predictor of perceived financial situation for the DPRs but not the NPRs. Furthermore, perceived current financial situation was a significant predictor of savings behaviors, and income was a significant predictor of perceived ability to meet

retirement expenses for the NPRs but not the DPRs. Although these paths were not statistically different across the age groups, the fact that they were significant for one group and not the other again suggests that age is an important factor to consider when attempting to explain retirement planning practices.

The research reported in the literature review primarily focused on how demographic variables influence savings behaviors. However, it may be that much of research that we have relied on to explain savings practices is misleading because researchers have failed to examine not only how age influences savings, but also how age impacts other variables related to savings practices. Based on the finding that several paths were significant for DPRs that were not significant for NPRs (and visa versa), it is apparent that age does differentially influence financial planning.

A visual inspection of the amount of variance accounted for in each variable in the two-group yoked exploratory model reveals that in each instance, more variance was explained for the NPRs than the DPRs. This was particularly true in the criterion, in which 48% and 24% of the variance was accounted for in the savings behaviors of the NPRs and DPRs, respectively. These differences were most likely the result of the majority of the regression weights being relatively smaller for DPRs than NPRs, which suggests that as a group NPRs are more predictable than DPRs. In other words, not all young people act in a similar manner when it comes to savings, and it may be necessary to further separate them into subgroups based on other factors, such as income, to better understand the factors that have the greatest influence on their savings behaviors.

In order to ensure the two age group model discussed above was stable and replicable, confirmatory analyses were conducted using a holdout sample. The result of

the analysis revealed that a two group yoked unconstrained model was a better fit than a constrained model. Furthermore, when assessing the pattern of significant differences among regression coefficients for DPRs and NPRs across exploratory and confirmatory models, more similarities than differences were found. In addition to these two findings in support of a two age group model, a comparison of regression weights for the DPRs and NPRs showed that the majority of paths that were significant in the exploratory analysis were also significant in the confirmatory analysis. Furthermore, the majority of the coefficients that were not significant in the exploratory analyses also failed to reach statistical significance in the confirmatory analysis. This further supports the validity of developmental differences in the factors that influence savings behaviors.

Much of the previous research on retirement has focused on the studying the factors that influence savings behaviors independent of one another. In contrast, this thesis focused on creating a wholistic model in an attempt to better understand the relationships between factors that influence retirement planning. In doing so, a number of interesting findings emerged.

Previous research has shown that married individuals tend to be more active savers than single individuals (Glass & Kilpatrick, 1998b). However, in this thesis, marital status was not directly related to savings behaviors for either age group, but being married was associated with higher incomes and income was predictive of savings behaviors. This suggests that being married does not lead to an increase in saving behaviors but that being married leads to an increased income, and that in turn, leads to increases in savings behaviors. Thus, it maybe as Henkens (1999) argued that married individuals pool their income and thus, have more money available to save.

In both path diagrams of the exploratory analysis, income predicted individuals' perceptions of their current financial situation. For NPRs, both income and perceived current financial situation (a subjective marker of income adequacy) were predictive of savings behaviors, whereas only income was a significant predictor of savings behaviors for DPRs. This raises some interesting questions about using subjective measures of income adequacy. For instance, it has been suggested that markers of income adequacy are more appropriate measures to use in some instances than actual income (George, 1992). The results of this study suggest that when examining individuals' retirement savings behaviors, both measures of actual and subjective income adequacy are needed to best explain NPRs savings behaviors. However, when attempting to explain DPRs savings behaviors, a single measure of actual income best accounts for their behaviors.

Perhaps the most intriguing finding of the study was that separate path diagrams were needed to best explain near and distant pre-retirees' savings behaviors. The developmental differences that appeared made it necessary to treat near and distant pre-retirees as separate groups. This finding alone suggests that retirement planning is not an entity that is consistent across individuals of various ages regardless of other similarities. For example, consider a young woman and older woman who are both planning for retirement. Although both are women, it is unlikely that they will view retirement planning and savings the same way. The older woman may view savings as more important to her future financial stability than the younger woman, and thus be more likely to save for this reason. In contrast, the younger woman may discount the importance of future financial stability, and base her savings decision primarily on her current income level.

These findings represent a significant contribution to the literature in that a model was developed that successfully predicted savings behaviors. Also, it was shown that there are developmental differences in the factors that predict savings behaviors, and many of the paths in the models of NPRs and DPRs have not previously been studied. This last point is important because it suggests new research directions. For example, depending on an individual's age, his/her perceptions of the importance of personal savings, perceived ability to meet retirement expenses, perceived current financial situational, and income will differentially influence his/her savings behaviors. Of these four relationships, the first two relationships have received little attention in the literature. These findings suggest that future research should examine not only how demographic variables and perceptions influence savings behaviors, but also how these two factors and others such as personality interact with one another to influence individuals' retirement planning practices.

Chapter V

General Discussion and Conclusions

The two sets of analyses in this thesis are similar because each addressed some aspect of financial planning for retirement. Furthermore, the results show that several key factors which influence individuals' perceptions of late-life financial stability also influence savings behaviors. One the most salient factors in both sets of analyses was income. The main effect of income was significant in the four ANOVA analyses, and income was a central variable in the structural equation models. This finding is not new to the retirement literature. However, the results of this thesis also demonstrate that factors other than income influence individuals' savings behaviors and perceptions of late-life financial stability. For instance, unlike many previous studies on retirement planning, both components of this thesis had a strong focus on pre-retirees' perceptions in some form or another. The findings from this thesis have important implications not only for those who design intervention programs aimed at promoting savings behaviors, but also for those who develop public policy initiatives.

In the summer of 1998 in Washington D. C., the first National Summit on Retirement Savings (NSRS) was held (Unites States Department of Labor, 1998). The purpose of this meeting was to gather individuals from the public and private sector from around the country to discuss the barriers to retirement planning and offer some suggestions as to how these obstacles could be overcome. One of the most common barriers reported was a lack of education about the importance of saving for retirement. It was suggested that increasing education about the importance of savings and developing

public policy initiatives that promote savings could be two ways to overcome the obstacles that individuals face when attempting to save sufficient funds for retirement.

Many of the current intervention and educational programs aimed at promoting financial planning for retirement present information in a one-size-fits all fashion, and fail to consider how different segments of the population view retirement planning.

However, a number of researchers (Ekerdt, 1990; Richardson, 1993; Siegel & Rees, 1992) and the delegates at the NSRS have called for more tailored interventions that directly address the specific needs of subgroups of individuals. The results of this study show that a variety of demographic factors influence individuals' perceptions of financial stability in retirement, and that strong developmental differences exist in the factors that influence savings behaviors. Taken together, these findings reinforce the need for tailored intervention programs.

This research suggests that educational programs should address the unique issues facing low-income individuals, women, and those with lower levels of education. This would provide these individuals with information that best fits their specific planning needs. Furthermore, educational programs designed to target men, high-income individuals, or individuals with high levels of education could also provide these segments of the population with information that is best suited for them. These intervention programs also need to be age appropriate. For example, it makes perfect sense to present a group of 25 year olds with information stressing the benefits of beginning to plan for retirement early in life. However, if the same information were presented to a group of 50 year olds, it would not be well received and would not be beneficial to them.

The fact that most of the baby boomers are not saving enough to meet their needs in retirement will lead to significant problems in the future. Many will find themselves living in poverty and dependent on social welfare programs (Ferraro & Su, 1999; Poterba, 1996). This has recently led a number of individuals to call for a change in public policy. The delegates at the NSRS directly addressed this need. Several of their suggestions included implementing new programs that would (a) provide tax breaks to individuals who save for retirement, (b) promote companies to encourage their employees to save, (c) educate young children about the need to save money through programs in the school systems, and (d) encourage the media to promote saving rather than spending (United States Department of Labor, 1998).

In this thesis, it was shown that individuals have different perceptions of financial stability in late-life. Furthermore depending on an individuals' age, their savings behaviors are differentially influenced by several key factors such as income and the perceived importance of personal savings in retirement. This suggests that simply focusing on promoting savings behaviors without addressing individual differences in perceptions of financial stability and savings behaviors could prove to be relatively ineffective at creating overall changes in savings behaviors. However, if public policy makers understand that to reach the majority of the people, retirement planning needs to be approached from several different angles, we may well see an increase in savings behavior and the baby boomers' financial future may not be so bleak.

Strengths of the Current Study

There are several strengths associated with the current project. First, the sample was composed of working men and women over a wide range of ages, incomes, and

educational backgrounds, from across the United States. These sampling considerations suggest that the findings will be highly generalizable to American workers. Second, the large number of participants included in the study allowed for the creation of a developmental model of retirement savings, which was confirmed using an independent sample. Third, some aspects of this study have previously received little attention in the literature. Specifically, little has been done to examine individuals' perceptions of late-life financial stability or to simultaneously examine how multiple factors interact to influence financial planning practices.

Limitations of the Current Study

One limitation of the current study pertains to the sometimes truncated scales used to code participants' responses (some responses were coded dichotomously, whereas others were classified into four levels). However, even with these truncated scales substantial amounts of variance were accounted for in the developmental models, and group differences were found in perceptions of income in retirement. Had the scales been less restrictive, even stronger results may have been obtained. A second limitation of the present study is that it relied on self-reported measures of savings. Future research should include both objective and subjective measures of savings practices. A third limitation of the current study is that it failed to consider how personality variables may influence perceptions of financial stability and savings behaviors. For example, research by Hershey & Mowen (2000) was able to show that certain personality characteristics influence the savings behaviors of individuals between the ages of 37 and 88. However, little is known about how personality influences the savings behaviors of younger

individuals. In future research, both demographic and personality variables could be used to examine pre-retirees' perceptions of late-life financial stability.

Concluding Comment

Overall, the findings from this thesis demonstrate that certain segments of the population hold very different views regarding their financial future, and that there are developmental differences in the factors that influence savings behaviors. Specifically, the findings imply that perceptions and demographic variables are key components to understanding individuals' savings behaviors. This suggests that both demographic factors, such as gender and income, and psychological factors, such as perceptions of current financial situation and future financial stability, play a key role in individuals' savings behaviors. Although this thesis focused mainly on individuals' perceptions of late-life financial stability, there are other psychological factors such as personality and future time perspective that also underlie savings behaviors. By understanding how these factors interact to influence savings behaviors, we may be better able to combat the barriers to saving for retirement, and by doing so, improve the future quality of life of many Americans.

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The Americans Discuss Social Security (ADSS) organization engaged Princeton Survey Research Associates to collect the data analyzed in this thesis. ADSS, which is no longer in existence, was an organization whose goals were to inform the public about possible changes in the Social Security program, and collect data on perceptions of aging, retirement, and intergenerational issues.

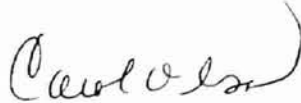
ADSS's purpose for collecting the data was to gain a better understanding of individuals' perceptions of aging. This was accomplished by having participants respond to a number of questions about (a) aging, (b) quality of life, (c) age-related changes in health, (d) retirement fears and expectations, and (e) general perceptions of retirement. Demographic information such as age, race, income, and education were also requested of participants as part of the survey. Once the data were collected, a report, entitled Images of Aging, was created and released to the general public. The weakness of this report was it only contained the most basic descriptive statistics among the variables investigated. Although the report was informative, it lacked the types of inferential analyses that would allow one to test specific hypothesis regarding age, gender, income, educational level and retirement.

Appendix

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date: March 14, 2000 IRB #: AS-00-121
Proposal Title: "FACTORS THAT INFLUENCE FINANCIAL PLANNING AND PERCEPTIONS OF RETIREMENT"
Principal Investigator(s): Douglas Hershey
Joy Jacobs
Reviewed and Processed as: Exempt
Approval Status Recommended by Reviewer(s): Approved

Signature:



Carol Olson, Director of University Research Compliance

March 14, 2000

Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA 

Joy M. Jacobs-Lawson

Candidate for the Degree of

Masters of Science

Thesis: FACTORS THAT INFLUENCE FINANCIAL PLANNING AND
PERCEPTIONS OF FINANCIAL STABILITY IN RETIREMENT

Major Field: Psychology

Biographical:

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Professional Memberships: American Psychological Association, Society of Judgment and Decision Making, Gerontological Society of America.