DEBT AND NEGATIVE NET WORTH AMONG NEAR RETIREES

by

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ABSTRACT

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Going into retirement, near-retirees are looking at increased debt levels, which can offset any asset accumulations and reduce retirement income. By using data from the 2008 Health and Retirement Study (HRS), this study examines the debt and negative net worth of near-retirees. This study further investigates what factors are associated with the likelihood of holding consumer debt, holding mortgage debt, and holding home equity debt over holding no debt, and what factors are associated with the likelihood of holding negative net worth over holding a high level of net worth among near-retirees. The study sample includes 3,745 individuals between the ages of 51 and 64.

The results of the multinomial logistic regression analysis indicate that, all else being equal, human capital factors such as education, physical health problems, and depression symptoms play a significant role in predicting the likelihood of holding debt and negative net worth. In particular, education is positively associated with the

likelihood of holding consumer, mortgage, and home equity debt over holding no debt, while it is negatively associated with the likelihood of having negative net worth over having a high level of net worth. Among the socioeconomic characteristics that influence the likelihood of near-retirees holding debt and negative net worth are household income, working in the labor force, and race. In particular, household income positively influences the likelihood of holding mortgage debt over holding no mortgage debt as well as the likelihood of holding home equity debt over holding no home equity debt. However, household income negatively influences the likelihood of having negative net worth over having a higher level of net worth.

The findings of this study could help financial educators, financial planners, and policymakers understand the differences in human capital and socioeconomic characteristics of near-retirees who hold some levels of debt over no debt and who hold no net worth or a lower level of net worth over a higher level of net worth. This study concludes that it is important for professionals, consumer educators, and financial planners to provide those who hold higher levels of debt and lower levels of net worth with financial literacy education; therefore, these individuals might be able to attain economic well-being in retirement.

(163 pages)

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CHAPTER I

INTRODUCTION

Background of the Study

Americans are currently faced with an uncertain economic future, being in the middle of a great recession that started in the beginning of 2008. There is concern about the financial condition of and increasing stress on American households. The personal savings rate has been historically low and became negative just before the crisis of 2008, but began to turn back to positive in 2010 and is currently just below an annual rate of 5% (Martin, 2010). Debt delinquencies (those debts 30 days or more delinquent) increased until September, 2009, when they turned around and started to decrease (Knowles, 2010), except for mortgage delinquencies which have just started to decrease slightly (Gerrity, 2010). An indicator of the debt crisis is personal bankruptcy. Nationally, bankruptcies rose 32% from 1.1 million in 2008 to 1.4 million during 2009 (Ladika, 2010). This is on top of the one-third rise in bankruptcies in 2008 from 2007 (Ladika, 2010). Despite the recent turn around of savings and delinquencies, there is still a financial crisis which is impacting consumers. On top of this, there is the need to finance the retirement of future retirees such as the baby boomers (Weinberg, 2006).

A large portion of near-retirees is made up of baby boomers. The population born between 1946 and 1964 is commonly referred to as the Baby Boom generation. The large size of this group was caused by a significant rise in birthrates following World War II. Baby boomers are seen as one of the largest generations in U.S. history. In 2006, they were aged 42-60, totaled an estimated 78 million Americans, and comprised 26.1%

of the total U.S. population (U.S. Census Bureau, 2006). Because they comprise over a quarter of the population, what happens to this cohort has ramifications for the American economy and society. The baby boomers are on the edge of retirement and they have concerns about retirement income adequacy (i.e., that they will have enough to live on). Much has been written about the retirement adequacy of baby boomers (see Baek & DeVaney, 2004; Dushi & Iams, 2008; Finke, Huston, & Sharpe, 2006; Lusardi & Mitchell, 2006) with a focus on wealth and income. But another factor in retirement solvency (that is they have enough to live on without becoming insolvent) is debt brought into retirement which can be a drain on retirement income and wealth.

Given the recent tumult in the economy, financial security for retirement is a particularly important issue. The 2009 Retirement Confidence Survey (Helman, Copeland, & VanDerhei, 2009) reported that Americans' confidence in their ability to afford a comfortable retirement has dropped to its lowest level (13% are very confident, down from 27% in 2007, and 18% in 2008) since the Employee Benefit Research Institute started tracking retirement confidence in 1993. This report reflects worries about the economy and the cost of health care. Retiree confidence in having a financially secure retirement is down to a new low with 20% saying that they are very confident (down from 29% in 2008 and 41% in 2007). Workers who have lost confidence over the past year most often cite the recent economic uncertainty, inflation, and the cost of living as primary factors. Additionally, job loss or pay cut, loss of retirement savings, or an increase in debt contribute to the loss of confidence. Workers also expect to work longer due to the economic downturn. Most of those persons whose retirement plans have

changed, say they have postponed retirement to increase their financial security (Helman, et al., 2009).

The average American will spend fully one-third of his or her life in retirement (Clark, Burkhauser, Moon, Quinn, & Smeeding, 2004). This increased longevity presents a need for more money to finance that longer life. However, the share of earnings replaced in retirement by Social Security and employer plans is projected to be less in the future (Clark & Quinn, 2002). The income stream from Social Security will be less secure in the future with projections of Social Security insolvency (Munnell, 2004).

Changes in employer pensions away from the traditional defined benefit to the defined contribution plans put many future retirement benefits in question (Clark et al., 2004). Additionally, increasing Medicare premiums will contribute to a decrease in future income (Munnell, 2004). Further, people are taking more debt with them into retirement (Anguelov & Tamborini, 2009; Copeland, 2009; Kish, 2006, McGhee & Draut, 2004). Any debt that a pre-retiree or retiree has accumulated going into retirement will likely offset any asset accumulations, resulting in a lower level of retirement income security (Copeland, 2009).

Household Debt

U.S. household debt has received considerable academic and public policy focus in recent years. There has been growth in aggregate household debt and in personal bankruptcy claims since the end of the 1980s (Bucks, Kennickell, & Moore, 2006; Garcia, 2007; Kish, 2006; Masnick, Di, & Belsky, 2006; Mishel, Bernstein, & Allefretto, 2005; Sullivan, Warren, & Westbrook, 2000). At the end of the first quarter of 2010, the

consumer debt outstanding stood at $2.469 trillion while consumer mortgage debt stood at $10.236 trillion for a total of $12.705 trillion (Board of Governors, 2010). Between 1989 and 2006, credit card debt among U.S. households grew by 315% from $211 billion to $876 billion in 2006 dollars. From 2001 to 2006, homeowners cashed out $1.2 trillion (in 2006 dollars) in home equity, often to cope with increasing credit card debt and to cover basic living expenses (Garcia, 2007).

The average U.S. household is experiencing great financial strain. Despite decades of increasing productivity, the typical American family experienced a steady decline in inflation-adjusted earnings from 2001 to 2004. The group hardest hit was that of the lowest 20th percentile of income (Garcia, 2007). However, the cost of living has increased by nearly 90% in the past 20 years due largely to higher costs in housing, health care, and transportation (Garcia, 2007). As resources were shifted to cover higher costs, savings and assets have declined markedly. Many are struggling to meet basic monthly expenses, rather than saving for the future. To cover the gap between incomes and basic living expenses, many households have used their personal savings, liquidated their home equity, and taken on increasing levels of debt (Garcia, 2007).

In a nationwide survey commissioned by AARP, the amount and type of debt or loans that consumers carry was the focus. Rainville (2009a) reported that 70% of adults report having some form of debt or loan obligation. This was broken into age groups with 73% of those in the age group of 18-49 reporting carrying some form of debt or loan obligation compared to 60% in the age 50 and above age group. He noted that most of the differential can be accounted for by student debt held by the younger group. He also

noted that 30% of adults reported not paying their credit card balance in full every month. Of those with debt, 40% of those aged 50 and above had monthly debt obligations that were more than half of their monthly incomes compared to 43% for those aged 18-49. Further, one in 10 adults reported having filed, or at least considered filing, for bankruptcy (Rainville, 2009a).

A very large portion of the increase in household debt since the 1950s has been the increase in mortgage debt. Part of this is due to the rise in homeownership over the period. Home ownership went from 55% of U.S. households in 1950 to 69% in 2005 (Weinberg, 2006). Another source of the increase in mortgage debt is growth in the value of housing itself. The median value of privately owned homes grew faster than median income, especially in the 1990s (Weinberg, 2006). A new single-family home is bigger today than a new house was a generation ago and the sales price of an existing single-family home has risen. With the sharp rise in the value of their homes, homeowners have also leveraged their homes to take out even more debt.

Statement of the Problem

Debt levels are rising for those in or near retirement age. Among those families whose heads were age 55-64, 81.7% held any kind of debt. These families had a median debt of $60,040 in 2007 (Copeland, 2009). As Copeland (2009) noted, families in the first and third income quartiles have taken on a tremendous level of debt payments since 2004 among those age 55 and above. Looking at debt levels does not tell the whole story of debt. Excessive debt occurs when debt payments exceed 40% of income. Excessive debt has grown sharply. As compared to 2004, the proportion of families with heads age

55-64 whose debt payment exceeded 40% went from 7.9% to 12.5% in 2007. Copeland noted for the 55-year-old and above group, non-housing debt has remained relatively low while housing debt as a share of assets has increased markedly.

Gist, Figueiredo, and Verma (2009) noted that the boomers had more household debt than prewar babies at ages 37-55, and it increased by the time they reached ages 43-61. "Increased debt has become the trademark of boomer households" (Gist et al., 2009, p. 4). They found that having a high debt burden (debt relative to income) did not influence the decision to refinance mortgages but it did increase the likelihood of cashing equity out of homes. According to Soto (2005), the extraordinary growth in assets for baby boomers between 1992 and 2004 compensated for the soaring debt during that time. He noted that boomer households age 50-62 had home equity at about 70% of house value. These households were fairly leveraged: a 10% decline in the value of the house reduces home equity by nearly 14% and larger drops will reduce housing equity more. This has been the case since the housing bubble burst in 2008 (Mantell, 2009).

Significance of the Study

The economic recession still threatens the financial security of many individuals and families. Even before the downturn, millions of households were experiencing difficulty meeting basic expenses (Garcia & Draut, 2009). From 2000 to 2006, most households experienced stationary or declining incomes (Mishel, Bernstein, & Shierholz, 2009), but at the same time, cost of living expenses increased 27% (U.S. Census Bureau, 2009). This created a growing gap between income and the cost of living. These two factors, combined with inflated home values and low interest rates, helped fuel the

growth of credit card debt and huge cash-outs in home refinancing (Garcia & Draut, 2009). Home equity cash-outs at one point totaled two trillion dollars (2006 dollars) and during this same time, households accumulated $900 billion in credit card debt (Joint Center for Housing Studies, 2009). With increased life expectancy and rising medical costs, the debt level of near retirees is an important factor that can affect the retirement options and security of these individuals. Thus, this study sought to understand to what extent do near-retirees hold debt and what types of debt do near-retirees carry as they go into retirement. In particular, what levels of consumer debt, mortgage debt, other home equity debt, and total debt do near-retirees hold and how are characteristics different between those who hold no debt and those hold different levels of debt.

There are several empirical studies that addressed to what extent Americans are financially prepared for retirement (Baek & DeVaney, 2004; DeVaney, 1995; DeVaney & Chiremba, 2005; Lum & Lightfoot, 2003; Lusardi & Mitchell, 2006) and there are studies that examined the levels of net worth of American households (DeVaney, Anong, & Yang, 2007; Lee & Brown, 2010; Lee & Rowley, 2009). However, little is known about the percentage of the heads of U.S. households nearing retirement stage that do not hold any net worth or hold negative net worth. Thus, this study was interested in understanding the negative side of wealth. Previous studies were focused on wealth or net worth of near retirees; but there has been little focus on the extent to which near retirees hold zero or negative net worth. While not a critical mass of individuals or households have zero or negative net worth, it is still important to understand those who do as they approach retirement. When individuals have assets that exactly equal their

liabilities (debt) they have zero net worth. Negative net worth means that if the household sold all of its assets it would still be in debt. This has serious implications for retirement security for those few who do have negative net worth

The issue of debt and negative net worth has important implications for the economy and for the financial well-being of near retirees. For the economy, if individuals or families have large debt or negative net worth that they are carrying into retirement, they may not have adequate resources to finance their retirement years and may depend more on government programs. They will spend less in the economy as monies are going to retire debt. Due to debt, near retirees may have trouble keeping a good standard of living during retirement. They may have to rely on others to help them out financially. They might need to keep on working or to try to obtain a job during retirement to pay off debts. Therefore this study is significant in trying to understand the extent and type of debt of near-retirees that they may carry into retirement. In addition, there is a gap in knowledge about the zero or negative net worth of near-retirees which this study attempts to fill.

Objectives of the Study

High levels of consumer and mortgage debt or having a negative net worth can have a detrimental effect on the retirement prospects of near-retirees. The purpose of this study is to understand the levels of consumer debt, mortgage debt, and negative net worth among near-retirees; to examine the relationship among consumer debt, mortgage debt, and negative net worth levels of near-retirees; and to investigate factors associated with the likelihood of holding debt and the likelihood of holding negative net worth. The

specific objectives of the study are: (1) to examine the characteristics of near-retirees with no debt, consumer debt, mortgage debt, total debt, and negative net worth among near-retirees; (2) to compare the levels of debt among near-retirees with consumer debt, mortgage debt, total debt, and negative net worth; (3) to investigate factors associated with holding no debt, consumer debt, mortgage debt, total debt; and (4) to investigate factors associated with having negative net worth.

Research Questions

The following research questions are considered in this study:

1. To what extent do near-retirees hold debt?
2. What types of debt do near-retirees carry as they head into retirement?
3. To what extent do near retirees hold near zero or negative net worth?
4. What levels of consumer debt, mortgage debt, home equity debt, and net worth do near-retirees have?
5. How are socioeconomic characteristics different by the levels of debt among near-retirees?
6. How are financial portfolios different among these who hold some levels of consumer debt, mortgage debt, and home equity debt?
7. How are socioeconomic characteristics different among these who hold some net worth, zero net worth, and negative net worth?
8. What factors are associated with the likelihood of holding consumer debt, likelihood of holding mortgage debt, and likelihood of holding home equity debt among near-retirees?

9. What factors are associated with the likelihood of holding negative net worth among near retirees?

Benefits of the Study

Since this study investigates the factors associated with consumer debt, mortgage debt, all debt, and negative net worth, the findings of this study will help professionals and debt educators when they educate individuals, especially near-retirees, to make more informed choices about different types of debt. Debt counselors can understand factors that contribute to the levels of debt and negative net worth so that they can better address the need of those in the near retirement stage to eliminate or decrease debt as they go into their retirement years.

The opportunity cost of holding debt is high and may affect amounts of savings and retirement wealth. Inadequate savings for retirement lead to a lower level of well-being. With increased life expectancy and higher medical expenses, this is a major concern for policymakers as well as households. A better understanding of the extent to which near-retirees hold debt and the types of debt can help policymakers to enhance well-being through policies that address the opportunity cost of holding debt. For instance, policies that are aimed at saving and not going into debt could be made.

Debt is part of the American culture, and each generation might face debt problems. Thus, the findings of this study may help later cohorts, such as the later boomers, generation X and Y, to make better decisions about debt. If the results of the proposed study provide insight into how debt affects personal savings, this may lead to a contribution to the overall understanding of family finances.

Debt is a problem for many people, but is especially troubling for near-retirees who can potentially bring this debt into retirement which can reduce retirement resources. Having debt at this stage in life can result in postponed or partial retirement for this group. Understanding the types and amounts of debt and negative net worth can help individuals with reducing debt; so that it cannot affect important decisions they need to make at the near-retiree stage of life, such as age at which they retire, contributions to children's education, or downsizing their home. Further, this study may aid researchers who are interested in factors associated with different types of debt. Since the debt of the baby boomers is a looming topic for retirement issues, this study could assist researchers looking into this area.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents the conceptual frameworks and literature that are related to consumer debt, mortgage debt, retirement savings, and net worth among U.S. households. The first section puts forward the conceptual frameworks to be used in the study. An overview of debt issues in the U.S. is the focus of the second section. Consumer debt and mortgage debt are presented in the third and fourth sections, respectively. The fifth section covers net worth of individuals and families including baby boomers and near-retirees. The final section presents the hypotheses of the study.

Conceptual Frameworks

Life Cycle Savings Theory

The life cycle savings theory posits that individuals consume a constant percentage of the present value of their life income. The life-cycle model also predicts that individuals will borrow while they are young and making less money, save and repay borrowing while they work and make more money in the middle years in order to finance consumption after they retire, when they would dissave accumulated savings. The life cycle savings theory implies that consumption will vary according to changes in wealth levels, but also vary with the age of the household, projected earnings, life expectancy, and level of bequests (Apgar & Di, 2005).

Households will behave today in light of their yesterdays and in expectation of their tomorrows. Borrowing and saving are the main ways that households are able to

transfer resources from one period of time to another. Families do typically save and borrow and do not consume all their assets in the present (Bryant & Zick, 2006). Most economic models focus on the consumption and savings of households, but households do dissave, borrow, and go into debt. According to Bryant and Zick (2006), dissaving involves the transfer of future resources to the present so as to increase current consumption, it involves borrowing or going into debt. We borrow to buy a house, a car, or an education. In doing so, we are transferring resources that we expect to have in the future for use in the present period. If debts are subtracted from assets, the result is net worth. Savings occur when net worth is increasing and dissavings occur when net worth is decreasing. Negative net worth occurs when one's debts are greater than one's assets.

The life cycle savings theory holds that when individuals are young and starting out in life, they are likely to have to borrow to smooth consumption, but as they get to their middle years, they are paying back what they borrowed and saving towards the future in smoothing their consumption. In the later years, generally after retirement, individuals are dissaving the assets that they had saved in their middle years in order to smooth consumption. Thus in the near retiree stage of life, an individual should have accumulated and be accumulating savings and should have paid off some debt and should be getting the remaining debt paid off.

Human Capital Theory

Human capital is viewed as the stock of resources that exists in people. Such resources include acquired skills, experience, and knowledge gained through formal schooling, market work, and on-the-job training (Becker, 1993). Human capital includes

job skills, work experience, and health (Wossmann, 2003). Further, because health enables people to be more productive in their work, both physical and mental health are important human resources (Jang, 1995). Formal education, experience, and health are the most obvious types of human capital investment (Bryant & Zick, 2006). Human capital increases productivity and income for individuals. With less human capital, individuals have less productivity and income. Lower education and poorer health are linked to debt problems (Drentea, 2000; Spencer & Fan, 2002).

Formal education. The most commonly used measure of human capital is formal education. Increased schooling increases an individual's productivity. Employers pay higher wages for individuals with more education. A key reason that people invest in human capital through formal schooling is to improve their future income so as to increase their total wealth (Bryant & Zick, 2006). Thus, accumulated human capital of acquired knowledge and skills through formal schooling provides benefits such as higher income in the job market. Formal education is determined by number of years of schooling. Educational attainment can be an important factor associated with an individual taking on debt. Individuals with more schooling could become more aware of the perils of debt and avoid it or aware of the leverage and embrace it.

Health. Individuals with good physical health will have greater life spans and greater productivity in the labor force. Thus, the improvement and maintenance of health is viewed as an important human capital investment. Mental health status is important because it affects an individual's desire and ability to work. Like physical health, mental health is an important human capital factor that could determine older individuals' debt

levels. For example, sick people have fewer productive days available to them for working in the labor force, which could decrease their income and increase their debt. Also the costs of medical care can increase due to sickness, adding to financial strain and debt. Thus human capital in the form of education, work experience, and health can impact an individual's productivity and income and also his or her debt.

These theoretical frameworks are useful to understand the savings and debt behavior of boomers as they approach retirement. The lifecycle hypothesis suggests that those who are approaching retirement should be paying down debt and saving for retirement. The closer to retirement, the less debt and more savings individuals should have. Thus this study will look at age as it is associated with debt and negative net worth in regards to the life cycle savings theory. Human capital theory indicates that those with more human capital are less likely to have debt due to their increased productivity and income from education and health. Most near retirees have had the time to invest in their human capital which should be reflected in their savings and debt behavior. This proposed study will look at the variables of education and health and their association with debt and negative net worth in regards to human capital.

An Overview of Debt Issues in America

If one is not adequately prepared for retirement and brings debt into retirement, it can pose even more problems for retirement security. Bucks et al. (2006) noted that debts and assets increased considerably from 2001 to 2004, but the rise in debt was more rapid overall. Bucks, Kennickell, Mach, and Moore (2009) found that the use of installment debt was broadly distributed across demographic groups. From 2004 to 2007,

the median and mean amounts owed on installment loans rose 2.4% and 1.4% respectively. Overall, the median balance for those carrying a credit card balance, rose 25% and the mean rose 30.4% between 2004 and 2007. The proportion of families that held other types of debt moved down 0.8% to 6.8% from 2004 to 2007. Looking at debt burden, the authors found the proportion of debtors with payments exceeding 40% of their income moved up 0.74% to 14.39% during 2004-2007

Older persons, those nearing retirement (as boomers are) and those in retirement, are especially at risk when they have debt going into and during retirement. According to Yilmazer and DeVaney (2005), if households are unable to reduce their debt relative to their assets at mid life, this could affect the age at which they retire. Debt levels can have an impact on an individual's participation in and levels of retirement savings. Cavanagh and Sharpe (2002) used the Survey of Consumer Finances and found that the level of installment debt had a significant negative effect on the decision to participate in discretionary retirement savings, but other levels of debt did not have significant negative effects on such participation. Results of their study suggest that installment debt and credit card debt (excluding convenience users) adversely affected participation in and level of discretionary retirement savings accounts. These accounts were measured as investment in Individual Retirement Accounts, Keogh plans, 401(k) and 403(b) plans, thrift, savings, or supplemental retirement annuity plans.

Results of a study about household debt and IRAs suggest that returns on IRAs are likely to be lower than on several non-retirement financial objectives. These objectives include reducing credit card debt, restructuring consumer and real estate debt,

and eliminating mortgage insurance (Bernstein, 2004). IRA owners were more likely to have debt than non-owners of IRAs and IRA owners have average debt levels that are twice as high as non-owners of IRAs. Most of the higher debt can be attributed to mortgage debt, but households with IRAs also have higher credit card and consumer debt. Bernstein (2004) found that large levels of consumer debt and credit card debt can prevent IRA ownership. However, larger overall debt levels including real estate debt do not deter IRA ownership.

There has been a growth in debt among older Americans. Carrying debt into later life can have ramifications on income security in retirement. Giving the upcoming retirement of the large baby-boomer cohort, it is important to examine those nearing retirement. McGhee and Draut (2004) looked at the growth in credit card and mortgage debt among older Americans between 1992 and 2001. The authors looked at those from ages 55 to 64. They note that Americans are having children later in life, pushing high cost expenditures like higher education, family housing, and dependent health care closer to retirement age. This rising cost of raising a family is taking a toll on retirement savings for most parents.

Recent data indicate that fully 14% of 64-year-olds are facing retirement with negative net worth. Nearly one out of every two families headed by someone aged 47 to 64 will be unable to replace at least half of their income after retirement. This represents a 12.6 percentage point increase in retirement inadequacy between 1989 and 1998 (Bernstein & Boushey, 2004). The same age group saw a 12.5% decline of median home equity between 1989 and 1998 (Wolff, 2002) even as families borrowed more against

their homes (often to pay off high interest credit card debt; McGhee & Draut, 2004). For this group, health care costs are a major concern: 13% of near-retirees bear the full cost of their own insurance and 14% go completely without health insurance (National Governors Association, 1999).

In response to these economic pressures, near-retiree families are increasingly borrowing to make ends meet. McGhee and Draut (2004) found that near-retirees experienced a 47% increase in their credit card debt between 1992 and 2001 to an average of $4,088. The amount of credit card debt for low- and middle-income adults age 50 to 64 was $9,342 in 2008 (Garcia & Draut, 2009). According to McGhee and Draut (2004), the portion of income that near-retiree families spend servicing debt (including mortgages) grew by ten percentage points between 1992 and 1998. The average credit card indebted family in this age group spent 31% of its income on debt payments, a 10 percentage point increase over the decade. The credit card debt of middle- to low-income transitioner families without health insurance increased by 169% as opposed to only a 37% increase for similar income families with health insurance (McGhee & Draut, 2004).

People can be in debt without having financial stress if they are able to make the necessary repayments. However, many people who are in debt struggle to make payments. Historically, delinquency rates on consumer loans rose before a recession, peaked at some point during the recession, and declined steadily into the subsequent recovery (Canner & Luckett, 1991). Economic activity slows approaching a recession, therefore an increased number of workers are laid off or their working hours are being

reduced. Because of this, it is not surprising that the number of households becoming delinquent on their debts would increase also (Canner & Luckett, 1991). This is the situation that we face in today's economy.

Recent trends in consumer debt show that democratization of credit and the loosening of credit constraints played a role in the growth of consumer debt (Joint Center for Housing Studies, 2009; Kish, 2006; Lyons, 2002). Between 1989 and 2004, the share of households with some form of debt rose significantly for each of the three lowest quintiles of income. However, as Canner and Luckett (1991) pointed out, delinquencies peak and then begin to decline at some point during a recession. The reasons for this include that borrowers have already taken steps to decrease their debt and lenders have been applying stricter lending standards. We are starting to see some of this in today's economy.

Consumer Debt

In the last decade, there has been a focus on consumer debt problems (Chien & DeVaney, 2001; Garcia, 2007; Garcia & Draut, 2009; Kim & DeVaney, 2001). Consumer debt consists of credit card debt, installment debt, and other debt. The rapid growth of credit card debt in the U.S. is troubling. In 2004, the average household dedicated 13% of its income to paying off all outstanding debts; however, the debt burden for households with credit card debt averaged 21% (Garcia, 2007). There are two kinds of credit card users. There are convenience users of credit cards (those who pay off their credit card balances each month) and, therefore, have no revolving debt, and revolving users of credit cards (those who do not pay off the full balance each month)

who are debtors. Kim and DeVaney (2001) found that about half their sample from the Survey of Consumer Finances used credit cards only as a convenient method to pay for goods and services and had zero balances carried over. The other half carried credit card balances.

Human Capital Factors and Consumer Debt

Education. Education is a human capital factor that affects the holding of debt and the level of debt held. The relationship between education and consumer debt has not proven to be consistent. Spencer and Fan (2002) used the 1995 Survey of Consumer Finances (SCF) to look at savers, debtors, and simultaneous debtors and savers. The definition of debtor was a primary economic unit (PEU) having any non-mortgage debt including home equity lines of credit and zero savings. The definition of saver was a PEU having non-zero financial assets other than checking accounts and retirement savings accounts and zero debts. Simultaneous debtors and savers (SDS) were defined as those PEUs with both savings and debt (absolute value) greater than zero. In education, the debtors group had lower educational attainment with almost 30% holding less than a high school education and about 8% with college or graduate degrees. The SDS group and the debtor group were less likely than the savers group to have college or advance degrees.

Using the 1998 Survey of Consumer Finances (SCF), Baek and Hong (2004) examined factors related to two types of consumer debt, installment debt and credit card debt within the life cycle framework. Approximately 40% of debt holders (either installment debt or credit card debt or those who held both types of debt) held either a

college degree or higher degree. This compared to 45% of the total sample holding a college or higher degree. Drawing from the 1998 SCF, Chien and DeVaney (2001) looked at the effect of attitudes and socioeconomic factors on credit card and installment debt. Credit use was measured by the amount of installment loans and the amount of credit card debt. The results showed that households headed by a person with more education were likely to have higher outstanding credit card balances.

Lee, Lown, and Sharpe (2007), using data from the 2000 Health and Retirement Study (HRS) examined the probability of older (age 65 and above) Americans holding consumer and mortgage debt and investigated the factors that influence the probability of holding such debt. Results indicated that those household heads with some college or a college degree were more likely to hold consumer debt than those without a high school education. Those with less than a high school education were 25% less likely to hold consumer debt than those with at least a high school diploma. Analyzing debt in families headed by near-retirees (workers aged 50-61), Anguelov and Tamborini (2009) looked at differences between the 1995 and 2004 cohorts in the SCF. Households headed by persons with college degrees or some college held more consumer debt than those groups with less education in 2004. These findings may be because those with college degrees have higher paying jobs and, therefore, have more access to credit.

On the other hand, Kim and DeVaney (2001) found that education was negatively related to the likelihood of carrying credit card debt forward. They used data from the 1998 Survey of Consumer Finances (SCF) to examine determinants of outstanding balances among credit card revolvers. They found that about half the sample used credit

cards only as a convenient method to pay for goods and services and had zero balances carried over. The other half carried credit card balances and were revolvers (Kim & DeVaney, 2001).

Health. A growing concern for baby boomers is the affordability of health care costs. A little more than half of surveyed adults age 40 to 58 reported in 2004 that they worried about their ability to pay health care costs as they grow older (Dychtwald, 2005). One-fourth of retirees in a 2009 survey said they felt very confident about having enough money to cover medical expenses (Helman et al., 2009), and in another 2009 survey, only 15% of adults age 45 to 64 reported that they were very confident of having enough money for their medical and living expenses in retirement (Rainville, 2009b). If baby boomers experience health problems and do not have enough money for medical expenses, this could lead to debt in retirement.

Increasing health care costs pose a substantial threat to baby boomers' retirement security. Johnson and Mommaerts (2010) looked at the likely financial burden of health care costs for baby boomers as they age. The results showed that the financial burden of health care costs will rise steadily over time if the future costs grow at the intermediate rate projected by the Medicare trustees in 2009. This means that boomers in retirement will be paying a higher share of their income for health care. The growth in health care costs will be especially challenging for low-income seniors. For those in the bottom quintile of the income distribution, the median share of income spent on health care will rise from 21% to 39% between 2010 and 2040. Johnson and Mommaerts predicted that

by 2040, 64% of older Americans will devote at least one-fifth of their incomes to out of pocket medical costs.

Grafova (2007) looked at non-collateralized debt (NCD; credit card debt, student loans, medical or legal bills, loans from relatives, and other such debts) and health behavior decisions such as smoking and excess weight. She used data from the 1999, 2001, and 2003 waves of the Panel Study of Income Dynamics and was restricted to married couples in the age range of 25 to 60. Results showed that women who smoke or are obese and men who are overweight or obese were more likely to reside in families that hold NCD. Thus unhealthy behaviors of smoking and being over weight or obese are linked to the likelihood of the family having debt from credit cards and other non-collateralized debt.

The association among health, race, and credit card debt was examined by Drentea and Lavrakas (2000). The study is based on two statewide random-digit dialing telephone surveys of adults. Two of the measures of health (dependent variables) were self-reported health and functional impairment. The others were body mass index, smoking, and drinking. Credit card debt index, credit card debt to income ratio, carrying an unpaid credit card balance, amount of credit line used, charging on more than two cards, default, and debt stress index were the independent variables. In contrast to Grafova (2007), they found that those with credit card debt are generally healthier than those without debt. Individuals with credit card debt have lower impairment levels, higher self-reported health and are less likely to smoke. These factors may contribute to allowing them to borrow more. Those who owe more than half of their income on debt

are more likely to be overweight than those with no or less credit card debt. The authors did find that the greater the debt variable, debt to income ratio, the greater the difficulty with functional impairments and the worse the self-reported health.

The literature mainly focuses on the relationship between financial distress and health. Financial distress is a subjective occurrence, based on stressor events which mainly have to do with financial problems or debt (O'Neill, Prawitz, Sorhainado, Kim, & Garman, 2006). Most studies look at financial distress contributing to health problems (O'Neill et al., 2006; O'Neill, Sorhaindo, Xiao, & Garman, 2005) and not the contribution of poor health to debt. However, in a study by Lyons and Yilzamer (2005), the relationship between the self-reported health status of the head of the household and the overall level of household financial strain (dependent variable) was examined. Data they used came from the Survey of Consumer Finances 1995, 1998, and 2001 surveys. Financial strain consisted of (1) asset-to-debt ratio < 1.0; (2) debt-to-income ratio < .25, which take into account the magnitude to which the household is having financial problems; and (3) delinquent on any type of loan payment by two months or more. Their results showed that poor health significantly increases the likelihood of financial strain. There is little evidence pointing to financial strain as a contributor to poor health.

Lyons and Yilzamer (2005) also showed that those household heads that report being in poor health are more likely to be delinquent on their consumer loan payments by two months or more than those who report good health. Overall, the findings of the regression indicate that, regardless of the measure of financial strain, poor health is likely to result in household financial difficulties. Lyons and Yilzamer concluded that health

status plays a more important role in explaining why some households are under financial strain.

Debt problems can be triggered by specific mental health factors including onset of mental illness, an individual's condition exacerbating the spending, and communication difficulties in which those with mental health problems do not acknowledge the consequence of the debt problem. These debt problems result in a vicious cycle of mental health problems which leads to debt which can lead to poor mental health (Fitch, Simpson, Collard, & Teasdale, 2007).

Jenkins et al. (2008), using a nationally representative, cross-sectional British sample, tested the relationship between low income and specific categories of mental disorder and whether the relationship was mediated by debt. Low gross income was associated with increased rates of common mental disorder and psychosis. Jenkins et al. (2008) found that about 25% of those with mental disorders were in debt compared to 8% of individuals with no disorder. The more debts that individuals had, the more likely they were to have mental disorder. They found that individuals with mental disorders had significantly less income, more debt, and financial hardship than those without a mental disorder.

Economic Factors and Consumer Debt

Income. Income is a factor that affects consumer debt among near retiree households. However, the evidence is mixed for income and debt. Chien and DeVaney (2001) looked at the effect of attitudes and socioeconomic factors on credit card and installment debt and found those with lower incomes were likely to have higher

outstanding credit card balances. Among debtors, savers, and SDS, the lowest level of income was found in the debtor group (Spencer & Fan, 2002). Yilmazer and DeVaney (2005) concluded that household income is negatively associated with the probability of holding credit card balances. Income was negatively related to the likelihood of carrying forward a credit card balance (Kim & DeVaney, 2001).

Using data from the 2001 and 2004 SCF, Bucks et al. (2006) found consumer borrowing was less prevalent among families in the lowest income (less than 20th percentile) group; however, in 2004, the median debt level tended to rise with income. Those who carried credit card debt had higher incomes compared to those who did not carry credit card debt (Drentea, 2000). In an analysis of trends in credit card debt, data from the 1989 to 2004 SCF was used by Garcia (2007). Nearly 6 out of 10 households with credit cards revolved their balances in 2004. He found that average credit card debt was higher for households with higher incomes. Baek and Hong (2004) examined factors related to two types of consumer debt, installment debt and credit card debt. Among debt holder groups, the average household income was highest for those who held installment debt, but was lower than for the total sample. Anguelov and Tamborini (2009) found for near retirees that mean consumer debt rises with income.

Family size. Family size is a factor in consumer debt. With more members of a household, there are more expenses and some families go into debt to meet these expenses. Kim and DeVaney (2001) found household size was larger for credit card revolvers. Those who were married with children were more likely to have credit card debt (Drentea, 2000). Results from Baek and Hong (2004) indicated that debt demand

increased with the expansion of the household. Households in the full nest II stage had the highest demand for all types of debt except other debt such as student loans, medical bills, or payday loans. Full nest II was defined as those aged 40 and above, and married with children. The results of a study by Chien and DeVaney (2001) showed that households headed by a person with a larger household, were likely to have higher outstanding credit card balances. As the number of family members rose among older respondents, so did the probability of holding consumer debt (Lee et al., 2007). However, Yilmazer and DeVaney (2005) found that the number of children living in the household has a negative effect on the probability of holding credit card debt. Differences may lie in the samples and methods used. Chien and DeVaney used the 1998 Survey of Consumer Finances and Yilmazer and DeVaney used the 2001 Survey of Consumer Finances (SCF). SCF is cross-sectional and surveys families of all ages. Lee et al. (2007) used a sample of those aged 65 to 74 in the Health and Retirement Study. Chien and Devaney used stepwise regression and Yilmazer and DeVaney used a tobit model for statistical analysis. The current study should provide further evidence of whether consumer debt rises or falls with the number of family members.

Employment status. Being employed is a factor related to consumer debt. Those who are employed will tend to take on more debt because they have the incomes to pay for it. Spencer and Fan (2002) found that the probability of being in the SDS or debtor group increases with being employed. Those who had credit card debt were more likely to have a job than those without credit card debt (Drentea, 2000). Bucks et al. (2006) found self-employed and working families held higher levels of median consumer

debt than non-working or retired families. Those who were employed were more likely to hold consumer debt than those not in the labor force (Lee et al., 2007). However, Garcia (2007) reported that households with non-working heads were more likely to be in credit card debt and at higher amounts.

Region. The region of the country could have an impact on the level of debt that a household has and was used as a control variable in the analysis. The U.S. Census divides the U.S. into four regions, the northeast, the west, the south and the midwest. In a study of savers, debtors, and simultaneous debtors and savers (SDS), Spencer and Fan (2002) looked at regions; they found that compared to those living in the south, people living in the northeast and the north central (midwest) regions of the U.S. are less likely to be in the debtors group and more likely to be in the savers or SDS group. People living in the west are more likely to be in the SDS group than those in the south.

Socio-Demographic Factors and Consumer Debt

Age. The life cycle hypotheses points to the near-retirees as being those who should be paying off their debts and saving for retirement. Subsequently, at this stage, the amount of debt should be declining with age. Age was curvilinearly related to the likelihood of being a revolving credit card user (Kim & DeVaney, 2001) and age was curvilinearly related to the probability of being included in the debtor group as opposed to the saver or simultaneous debtor and saver group (Spencer & Fan, 2002). Using data from the 2001 Survey of Consumer Finances (SCF), household debt over the life-cycle was the subject of a study by Yilmazer and DeVaney (2005). The proportion of

individuals holding installment debt declined with age for both poor (having assets below the sample median) households and wealthy (having assets above the sample median) households. The likelihood of holding all types of consumer debt decreases with the age of the head of the household.

Drentea (2000) used a statewide survey of Ohioans and a second random sampling of the cities of Cincinnati and Cleveland conducted in 1997 to look at age, debt, and anxiety. The author compared those who carried credit card debt to those who did not carry credit card debt. Those who had credit card debt were younger. Consistent with the life cycle hypothesis, Lee et al. (2007) found there was a negative relationship between age and holding consumer debt among those age 65 and above. Baek and Hong (2004) looking at consumer debt, installment debt, and credit card debt found that consumer debt holders were slightly younger than the total sample.

On the other hand, using data from the 2001 and 2004 Survey of Consumer Finances (SCF), Bucks and colleagues (2006) reported that the median value of debt holdings tended to rise with age until age 65 when it declined. The decline among older age groups is due in large part to paying off mortgages on primary residences. A survey was conducted in 2008 among 1,205 middle- and low-income adults who reported having credit card debt for longer than the previous three months (Garcia & Draut, 2009). In 2008, the age group of those 35-49 held the highest average debt level and those aged 65 and older had the second highest average debt level. These were followed by those aged 50-64, with those aged 18-34 showing the lowest average debt level among the four

groups. Their findings about the relationship between age and credit card debt do not fully support the life-cycle hypothesis.

Gender. Gender may or may not have an effect on consumer debt. Female and male were not generally factors considered in debt studies. However, a few studies that analyzed gender gave conflicting results. In their study of household debt over the life-cycle, Yilmazer and DeVaney (2005) found female household heads were less likely to hold installment debt than single male household heads. However, mean consumer debt was significantly higher among single female near-retiree households in the study done by Anguelov and Tamborini (2009). Single respondents were not classified by marital status other than single in the previous two studies. According to Lee et al. (2007), gender was not a significant factor in the probability of holding consumer debt. The conflicting results may be due to the samples used. Yilmazer and Devaney used the general population in which male-headed households may be more likely to hold consumer debt than female heads of household. Anguelov and Tamborini used near-retirees, a group in which debt should be declining. It may be that single female near-retiree households carry more debt than the male households due to that this is a time of life when there are many who are divorced and widowhood starts to be a factor. Lee et al. (2007) used retirees and those age 65 -74 and by this time a lot of retirees had paid off their installment debt among both male and female retirees.

Marital status. Marital status is a factor in holding consumer debt. Married couples can generally afford to take on more debt when there are dual incomes in the family. Those who had credit card debt were more likely to be married than those

without credit card debt (Drentea, 2000). Results from Chien and DeVaney's (2001) study indicated that households headed by someone who was married would be more likely to have higher installment loans and higher credit card balances. Married couples are more likely than single male household heads to hold credit card debt and installment debt and less likely to hold other types of debt (Yilmazer & DeVaney, 2005). Elderly married household heads were more likely to report consumer debt than elderly never married individuals (Lee et al., 2007). Mean consumer debt was significantly higher among near retiree married households compared to other near retirees (Anguelov & Tamborini, 2009). On the other hand, looking at how credit card revolvers and non-revolvers differed, Kim and DeVaney (2001) found that revolving users of credit cards were less likely to be married. According to Spencer and Fan (2002), debtors had the highest number of single parent households while simultaneous debtors and savers had the highest number of married households.

Ethnicity. Ethnicity is a factor that affects consumer debt. Ethnic minorities have, on average, poorer economic situations and could have a higher need for consumer debt. White households were less likely to hold credit card debt than were ethnic minorities (Yilmazer & DeVaney, 2005). Of the three groups, Spencer and Fan (2002) found the debtors group had the highest percentage of ethnic minority respondents. Compared to Whites, Blacks and Hispanics were more likely to be in the SDS or debtor group. Even though White households are more likely to have a credit card, a greater percentage of Black and Hispanic families carry credit card debt (Garcia, 2007). In 2008, Hispanic households reported the highest level of credit card debt when compared

to White and Black households (Garcia & Draut, 2009). Lee et al. (2007) found that Blacks, compared to Whites, were 74% more likely to hold consumer debt among older adults. Interestingly, Anguelov and Tamborini (2009) found that mean consumer debt was significantly higher among both White and racial minority groups of near-retirees. In one study, White families held higher median consumer debt than did non-Whites or Hispanics (Bucks et al., 2006).

Summary. In human capital, as education increased, consumer debt increased. Those with more education may feel more comfortable handling consumer debt. Having poorer health, more health conditions, and poorer mental health were all associated with having more consumer debt. With increased medical costs associated with poor health, households can quickly accumulate debt.

Income is positively associated with consumer debt. Those with higher incomes have the ability to carry higher debt loads. As the size of the family increases, so does the amount of consumer debt. Having to pay for more mouths to feed, bodies to clothe, and needs and wants to satisfy, families take on extra debt. If one is employed, one is more likely to take on more consumer debt compared to an individual who is not employed.

As age increased, consumer debt decreased. Females were found to be more likely to have consumer debt and also to be less likely to have consumer debt. In fact, there may be no difference in having consumer debt between females and males. Married couples were more likely to have consumer debt than their non-married counterparts. Concomitant with marriage are usually added expenses, such as children

and housing. There is also the dual earning couple which brings in a higher income, which is associated with more debt. Minorities or non-whites are more likely to carry consumer debt than whites. Minorities have historically been on the lower end of the wealth scale and this could contribute to the consumer debt levels that they have. In summary, the literature tends to support those who are younger, with higher educations, poorer health, have higher incomes, have less wealth, who are married, have large households, and who are minorities as those who carry consumer debt and higher consumer debt.

Mortgage Debt

The largest share of total debt is debt secured by the primary residence. The current housing bust was due in part to the preceding boom in housing. Between 2000 and 2007, housing prices rose 60% before the housing bubble burst (Munnell & Soto, 2008). After the 2001 recession, a combination of tight housing markets and the lowest mortgage interest rates in nearly 40 years set off rapid housing price appreciation (Joint Center for Housing Studies, 2009). Looking for a chance to get in on the rising prices, homebuyers and speculators jumped into the market. Even though mortgage interest rates were increasing, home prices increased mainly because of changes in lending practices. Lenders relaxed down payment and debt-to-income ratio requirements. In many cases, lenders did not verify the assets and incomes of applicants (Joint Center for Housing Studies, 2009).

Many people who had been unable to obtain loans previously due to past payment problems were able to get subprime loans at higher interest rates. Munnell and Soto

(2008) noted that if people extracted the equity from their home through some sort of housing related debt, and consumed all their borrowings, they would be left with additional debt and no additional assets. This could have dire consequences for their retirement. Households now in middle-age have set new records for housing debt and will probably carry high housing debt into old age in 10 or 20 years (Masnick et al., 2006). Millions of Americans entered the recession deep in debt and with serious housing cost burdens.

According to the Joint Center for Housing Studies (2009), a recent Federal Reserve report estimated that of the trillions of dollars in home equity cashed out between 2001 and 2007, homeowners used $874 billion to pay off non-mortgage debt. Basically these homeowners were rolling consumer debt into home loans and unlike consumer loans, mortgage debt cannot be discharged in bankruptcy proceedings. Considering that bankruptcies almost doubled from 600,000 in 2006 to 1.1 million in 2008 this is no small matter. Moreover, a total of about 3.2 million homeowners went into foreclosure in 2007 and 2008.

Home equity borrowing is often used as a replacement for consumer credit, either in financing new consumption expenditures or to pay down outstanding consumer debt (Canner, Durkin, & Luckett, 1998). Garcia and Draut (2009) looked at how individuals used their home equity or refinancing over the past 5 years. Overall, half of the homeowners in the survey had refinanced, taken out a second mortgage, or had used a home equity line of credit. Of those households, half used the proceeds to pay down an average amount of $14,344 on their credit card debt. Garcia and Draut (2009) found that

the 24% who had paid off credit card debt with home equity in the past five years still carried an average credit card debt of $14,000 at the time of the survey.

Human Capital Factors and Mortgage Debt

Education. Education is a human capital factor that impacts mortgage debt. In their study of housing wealth effects, boomer refinancing, housing debt and retirement savings adequacy from the 1989-2007 Survey of Consumer Finances, Gist et al. (2009) found that refinancers were more likely to be college educated than non-refinancers, yet having a college education decreased the probability of refinancing. Anguelov and Tamborini (2009) looked at differences between the 1995 and 2004 cohorts of the SCF. Near-retiree households with higher educational levels were those with the highest mean and median total housing debt.

Lee et al. (2007) found that those with a college education and those with some college among the elderly were much more likely to hold mortgage debt as compared to those with less than a high school education. Lee (2005) profiled baby boomers that use home equity loans and investigated factors predicting the occurrence of taking out home equity loans. The author found that the education level had a positive relationship with home equity borrowing. Canner et al. (1998) found households who have a home equity line of credit tend to be better educated than other homeowners.

Health. Another human capital factor affecting mortgage debt is health. Those with poor health can end up with higher mortgage debt by taking out equity to pay for health related expenses. Household heads who reported their health as poor or good were

less likely to hold mortgage debt than those who reported their health as excellent (Lee et al., 2007). Himmelstein, Warren, Thorne, and Woolhandler (2005) found that medical debt was associated with mortgage debt. Those with more than $1,000 in medical expenses were more likely to have taken out a mortgage to pay medical expenses. Of all homeowners who had taken out a second or third mortgage, 15% reported medical expenses as a reason. Illness resulted in financial problems both directly, because of medical costs, and indirectly because of lost income.

The studies found on health and mortgage debt looked at the impact of debt on health. The consequences for the health of homeowners at the onset of mortgage indebtedness were the focus of a study by Nettleton and Burrows (1998) in the United Kingdom. With mortgage arrears at an all time high, the authors set out to explore what impact the increased level of housing insecurity had upon homeowners' health status. Their logistic regression showed that compared to individuals without mortgage problems, those mortgagors with problems were more likely to have experienced a worsening in subjective well-being even holding other factors constant.

Assessing the impact of housing payment problems on psychological health was the focus of a study by Taylor, Pevalin, and Todd (2007). Using data from the British Household Panel Survey, the subsample consisted of working-age heads of household, men aged 16 to 64 and women aged 16 to 59. They found for male heads of households, housing payment problems and entering arrears had significant psychological costs. These costs are over and above those relating to the associated negative financial events. The sizes of these effects were similar in magnitude to those associated with

unemployment or marital dissolution. For female heads of households, Taylor et al. (2007) found that longer-term housing payment problems and arrears have significant psychological costs. The sizes of these effects were in addition to and larger in magnitude than those associated with more general financial hardship. The authors also found that the detrimental effects on mental health were consistent over time.

Economic Factors and Mortgage Debt

Income. Income has an impact on mortgage debt. The more income one has, the more likely that one has home equity built up to borrow from. Gist et al. (2009) found that refinancers in 2007 had higher median incomes than those who did not refinance. Bucks et al. (2006) used data from the 2001 and 2004 SCF and found mortgage borrowing was less prevalent among families in the lowest income (less than 20th percentile). Bucks et al. also found the percentage of families holding mortgage debt tended to rise with income and the median value of mortgage debt tended to rise with income.

The amount and incidence of mortgage debt rises with income (Anguelov & Tamborini, 2009). Canner et al. (1998) found households who have a home equity line of credit have higher incomes. In Lee's (2005) profile of baby boomers that use home equity loans, those with home equity loans reported a much higher household income than those with no home equity. Results showed that as the income level increased, the likelihood of borrowing against the equity in the home increased and there was a curvilinear relationship between income and home equity borrowing (Lee, 2005). On the other hand, Yilmazer and DeVaney (2005), using data from the 2001 SCF to look at

household debt over the life cycle, reported that household income was negatively associated with the probability of holding mortgage debt.

Family size. Family size is an important factor in mortgage debt. Larger households require more space and larger housing to meet their needs. An increased number of family members increased the probability of holding mortgage debt among the elderly (Lee et al., 2007). Gist et al. (2009) found that the presence of children increased the probability of refinancing. Yilmazer and DeVaney (2005) noted that the number of children living in the household had a positive effect on the probability of holding mortgage debt.

Employment status. Those who are employed have income coming into the household and could afford to take on more mortgage debt. A higher percentage of working and self-employed families held mortgage debt than did retired or other non-working families. Working and self-employed families held higher median debt levels than did non-working or retired families (Bucks et al., 2006). Lee et al. (2007) investigated the factors that influence the probability of holding mortgage debt of older (age 65 and above) Americans. The authors found those who were employed were more likely to hold mortgage debt than those who were not employed.

Region. The region is important in mortgage debt, especially given the recent and ongoing mortgage crisis. The cost of living in a region could be a factor in taking on mortgage debt. It was found that the highest composite cost of living was in the northeast and the west and the lowest was found in the south (Warren, 2010).

Bucks et al. (2009) found that the midwest had the lowest amount of mortgage debt and next to the lowest amount other debt secured by the primary residence in 2007. The northeast, west, and south had more mortgage debt secured by a primary residence in 2007.

Socio-Demographic Factors and Mortgage Debt

Age. Mortgage debt should be declining by the near retiree stage of life. Gist et al. (2009) found that both early (born 1946-1955) and late boomers (born 1956-1964) were about twice as likely as post boomers (born after 1964) to refinance mortgages. According to Bucks et al. (2006), the percentage of families with mortgage debt rose to age 54 and declined starting at age 55. The authors found that the median level of debt secured by the primary residence tended to rise to age 44 and then declined. The median level of debt secured by other residential property and by lines of credit rose to age 64 and declined after age 65.

Borrowers of all ages are carrying more mortgage debt, yet the increase among older families has been remarkable. For instance, only 41% of home owners aged 55-64 in 2001 had paid off their mortgage compared to 54% of that age cohort in 1989 (Apgar & Di, 2005). Even more incredible are the levels of mortgage debt older homeowners carry with them into their retirement years compared to previous years. The median mortgage debt of those mortgage borrowers aged 55 to 64 nearly doubled in 2001 compared to 1989 and for those aged 65 and above it nearly tripled in that time period (Apgar & Di, 2005).

Masnick et al. (2006) noted the growth in mortgage debt and its substitution for consumer debt. They used the data from the SCF to track cohort trends in housing debt and home equity. The authors showed that cohorts about to retire have taken on significantly higher mortgage debt later in life than the cohorts that preceded them. Additionally, younger cohorts at mid-life were poised to have still higher housing debt in 10 or 20 years when they reach retirement. As the debt level increases within cohorts, it also spreads into later years before beginning to decline.

Analyzing debt in families headed by near-retirees (workers aged 50-61), Anguelov and Tamborini (2009) looked at differences between the 1995 and 2004 cohorts of the SCF. The authors examined mortgage debt (debt for the primary residence, home equity loans, and other residential housing debt) and found considerable growth across all types of housing debt between 1995 and 2004. Much of this was driven by increases in housing debt rather than consumer debt. Older households (aged 56-61) held less housing debt than younger (aged 50-55) households.

Lee et al. (2007) found among elderly respondents, as age increased, the probability of holding mortgage debt decreased. Yilmazer and DeVaney (2005) showed that the likelihood of holding mortgage debt and the amount of mortgage debt compared to assets among near-retirees decreased with age. These studies are consistent with the lifecycle hypothesis of saving. Lee (2005) profiled baby boomers that used home equity loans and investigated factors predicting the occurrence of taking out home equity loans. Data were drawn from the National American Housing Survey conducted in 2001. There were four age groups: younger ages (21-35); baby boomer ages (35-55); near retiree ages

(56-64); and elderly ages (age 65 and above). Baby boomers were more likely to borrow against the equity in their homes than the other age groups.

Gender. Yilmazer and DeVaney (2005) used data from the 2001 SCF to look at household debt over the life cycle. They found that female household heads were less likely to hold mortgage debt than single male household heads. Because females generally had lower incomes and wealth, females owned less housing and their housing was smaller than for males. Consequently, they had less mortgage debt than did males. Most research focuses on marital status and tends to neglect gender in studies about mortgage debt.

Marital status. Married couples have more housing debt because they are more likely to be dual-earnings couples with higher incomes to purchase more expensive homes and most have children requiring larger houses. Masnick et al. (2006) observed that married couples have been the primary driving force behind the overall trends in increasing housing debt for middle-aged baby boomers. Unmarried individuals have experienced increases in mortgage debt, but not to the extent that married couples have experienced.

Yilmazer and DeVaney (2005) looked at household debt over the life cycle and reported that married couples were more likely than single male household heads to hold mortgage debt. Mortgage debt increased more for married couples than for single persons between the 1995 and 2004 cohorts in a study by Anguelov and Tamborini (2009). Married individuals were more likely to hold mortgage debt than never married individuals (Lee et al., 2007). Lee (2005) reported that a larger proportion of home

equity borrowers were married. However, in their study of housing wealth effects, boomer refinancing, housing debt, and retirement savings adequacy, Gist et al. (2009) found that being married decreased the probability of refinancing.

Ethnicity. Because more White families have more housing than ethnic minority families, Whites are more likely to carry mortgage debt than ethnic minorities. Bucks et al. (2006) observed that a greater number of White families held mortgage debt than did non-White or Hispanic families. Median mortgage debt levels were higher for White families than non-White or Hispanic families. Gist et al. (2009) found that refinancers were more likely to be White. White households held higher amounts of debt than did racial minority households (Anguelov & Tamborini, 2009). Those with home equity loans tended to be White, and White homeowners were more likely to use home equity than racial minority homeowners (Lee, 2005). On the other hand, Lee et al. (2007) found in their study of elderly homeowners that Blacks and Hispanics were more likely to hold mortgage debt than Whites.

Summary. Those who held more mortgage debt tended to have higher education level. It may be that those who have higher educations have more abilities to take on the complexities of mortgage debt and a higher amount of mortgage debt. Having poorer health, more health conditions, and poorer mental health were all associated with having more mortgage debt. As mentioned earlier, many people pay their medical debts by rolling them into other debt and eventually mortgage debt. In general, income is positively associated with mortgage debt. Those with higher incomes have the ability to carry higher mortgage debt. As the size of the family increases, so does the amount of

mortgage debt. Larger families require more space and larger housing. If one is employed, one is more likely to have more mortgage debt compared to an individual who is not employed.

In general as the age of the householder increased, the amount of mortgage debt decreased. Females are less likely to have mortgage debt. Generally, women have less income and wealth than males and accordingly, less housing and accompanying debt. Married couples were more likely to have mortgage debt than those who are not married. Married couples usually have a family and need more housing to fit their needs. If they are a dual earning couple they may wish to have a larger house for status reasons. Whites have more mortgage debt than non-Whites or minorities. Whites generally have more income and wealth than minorities so they can afford more house and more mortgage debt. Summarizing, those who held more mortgage debt tended to be younger, have a higher education level, poorer health, higher income, larger households, employed, married, and White.

An Overview of Wealth in America

Wealth and net worth for most people has declined due to the recession and fall of the stock market. Rosnick and Baker (2009) used data from the 2004 Survey of Consumer Finances to create three plausible scenarios from best- to worst-case for baby boomers' (ages 45-54 and ages 55-64) wealth in 2009. Net worth for the median household with a person between the ages of 45-54 fell by more than 45% from $172,400 in 2004 to just $94,200 in 2009 (amounts in 2009 dollars).

Rosnick and Baker (2009) found that the situation for early boomers to be somewhat worse. Wealth fell by almost 50% among median households with a person between the ages of 55-64, from $315,400 in 2004 to $159,800 in 2009. Due to the decline in house prices, many baby boomers have little or no equity in their homes. If they were to sell their homes, the authors projected that 30% of households headed by an individual between the ages of 45 and 54 and 15% of those with a household head between 55 and 64 will need to bring money to the closing. This implies that these groups effectively have negative equity in their homes. As a result of the bursting of the housing bubble, millions of middle-class homeowners still have little or no equity in their homes even after being homeowners for decades.

Interestingly, Rosnick and Baker's (2009) projections show that for both age groups, renters within each wealth quintile in 2004 will have more wealth in 2009 than homeowners in all three scenarios. This paper was an update to the author's 2008 paper (Baker & Rosnick, 2008). In eight months since the 2008 paper, the economy had worsened with the recession deepening, turmoil in the stock market, and housing prices staying down. Therefore, the retirement prospects of the baby boomers given in 2008 appear overly optimistic and actually look much worse in 2009 than they did in 2008.

Since this study focuses on negative net worth and the literature on negative net worth is sparse, factors of net worth will be reviewed to find factors of negative net worth. The financial security, especially the savings and net worth, of baby boomers is very important as they are such a large proportion of the population and as the retirement phase of their lives has begun. Given the tumult in the economy, the retirement security

of those entering retirement is a particularly important issue which is being given much attention. The financial security of baby boomers has been the subject of study by several authors (Baek & DeVaney, 2004; DeVaney, 1995; Lee & Brown, 2010; Lusardi & Mitchell, 2006; Rosnick & Baker, 2009). According to Lusardi and Mitchell (2006), those who planned for their retirement, even "a little" were much better off than those who planned "hardly at all." A sizable effect of planning on wealth was seen even after controlling for many demographic factors.

Human Capital Factors and Net Worth

Education. Lusardi and Mitchell's (2006) paper looked at people's economic knowledge and planning and how these are associated with saving behavior. The analysis used two cohorts of the HRS from 1992 and 2004 to evaluate wealth on the verge of retirement. Ceteris paribus, having more education is associated with more wealth. Using the 2001 Survey of Consumer Finances (SCF), Baek and DeVaney (2004) in their assessment of objective financial wellness, baby boomer households who met the liquidity guidelines and the investment assets ratio tended to have a relatively high education.

Lee and Brown (2010) found retirees who had a college degree held more net worth than those who had less than a high school degree. Wakita, Fitzsimmons, and Liao (2000) reported that education levels had a positive effect for White households on both savings net worth and housing net worth. An increase in education among the Black subsample increased housing net worth, but not savings net worth. DeVaney and Chiremba's (2005) study excluded retirees and those over age 70 in the 2001 SCF. The

dependent variable was whether the head of household held one or more retirement account, and the total amount in the retirement accounts held by the household. It was found that the amount of retirement savings was larger for those with more education.

Health. Examining factors related to retirement preparation of older and younger cohorts of baby boomers, DeVaney's (1995) study found households in the older cohort were more likely to meet the criterion of having investment assets greater than 24% of net worth if the household head was in good health. In the study by Lee and Brown (2010) comparing the net worth of older Black women to that of older Black men, older White women and older White men, it was noticed that those with poor health among the total sample held significantly less amounts of net worth than those with excellent health. Lee and Rowley (2009) examined the savings and retirement preparedness of non-married women between the ages of 52 and 64. Non-married women with poor health had lower levels of net worth and were less likely to meet the criterion for being prepared for retirement.

Lum and Lightfoot (2003) examined the effect of health on retirement saving among older workers. Data came from the first wave of the HRS and included those who had a household member who was born between 1931 and 1941. The dependent variables were whether one was offered a pension plan at work, whether one had an IRA, and the amount in the IRA. Health status was the independent variable. In general, those who had better health were more likely to be covered by a pension plan at work and to hold an IRA. Health had a large, significant effect on the probability that a person

nearing retirement will contribute to an IRA and on the amount of money that a person will hold in IRAs.

Economic Factors and Net Worth

Baek and DeVaney (2004) using three financial ratios to assess objective financial wellness found those boomers who met the debt-to-asset ratio and who met the investment assets ratio had higher income, saved for future expenses, and spent less than their income. The results of the study by Lee and Brown (2010) showed that the significant factors that predicted the level of net worth for the total sample of older Blacks and Whites were income and investment income, which were positively related to net worth while pension income, earned income, and other income were negatively related to net worth. Non married women with less income had lower levels of net worth and were less likely to meet the criterion of being prepared for retirement (Lee & Rowley, 2009). All else equal, having higher income was associated with more wealth according to Lusardi and Mitchell (2006). Income was influential on asset ownership and the value of assets for both Black and White families in all but one of their analyses for Devaney et al. (2007).

Wakita et al. (2000) in their study of White, Black, and Hispanic pre-retirees, found that the number of children was negatively related to savings net worth in all three subsamples. The number of children was negatively related to housing net worth for the White subsample. Baek and DeVaney (2004) examined objective financial wellness of baby boomers using three financial ratios. They found that those boomers who met the investment assets ratio were more likely to be employed. There is not a lot of data on

negative net worth and regions. Regional data show that median net worth fell for families living in the northeast or the midwest, while it rose strongly for those in the south or west. However, the data also show that those in the midwest had the highest percentage of families who saved (Bucks et al., 2009).

Socio-Demographic Factors and Net Worth

DeVaney's (1995) retirement preparation criterion was having investment assets greater than 24% of net worth. She found the proportion of the younger boomer cohort meeting the guideline was less than for the older boomer cohort. Using the 2001 SCF, Baek and DeVaney (2004) examined objective financial wellness of baby boomers. In 2001, baby boomers were aged 36 to 55 years old. Three financial ratios: the liquidity ratio, debt-to-assets ratio, and the investment assets ratio were used to assess objective financial wellness. Those who met the debt-to-asset ratio were found to be older boomers. DeVaney and Chiremba (2005) looked at whether the head of household held one or more retirement accounts and the total amount in the retirement accounts held by the household. The older boomers and the swing cohort (pre-boomers) had more saved than the younger boomers and members of Generation X and Y. Household savings tends to increase with age.

Lee and Brown (2010) compared the net worth of older Black women to that of older Black men, older White women and older White men. The sample of those aged 65 and above was taken from the 2006 Health and Retirement Study (HRS). For all groups, those age 75 plus held significantly less net worth than those who were age 65-74. Devaney et al. (2007) found in their study of asset ownership that as the age of the family

head increased, they were more likely to own a retirement account and to have more in the retirement account. Wakita et al. (2000) looked at the determinant of changes in savings net worth and in housing net worth for three pre-retiree racial subsamples. The racial subsamples were Whites, Blacks, and Hispanics. The pre-retirees were aged 18 to 62 in the study. In all three subsamples the effect of age on change in savings net worth was negative The effect of age on change in housing net worth was positive only for the Black and White subsamples.

White males held significantly more net worth than Black women according to Lee and Brown (2010). In general, women tend to hold less wealth than their male counterparts. Being married is associated with more wealth was found by Lusardi and Mitchell (2006) who used two cohorts of the HRS to evaluate wealth on the verge of retirement. Using data from the 2004 SCF, Devaney et al. (2007) found being married was related to increased likelihood of asset ownership and the value of assets for both Black and White families. Wakita et al. (2000) looking at the determinant of changes in savings net worth and in housing net worth for three pre-retiree ethnic subsamples found that married respondents among the Black subsample increased both their savings and housing net worth. However, single respondents among the White subsample experienced a greater change in housing net worth than married respondents.

Lee and Brown (2010), in their study of the net worth of Black and White older persons, found that it appeared, based on the descriptive statistics of asset portfolios, that there were racial differences in financial and non-financial asset holdings between Blacks and Whites. Whites held more financial and non-financial assets than did Blacks.

Examining factors related to retirement preparation of older and younger cohorts of baby boomers, DeVaney (1995) found for the younger cohort, households were more likely to meet the criterion of having investment assets greater than 24% of net worth if the household head was White. The author concluded that ethnic minority households are less likely to be prepared for retirement.

The savings and retirement preparedness of non-married women between the ages of 52 and 64 was the focus of Lee and Rowley (2009). They reported that non-married women who were Black had lower levels of net worth and were less likely to meet the criterion for being prepared for retirement. Blacks were less likely than Whites to own homes, investment accounts, and retirement accounts, and the values of these assets were less for Black families (Devaney et al., 2007). Lusardi and Mitchell's (2006) paper looked at people's economic knowledge and planning and how these are associated with saving behavior. They found being White was associated with more wealth. White households were also more likely to hold a retirement account than households where the household head was not White (DeVaney & Chiremba, 2005).

In general, the boomer cohort held more wealth than earlier counterparts and one reason boomers had more wealth is due to having more housing equity (Lusardi & Mitchell, 2006). Housing is a key component of wealth for those on the verge of retirement. Near-retirees are vulnerable to housing shocks which could significantly affect their retirement wealth. Lusardi and Mitchell (2006) also noted that when both housing and business wealth were excluded from net worth, a sizeable fraction of the early baby boomers ended up having either zero or negative net worth.

Summary

Those with more savings and net worth tended to have more education, to have good health, to have a higher income, to have children, to have fewer children, to be employed, to be younger, to be male, to be married, and are more likely to be White. However, as noted by Lusardi and Mitchell (2006), certain groups in the economy, especially those with low income, low education, and Black and Hispanic households who are at risk of not adequately preparing for their retirement. Those more at risk are those households with zero or negative net worth.

Because negative net worth is the opposite of net worth, factors associated with negative net worth would seem to be the opposite of those associated with net worth. Factors associated with the level of net worth in previous studies showed those with more education have more net worth, thus those with negative net worth would more likely to be those with less education. Those with more net worth tend to have better health, therefore, those with negative net worth would tend to have poorer health. Age was found to be negatively associated with net worth. Consequently, age would be positively related to negative net worth. Income was positively associated with net worth hence less income would be associated with negative net worth. Having children but fewer children was positively related to net wealth, therefore, having more members in the household would be related to negative net worth. Those who were employed were likely to have more net worth, as a result those who are not employed would have lower net worth. Since being male is associated with higher net worth, being female would appear to be associated with negative net worth. Being married is associated with greater

net wealth so those who are not married are less likely to have net worth and possibly more likely to have negative net worth. Being White was associated with having more net wealth and being a minority with less net wealth, and possibly negative net worth.

Thus, this study seeks to understand what levels of consumer debt, mortgage debt, other home equity debt, and total debt near-retirees hold and to assess differences in characteristics between those who hold no debt and those hold varying levels of debt. There is a gap in the knowledge about differences among those who hold different levels of debt. This study is interested in understanding the negative side of wealth. Previous studies were focused on wealth or net worth of near retirees; but there has been little focus on the extent to which near retirees hold near zero or negative net worth. There is a gap in knowledge about the near zero or negative net worth of near-retirees which this study will attempt to fill.

Hypotheses

The life cycle theory assumes that households base their consumption on the present value of their lifetime earnings or resources and seek to maximize satisfaction by smoothing consumption across the life span. In order to smooth consumption given their earnings or resources, some individuals may need to dissave or borrow. If people are present-oriented, they are more likely to borrow from the future to satisfy their wants today. If individuals' human capital, which is their productivity based on education and health is low, debt can result. Based on the life cycle savings and human capital theories, and the findings in the literature, the following hypotheses related to debt and net worth are presented and the directions of the relationships are summarized in Table 2.1.

Debt

Total debt includes consumer, mortgage debt, and home equity debt. Consumer debt mainly consists of credit card, installment, and other debt. Mortgage debt is usually the debt taken out to finance a house or to refinance a home. Home equity is usually the debt taken out to take equity out of the home. Thus, the hypotheses related to consumer debt, mortgage debt, home equity, and total debt are as follows:

H1 Education will be positively related to the likelihood of holding consumer debt, the likelihood of holding mortgage debt, and the likelihood of holding home equity debt for near-retirees.

H2 Compared to those near-retirees with excellent health, those with poor health will be more likely to hold consumer debt, to hold mortgage debt and to hold home equity debt for near-retirees.

H3 The number of physical health problems will be positively related to the likelihood of holding consumer debt, the likelihood of holding mortgage debt, and the likelihood of holding home equity debt for near-retirees.

H4 The number of mental health problems will be positively related to the likelihood of holding consumer debt, the likelihood of holding mortgage debt, and the likelihood of holding home equity debt for near-retirees.

H5 Household income will be positively related to the likelihood of holding consumer debt, the likelihood of holding mortgage debt, and the likelihood of holding home equity debt for near-retirees.

H6 Household size will be positively related to the likelihood of holding consumer debt, the likelihood of holding mortgage debt, and the likelihood of holding home equity debt for near-retirees.

H7 Compared to those near-retirees who are not working, those who are working will be more likely to hold consumer debt, to hold mortgage debt, and to hold home equity debt.

H8 Compared to those who live in the midwest, those who live in the northeast, west, and south will be more likely to hold consumer debt, to hold mortgage debt and to hold home equity debt.

H9 Age will be negatively related to the likelihood of holding consumer debt, the likelihood of holding mortgage debt, and the likelihood of holding home equity debt for near-retirees.

H10 Compared to male near-retirees, female near-retirees will be less likely to hold consumer debt, hold mortgage debt, or to hold home equity debt.

H11 Compared to married near-retirees, those near-retirees who are not married will be less likely to hold consumer debt, to hold mortgage debt, or to hold home equity debt.

H12 Compared to White near-retirees, ethnic minority near-retirees will be more likely to hold consumer debt, less likely to hold mortgage debt, or to hold home equity debt.

Negative Net Worth

Net worth is total assets minus total debt. This is usually a positive number, but when total liabilities are greater than total assets, an individual has negative net worth, thus, the hypotheses for negative net worth are as follows:

H1 Education will be negatively related to the likelihood of having negative net worth for near-retirees.

H2 Compared to those near-retirees with excellent health, those with poor health will be more likely to have negative net worth.

H3 The number of physical health problems will be positively related to the likelihood of having negative net worth for near-retirees.

H4 The number of mental health problems will be positively related to the likelihood of having negative net worth for near-retirees.

H5 The level of household income will be negatively related to the likelihood of having negative net worth for near-retirees.

H6 The number of household members will be positively related to the likelihood of having negative net worth for near-retirees.

H7 Compared to those near-retirees who are not working, those who are working will be less likely to have negative net worth.

H8 Compared to those residing in the midwest, those residing in the northeast, west, and south will be more likely to have negative net worth.

H9 Age will be negatively related to the likelihood of having negative net worth for near-retirees.

H10 Compared to male near-retirees, female near-retirees will be more likely to have negative net worth.

H11 Compared to married near-retirees, unmarried near-retirees will be more likely to have negative net worth,

H12 Compared to White near-retirees, ethnic minority near retirees will be more likely to have negative net worth.

Table 2.1

Summary of Hypotheses

Variable	Hypothesized effects			
	Consumer debt	Mortgage debt	Home equity debt	Negative net worth
Education	+	+	+	-
Self-reported health (excellent) poor	+	+	+	+
Number of health problems	+	+	+	+
Number of mental health problems	+	+	+	+
Household income	+	+	+	-
Family size	+	+	+	+
Employment (non-working) working	+	+	+	-
Region (midwest) NE, west, south	+	+	+	+
Age	-	-	-	-
Gender (male) female	-	-	-	+
Marital Status (married) unmarried	-	-	-	+
Ethnicity (White) Black, Hispanic/other	+	-	-	+

Note. Reference categories are presented in parentheses.

CHAPTER III

METHODOLOGY

This chapter presents a description of the research design in this study. The 2008 Health and Retirement Study (HRS) data is used in the study and is described in this section. The cleaned version of the HRS data set that is computed by the RAND Center for the Study of Aging is used. Information is provided regarding the sample from the RAND HRS data. The variables used, which are continuous and categorical, are discussed in detail. The final section of this chapter presents the statistical techniques that are used to analyze data in the study.

Research Design

This study uses secondary data analysis. Secondary analysis is the reanalysis of survey data that were originally collected by others. It focuses on the analysis of data rather than the collection of data. Data for this study comes from the 2008 Heath and Retirement Study (HRS). The HRS is a national panel survey of individuals aged 51 and above and their spouses. Survey research is best for topics that ask about reported facts or behavior such as the debt that individuals have and sociodemographic information.

The study utilizes cross-sectional data. Data have been observed at one point in time, but from groups of different ages, from 51 to 64. The limitation of a cross-sectional design is that it cannot capture social processes or change over time.

Data

This study utilizes data from the 2008 Heath and Retirement Study (HRS) that was conducted by the Survey Research Center at the University of Michigan. The data from the RAND version of the HRS is used. This section includes a description of the data, the variables, and the statistical techniques used in the present study. The Heath and Retirement Study (HRS) is a national study that has been conducted every two years since 1992. It surveys more than 22,000 Americans over the age of 50.

The HRS was planned "to provide policymakers with up-to-date information on changes in retirement and disability patterns, and to provide scientists with data to generate more accurate and realistic models of the retirement decision and the economic and health causes and consequences of retirement and aging" (Heeringa & Connor, 1995, p. 1). The original design phase of the study was especially lengthy, well-funded, and included participation from perhaps a hundred members of the research and federal statistical communities. It merged multiple interdisciplinary perspectives such as sociology, economics, epidemiology, and demography (Juster & Suzman, 1995).

The University of Michigan's Survey Research Center (SRC), which is one of the largest research organizations in the world, conducts the HRS. The HRS is currently funded under a cooperative agreement between the National Institute on Aging (NIA) and the University of Michigan's SRC. It is now designed to study labor force, health, and family transitions of the U.S. population aged 51 and older, and the impact of those transitions on economic resources, claims on programs such as Social Security, Medicare, and Medicaid, and the informal assistance and transfers to and from family members.

Research records are kept confidential, consistent with federal and state regulations. Due to the ongoing, longitudinal nature of the HRS study, personal, identifiable information will be kept indefinitely. However, identity and privacy are strictly confidential. Information that might link it back to a specific participant is stripped from the data. After being combined with others' responses, the results are then made available to researchers around the world. The identity of participants is not released to anyone and the information is protected by complex passwords and firewalls. Information collected in the field is encrypted and sent to a central office, then deleted from the field representatives' laptops. All staff must sign and adhere to statements of confidentiality. Additionally, a Department of Health and Human Services Certificate of Confidentiality covers this research in order to protect participants.

The RAND HRS data file is a cleaned and streamlined version of the HRS with derived variables which cover a broad, though not complete, range of measures. The file includes imputations for income, assets, and medical expenditures developed at RAND.

Study Sample

This study uses the data gathered in the year 2008 (wave 9) of the HRS. New groups of younger people in their early 50's were added to the sample in 2008 (*N*=30,548). Previously interviewed respondents were also contacted and interviewed. The interview is conducted on the phone by trained interviewers using a computer generated questionnaire. In the 2008 data collection instrument, most questions were asked of all respondents. Some questions were asked about the household. For two-respondent households, these questions were asked just of a designated financial

respondent, family respondent, or the first respondent interviewed on behalf of the entire household.

This study used the 2008 Rand HRS data file of 30,548 cases. The sample for this study includes households headed by near-retirees aged 51-64 for a total of 5,442 cases. With respect to sample selection, observations for which there are missing values for one or more of the variables used in the analysis are dropped (SPSS data analysis automatically drops missing cases from the data). Cases for which the respondent indicated that he or she was retired are dropped leaving a sample of 4,198. To eliminate some skewedness in the wealth of the sample, 449 cases with one million dollars or more in net worth, 2 cases of one million or more in total debt, and 2 cases with one million or more negative net worth are dropped from the sample. This results in a final sample of 3,745 respondents.

Variables

Dependent Variables

In the multivariate analyses, the dependent variables of this study measure (1) the likelihood of holding high, medium, low, and no consumer debt (reference group); (2) the likelihood of holding high, medium, low, and no mortgage debt (reference group); (3) the likelihood of holding high, medium, low, and no home equity debt (reference group); (4) the likelihood of holding high, medium, low, and no total debt (reference group), and (5) the likelihood of holding negative net worth, near zero net worth, low net worth, and high net worth (reference group). Table 3.1 shows the dependent variables in the study and how they are measured.

Table 3.1

Dependent Variables

Variables	Measurements
Consumer debt	
1 – (No debt)	$0.00
2 – Low debt	$1.00 - $4,000
3 – Medium debt	$4,001- $11,999
4 – High debt	$12,000 - $500,000
Mortgage debt	
1 – (No debt)	$0.00
2 – Low debt	$1.00 - $80,000
3 – Medium debt	$80,001 - $150,000
4 –High debt	$150,001 - $999,999
Home equity debt	
1 – (No debt)	$0.00
2 – Low debt	$1.00 - $15,000
3 – Medium debt	$15,001 - $38,000
4 – High debt	$38,001 - $300,000
Total debt	
1 – (No debt)	$0.00
2 – Low debt	$1.00 - $29,999
3 – Medium debt	$30,000 - $100,000
4 – High debt	$100,001 - $999,999
Net worth	
Negative net worth	-$1.00 to -$999,999
Zero net worth	$0.00 to $1,000
Low net worth	$1,001 to $148,500
(High net worth)	$148,501 to $999,999

Note. Reference categories in the multivariate analyses are presented in parentheses.

Consumer debt is the value of all other debt (H9ADEBT [RAND HRS variables are further defined in the Appendix]). Mortgage debt is the total of value of all

mortgages on the primary residence (H9AMORT) and home equity debt is the value of other loans on the primary residence (H9AHMLN). Total debt is the sum of consumer debt, mortgage debt, and home equity debt. Looking at the distribution of debt for each type of debt for the household in this sample, it was determined that there were break points for those who had a low amount of debt, a medium amount of debt, and a high amount of debt relative to other members of the sample. So the types of debt were divided into the respective categories based on these monetary break points.

Net worth is the zero and negative values and the low and high values found from H9ATOTB which is the net value of total wealth including secondary residence less all debt. The net worth variables are obtained by dividing the net worth into four categories. These are negative net worth, zero to $1,000 in net worth, low and high net worth. For the low and high net worth, the median was found to create low (falling below the median) and high (falling above the median). In this study, variables are created in the multinomial logistic models for the sample.

Independent Variables

The independent variables are divided into categories of human capital factors, economic factors, and socio-demographic factors. How they are measured is shown in Table 3.2.

Human capital factors. The four variables that constitute the human capital variables are education, self-reported health, health conditions, and depression symptoms. Education (RAEDYRS) is a continuous variable which ranges from 0 to 17. Self-reported health (R9SHLT) is a categorical variable that has categories of excellent

Table 3.2

Independent Variable Measurements

Variables	Measurement
Human capital variables	
Education	Years 1-17
Self-reported health	
Fair/Poor	1 if fair/poor, 0 otherwise
Good	1 if good/very good, 0 otherwise
(Excellent)	1 if excellent, 0 otherwise
Health problems	Continuous, 1-8 A derived health problem index that is the sum of indicators for whether a doctor has ever told the respondent that he or she has ever had a particular disease.
Depression symptoms	Continuous, 1-8 A derived depression symptoms index using a score on the Center for Epidemiologic Studies Depression (CESD) scale.
Economic variables	
Income	Continuous, total household income
Household size	Continuous, number of members of the household
Employment (non-working)	
working	1 if working for pay, 0 otherwise
Region	
northeast	1 if live in the Northeast U.S., 0 otherwise
west	1 if live in the Western U.S., 0 otherwise
south	1 if live in the Southern U.S., 0 otherwise
(midwest)	1 if live in the Midwest U.S., 0 otherwise
Socio-demographic variables	
Age	Continuous, 51-64
Gender	
Female	1 if female, 0 otherwise
(Male)	1 if male, 0 otherwise
Marital status	
Divorced/separated	1 if divorced/separated, 0 otherwise
Widowed	1 if widowed, 0 otherwise
Never married	1 if never married, 0 otherwise
(Married)	1 if married, 0 otherwise
Ethnicity	
Black	1 if black, 0 otherwise
Hispanic/other	1 if Hispanic/other, 0 otherwise
(White)	1 if white, 0 otherwise

Note. Reference categories in the multivariate analyses are presented in parentheses.

(reference category), very good, good, fair, and poor. The categories of very good and good health were collapsed into one category: good health, and the categories of fair and poor health were collapsed into one category: poor health.

In the analysis, physical health problems (R9CONDE) is the sum of indicators for whether a doctor has ever told the respondent that he or she has ever had a particular disease, and is a continuous variable. The eight included diseases are high blood pressure, diabetes, cancer, lung disease, heart disease, stroke, psychiatric problems, and arthritis. A mental health indicator, depression symptoms, was used in this study. Depression symptoms are captured by a version of the depression scale, CES-D. The CES-D scale is a self-report scale designed to measure depressive symptoms in the general population. The 20 items of the scale are symptoms associated with depression which have been used in previously validated longer scales. The 20-item scale was tested and found to have very high internal consistency and adequate test-retest repeatability. Validity was determined by patterns of correlation, by correlations with clinical ratings of depression, and by relationships with other variables which support the construct validity of the scale (Radloff, 1977).

The CES-D index (R9CESD) used in the HRS is a shortened version of the scale developed by Radloff (1977). It is the sum of 8 indicators from the original CES-D scale and is considered a continuous variable. Six of the indicators were negative and measure whether the respondent experienced the following issues all or most of the time: depression, everything is an effort, sleep is restless, felt alone, felt sad, and could not get

going. Two of the indicators were positive and measure whether the respondent felt happy, and whether the respondent enjoyed life, all or most of the time. They were considered 1-felt happy and 1-enjoyed life in the index. The responses for the indicators were Yes, No, DK (don't know), and RF (refused). The dichotomized response categories in the HRS used the persistence method. The four category measure is split down the middle, with those who answered "most of the time" or "all of the time" collapsed into "yes" indicating that they do have a particular depressive symptom. Those who answered "some of the time" or "none of the time" are collapsed into "no" indicating they do not have a particular depressive symptom (Perzynski & Townsend, 2008). It is only those whose depression symptoms are "persistent" that are recoded as having depressive symptoms. The Chronbach's alpha for internal consistency of the CES-D variable is 830 and shows the scores are reliable for this study.

Economic factors. These economic variables include household income, household size, employment status, and region. Household income (H9ITOT) which is the total household income is a continuous variable. The main thing that RAND does with the income information that is collected in the HRS is that it combines all sources of income into total income and where data is missing, it is imputed (see St. Clair et al., 2010, for further information on income imputations). Household size (H9HHRES), which is the total number of people living in the household including the respondent and a spouse, is a continuous variable. Employment status is dichotomously categorized as working for pay (R9WORK) or not working for pay. Region (R9CENREG) is divided as census regions, northeast, west, south and midwest (reference category).

Socio-demographic factors. These socio-demographic variables include age, gender, marital status, and ethnicity. Age (R9AGEY_E) information is garnered asking the respondent's age at the time of the HRS survey interview. It is a continuous variable from 51 through 64. Gender (RAGENDER) is categorized as male (reference category) and female. Marital status (R9MSTATH) is categorized as four dummy categorical variables: married (reference category), separated/divorced, widowed, and never married. Ethnicity (RARACEM) is categorized as three dummy categorical variables: White/Caucasian (reference category); Black/African American; Hispanic and other.

Data Analyses

Preliminary analysis includes descriptive statistics of frequencies, percentages, means, and medians for all of the variables. One-way ANOVA is calculated for the continuous variables and chi-square tests are used with the categorical variables. One-way ANOVA is used to assess the differences in the mean levels of the continuous variables and the debt and net worth variables. Differences among mean levels of these consumption categories are tested for statistical significance at the .05 alpha level using a general-linear hypothesis approach (Gravetter & Wallnau, 2000; Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975).

Chi-square tests are used to assess the differences in the frequency counts for the categorical variables and the debt and net worth variables. Differences among these variables are tested for statistical significance at the .05 alpha level. Multinomial logistic regression analyses are performed to identify the effects of human capital factors, life cycle factor, and socioeconomic and sociodemographic characteristics of the near retirees

on the likelihood of holding any level of consumer debt, likelihood of holding any level of mortgage debt, likelihood of holding any level of total debt, and likelihood of holding negative net worth. The a priori alpha for the analysis is .05.

CHAPTER IV

RESULTS

This study examines the levels of consumer debt, mortgage debt, home equity debt, total debt, and negative net worth among near-retirees. This study also investigates factors associated with the likelihood of holding consumer debt, mortgage debt, home equity debt, and negative net worth. This chapter starts with the characteristics of the study sample, followed by descriptive information on the levels of consumer debt, mortgage debt, home equity debt, and negative net worth among near-retirees. Results of the one-way ANOVA and chi-square tests are presented, and the results of the multinomial logistic regression analyses are reported at the end of this chapter.

Descriptive Results

Sample Characteristics

Table 4.1 provides information regarding the characteristics of the study sample. The mean and median levels of education years attained by this group of near-retirees are 13.0. The standard deviation of education for the group is 3.1 years. The majority of the sample reports good health (64.2%), with 23.9% reporting poor health and 11.8% reporting excellent health. The mean level of physical health problems is 1.6 out of 8. Based on a scale of 1 to 8, the range for the sample is from 0 to 8 depressive symptoms. The mean level of depression symptoms is 1.4, which means that the sample had a low level of depressive symptoms.

Table 4.1

Characteristics of the Total Sample of Near-Retirees (N = 3,745)

	Categorical variables		Continuous variables	
Variables	Frequency	Percentage	Mean (median)	Std dev
Education in years			13.0 (13.0)	3.1
Self-reported health				
Poor	896	23.9%		
Good	2406	64.2%		
Excellent	443	11.8%		
Physical health problems			1.6 (1.0)	1.3
Depression symptoms			1.4 (1.0)	2.0
Household income			$77,320 ($61,800)	$72,050
Household size			2.5 (2.0)	1.3
Employment status				
Working	3047	81.4%		
Not working	690	18.4%		
Region				
northeast	517	13.8%		
west	766	20.5%		
south	1476	39.4%		
midwest	979	26.1%		
Age			57.9 (58.0)	3.3
Gender				
Female	2252	60.1%		
Male	1493	39.9%		
Marital status				
Divorced/separated	730	19.5%		
Widowed	263	7.0%		
Never married	181	4.8%		
Married	2571	68.7%		
Ethnicity				
Black	589	15.7%		
Hispanic/others	340	9.1%		
White	2816	75.2%		

The mean household income of the sample is $77,320 and the median household income is $61,800. The average household contains 2.5 members with a median number of two members. Those near-retirees who are working (81.4%) are a much greater percentage of the sample than those who are not working. The largest percentage of the sample reports living in the south. The mean age of the sample of near-retirees is 57.9 years. There are more females than males in the study sample and the majority of them are married (68.7%) and White (75.2%).

Overall, the typical near-retiree in the sample is about 58 years old, likely female, married, White, employed, and has 13 years of education. A larger proportion of near-retiree reports good health and a higher percentage lives in the south. The average near-retiree has between one and two physical health problems and has between one and two depression symptoms. The average level of household income is $77,320, and the average number in the household is between two and three members.

Debt

Table 4.2 gives the frequency and percent for the four levels of consumer debt, mortgage debt, home equity debt, and total debt. To classify the four levels of debt, first no debt in each type of debt is counted as the first level, next the distribution of debt for each type of debt for the sample is identified in low, medium, and high debt groups. In every type of debt, those who have no debt are the greatest frequency and percentage. For example, 53% have no consumer debt, 48.9% have no mortgage debt, 85.2% have no home equity debt, and 27.2% hold no total debt.

Table 4.2

Consumer, Mortgage, Home Equity, and Total Debt in Four Groups

Variable		Frequency	Percent
Consumer debt			
1	No debt	1986	53.0%
2	$1.00 - $4,000	686	18.3%
3	$4,001 - $11,999	474	12.7%
4	$12,000- $500,000	599	16.0%
Mortgage debt			
1	No Debt	1832	48.9%
2	$1.00- $80,000	857	22.9%
3	$80,001 - $150,000	535	14.3%
4	$150,001 - $999,900	521	13.9%
Home equity debt			
1	No debt	3191	85.2%
2	$1.00 - $15,000	194	5.2%
3	$15,001 – $38,000	173	4.6%
4	$38,001 – $300,000	187	5.0%
Total debt			
1	No debt	1018	27.2%
2	$1.00 – $29,999	817	21.8%
3	$30,000 - $100,000	919	24.5%
4	$100,001 - $999,900	991	26.5%

Table 4.3 presents descriptive information on the mean, median, standard deviation, minimum, and maximum for each type of debt -- consumer debt, mortgage debt, home equity debt, and total debt. For the consumer debt, the mean level is $7,148 with a median of $0.00 dollars. The mean level of mortgage debt is $63,175 with a median debt of $8,000. The mean level of home equity debt is $5,266 and the median is $0.00. For total debt, near-retirees have a mean level of debt of $75,589 with a median of $30,000.

Table 4.3

Descriptive Statistics For Consumer, Mortgage, Home Equity, and Total Debt

Statistic	Consumer debt *N* = 3745	Mortgage debt *N* = 3745	Home equity debt *N* = 3745	Total debt *N* = 3745
Mean	$7,148	$63,175	$5,266	$75,589
Median	$0.00	$8,000	$0.00	$30,000
Std deviation	$22,165	$101,907	$19,455	$111,502
Minimum	$0.00	$0.00	$0.00	$0.00
Maximum	$500,000	$931,668	$300,000.00	$950,668

Negative Net Worth

In Table 4.4, those near-retirees who have negative net worth constitute 258 individuals or 6.9% of the sample. For zero to $1,000 of net worth, there are 172 individuals or 4.6% of the sample in this category. The rest of the sample is evenly split at the median wealth point. As shown in Table 4.5, the mean net worth for the total sample is $232,298 and the median net worth is $148,500. Maximum net worth is $999,900 (as those with net worth or negative net worth equal to or greater than one million dollars were excluded from the original sample) and the minimum net worth or maximum negative net worth is -$479,523.

Human Capital and Socioeconomic Characteristics and Debt

Table 4.6 shows the results of the ANOVA and chi-square tests for consumer debt, Table 4.7 shows the results of these tests for mortgage debt, and Table 4.8 shows

Table 4.4

Net Worth in Four Groups (N = 3,745)

	Level of net worth	Frequency	Percent
1	Negative (-$999,999 to -$1)	258	6.9%
2	Zero thru $1,000	172	4.6%
3	Low ($1,001 - $148,500)	1659	44.3%
4	High ($148,501 - $999,999)	1656	44.2%

Table 4.5

Descriptive Statistics for Net Worth (N = 3,745)

Statistic	Value
Mean	$232,298
Median	$148,500
Std deviation	$247,042
Minimum	-$479,523
Maximum	$999,900

the results of these tests for home equity debt. The results of the ANOVA and chi-square tests for total debt are shown in Table 4.9 and the results of these tests for net worth are shown in Table 4.10.

Consumer Debt

As shown in Table 4.6, the level of education is highest for high consumer debt group. Those near-retirees who had high consumer debt also had the highest number of

Table 4.6

Human Capital, and Socioeconomic Profile of Near-Retirees by Four Levels of Consumer Debt

Variable	No debt $0.00	Low debt $1 - $4,000	Medium debt $4,001 – $11,999	High debt $12,000 - $500,000	Test statistic
Education	12.9 (3.3)	12.9 (2.7)	13.1 (2.7)	13.7 (2.6)	F = 13.651***
Self-reported health					
Poor	23.5%	23.9%	25.9%	23.9%	χ^2 = 6.143
Good	63.6%	65.6%	64.1%	64.9%	
Excellent	12.9%	10.5%	9.9%	11.2%	
Physical health problems	1.57(1.3)	1.70 (1.3)	1.76 (1.4)	1.67 (1.3)	F = 3.669*
Depression symptoms	1.36 (2.0)	1.33 (2.0)	1.49 (2.1)	1.60 (2.2)	F = 2.568
Household income	$75,081 ($71,458)	$71,238 ($68,526)	$75,232 ($66,981)	$93,359 ($79,495)	F = 12.408***
Household size	2.5 (1.4)	2.4 (1.3)	2.5 (1.2)	2.6 (1.2)	F = 1.622
Employment status					
Working	78.3%	85.1%	85.4%	85.1%	χ^2 = 29.287***
Not working	21.7%	14.9%	14.6%	14.9%	
Region					
northeast	14.1%	14.9%	11.6%	13.5%	χ^2 = 10.713
west	20.4%	18.2%	20.9%	23.2%	
south	40.3%	38.7%	28.4%	38.7%	
midwest	25.3%	28.2%	29.1%	24.5%	
Age	58.1 (3.3)	57.8 (3.3)	57.7 (3.3)	57.4 (3.2)	F = 7.986***
Gender					
Female	60.6%	61.5%	60.3	56.9%	χ^2 = 3.283
Male	39.4%	38.5%	39.7	43.1%	
Marital status					
Divorced/sep	20.6%	19.4%	20.0%	15.4%	χ^2 = 34.729***
Widowed	7.1%	8.9%	6.8%	4.8%	
Never married	5.6%	3.5%	6.3%	2.7%	
Married	66.7%	68.2%	66.9%	77.1%	
Ethnicity					
Black	16.1%	16.2%	17.7%	12.6%	χ^2 = 23.873**
Hispanic/others	10.8%	7.4%	6.8%	7.0%	
White	73.1%	76.4%	75.5%	80.6%	

Note. Standard deviations in the ANOVA are presented in parentheses. *p <..05; **p < .01; ***p < .001.

depression symptoms among the four levels of consumer debt. Household income and household size are highest for those who hold high consumer debt. Those who hold high consumer debt are the youngest, tended to be male, and tended to live in the south. Among those who are married, the highest percentage holds high consumer debt, yet very few of the widowed and never married hold high debt. The highest percentage of Whites hold high consumer debt; however, among Blacks, the percentage who hold high consumer debt drops dramatically compared to the percentages of Blacks with no debt, low debt, and medium consumer debt.

On the other hand, the highest percentage of those with excellent health is found among those with no consumer debt, while physical health problems are lowest for this group. The lowest percentage of working near-retirees is found among those with no consumer debt. Those who hold no consumer debt are the oldest, have the highest percentage of divorce/separated, and Hispanic/Asian/other near retirees. Similar to high consumer debt, the highest percentages of near-retirees who hold no consumer debt are in the south.

Mortgage Debt

Table 4.7 shows that similar to consumer debt, education is highest for those near-retirees in the high mortgage debt level. The percentage of those reporting excellent health is the highest and the number of physical health problems are the lowest for those near-retirees with high mortgage debt. Among near-retirees, household income is highest for near-retirees who hold high mortgage debt. The highest percentage holding high mortgage debt live in the west. The youngest near-retirees and the highest percentage of

Table 4.7

Human Capital and Socioeconomic Profile of Near-Retirees by Four Levels of Mortgage Debt

Variable	No debt $0.00	Low debt $1- $80,000	Medium debt $80,001 - $150,000	High debt $150,001 - $999,900	Test statistic
Education	12.3(3.4)	13.3 (2.5)	13.8 (2.5)	14.4 (2.4)	F = 88.429***
Self-reported health					
Poor	30.1%	21.1%	15.5%	15.4%	
Good	60.4%	66.4%	69.9%	68.5%	χ^2 = 93.440***
Excellent	9.5%	12.5%	14.6%	16.1%	
Physical health problems	1.74(1.4)	1.60 (1.3)	1.61 (1.3)	1.35 (1.2)	F = 11.701***
Depression symptoms	1.66(2.2)	1.26(1.9)	1.11(1.7)	1.12(1.8)	F = 17.472***
Household income	$55,686 ($55,076)	$77,044 ($61,237)	$96,851 ($70,506)	$133,788 ($100,900)	F = 203.161***
Household size	2.4 (1.4)	2.5 (1.3)	2.5 (1.1)	2.7 (1.3)	F = 9.981***
Employment status					
Working	75.5%	86.3%	88.4%	87.9%	χ^2 = 87.396***
Not working	24.5%	13.7%	11.6%	12.1%	
Region					
northeast	14.1%	14.1%	10.8%	15.4%	
west	18.2%	14.1%	22.2%	37.2%	χ^2 = 177.49**
south	45.0%	37.9%	34.8%	27.6%	
midwest	22.7%	33.8%	19.8%	19.8%	
Age	58.1 (3.3)	57.8 (3.3)	57.7 (3.3)	57.4 (3.2)	F = 7.986***
Gender					
Male	37.3%	41.8%	39.6%	45.9%	χ^2 = 14.047**
Female	62.7%	58.2%	60.4%	54.1%	
Marital status					
Divorced/sep	24.8%	15.3%	16.3%	10.9%	χ^2 = 199.16***
Widowed	9.3%	6.7%	4.9%	1.9%	
Never married	7.4%	2.6%	2.1%	2.5%	
Married	58.6%	75.5%	76.8%	84.6%	
Ethnicity					
Black	20.1%	13.2%	10.8%	9.4%	χ^2 = 77.442***
Hispanic/others	10.5%	8.1%	5.6%	9.2%	
White	69.3%	78.8%	83.6%	81.4%	

Note. Standard deviations in the ANOVA are presented in parentheses. *p <..05; **p < .01; ***p <..001.

male, married, and White near-retirees hold high mortgage debt.

Education is lowest for those near-retirees with no mortgage debt. The highest percentage reporting poor health, those who report the highest number of physical health problems, and the highest number of depression symptoms are among those with no mortgage debt. Among near-retirees, household income and household size are lowest for those with no mortgage debt. The number of those who are employed is very low for those with no mortgage debt. The highest percentage holding no mortgage debt live in the south. Those who hold no mortgage debt are the oldest. The highest number of females, the highest percentage of divorced and separated, widowed, never married, and the highest percentage of Blacks and Hispanic/other near-retirees hold no mortgage debt.

Home Equity Debt

Similar to consumer and mortgage debt, those with high home equity debt have the highest educational attainment as found in Table 4.8. The lowest percentage of near-retirees reporting poor health and those reporting the fewest depression symptoms are among those with high home equity debt. Household income and household size is highest for those with high home equity debt. Those with high home equity debt are younger, male, and married.

Those with no home equity debt had lower levels of education, reported poor health, the highest number of physical health problems, and the highest number of depression symptoms. Household income and the number of those who are working is lowest in the no home equity debt group. The highest percentage of those holding no

Table 4.8

Human Capital and Socioeconomic Profile of Near-Retirees by Four Levels of Home Equity Debt

Variable	No debt $0.00	Low debt $1.00 - $15,000	Medium debt $15,001 - $38,000	High debt $38,001 - $300,000	Test statistic
Education	12.9(3.1)	13.5 (2.3)	13.6 (3.1)	14.2 (2.3)	F = 15.149***
Self-reported health					
Poor	25.8%	12.9%	16.2%	10.7%	
Good	62.9%	74.2%	67.1%	73.8%	χ^2 = 45.968***
Excellent	11.3%	12.9%	16.8%	15.5%	
Physical health Problems	1.66 (1.4)	1.57 (1.1)	1.39 (1.2)	1.45 (1.1)	F = 3.666*
Depression symptoms	1.47 (2.1)	1.14 (1.8)	1.13 (1.8)	.98 (1.7)	F = 5.752**
Household income	$72,757	$88,306	$96,455	$126,081	F = 39.573***
	($68,865)	($58,514)	($62,898)	($112,833)	
Household size	2.5 (1.3)	2.4 (1.2)	2.5 (1.2)	2.6 (0.9)	F = .624
Employment status					
Working	80.3%	87.6%	92.5%	85.5%	χ^2 = 23.516
Not working	19.7%	12.4%	7.5%	14.4%	
Regions					
northeast	13.1%	16.0%	17.9%	20.3%	χ^2 = 63.961***
west	20.7%	11.9%	19.7%	26.7%	
south	41.4%	31.4%	32.4%	21.9%	
midwest	24.8%	40.7%	30.1%	31.0%	
Age	57.9 (3.4)	57.8 (3.1)	57.8 (3.3)	57.4 (3.0)	F = 1.263
Gender					
Female	60.9%	59.3%	56.6%	51.3%	χ^2 = 7.734
Male	39.1%	40.7%	43.4%	48.7%	
Marital status					
Div/sep	21.1%	12.9%	11.6%	5.9%	χ^2 = 79.591***
Widowed	7.6%	4.1%	4.6%	2.1%	
Never married	5.3%	2.6%	1.7%	1.6%	
Married	65.9%	80.4%	82.1%	90.4%	
Ethnicity					
Black	17.3%	8.2%	5.8%	5.9%	χ^2 = 54.334***
Hispanic/others	9.6%	3.6%	7.5%	8.0%	
White	73.1%	88.1%	86.7%	86.1%	

Note. Standard deviations in the ANOVA are presented in parentheses. *p <..05; ** p <..01; *** p < .001.

home equity debt live in the south. The oldest near-retirees, as well as the highest percentage of females, the highest percentage of divorced/separated, widowed, and never married near-retirees, and the highest percentage of Blacks and Hispanic/other near-retirees hold no home equity debt.

Total debt. As shown in Table 4.9, consistent with consumer and mortgage debt, education was highest for near-retirees holding high total debt. Those who hold high total debt report good health and excellent health, and report the lowest physical health problems. Household income and household size are highest for those with high total debt. The highest percentage of those working and living in the west hold high total debt. Consistent with high consumer and high mortgage debt, near-retirees who are the youngest hold high total debt. The lowest percentage of females, and the highest percentage of married and White near-retirees hold high total debt.

Education is lowest for near-retirees with no total debt. Those with no total debt have the highest depression symptoms. Household income and household size are lowest for those in the no total debt group. The lowest percentage of those working held no total debt. The south had the highest percentage of those who hold no total debt. The highest percentage of females, divorced/separated and never married, Blacks and Hispanics/Asians/others hold no total debt.

Human Capital and Socioeconomic Characteristics and Negative Net Worth

Table 4.10 shows that education years are significantly higher for those with negative net worth than for those with zero-$1,000 of net worth. The results show that of those that report negative net worth, 41.5% have poor health, 50.4% have good health,

Table 4.9

Human Capital and Socioeconomic Profile of Near-Retirees by Four Levels of Total Debt

Variable	No debt $0.00	Low debt $1 - $29,999	Medium debt $30,000 - $100,000	High debt $100,001 - $999,900	Test statistic
Education	12.0(3.7)	12.5 (2.9)	13.4 (2.5)	14.2 (2.4)	F = 99.859***
Self-reported health					
Poor	29.6%	30.6%	20.5%	17.5%	
Good	59.8%	61.4%	66.6%	68.9%	χ^2 = 91.043***
Excellent	10.6%	8.0%	12.9%	15.2%	
Physical health problems	1.67 (1.4)	1.83 (1.4)	1.60 (1.3)	1.47 (1.2)	F = 11.220***
Depression symptoms	1.65 (2.2)	1.65 (2.2)	1.23 (1.9)	1.13 (1.8)	F = 16.444***
Household income	$52,134 ($55,054)	$56,987 ($52,523)	$80,972 ($62,628)	$116,568 ($89,775)	F = 185.972***
Household size	2.4 (1.4)	2.4 (1.3)	2.5 (1.3)	2.6 (1.2)	F = .7.144***
Employment status					
Working	71.6%	80.1%	86.8%	88.1%	χ^2 = 113.27***
Not working	28.4%	19.9%	13.2%	11.9%	
Region					
northeast	14.3%	13.1%	13.6%	14.1%	χ^2 = 148.77***
west	17.5%	16.9%	15.8%	30.9%	
south	47.6%	43.6%	37.0%	30.1%	
midwest	20.6%	26.3%	33.6%	24.9%	
Age	58.2 (3.4)	58.1 (3.3)	57.7 (3.3)	57.5 (3.2)	F = 9.295***
Gender					
Female	63.8%	61.8%	58.3%	56.7%	χ^2 = 12.620**
Male	36.2%	38.2%	41.7%	43.3%	
Marital status					
Div/sep	25.2%	24.7%	16.0%	12.5%	χ^2 = 217.15***
Widowed	9.6%	9.7%	5.7%	3.4%	
Never married	8.7%	5.6%	2.4%	2.4%	
Married	56.4%	60.0%	76.0%	81.6%	
Ethnicity					
Black	21.9%	18.8%	12.3%	10.0%	χ^2 = 92.208***
Hispanic/others	11.8%	9.2%	7.8%	7.4%	
White	66.3%	72.0%	79.9%	82.6%	

Note. Standard deviations in the ANOVA are presented in parentheses. *p < .05; **p < .01; ***p < .001.

Table 4.10

Human Capital and Socioeconomic Profile of Near-Retirees by Four Levels of Net Worth

Variable	Negative net worth -$999,900 to -$1	$0- $1000 $0.00 to $1,000	Low net worth $1,001 to $186,500	High net worth $186,501 to $999,900	Test statistic
Education	12.5(3.1)	10.5 (3.4)	12.4 (3.2)	14.1 (2.5)	F = 142.527***
Self-reported health					
Poor	41.5%	60.5%	28.9%	12.4%	
Good	50.4%	35.5%	62.0%	71.7%	χ^2 = 327.63***
Excellent	8.1%	4.1%	9.2%	15.9%	
Physical health problems	2.05 (1.5)	2.25 (1.6)	1.75 (1.4)	1.38 (1.2)	F = 45.602***
Depression symptoms	2.3 (2.4)	2.9 (2.7)	1.55 (2.1)	.97 (1.7)	F = 78.722***
Household income	$46,310 ($45,193)	$18,733 ($21,807)	$59,260 (55,012)	$106,329 ($81,670)	F = 207.536***
Household size	2.5 (1.5)	2.5 (1.7)	2.5 (1.5)	2.4 (1.0)	F = 3.254*
Employment status					
Working	73.6%	41.9%	81.3%	87.1%	χ^2 = 221.74***
Not working	26.4%	58.1%	18.7%	12.9%	
Region					
northeast	13.6%	19.3%	10.5%	16.4%	χ^2 = 77.346***
west	23.3%	15.8%	17.6%	23.5%	
south	36.8%	45.0%	45.7%	33.2%	
midwest	26.4%	19.9%	26.0%	27.0%	
Age	57.3 (3.1)	57.1 (3.2)	57.9 (3.3)	58.1 (3.4)	F = 7.423***
Gender					
Female	62.4%	70.9%	60.2%	58.6%	χ^2 = 10.601*
Male	37.6%	29.1%	39.8%	41.4%	
Marital status					
Divorced/sep	33.3%	38.4%	22.8%	12.0%	
Widowed	7.4%	14.0%	8.7%	4.5%	χ^2 = 309.68***
Never married	8.9%	17.4%	4.5%	3.2%	
Married	50.4%	30.2%	63.9%	80.3%	
Ethnicity					
Black	26.0%	43.6%	18.3%	8.7%	χ^2 = 237.38***
Hispanic/others	9.3%	16.3%	10.5%	6.9%	
White	64.7%	40.1%	71.2%	84.4%	

Note. Standard deviations in the ANOVA are presented in parentheses. *p < .05; **p < .01; ***p < .001.

and 8.1% have excellent health. The highest percentage of near-retirees reporting poor health are among those with $0-$1,000 of net worth. The lowest percentages reporting good or excellent health are also among this same group. Those with negative net worth show the next highest percentage reporting poor health and the next lowest percentages reporting good or excellent health. The highest number of physical health problems and depression symptoms are reported by those with $0-$1,000 of net worth. The next highest number of physical health and depression symptoms are reported among those with negative net worth.

The significantly lowest household income is found among near-retirees with $0 to $1,000 in net worth. Those with negative net worth have the next lowest household income. Household size stays at 2.5 members for negative, low, and medium net worth. Those with $0 to $1,000 in net worth have the lowest percentage (41.9%) who were working, which is significantly lower than the next lowest percentage (73.6%) in the negative net worth group. Of those with negative net worth, 13.6% live in the northeast, 23.3% live in the west, 36.8% live in the south, and 26.4% live in the midwest.

The average age of near-retirees with negative net worth is slightly higher than those with $0-$1,000 of net worth, but lower than those with low or high net worth. Females have the highest percentage in the $0 to $1,000 group, and the next highest percentage in the negative net worth group. Those in the $0 to $1,000 group have the smallest percentage of those who were married and the highest percentage of those who are separated/divorced, widowed, and never married. Near-retirees in the negative net worth group have the next smallest percentage of those who were married and the next

highest percentage of those who are separated/divorced and never married. The $0 to $1,000 group has the lowest percentage of Whites and the largest percentage of Blacks and Hispanics/Asians/others. The negative net worth group has the next lowest percentage of Whites and the next highest percentage of Blacks.

Financial Portfolios and Debt

By looking at financial portfolios of near-retirees by their levels of consumer, mortgage, home equity, and total debt, it is hoped to gain insight into how financial assets such as IRAs, Stocks, savings, CDs, bonds, and other savings are related to debt levels. The descriptive results are shown in Tables 4.11, 4.12, 4.13, and 4.14.

Consumer Debt

In Table 4.11, near-retirees with no consumer debt hold the largest amounts in IRAs, stocks, checking, and CDs. Those with low consumer debt hold the lowest amounts in stocks, while they hold the next highest amount in checking. Near-retirees with medium consumer debt hold the highest amounts in bonds, the lowest amounts in IRAs, the second highest amount in stocks, and the third highest amount in checking. Finally, near-retirees with high consumer debt hold the highest dollars in other savings, the next to the highest dollars in IRAs, and the lowest dollars in checking, CDs, and bonds.

Mortgage Debt

As evidenced in Table 4.12, the amounts in IRAs, checking, and other savings are the highest for those with high mortgage debt. Near-retirees with no mortgage debt hold

Table 4.11

Financial Portfolios by the Levels of Consumer Debt

Variable	No debt $0.00	Low debt $1 - $4,000	Medium debt $4,001 – $11,999	High debt $12,000 - $999,999	Test statistic
IRAs	$43,312 ($97,207)	$29,970 ($76,252)	$27,764 ($67,182)	$30,338 ($79,895)	*F* = 7.821***
Stocks	$17,195 ($60,857)	$8,802 ($37,191)	$13,704 ($59,820)	$12,630 ($62,440)	*F* = 3.956**
Checking	$20,552 ($44,383)	$14,219 ($37,944)	$9,988 ($28,367)	$9,177 ($22,189)	*F* = 19.725***
CDs	$6,822 ($27,589)	$3,944 ($18,082)	$4,226 ($28,965)	$3,541 ($22,345)	*F* = 4.202**
Bonds	$910 ($10,814)	$819 ($8,320)	$1,699 ($17,368)	$686 ($7,071)	*F* = .556
Other savings	$5,439 ($28,808)	$5,910 ($33,183)	$4,652 ($21,647)	$8,685 ($34,514)	*F* = 2.168

Note. Standard deviations in the ANOVA are presented in parentheses.
*p <.05; **p <.01; ***p < .001.

the highest amounts in CDs and the lowest amount in other savings. The lowest amounts in IRAs, checking, and CDs are found among those with low mortgage debt. Those with medium mortgage debt hold the highest amounts in stocks and bonds.

Home Equity Debt

Table 4.13 presents the ANOVA results for financial portfolios by home equity debt levels. Near-retirees with high home equity debt hold the highest amounts in stocks

Table 4.12

Financial Portfolios by the Levels of Mortgage Debt

Variable	No debt $0.00	Low debt $1-$80,000	Medium debt $80,001 - $150,000	High debt $150,001 - $999,999	Test statistic
IRAs	$33,357 ($86,424)	$31,117 ($72,734)	$41,031 ($86,791)	$54,090 (111,199)	*F* = 9.343***
Stocks	$12,649 ($53,848)	$13,974 ($52,356)	$18,766 ($75,023)	$17,388 ($56,846)	*F* = 2.081
Checking	$15,063 ($37,746)	$13,948 ($31,743)	$18,165 ($43,026)	$22,832 ($47,488)	*F* = 6.012***
CDs	$7,106 ($31,972)	$3,262 ($15,241)	$4,503 ($21,374)	$4,137 ($14,773)	*F* = 5.397**
Bonds	$981 ($11,705)	$384 ($3,141)	$1,495 ($16,891)	$1,267 ($8,806)	*F* = 1.343
Other savings	$4,174 ($25,299)	$4,740 ($23,636)	$7,004 ($32,456)	$13,066 ($45,883)	*F* = 12.822***

Note. Standard deviations in the ANOVA are presented in parentheses.
*p <.05; **p <.01; ***p <.001.

and other savings with the lowest amounts in checking. Those with no home equity debt hold the highest dollars in CDs and the lowest dollars in IRAs. Those with low home equity debt hold the highest amounts in checking and the lowest amounts in CDs and bonds.

Total Debt

Table 4.14 presents the financial portfolio and asset levels by the levels of total

Table 4.13

Financial Portfolios by the Levels of Home Equity Debt

Variable	No debt $0.00	Low debt $1.00 - $15,000	Medium - debt $15,001 - $38,000	High debt $38,001 - $300,000	Test statistic
IRAs	$32,802 ($83,756)	$53,663 ($97,912)	$69,440 ($111.358)	$57,842 ($107,191)	F = 16.334***
Stocks	$13,816 ($54,341)	$16,429 ($64,189)	$12,698 ($42,432)	$25,552 ($98,696)	F = 2.590
Checking	$15,791 ($37,183)	$22,909 ($63,404)	$18,561 ($31,926)	$14,736 ($39,310)	F = 2.346
CDs	$5,629 ($26,097)	$2,693 ($9,905)	$5,129 ($24,172)	$5,382 ($27,905)	F = .816
Bonds	$925 ($9,531)	$98 ($738)	$2,173 ($26,635)	$1,275 ($14,695)	F = 1.162
Other Savings	$5,697 ($28,994)	$6,807 ($41,870)	$4,349 ($16,090)	$10,753 ($38,226)	F = 1.907

Note. Standard deviations in the ANOVA are presented in parentheses.
*p <.05; **p <.01; ***p <.001

debt. Near-retirees with high total debt hold the greatest amounts in IRAs, stocks, checking, and other savings. Those with no total debt hold the next highest amounts in IRAs, stocks, and savings, the highest amount in CDs, and the least amount in other savings. Among the four groups, near-retirees with low total debt hold the least amount of money in IRAs, stocks, and savings.

Table 4.14

Financial Portfolios by the Levels of Total Debt

Variable	No debt $0.00	Low debt $1 - $29,999	Medium debt $30,000 - $100,000	High debt $100,001 - $999,999	Test statistic
IRAs	$39,778 ($96,808)	$21,629 ($60,117)	$34,815 ($82,105)	$48,184 ($99,868)	*F* = 14.379***
Stocks	$15,535 ($60,669)	$9,986 ($48,316)	$13,712 ($53,718)	$17,834 ($63,847)	*F* = 2.965*
Checking	$17,260 ($39,692)	$13,476 ($36,484)	$14,391 ($31,592)	$19,168 ($46,350)	*F* = 4.187**
CDs	$9,035 ($34,735)	$4,178 ($23,384)	$3,964 ($21,258)	$4,162 ($18,320)	*F* = 9.315***
Bonds	$1,184 ($13,393)	$510 ($5,969)	$638 ($7,547)	$1,390 ($13,787)	*F* = 1.368
Other savings	$2,890 ($19,743)	$4,551 ($28,112)	$4737 ($21,812)	$11,352 ($42,899)	*F* = 15.647***

Note. Standard deviations in the ANOVA are presented in parentheses.
*p <.05; **p < 01; ***p <.001.

Financial Portfolios and Negative Net Worth

Table 4.15 presents financial portfolios of near retirees by their levels of net worth. A significant pattern is revealed among the four groups. All financial asset categories are significant at the < .001 alpha level. Those with $0 to $1,000 in net worth have the lowest level of assets in all six categories. The median amount is $221 in IRAs, $86 dollars in stocks, $605 in savings, no dollars in CDs and bonds, and $76 dollars in

Table 4.15

Financial Portfolios by the Levels of Net Worth

Variable	Negative net worth -$999,900 to -$1	$0 - $1000 $0.00 to $1,000	Low net worth $1,001 to $186,500	High net worth $186,501 to $999,990	Test statistic
IRAs	$4,810 ($44,237)	$47 ($221)	$5534 ($16,382)	$76,981 ($118,224)	*F* = 248.150***
Stocks	$167 ($1,305)	$9 ($86)	$1,299 ($8,094)	$31,430 ($82,996)	*F* = 92.408***
Checking	$2,881 ($14,818)	$163 ($605)	$6,074 ($12,368)	$30,165 ($53,666)	*F* = 143.226***
CDs	$114 ($867)	$0.00 ($0.00)	$1,055 ($5,237)	$11,231 ($37,222)	*F* = 53.235***
Bonds	$0.00 ($0.00)	$0.00 ($0.00)	$85 ($1,492)	$2,081 ($16,398)	*F* = 10.416***
Other savings	$537 ($3,425)	$6 ($76)	$1,517 ($8,042)	$11,840 ($43,471)	*F* = 39.935***

Note. Standard deviations in the ANOVA are presented in parentheses.
*p <.05; **p <.01; ***p <.001.

other savings. Near-retirees in the negative net worth group have the second lowest amount in all six asset categories. Those with $0 to $1,000 have less assets than the negative net worth group. It may be that those with zero net worth do not have the resources to have net worth or do not want to go into debt to gain assets, whereas those with negative net worth might have assets that are less than their value and they are in debt for those assets. Near-retirees with low net worth have the third least amount in all six portfolios. However, there are significant increases in portfolio amounts for the high

net worth. Near-retirees with high net worth have an average of $76,981 in IRAs, $31,430 in stocks, $30,165 in savings, $11,231 in CDs, $2,081 in bonds, and $11,840 in other savings.

Among the key findings are near-retirees with no consumer debt hold the largest amount in IRAs, stocks, checking, and CDs while near-retirees with high consumer debt hold the highest dollars in other savings. Near-retirees with high mortgage debt have the highest amounts in IRAs, checking, and other savings, while near-retirees with no mortgage debt hold the highest amounts in CDs. Near-retirees with high home equity debt hold the highest amounts in stocks and other savings, while those with no home equity debt hold the highest dollars in CDs. Near-retirees with high total debt hold the greatest amounts in IRAs, stocks, checking, and other savings while those with no total debt hold the highest amount in CDs. Those with $0 to $1,000 in net worth have the lowest level of assets in all six categories, while near-retirees in the negative net worth group have the second lowest amount in all six asset categories.

Multinomial Logistic Regression Results

Table 4.16 presents the estimates of probability model with no consumer debt as the omitted category. Table 4.17 presents the estimates of probability models with no mortgage debt as the omitted category. In Table 4.18, the estimates of probability model with no home equity debt as the omitted category is presented. Finally, Table 4.19 presents the probability model with no total debt as the omitted category.

Consumer Debt

Table 4.16 shows that the human capital factors of education, physical health, and depression symptoms, are statistically significant in a probability model of consumer debt. As for education, the probability of having high consumer debt over having no consumer debt is statistically significant and positive. This result means that, holding all other factors constant, as near-retirees educational attainment increases, the probability of having high consumer debt over no consumer debt increases. Thus, the hypothesis that education will be positively related to the likelihood of holding consumer debt is supported. The self-reported health status of near-retirees has no significant influence on the probability of near-retirees having low consumer debt, medium consumer debt, and high consumer debt over no consumer debt. Thus, the hypothesis that compared to those near-retirees with excellent health, those with poor health will be more likely to hold consumer debt over no consumer debt is not supported. As the level of physical health problems increase, the probability of having low consumer debt, medium consumer debt, and high consumer debt over no consumer debt increases. This supports the hypothesis that the number of health problems will be positively related to the likelihood of holding consumer debt. However, the probability of having high consumer debt over no consumer debt increases as the level of depression symptoms increases. Thus, the hypothesis that the number of depression symptoms will be positively related to the likelihood of holding consumer debt is supported.

As household income increases, the probability of holding low consumer debt over no consumer debt decreases. Thus, the hypothesis that household income would be

Table 4.16

Multinomial Logit Estimates of Near-Retirees Holding Consumer Debt (No Debt), N = 3,745

Variable	Low debt $1 - $4,000 coefficient (S.E.)	Medium debt $4,001– $11,999 coefficient (S.E.)	High debt $12,000 - $500,000 coefficient (S.E.)
Education	-.003 (.017)	.036 (.021)	.111 ***(.020)
Self-reported health			
Poor	.224 (.192)	.340 (.223)	.316 (.201)
Good	.179 (.152)	.185 (.180)	.111(.158)
(Excellent)			
Physical health problems	.093* (.039)	.127** (.045)	.091* (.043)
Depression symptoms	-.016 (.026)	.036 (.029)	.104*** (.026)
Household income	-.019* (.008)	-.008 (.009)	.012 (.007)
Household size	-.030 (.040)	.051 (.044)	.066(.042)
Employment status			
Working	.525*** (.135)	.636*** (.160)	.463** (.148)
(Not working)			
Region			
northeast	020 (148)	-.304 (181)	.090 (.164)
west	-.109 (140)	-.090 (157)	.233 (.146)
south	-.126 (116)	-.178 (133)	.171 (.128)
(midwest)			
Age	-.008 (.014)	-.028 (.017)	-.055*** (.015)
Gender			
Female	.053 (.097)	.047 (.112)	-.096 (.103)
(Male)			
Marital status			
Divorced/sep	-.187 (.127)	-.098 (.146)	-.374** (.141)
Widowed	.073 (.176)	-.120 (.221)	-.391(.230)
Never married	-.543* (.242)	.131 (.230)	-.844** (.292)
(Married)			
Ethnicity			
Black	-.048(.132)	.054 (.148)	-.207(.151)
Hispanic/others	-.366* (.177)	-.520* (.217)	-.420* (.190)
(White)			
Constant	-.913 (.913)	-1.198 (1.063)	-.497 (.986)
Log likelihood		8332	
Chi-square (df)		205.423*** (54)	

Note. Reference categories in the multinomial analyses are presented in parentheses. No debt is the reference category for debt in the multinomial analyses. *p <.05; **p <.01; ***p <.001.

positively related to the likelihood of holding consumer debt over no consumer debt is not supported. Household size is not statistically significant in a probability model of consumer debt. Thus, the hypothesis that household size will be positively related to the likelihood of holding consumer debt over no consumer debt is not supported. However, working in the labor force is significant and positive, indicating that compared to those who are not working, working near-retirees are more likely to hold low consumer debt, medium consumer debt, and high consumer debt over no consumer debt. Thus, the hypothesis is supported. The region in which near-retirees live has no significant influence on the probability of near-retirees having low consumer debt, medium consumer debt, and high consumer debt over no consumer debt. Thus, the hypothesis is not supported.

The socio-demographic factors included in the probability model are age, gender, marital status, and ethnicity. Table 4.16 shows that holding all other factors constant, as age increases, the probability of having high consumer debt over no consumer debt decreases. The hypothesis that age will be negatively related to the likelihood of holding consumer debt over no consumer debt is supported. Gender is not statistically significant in the probability model of consumer debt. Thus, the hypothesis that females will be more likely to hold consumer debt than males is not supported. Compared to married near-retirees, divorced/separated near-retirees are less likely to hold high consumer debt over no consumer debt. Also, compared to married near-retirees, never married near-retirees are less likely to hold low consumer debt and high consumer debt over no consumer debt. Thus, the hypothesis is supported that compared to married near-retirees,

non-married near-retirees will be less likely to hold consumer debt over no consumer debt. As to ethnicity, the results show that compared to Whites, Hispanic/others are less likely to hold low consumer debt, medium consumer debt, and high consumer debt over no consumer debt. Thus, the hypothesis that compared to Whites, ethnic minorities will be more likely to hold consumer debt over no debt is supported.

Mortgage Debt

Table 4.17 shows that as a human capital factor, education is statistically significant and positive across all three levels of mortgage debt in the model. This result means that as the level of education increases, the likelihood of having any level of mortgage debt over no mortgage debt increases among near-retirees. Thus, the hypothesis that education will be positively related to the likelihood of holding mortgage debt is supported. The self-reported health status of near-retirees has no significant influence on the likelihood of near-retirees having low mortgage debt, medium mortgage debt, and high mortgage debt over no mortgage debt. Thus, the hypothesis that, compared to those near-retirees with excellent health, those with poor health will be more likely to hold mortgage debt over no mortgage debt is not supported. As a human capital factor, physical health problems are significant in the model, indicating that all else being equal, as the level of physical health problems increases, the likelihood of having medium mortgage debt over no mortgage debt increases. Thus, the hypothesis that the number of physical health problems will be positively related to the likelihood of holding mortgage debt over no mortgage debt is supported. Depression symptoms are not statistically significant in a probability model with near-retirees not having mortgage debt

Table 4.17

Multinomial Logit Estimates of Near-Retirees Holding Mortgage Debt (No Debt), N = 3745

Variable	Low debt $1- $80,000 coefficient (S.E.)	Medium debt $80,001 -$150,000 coefficient (S.E.)	High debt $150,001 - $999,900 coefficient (S.E.)
Education	.069** (.018)	.110*** (.023)	.205*** (.026)
Self-reported health			
Poor	-.166(.182)	-.419 (.221)	-.222 (.231)
Good	-.082 (.144)	-.150 (.165)	-.187 (.170)
(Excellent)			
Physical health problems	.042 (.038)	.113* (.046)	-.025 (.052)
Depression symptoms	-.010 (.025)	-.017 (.031)	.041 (.033)
Household income	.039*** (.010)	.083*** (.010)	.123 *** (.010)
Household size	.059 (.038)	.082 (.047)	.226 *** (.047)
Employment status			
Working	.416** (.130)	.444** (.166)	.125 (.174)
(Not working)			
Region			
northeast	-.363* (.142)	-.599** (.183)	.295 (190)
west	-.518*** (.140)	.020 (.153)	1.056*** (.165)
south	-.381*** (.108)	-.373** (.131)	-.031 (.161)
(midwest)			
Age	-.016 (.014)	-.029 (.016)	-.031 (.018)
Gender			
Female	-.027 (.093)	.109 (.112)	-.057 (.119)
(Male)			
Marital status			
Divorced/sep	-.505*** (.124)	-.331** (.148)	-.547** (.172)
Widowed	-.292 (.176)	-.426(.241)	-.855* (.347)
Never married	-1.084*** (.251)	-1.258*** (.348)	-.959** (.327)
(Married)			
Ethnicity			
Black	-.318* (.129)	-398* (.165)	-.279 (.187)
Hispanic/others	-.069 (.164)	-.526* (.228)	-.167 (.208)
(White)			
Constant	-.889 (.875)	-1.761 (1.062)	-3.863** (1.162)
Log likelihood		7914	
Chi-square (df)		906.801*** (54)	

Note. Reference categories in the multinomial analyses are presented in parentheses. No debt is the reference category for debt in the multinomial analyses. *p <.05; **p <.01; ***p <.001.

as the omitted category. Thus, the hypothesis that depression symptoms will be positively related to the likelihood of holding mortgage debt over no mortgage debt is not supported.

The likelihood of holding low mortgage debt, medium mortgage debt, and high mortgage debt over no mortgage debt significantly increases as the levels of household income increase. Thus, the hypothesis that household income will be positively related to the likelihood of holding mortgage debt over no mortgage debt is supported. As for the family size, the likelihood of having high mortgage debt over no mortgage debt is significant and positive, suggesting that near-retirees with larger families are more likely to have high mortgage debt over no mortgage debt. Thus, the hypothesis is supported. Employment status is statistically significant in predicting the likelihood of holding mortgage debt among near-retirees. For example, as compared to those who are not working, those near-retirees who are working are more likely to hold low and medium mortgage debt over no mortgage debt. Thus, the hypothesis that working near-retirees will be more likely to hold mortgage debt over no mortgage debt is supported.

Table 4.17 shows that compared to near-retirees living in the midwest, those living in the west are more likely to hold high mortgage debt over no mortgage debt. On the other hand, it reports that compared to those living in the midwest, those living in the northeast, those living in the west, and those living in the south are all less likely to hold low mortgage debt over no mortgage debt. The results suggest that only the hypothesis that compared to those who live in the midwest, those who live in the west will be more likely to hold high mortgage debt over no consumer debt is supported.

Among the socio-demographic factors, age is not statistically significant in the probability model with near-retirees not having mortgage debt as the omitted category. Thus, the hypothesis that age will be negatively related to the likelihood of holding mortgage debt over no mortgage debt is not supported. Gender is also not significant in the probability model. Thus, the hypothesis that females will be more likely to hold mortgage debt over no mortgage debt than males is not supported. However, marital status is significant. In particular, compared to married near-retirees, both divorced and never-married near-retirees are less likely to hold low mortgage debt, medium mortgage debt, and high mortgage debt over no mortgage debt. It also shows that compared to married near-retirees, widowed near-retirees are less likely to hold high mortgage debt over no mortgage debt. Thus, the hypothesis that compared to married near-retirees, non-married near-retirees will be less likely to hold mortgage debt over no mortgage debt is supported.

It can be seen in Table 4.17 that compared to White near-retirees, Black near-retirees are less likely to hold low mortgage debt and medium mortgage debt over no mortgage debt. As compared to White near-retirees, Hispanic/others are less likely to have medium mortgage debt over no mortgage debt. Thus, the hypothesis that compared to White near-retirees, ethnic minorities will be less likely to hold mortgage debt over no mortgage debt is supported.

Home Equity Debt

In Table 4.18, among the human capital factors, only education is significant in predicting the likelihood of holding high home equity debt over no home equity debt,

Table 4.18

Multinomial Logit Estimates of Near-Retirees Holding Home Equity Debt (No Debt), N = 3745

Variable	Low debt $1.00 -$15,000 coefficient (S.E.)	Medium debt $15,001 -$38,000 coefficient (S.E.)	High debt $38,001 -$300,000 coefficient (S.E.)
Education	.016 (.032)	.029 (.033)	.117** (.036)
Self-reported health			
Poor	-.534 (.336)	-.294(.326)	-.632 (.364)
Good	.057 (.235)	-.199 (.231)	.070 (.236)
(Excellent)			
Physical health problems	.046 (.068)	-.042 (.075)	.070 (.073)
Depression symptoms	.004 (.045)	.013 (.049)	-.031(.053)
Income	.002 (.012)	.015 (.011)	.036***(.008)
Household size	-.015 (.072)	-.054 (.079)	.018 (.074)
Employment status			
Employed	.393 (.252)	.864** (.318)	-.226 (.241)
(Not Employed)			
Region			
northeast	-.237 (229)	.081 (253)	.312 (.229)
west	-.867*** (248)	-.132 (.239)	.051 (.218)
south	-.582** (183	-.176 (.206)	-.640** (.224)
(midwest)			
Age	-.011(.024)	.002 (.025)	-.38 (.025)
Gender			
Female	.026 (.159)	.038 (.170)	-.155 (.167)
(Male)			
Marital status			
Div/sep	-.560* (.236)	-.645* (.261)	-1.205*** (.328)
Widowed	-.672 (.386)	-.473 (.389)	-.882 (.526)
Never married	-.967 (.526)	-1.128 (.602)	-1.192* (.601)
(Married)			
Ethnicity			
Black	.649* (.274)	-.932** (.338)	-.611 (.327)
Hispanic/others	-.751 (.402)	-.255 (.333)	.014 (.305)
(White)			
Constant	-2.015 (1.531)	-3.616* (1.649)	-1.964 (1.642)
Log likelihood		3862	
Chi-square (df)		259.734*** (54)	

Note. Reference categories in the multinomial analyses are presented in parentheses. No debt is the reference category for debt in the multinomial analyses. *p <.05; **p <.01; ***p <.001.

while the effects of self-reported health, physical health problems, and depression symptoms on the likelihood of holding any home equity debt over no home equity debt are not statistically significant. For example, as the levels of education increases, the likelihood of holding high home equity debt over no home equity debt increases. Thus, the hypothesis is supported. However, the hypotheses for self-reported health, physical health problems, and depression symptoms are not supported.

Household income is statistically significant and positive, showing that as the level of household income increases, the likelihood of holding high home equity debt over no home equity debt increases among near-retirees. Thus, the hypothesis that household income will be positively related to the likelihood of holding home equity debt over no home equity debt is supported. The household size is not statistically significant in a probability model with near retirees having no home equity debt as the omitted category. Thus, the hypothesis that household size will be positively related to the likelihood of holding home equity debt over no home equity debt is not supported. The employment status of near-retirees is statistically significant, indicating that compared to non-working near-retirees, those working near-retirees are more likely to hold home equity debt over no home equity debt. Thus, the hypothesis is supported.

Table 4.18 shows that compared to those living in the midwest, those living in the south are less likely to hold low home equity debt as well as high home equity debt over no home equity debt. Living in the west is also statistically significant, indicating that compared to those living in midwest, those living in the west are less likely to hold low home equity debt over no home equity debt. Thus, the hypothesis is not supported.

As for socio-demographic factors, age is not statistically significant in the probability model with near-retirees not having home equity debt as the omitted category. Thus, the hypothesis that age will be negatively related to the likelihood of holding home equity debt is not supported. Gender is also not statistically significant in the probability model with near-retirees having no home equity debt. Thus, the hypothesis that females will be less likely to hold home equity debt over no home equity debt is not supported. However, marital status is statistically significant, showing that compared to married near-retirees, divorced near-retirees are less likely to holding low home equity debt, medium home equity debt, and high home equity debt over no home equity debt. Compared to married near-retirees, never married near-retirees are less likely to have high home equity debt over no home equity debt. Thus, the hypothesis is supported. Table 4.18 presents that compared to White near-retirees, Black near-retirees are more likely to have low home equity debt over no home equity debt. However, compared to White retirees, Black near-retirees are less likely to have medium home equity debt over no home equity debt; thus, the hypothesis is supported.

Total Debt

Total debt is a sum of all types of debt—consumer debt, mortgage debt, and home equity debt. Thus, hypotheses for total debt are not formulated in this study. Table 4.19 indicates that among human capital factors, education and physical health problems of near-retirees are statistically significant in determining the likelihood of holding any debts over no debts among near-retirees. It shows that as the level of education increases, the likelihood of holding low total debt, medium total debt, and high total debt

Table 4.19

Multinomial Logit Estimates of Near-Retirees Holding Total Debt (No Debt), N = 3745

Variable	Low debt $1 - $29,999 coefficient (S.E.)	Medium debt $30,000 - $100,000 coefficient (S.E.)	High debt $100,001 - $999,900 coefficient (S.E.)
Education	.050** (.018)	.101*** (.019)	.192*** (.021)
Self-reported health			
Poor	.365 (.210)	.028 (.201)	-.038 (.208)
Good	.206 (.176)	-.031 (.159)	-.051 (.160)
(Excellent)			
Physical health problems	.109** (.041)	.102** (.042)	. 096* (.045)
Mental health problems	.013 (.026)	-.006 (.027)	.027 (.029)
Household income	-.012 (.013)	.056 *** (.011)	.109*** (.011)
Household size	.036 (.041)	.098* (.042)	.160*** (.044)
Employment status			
Working	.518*** (.130)	.618*** (.139)	.505** (.147)
(Not working)			
Region			
northeast	-.299 (.165)	-.491** (.161)	-.164 (.170)
west	-.236 (.159)	-.451** (.155)	.555*** (.153)
south	-.271* (.126)	-.529*** (123)	-.368** (.134)
(midwest)			
Age	-.007 (.015)	-.031* (.015)	-.040* (.016)
Gender			
(Male)			
Female	-.039 (.105)	-.022 (.104)	.007 (.108)
Marital status			
(Married)			
Divorced/sep	-.104 (.128)	-.459** (.134)	-.587*** (.143)
Widowed	-.088 (.179)	-.418* (.198)	-.604** (.230)
Never married	-.483* (.209)	-1.248*** (.260)	-1.278*** (.270)
Ethnicity			
(White)			
Black	-.203 (.130)	-.438** (.140)	-.425** (.152)
Hispanic/others	-.210 (.174)	-.224 (.178)	-.471* (.191)
Constant	-.922 (.975)	-.161 (.972)	-1.715 (1.021)
Log likelihood		8914	
Chi-square (df)		909.739*** (54)	

Note. Reference categories in the multinomial analyses are presented in parentheses. No debt is the reference category for debt in the multinomial analyses. *p <.05; **p <.01; ***p <.001.

over no total debt increases. The self-reported health status of near-retirees has no significant influence on the likelihood of near-retirees having total debt over no debt. Physical health problems are statistically significant and positive across all three levels of total debt in the model. This result means that as the levels of physical health problems increase, the likelihood of having any total debt over no total debt increases among near-retirees, holding all other factors constant. Depression symptoms are not statistically significant in a probability model with near-retirees not having total debt as the omitted category.

As the levels of household income and household size increase, the likelihood of holding medium total debt and high total debt over no total debt significantly increases. The employment status of near-retirees is statistically significant, indicating that compared to those who are not working in the labor force, those who are currently working are more likely to hold low total debt, medium total debt, and high total debt over no total debt.

The region in which near-retirees live has significant influence on the likelihood of near-retirees having low total debt, medium total debt, and high total debt over no total debt. For example, it shows that all else being equal, compared to near-retirees living in the midwest, near-retirees living in the south are less likely to hold low total debt, medium total debt, and high total debt over no total debt. It also shows that compared to those living in the midwest, those living in the west are less likely to hold medium total debt over no total debt, whereas those living in the west are more likely to hold high total debt over no total debt. On the other hand, compared to those living in the

midwest, near-retirees who are living in the northeast are less likely to hold medium total debt over no total debt.

Among the socio-demographic factors, age is statistically significant and negative in the probability model with near-retirees not having total debt as the omitted category. Table 4.19 shows that holding all other factors constant, as the level of age increases, the likelihood of having medium total debt and high total debt over no total debt increases. However, gender is not significant in the probability model with near-retirees having no total debt. The results of the multinomial logit regression analyses show that compared to married near-retirees, divorced and widowed near-retirees have less likely to hold medium total debt and high total debt over no total debt. It can be seen that compared to being married, never married near-retirees are less likely to hold low total debt, medium total debt, and high total debt over no total debt. Ethnicity is statistically significant. Table 4.19 shows that compared to Whites, Blacks are less likely to hold medium total and high total debt over no total debt, all else being equal. Similarly, compared to Whites, Hispanics/others are less likely to have high total debt over no total debt.

Multinomial Logistic Regression Results of Net Worth

Table 4.20 presents the estimates of probability model with high net worth as the omitted category. It shows that all human capital factors such as education, self-reported health, physical health problems, and depression symptoms are statistically significant in a probability model of net worth. As the levels of education increase, the likelihood of having negative net worth, $0 to $1,000 net worth, and low net worth over

Table 4.20

Multinomial Logit Estimates of Near-Retirees for Net Worth (High Net Worth), N = 3745

Variable	Negative net worth -$999,900 to -$1 coefficient (S.E.)	$0 to $1,000 $0.00 to $1,000 coefficient (S.E.)	Low net worth $1,001 to $186,500 coefficient (S.E.)
Education	-.091** (.029)	-.183*** (.033)	-.157*** (.017)
Self-reported health			
Poor	.503 (.304)	1.002 * (.467)	.494** (.165)
Good	-.188 (.262)	.102 (.441)	.091 (.127)
(Excellent)			
Health Conditions	.222*** (.060)	.146* (.074)	.131*** (.036)
Mental Health	.120** (.036)	.068 (.045)	.038(.024)
Household income	-.160*** (.022)	-.444*** (.054)	-.092*** (.009)
Household size	.178** (.057)	.127 (.068)	.105** (.037)
Employment status			
Employed	.018 (.197)	-.601** (.229)	.184 (.121)
(Not Employed)			
Region			
northeast	-.273 (.241)	.252 (.311)	-.504*** (.133)
west	-.156 (.215)	-.450 (.323)	-.381** (.119)
south	-.228 (.191)	-.180 (.263	.072 (.101)
(midwest)			
Age	-.104*** (.023)	-153*** (.031)	-.052*** (.012)
Gender			
Female	-.313* (.156)	-.245 (.216)	-.224** (.084)
(Male)			
Marital status			
Div/sep	1.130*** (.188)	1.275*** (.256)	.694*** (.115)
Widowed	.298 (.302)	.852* (.336)	.441* (.171)
Never married	1.114*** (.306)	1.577*** (.354)	.498* (.213)
(Married)			
Ethnicity			
Black	1.106*** (.193)	1.723*** (.234)	.598*** (.124)
Hispanic/others	-.071 (.271)	.485 (.305)	.145 (.152)
(White)			
Constant	5.321*** (1.490)	9.477*** (1.944)	4.995*** (.814)
Log likelihood		6092	
Chi-square (df)		1357*** (54)	

Note. Reference categories in the multinomial analyses are presented in parentheses. High net worth is the reference category for net worth in the multinomial analyses. *p <.05; **p <.01; ***p <.001.

high net worth decreases. Thus, the hypothesis that education will be negatively related to the likelihood of having negative net worth is supported.

The self-reported health status of near-retirees is significant, showing that compared to those with excellent health, near-retirees with poor health are more likely to have $0 to $1000 net worth and low net worth over high net worth. Thus, the hypothesis that compared to those near-retirees with excellent health, those with poor health will be more likely to have negative net worth is not supported. Similarly, the results show that as the level of physical health problems increases, the likelihood of having negative net worth, $0 to $1000 net worth, and low net worth over having high net worth increases, whereas as the level of depression symptoms increases, the likelihood of having negative net worth over high net worth increases. Thus, the hypotheses related to physical and depression symptoms are supported.

As the level of household income increases, the likelihood of having negative net worth over high net worth decreases. Thus, the hypothesis that the level of household income will be negatively related to the likelihood of having negative net worth is supported. Household size is positively related to the likelihood of holding negative net worth and holding low net worth over high net worth, thus the hypothesis is supported. The employment status is not statistically significant in predicting the likelihood of having negative net worth over high net worth in the model, thus the hypothesis is not supported. Table 4.20 shows that compared to near-retirees living in the midwest, near-retirees living in northeast and those living in west are less likely to have some net worth over high net worth. Thus, the hypothesis is not supported.

Table 4.20 indicates that as the level of age increases, the likelihood of having negative net worth, having $0 to $1,000 net worth, and having low net worth over high net worth decreases. Thus, the hypothesis that age will be negatively related to the likelihood of having negative net worth is supported. Gender is statistically significant and negative, indicating that compared to male near-retirees, female near-retirees are less likely to have negative net worth and have low net worth over high net worth, thus the hypothesis is supported. The results indicate that compared to married near-retirees, divorced near-retirees are more likely to have negative net worth, $0 to $1,000 net worth, and low net worth over high net worth, while widowed near-retirees are more likely to have $0 to $1,000 net worth and low net worth over high net worth. Similarly, never married near-retirees are more likely to have negative net worth, $0 to $1,000 net worth, and low net worth over high net worth, thus the hypothesis is supported. As for the ethnicity, Table 4.19 shows that compared to White near-retirees, Black near-retirees are more likely to have negative net worth, $0 to $1,000 net worth, and low net worth over high net worth, thus, the hypothesis is supported.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This study examines the debt and negative net worth profiles of near-retirees aged 51-64, and further investigates what factors are associated with the likelihood of holding consumer debt, likelihood of holding mortgage debt, likelihood of holding home equity debt among near-retirees, and what factors are associated with the likelihood of holding negative net worth among near-retirees. This chapter provides a summary of the findings, and conclusions are drawn. Based on the empirical findings, implications for professionals, researchers, and policymakers are presented. Limitations and suggestions for future study are presented at the end of this chapter.

Summary of the Findings

Descriptive statistics indicate that 47% of near-retirees have any consumer debt and more than half of near-retirees hold mortgage debt, while few in the study sample have home equity debt (14.8%). A majority of near-retirees (72.8%) report total debt which is the sum of consumer debt, mortgage debt, and home equity debt. As for negative net worth, about 6.9% of near-retirees have negative net worth and 4.6% have $0 to $1,000 net worth. However, the majority of the sample (88.5%) has over $1,000 net worth. The average levels of consumer debt, mortgage debt, and home equity debt are $7,148, $63,175, and $5,266, respectively. The average level of total debt of near-retirees is $75,589, while the average level of net worth is $232,298.

According to the results of ANOVA and chi-square tests, near-retirees who hold a high level of consumer debt, among the four levels of consumer debt, show the highest level of education, the highest number of depression symptoms, the highest household income, and the largest household size. Also, they are the youngest, married, the least likely to be female, the least likely to be Black, and are most likely to live in the south. Thus, there is a relationship between those holding a high level of consumer debt and having those characteristics among those with no debt, low debt, medium debt, and high debt. On the other hand, near-retirees who hold a high level of mortgage debt, among the four levels of mortgage debt, show the highest level of education, the highest percentage reporting excellent health, the highest household income, the largest household size, and the lowest number of physical health problems. They are most likely to live in the west and they are more likely to be males, married, and White. For the home equity debt, near-retirees who hold a high level of home equity debt among the four levels of home equity debt, show the highest level of education. They are the youngest and the least likely to report poor health and depression symptoms. Near-retirees who hold a high level of home equity debt show the highest household income and household size, and they are most likely to be married and males. The holders of high consumer debt, high mortgage debt, and high home equity debt had these characteristics in common: the highest levels of education, the highest levels of income, the largest household size, were married, and were male.

Near-retirees with negative net worth have more education years than those with $0-$1,000 of net worth, while they have lower levels of education than for those with a

high level of net worth. Also, they are more likely to report relatively poorer health and relatively higher levels of physical and depression symptoms. Those with negative net worth report a relatively lower level of household income, but their levels of income are higher than those with $0-$1,000 of net worth. Those with negative net worth are more likely to be females, more likely to be un-married, and more likely to be Blacks and Hispanics/others. However, near-retirees with $0-$1,000 of net worth tend to belong to the lowest or highest group for each of the socioeconomic variables.

In respect to their financial portfolios, near-retirees with no consumer debt indicate the highest dollar values in IRAs, stocks, checking accounts, and CDs compared to those with other levels of consumer debt. This study also finds that those near-retirees who hold a high level of mortgage debt report the highest amounts in IRAs, checking accounts, and other savings relative to those with other levels of mortgage debt. Those with a high level of home equity debt hold the highest amounts in stocks and other savings. It seems that those with no consumer debt appear to be the better-off group among the four consumer debt groups because they hold higher amounts in IRAs, stocks, checking accounts, and CDs. On the other hand, those with a high level of consumer debt show the lowest amount in checking and CDs. It is also noted that those with a high level of mortgage debt might not be the worse-off group among the four mortgage debt groups because they report the highest amounts in IRAs, checking accounts, and other savings.

This study also examines financial portfolios of near-retirees by their levels of net worth. A significant pattern is revealed in financial portfolios among all four net worth

groups. Those with $0 to $1,000 in net worth have the least amount in all six asset categories: IRAs, stocks, savings, CDs, bonds, and other savings. Those with negative net worth report the second least amount in all asset categories. Those with low net worth ($1,001 to $186,500) indicate the third least amount in all six asset categories. However, the high net worth group ($186,501 to $999,990) shows the highest dollar amounts in all six asset categories.

Based on the results of the multinomial logistic regression analyses, the summary of results for the hypotheses is shown in Table 5.1. Among the human capital factors, education, physical health problems, and depression symptoms are statistically significant and positive for consumer debt. The results show that, all else being equal, as the level of educational attainment increases and as the levels of depression symptoms increases, the probability of having high consumer debt over no consumer debt increases. As the level of physical health problems increases, the probability of having low consumer debt, medium consumer debt, and high consumer debt over no consumer debt increases. Thus, it can be said that three of the human capital factors are significant in predicting the likelihood of holding consumer debt among near-retirees.

The results indicate that working near-retirees and Hispanics/others are more likely to have low consumer debt, medium consumer debt, and high consumer debt over no consumer debt than their counterparts. It is found that as age increases, the likelihood of having high consumer debt over no consumer debt decreases. The findings also suggest that divorced and never married near-retirees are less likely to hold high consumer debt over no consumer debt than their married counterparts.

Table 5.1

Summary of Results for Hypotheses

	Hypothesized effects results			
Variable	Consumer debt	Mortgage debt	Home equity debt	Negative net worth
Human capital factors				
Education	+/ S	+/ S	+/ S	-/ S
Self-reported health (Excellent)				
Poor	+/ NS	+/ NS	+/ NS	+/ NS
Number of health problems	+/ S	+/ S	+/ NS	+/ S
Number of depression symptoms	+/ S	+/ NS	+/ NS	+/ S
Economic factors				
Household income	+/ NS	+/ S	+/ S	-/ S
Family size	+/ NS	+/ S	+/ NS	+/ S
Employment (Non-working)	+/ S	+/ S	+/ S	-/ NS
Working				
Region (midwest)				
NE, west, south	+/ NS	+/ S	+/ NS	+/ NS
Socio-demographic factors				
Age	-/ S	-/ NS	-/ NS	-/ S
Gender (male)				
Female	-/ NS	-/ NS	-/ NS	+/ NS
Marital status (married)				
Unmarried	-/ S	-/ S	-/ S	+/ S
Ethnicity (White)				
Black, Hispanic/other	+/ NS	-/ S	-/ S	+/ S

Note. Reference categories are presented in parentheses. NS – Not Supported; S – Supported.

As for the multinomial logistic regression model of mortgage debt, the results show that human capital factors such as education and physical health problems are significant and positive. For example, as the level of education increases, the likelihood of near-retirees holding high mortgage debt over no mortgage debt increases. As the level of physical health problems increases, the likelihood of holding medium mortgage debt over no mortgage debt increases. In addition, as the level of household income increases, the likelihood of holding low mortgage debt, medium mortgage debt, and high mortgage debt over no mortgage debt increases. The results show that near-retirees with larger numbers of family members and those who live in the west are more likely to have high mortgage debt over no mortgage debt. Working near-retirees are more likely to hold low mortgage debt and medium mortgage debt over no mortgage debt than those who are not working.

For the multinomial logistic regression model of home equity debt, only education is statistically significant among the human capital factors. As the level of education increases, the likelihood of holding high home equity debt over no home equity debt increases. Among economic factors, household income has a positive influence on the holding high home equity debt over no home equity debt among near-retirees. All else being equal, compared to non-working near-retirees, working near-retirees are more likely to hold medium home equity debt over no home equity debt. The results show that compared to married near-retirees, divorced near-retirees are less likely to have low home equity debt, medium home equity debt, and high home equity debt over no home equity

debt, while Black near-retirees are less likely than White near-retirees to have medium home equity debt over no home equity debt.

In the multinomial logistic regression model of negative net worth, the human capital factors of education, physical health problems, and depression symptoms are statistically significant. The results suggest that as the level of education increases, the likelihood of having negative net worth over high net worth decreases. It also means that the levels of physical health problems and depression symptoms positively influence the likelihood of near-retirees having negative net worth over high net worth.

As socioeconomic factors, household income and household size are significant, suggesting that as the level of household income increases, the likelihood of having negative net worth over high net worth decreases, whereas as the household size increases, the likelihood of holding negative net worth over high net worth increases. Age of near-retirees is positively related to the likelihood of holding negative net worth over high net worth. Gender, marital status, and ethnicity are also statistically significant in the model of negative net worth, suggesting that male, unmarried, and Black near-retirees are more likely to have negative net worth over high net worth than their counterparts.

Conclusions and Implications

This study examines the effects of human capital and socioeconomic factors on the likelihood of holding consumer debt, mortgage debt, home equity debt, and negative net worth. Understanding factors that contribute to the differences in types of debt and negative net worth and knowledge of factors that predict the likelihood of holding debt

and the likelihood of having negative net worth can provide valuable insight to financial practitioners and policymakers in designing programs that could enhance the economic well-being of near-retirees.

Human Capital Factors

The results of this study indicate that certain human capital factors such as education and health play an important role in predicting the likelihood of holding debt and negative net worth among near-retirees. This study finds that highly educated near-retirees take on more consumer debt, mortgage debt, and home equity debt. This finding is congruent with findings from previous studies (Anguelov & Tamborini, 2009; Canner et al., 1998; Chien & DeVaney, 2001; Lee, 2005; Lee et al., 2007). It may be that those with higher levels of education feel more confident in their knowledge of debt than those with lower levels of education; therefore, they are willing to take on more debt despite the inherent drawbacks. However, these individuals are not necessarily more knowledgeable about finances and debt matters, just because they are highly educated. They could be in high debt due to a lack of knowledge about handling debt. Those near-retirees with negative net worth do have lower levels of education. Lower levels of education mean they may have had less opportunity to gain financial knowledge.

Financial literacy education programs are needed for older Americans. In fact, Lusardi and Mitchell (2005) found that financial illiteracy is widespread among older Americans aged 51 and above. Financial literacy has received the attention of a wide range of entities such as major banking companies, government agencies, grass-roots consumer and community interest groups, and other organizations. Interested groups,

including policymakers are concerned that consumers lack a working knowledge of financial concepts and do not have the tools needed to make decisions most beneficial to their financial well-being. There is a sense of urgency due to such issues as predatory lending, high levels of consumer debt, and low savings rates (Braunstein & Welch, 2002). Financial literacy education can be helpful to individuals, especially when it is targeted to specific subgroups. Thus, it is critical for financial educators to design financial literacy or financial education programs that will target both the highly educated and the less educated near-retirees. Moreover, it is important for professionals to provide more specific information such as how to stay out of debt and even how to avoid having negative net worth within the financial literacy education.

The findings of this study suggest that as the number of physical health problems increases, the likelihood of having consumer debt, mortgage debt, and negative net worth increases. Health, as a human capital factor, influences individuals' productivity which in turn affects the level of individuals' wages. It is possible that the advent of the physical health problems creates a need for additional financial resources which can lead to a high level of consumer debt or other debt. Additionally, this study finds that as the number of depression symptoms increases, the likelihood of holding consumer debt and having negative net worth increase. Drentea and Lavrakas (2000) noted that the greater the debt to income ratio, the greater the difficulty with functional impairments. Also, debt problems can be triggered by specific mental health factors and depression symptoms can be triggered by excessive debt problems. There certainly is an association between health problems and levels of debt; however, while using cross-sectional data, one cannot find

whether the debt came first or the health problems, and causation cannot be explored. It would be of importance to explore the chicken and egg dilemma of which came first, the health problems or the debt. It seems that practitioners who work with those with disabilities or health problems need to understand the interconnectedness of health and debt. Training is needed to identify those who have debt problems and to provide information such as how to cope with debt to better assist those with physical and mental challenges who are in debt.

Human capital factors are important since the lack of education as well as high levels of physical and depression symptoms certainly can lead to the likelihood of holding higher levels of debt and likelihood of having negative net worth. Generally, educational and intervention programs that could help people with health and financial problems handle their health and financial issues separately. However, based on the findings of this study, a blended program, that is a mix of both health training and financial training, may be warranted, while targeting near retirees who are characterized with higher levels of health and financial problems. This study further suggests that policymakers might need to address the issues of the uninsured and rising health care costs because those issues do affect the financial well-being of near-retirees and retirees.

High Levels of Consumer Debt and Mortgage Debt

The findings of this study indicate that those with a high level of consumer debt have several distinctive characteristics. For example, they have higher levels of physical health problems. It may be that the onset of physical health problems caused near-

retirees to take on more credit card debt to pay accompanying medical costs. The high level of consumer debt group also tends to have more depression symptoms. Depression symptoms can be both a cause of debt and a result of debt. Thus, professionals working with people who have physical or depression symptoms need to learn to recognize whether or not their clientele have high levels of consumer debt and to identify those who may need financial counseling.

Those with high levels of consumer debt are likely to be employed. Of course, this is a necessary thing in order to pay off debts. The workplace can present a great opportunity for employers to help their employees who have high consumer debt by providing financial knowledge and counseling about credit, debt, and finances. This financial literacy education and training can improve morale and productivity of employees. Those with high level of consumer debt tend to be Hispanic/others. This group may not be as familiar with all the financial resources available and may use consumer debt as a substitute for other financial resources. Thus, it is important for financial counselors to target Hispanic/others who have high consumer debt and provide them with alternatives to debt, like savings programs.

As for the factors predicting the likelihood of holding mortgage debt, household income and household size are significant. That is, those with high mortgage debt tend to have higher levels of household income and larger family size. Those with higher incomes may have more credit available to them to use. The findings imply that as the levels of household income increase, individuals may wish to spend it on a larger or more elaborate house with its accompanying mortgage debt. The findings also suggest that

those with larger family sizes might need larger homes to accommodate more people and larger homes mean larger mortgages for families.

Those near-retirees with high levels of consumer debt and those with high levels of mortgage debt have a couple of things in common. Both groups are likely to have high levels of education and are likely to be married. Having more education does not necessarily mean that they are financially literate. Having high consumer debt is generally considered to be risky. Married couples could have more resources with at least two in the household and get into higher debt, while unmarried individuals such as divorced or never married near-retirees might lack the resources to take on high debt.

Financial literacy education programs need to be designed for both those with high levels of consumer debt and those with high levels of mortgage debt. Those with high levels of consumer debt might have more potential problems in having high consumer debt because there is no asset to back up the consumer debt. However, those with high levels of mortgage debt might not have serious problem in having high mortgage debt because they have the home as an asset to counter their high mortgage debt. Unfortunately, there are also those who owe more on the mortgage than their home is worth and, therefore, need financial counseling and advice. However, recent mortgage industry problems could have contributed to the situation of those owing more on their mortgage than the home is worth.

Negative Net Worth

Negative net worth basically means that one is “in the hole” when it comes to finances. Those near retirees with negative net worth have lower levels of education,

higher levels of physical and depression symptoms, lower income, and larger families. They are also younger, are more likely to be divorced, never married, and are more likely to be male, and to be Black. It appears that near-retirees with negative net worth could be living beyond their means. With lower incomes, other financial resources and assets are needed to make up the difference. Without assets, near-retirees carry negative net worth. Practitioners and other professionals who deal with those near-retirees with negative net worth need to develop interventions and programs that target building assets, especially savings, so that near-retirees could be carrying some net worth into retirement. Policymakers need to address the importance of improving levels of wages for working families because even though they are working, their incomes are low due to low wages.

Household size is significant in predicting the probability of having negative net worth among near-retirees. Having to care for more household members can lead to a negative net worth balance for families because when family size increases, it requires more resources. Larger family size also demands bigger home that could put the housing cost burden on those families; therefore, a larger household could contribute to the negative net worth situation. It could be the slump in the housing market has made some homeowners owe more on their home than their house is worth, contributing to negative net worth. Financial advisors need to be careful to counsel those households with more members in taking on excessive debt. In addition, debt counselors need to target those households with many members who are already deep in debt to focus on building net worth.

Marital status is statistically significant in predicting the probability of having negative net worth near-retirees. Compared to married near-retirees, divorced/separated and never married near retirees are more likely to hold negative net worth. Non-married near retirees may not have the resources to build a positive net worth, whereas married near-retirees generally have more resources as a couple to have positive net worth. Divorced or separated individuals could have been negatively affected in a separation or in a divorce settlement. Interventions are most needed for those divorced/separated and never married near retirees who hold negative net worth. These individuals can be targeted for programs that help them to increase their net worth through decreasing their debt and/or increasing their assets.

Compared to White near-retirees, Black and Hispanic/other near-retirees are more likely to hold negative net worth. Blacks and other minorities have historically been disadvantaged in income and net worth (Mishel et al., 2009). There still exists a glass barrier for most minorities. Thus, policymakers need to address the wealth inequalities between Whites and minorities.

The findings of this study suggest that working in the labor force is not a significant factor in predicting likelihood of near-retirees holding negative net worth. However, employers could have their employees who have no net worth and workers who are in severe debt on their payrolls. Therefore, employers have an important role to play in helping or supporting their employees to improve their finances (O'Neill et al., 2005). Since the workplace is where a great deal of time is spent by employees, employers can offer targeted financial programs and incentives for their employees. By

having employees with improved financial well-being and improved productivity, employers can benefit from such a program.

In general, the economic factors that influence rising debts among near-retirees need to be addressed by policymakers. As mentioned earlier, building wealth needs to be promoted instead of building debt for all Americans. Household savings help families and individuals to withstand temporary income losses or unexpected expenses, and to plan for the future. Policymakers should be encouraged to support the creation of new types of universal savings accounts with matched contributions. These should be targeted to low- and middle-income households through tax credits or other mechanisms (Garcia, 2007).

Limitations

There are several limitations in this study. First, this study utilizes extant data from the 2008 HRS. The economy has changed significantly since the data were collected. The results should be interpreted within the context of the economic and world conditions that existed at that time. Also due to the use of extant data, missing data may be a problem. Missing data is dropped by the SPSS program so there could be some bias in the results. Also for the income and wealth variables, RAND imputed missing values, so the income and wealth variables may not be totally accurate. Second, the HRS oversamples Blacks and Hispanic/others. The original HRS sample as well as each subsequent sample wave contains household weights that generate a nationally representative sample when applied. However, HRS provided weights are not applied to the analyses of this study because weights primarily adjust means and proportion which

is fine for descriptive data but it may adversely affect inferential data and standard errors. Also, weights almost always increase the standard errors of the estimates and introduce instability into the data (Johnson, 2008).

Third, there is some discrepancy in the unit of analysis. Some of the questions in the HRS are asked about individual respondents and some questions are asked on the household level. Age, ethnicity, gender, education, health, and employment status are asked of the primary respondent, while information about family size, income, wealth, and debt are asked for the household.

Fourth, the levels of the debt variables were decided based on a judgment of the researcher and statistics professor as to the distribution of debt for each type of debt for the household in this sample. After accounting for the category of no debt, it was determined that there were break points for those who had a low amount of debt, a medium amount of debt, and a high amount of debt relative to other members of the sample. Therefore, the types of debt were divided into the respective categories based on these monetary break points. Other break points could be used to determine the low, medium, and high amounts of debt in future studies; then, the results could be different. Also, the net worth variable of $0 to $1,000 was chosen based on the distribution close to zero net worth. However, it could be set to a different amount and produce different results.

Additionally the CES-D is not without limitations. It cannot be used to differentiate between those persons with a primary diagnosis and those with a secondary diagnosis of depression. It was not designed as a diagnostic tool, but as a screen for the

presence of depression. It is less useful than other depression scales for assessing change in the level of depression for those who screen positive. Also, the CES-D is not based on a Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) definition of major depressive disorder (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004).

Finally, the more money that a household makes, the more debt the household could take on. Thus there may be a correlation between high debt and high income.

Future Research

Given the impact of the great recession, it would be helpful for researchers to compare the 2010 wave of the HRS data (when available in 2012) with the 2008 wave of the HRS data in terms of any changes in factors affecting the levels of consumer and mortgage debt, and negative net worth. Using the panel data provided by HRS also will provide stronger indications of the relationships found by following the same individuals over time. For example, while comparing those near-retirees with high levels of debt and high levels of negative net worth in 2008 with those same individuals in 2010, the results will give a better picture of those with high levels of debt and low levels of net worth. It may be that high debt is a temporary situation or the recession may have made debt worse for these individuals during that time period.

Another area for future research is to focus on the economic status of those who have negative net worth or those with very low level of net worth. The human capital and socioeconomic characteristics of those with negative net worth are different from those who hold high levels of debt. High debt holders have high income, higher

education, good health, are likely employed, and are married. Thus, further research that examines the associations of the factors associated with negative net worth is warranted.

Future study also may focus on the connection between health and debt problems. Thus, continued research into health and debt problems is warranted, especially with using panel data and looking at same individuals over time. Health maintenance organizations, health insurance companies, and others who provide group health care services need to better understand the relationship between people's health and debt. These professionals could encourage associated companies to provide information on topics such as health and debt issues to their employees. Well-designed financial education programs that emphasize the basics of debt and credit management can result in improved employee finances, which in turn might result in better employee health (O'Neill et al., 2005).

The findings of this study suggest that about 27% of the sample does not have any debt. Thus, future study that profiles characteristics of this group would be an interesting and fruitful research area to explore. For example, a future study can address what is the strategy or secret to having no debt as one approaches retirement?; and what factors contribute to not holding any debt at ages 51-64? In addition, future study that will employ a qualitative research design, could further explore the rationale of having no debt at all. This information would be useful to practitioners and policymakers to guide programs and policies to combat debt.

Debt is often a substantial element of a household's portfolio. How well individuals and families manage debt can have a significant impact on the financial well-

being in later life. The recent attention to household debt reflects professionals' increasing awareness of the important implications that debt has for households. This study has furthered the literature on consumer debt, mortgage debt, and home equity debt. In addition, the findings of this study could be added into the limited literature in regards to the issue of negative net worth among those who approach retirement. Nonetheless, future research could further investigate whether consumer debt, mortgage debt, or home equity debt are mainly due to a convenience reason or whether these debts are burdensome for many families and individuals nearing retirement.

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APPENDIX

DEPENDENT VARIABLES:

Wealth measures are reported in nominal dollars. When an HRS wealth component is missing, it is imputed using the method described in the RAND HRS Data Documentation, Version J (RAND Codebook) section entitled "Wealth and Income Imputations," (St. Clair, et al., 2010). If respondents do not give a specific amount, unfolding bracket amounts are used to probe for further income information.

Consumer Debt

H9ADEBT is assigned the reported or imputed value of debt. The information comes from HRS questions:

LQ477 – And do you (or your [husband/wife/partner]) have any debts that we haven't asked about, such as credit card balances, medical debts, life insurance policy loans, loans from relatives and so forth? (Yes/No/DK/RF)

LQ 478 – Altogether, about how much would that amount to? (Amount/DK/RF)

LQ 479-481 – Would it amount to a total of less than $_____ , more than $_____ , or what?

Mortgage Debt

H9AMORT is assigned the reported or imputed value of all mortgages including those on a second residence. Both a first and a second mortgage can be reported in the data. The information comes from HRS questions:

LH024M1 – Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Yes, mortgage/land contract)

LH024M2 - Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Yes 2nd mortgage)

LH024M3 - Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Yes, other loans)

LH032 – About how much do you still owe on the (mortgage/land contract)? (amount/DK/RF)

LH042 – About how much do you still owe on that second mortgage? (Amount/DK/RF)

Home Equity Debt

H9AHMLN is assigned the reported or imputed value of all other home loans. The information comes from HRS questions:

LH024M1 - Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Yes, mortgage/land contract)

LH024M2 - Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Yes 2nd mortgage)

LH024M3 - Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Yes, other loans)

LH052 – About how much do you still owe on that (other) loan? (Amount/DK/RF)

LH061 – Do you currently have a loan against this (home equity) line of credit? (Yes/No/DK/RF)

LH062 – About how much is currently owed? (Amount/DK/RF)

Negative Net Worth/Net Worth

H9ATOTB is the net value of total wealth (including second home) which is calculated as the sum of all wealth components less all debts. It is the sum of (H9AHOUS, H9ARLES, H9ATRAN, H9ABSNS, H9AIRA, H9ASTCK, H9ACHCK , H9ACD, H9ABOND, H9AOTHR) less (H9MORT, H9HMLN, H9DEBT).

H9AHOUS is assigned the reported or imputed value of the respondent's primary residence. The information comes from HRS questions:

LH002 – Do you live in a mobile home, a one family house, a two family house (duplex), an apartment, townhouse, or what? (mobile home/one family house/a two family house, duplex/apartment, townhouse/other/DK.RF)

LH004 – Do you (and your [husband/wife/partner]) own your home, rent it or what? (own or buying/rent/lives rent-free with relative, employer, friend/other/DK/RF)

LH008 – Do you (or your [husband/wife/partner]) own this (farm/ranch), do you own part of it, do you rent it, or what? (owns all/owns part/rents/other/DK/RF)

LH020 - What is its present value? I mean, what would it bring if it were sold today? (Amount/DK/RF)

LH014 – Do you (or your [husband/wife/partner]) own both the mobile home and site, do you only own the home, do you rent both the home and site, or what? (owns both home & site/owns only site/owns only home/rents both/neither owns nor rents/DK/RF)

LH016 – What is its present value? I mean, what would it bring if it were sold today? (Amount/DK/RF)

H9ARLES is assigned the reported or imputed net value of real estate, besides the primary residence. The information comes from HRS questions:

LQ133 – Do you (or your [husband/wife/partner]) have any real estate [(other than your main home or second home) / (other than your main home) / (other than your second home)], such as land, rental real estate, or money owed to you on a land contract or mortgage? (Yes/Yes, more than one/No/DK/RF)

LQ134 – If you sold all that and then paid off any debts on it, about how much would you get? (Amount/DK/RF)

LQ135-137 – Would it amount to less than $____ , more than $---- , or what?

H9ATRAN is assigned the reported or imputed net value of vehicles. The information comes from HRS questions:
LQ370 – Do you (or your [husband/wife/partner]) own anything for transportation, like cars, trucks, a trailer, a motor home, a boat, or an airplane? (Yes/No/DK/RF)
LQ371 – What are they worth altogether, minus anything you still owe on them? (Amount/DK/RF)
LQ 372-374 – Do they amount to less than $_____ , more than $_____ , or what?

H9ABSNS is assigned the reported or imputed net value of businesses. The information comes from HRS questions: LQ147-151, 492, 593
LQ147 – Do you (or your [husband/wife/partner]) own part or all of a business or farm? (Yes/Yes, more than one/No/DK/RF)
LQ148 – If you sold all that and then paid off any debts on it, about how much would you get? (Amount/DK/RF)
LQ149-151 – Would it amount to less than $_____ , more than $_____ , or what?
LQ492 – Did you tell me about the value of this asset earlier in the interview? (Yes/No/DK/RF)
LQ523 – What percent have you already told us about? (Percent/DK/RF)

H9AIRA, H9ASTCK, H9ACHCK , H9ACD, H9ABOND, H9AOTHR are found below under Financial Portfolio Variables of IRAs, stocks, checking, CDs, bonds, and other savings.

H9MORT, H9HMLN, H9DEBT are found above under consumer debt, mortgage debt and home equity debt.

HUMAN CAPITAL FACTORS

Education

RAEDYRS variable is assigned by looking at reports from all waves of data. The first non-missing values are used. The information comes from HRS question:
LB014 - What is the highest grade of school or year of college you completed?

Self- Reported Health

R9SHLT is the respondent's self reported general health status. Codes range from 1 for Excellent to 5 for Poor. The information comes from HRS question:
LC001 – Would you say your health is excellent, very good, good, fair, or poor? (also DK, RF)

Physical Health Problems

R9CONDE gives the number of conditions that the respondent reports ever having. It is the sum of individual condition variables. It is the sum of the following eight conditions:

LC005 – Has a doctor ever told you that you have high blood pressure or hypertension? (yes/no)

LC010 – Has a doctor ever told you that you have diabetes or high blood sugar? (yes/no)

LC018 – Has a doctor ever told you that you have cancer or a malignant tumor, excluding minor skin cancer? (yes/no)

LC030 – Has a doctor ever told you that you have chronic lung disease such as chronic bronchitis or emphysema? (yes/no)

LC036 – Has a doctor ever told you that you have had a heart attach, coronary heart disease, angina, congestive heart failure, or other heart problems? (yes/no)

LC053 – Has a doctor ever told you that you have had a stroke? (yes/no)

LC065 – Have you ever had, or has a doctor ever told you that you had any emotional, nervous, or psychiatric problems? (yes/no)

LC070 – Have you ever had, or has a doctor ever told you that you have arthritis or rheumatism? (yes/no)

Depression Symptoms

R9CESD is the sum of R9DEPRES, R9EFFORT, R9SLEEPR, R9FLONE, R9FSAD, R9GOING, (1-R9HAPPY) AND (1-R9ENLIFE). Thus the higher the score, the more negative the respondent's feelings in the past week. The information comes from HRS questions:

Now think about the past week and the feelings you have experienced. Please tell me if each of the following was true for you much of the time during the past week.

LD110 - Much of the time during the past week you felt depressed. Would you say yes or no?

LD111 – Much of the time during the past week, you felt that everything was an effort. Would you say yes or no?

LD112 – Much of the time during the past week, your sleep was restless. Would you say yes or no?

LD113 - Much of the time during the past week, you were happy. Would you say yes or no?

LD114 - Much of the time during the past week, you felt lonely. Would you say yes or no?

LD115 - Much of the time during the past week, you enjoyed life. Would you say yes or no?

LD116 - Much of the time during the past week, you felt sad. Would you say yes or no?

LD117 - Much of the time during the past week, you could not get going. Would you say yes or no?

ECONOMIC FACTORS

Income:

Income measures are reported in nominal dollars. When an HRS income component is missing it is imputed using the method described in the RAND HRS Data Documentation, Version J (RAND Codebook) section entitled "Wealth and Income Imputations," (St. Clair, et al., 2010). If respondents do not give a specific amount, unfolding bracket amounts are used to probe for further income information.
H9ITOT is the sum of all income in household, that is the sum of R9IEARN, S9IEARN, H9ICAP, R9IPENA, S9IPENA, R9SSDI, S9SSDI, R9ISRET, S9ISRET, R9IUNWC, S9IUNWC, R9IGXFR, S9IGXFR, and H9IOTHER.

R9IEARN is the sum of respondent's wage/salary income, bonuses/overtime pay/commissions/tips, second job or military reserve earnings, professional practice or trade income.
S9IEARN is the sum of the spouse's wage/salary income, bonuses/overtime pay/commissions/tips, second job or military reserve earnings, professional practice or trade income. This information comes from questions LQ019-038, LQ044-063.
For example, the following questions are representative of the HRS questions asked about earnings.

LQ020 – About how much wage and salary income did you, yourself, receive in *LAST CALENDAR YEAR*, before taxes and other deductions?

LQ045 – About how much wage and salary income did your [husband/wife/partner] receive in *LAST CALENDAR YEAR*, before taxes and other deductions?

H9ICAP is the sum of household business or farm income, self-employment earnings, business income, gross rent, dividend and interest income, and other asset income. The information comes from HRS questions LQ014-18, LQ039-43, LQ133, LQ138-147, LQ152-153, LQ155-161, LQ316, and LQ321-330, LQ335-344, LQ349-356, LQ361-369, LQ375, LQ380-384, and LQ494-496.
For example, the following questions are representative of the HRS questions asked about Household Capital Income.

LQ138 – Do you (or your [husband/wife/partner] currently receive any income or rent from [that property/those properties]? (Yes/No/Don't Know/ReFused)

LQ139 – How often do you receive that? (week/2 x month/month/quarter/6 months/year/ other/DK/RF)

LQ141 – Before any expenses or deductions, about how much did you receive last *TIME PERIOD FROM LQ139* from that?

R9IPENA is the sum of the respondent's income from all pensions and annuities.
S9PENA is the sum of the spouse's income from all pensions and annuities. The information comes from HRS questions LQ215-218, LQ220-223, LQ231-232, LQ238,

243, 244, LQ246-49, LQ257, 258, 264, LQ273-276, LQ278-281, LQ283, 284, 290, 295, 296, LQ298-301, LQ303, 304, and 310.
For example, the following questions are representative of the HRS questions asked about Pensions and Annuities.

LQ273 – Aside from anything you have already told me about, are you (or your [husband/wife/partner]) currently receiving any income from annuities? (Yes/No/DK/RF)

LQ278 – Tell me about the largest annuity payment that you currently receive. How much did you receive last month from that annuity, (before taxes and other deductions)?

R9ISSDI is the sum of the respondent's income from Social Security disability (SDI) and Supplemental Security Income (SSI).
S9ISSDI is the sum of the spouse's income from SDI and SSI. The information comes from HRS questions LM030, LMW234C, LMW234H, LMW234Q, LMW234R, LMW238A, LMW238C, LMW238H, LMW238Q, LMW238R, LMW244A, LMW244C, LMW244I, LMW244Q, LMW244R, LQ085-96, LLQ106, LZ125, and LZ126.

R9IUNWC sums the respondent's income from unemployment and worker's compensation.
S9IUNWC sums the spouse's income from unemployment and worker's compensation. The information comes from HRS questions LQ010, LQ064-068, LQ070-072, LQ074-078, and LQ080-082.

R9IGXFR sums the respondent's income from veteran's benefits, welfare and food stamps.
S9IGXFR sums the spouse's income from veteran's benefits, welfare and food stamps. The information comes from HRS questions LQ113, LQ115, LQ 119-132, LQ400-403, LQ404M1, LQ404M10-19, LQ404M2, LQ404M20-21, LQ404 M3-9, LQ406, and LQ410.

H9IOTHR sums other income, and lump sums from insurance pension and inheritance. The information comes from HRS questions LQ395-6, LQ 483_1, _2, _3; LQ486_1, _2, _3; LQ487_1, _2, _3; LQ488_1, _2, _3: and LQ489_1, _2, _3.

Household Size

H9HHRES counts the number of residents in the household, including the respondent and spouse. It comes from HRS questions LX056_MC and LHHID.
The resident and non-resident children and other household residents are found in the PR_MC module. A status variable indicates whether the individual, including a child, is a household resident or not. Household resident information is provided by the Coverscreen Respondent and information about children is updated by the Family Respondent.

Employment Status

R9WORK is derived from the question 'Are you currently working for pay?' It simply recodes this variable to a yes/no indicator and for missing values. The information comes from HRS questions:
LJ020 - Are you doing any work for pay at the present time? (Yes/No/DK/RF)
LJ553 – Are you doing any other work for pay now, such as (a/another) business of your own, a second job, or the military reserves? (Yes/No/DK/RF)

Region

R9CENREG gives the Census Region of respondent residence at wave 9. If the residence location in the Geographic Region file variables is missing, variables from the core data are examined for location, if available. The spouse's residence from the Geographic Region file is looked at, and if the couple is living together, it is used to fill the missing region. Finally variables indicating whether the household has moved between waves are examined and if not, carry prior residence forward. The information comes from HRS questions:
LA030 – Are you and your (new) [husband/wife/partner] living together? (Yes/No/DK/RF)
LA071 – Are you still living, all or part of the year, in that same residence in *HH's LAST IW 1ST RESIDENCE CITY*? (Yes/No/DK/RF)
LA072 – Do you still live, all or part of the year, in a residence in or around *HH's LAST IW 1ST RESIDENCE CITY, STATE*?
LA076M – In what city and state is your residence currently located? (state)

SOCIODEMOPGRAPHIC FACTORS

Age

R9AGEY_E is the age of the respondent in years at the end of the interview. It is calculated from respondent birthdate and ending interview date in months and years. Age in years is the integer portion of the number of months old divided by 12.

Gender

RAGENDER was derived by looking at reports from Tracker and all waves of data. Usually the first non-missing gender was used. For cases which changed, gender-specific health questions were examined to determine the correct gender. Specifically, if yes to prostrate exam, R is male, and if yes to mammogram, pap smear, or checking for breast lumps, R is female. The information comes from HRS questions:
LC111 – Do you check your breasts for lumps monthly? (Yes/No/DK/RF)

LC112 – Did you have a mammogram or x-ray of the breast, to search for cancer in the last two years? (Yes/No/DK/RF)
LC113 – In the last two years, have you had any of the following medical tests or procedures? A pap smear? (Yes/No/DK/RF)
LC114 - In the last two years, have you had any of the following medical tests or procedures? An examination of your prostate to screen for cancer? (Yes/No/DK/RF)
LX060_R – What is your sex? (Male/Female)

Marital Status

This variable is created using current marital status reported for each wave. A cleaned version of marital status is used, which fills missing marital status using cover sheet data and marital events reported between interviews. The data includes married (spouse present), married (spouse absent), partnered, separated, divorced, widowed, or never married.
The R9MSTATH variables used are derived from the R9MARSTAT variables but do not code partnerships. The information comes from HRS questions: LA020; LAO23;, LA026-28; LA030; LA033-035; LB055; LB058; LB061; LB063; LB065; LB068_1; LX065_R; LZ023; and LSUBHH.

Race/Ethnicity

Ethnicity is assigned by looking at reports from all waves of data and Tracker. The first non-missing value is used. RARACEM has been coded into three categories that are consistently available across all waves: white/Caucasian, black/African-American, and other. In wave 9, up to three races can be reported along with which is considered primary by the Respondent if more than one is given. The primary race is used to derive RARACEM for those who provide multiple races, otherwise the single given race is used. The information comes from HRS questions:
LB028 – Do you consider yourself Hispanic or Latino? (Yes/No/DK/RF
LB089MIM – What race do you consider yourself to be: White, Black or African American, American Indian, Alaska Native, Asian, Native Hawaiian, Pacific Islander or something else? (also DK and RF)
LB091M – Do you consider yourself primarily *1st racial category mentioned*, or *2nd racial category mentioned* (, or *each other racial category mentioned*)? (white/Caucasian, black/African American, American Indian, Alaska Native, Asian, Native Hawaiian, Pacific Islander, other; also DK and RF)

FINANCIAL PORTFOLIO VARIABLES

Wealth measures are reported in nominal dollars. When an HRS wealth component is missing, it is imputed using the method described in the RAND HRS Data

Documentation, Version J (RAND Codebook) section entitled "Wealth and Income Imputations," (St. Clair, et al., 2010). If respondents do not give a specific amount, unfolding bracket amounts are used to probe for further income information.

IRAs

H9AIRA is assigned the reported or imputed net value of IRAs/Keoghs. The questions are asked about the three largest IRA/Keogh accounts individually through the following questions:

a) Do you (or your [husband/wife/partner]) have any individual retirement accounts, that is IRA or Keogh accounts? (Yes/No/DK,RF)

b) Let's talk about the (NEXT) largest IRA or Keogh account/other IRA or Keogh account. About how much is in this account at the present time? (Amount/DK/RF)

The second question is asked up to three times depending on how many IRAs the respondent reports. The information comes from HRS questions: LQ162; LQ1651, 2, 3; LQ1661, 2, 3; LQ1671, 2, 3; LQ1681, 2, 3; and LQ1691, 2, 3.

Stocks

H9ASTCK is assigned the net value of stocks and mutual funds. The information comes from HRS questions:

LQ316 - Aside from anything you have already told me about do you (or your [husband/wife/partner]) have any shares of stock or stock mutual funds? (Yes/No/DK/RF)

LQ317 - If you (or your [husband/wife/partner]) sold all those and paid off anything you owed on them, about how much would you have? (Amount/DK/RF)

LQ318-320 – Would it amount to less than $____ , more than $_____ , or what?

Checking

R9ACHCK is assigned the reported or imputed value of checking, savings, and money market accounts. The information comes from HRS questions:

LQ344 - (Aside from anything you have already told me about…) Do you (or your [husband/wife/partner]) have any money in checking or savings accounts or money market funds? (Yes/No/DK/RF)

LQ345 - If you added up all such accounts, about how much would they amount to right now? (Amount/DK/RF)

LQ346-348 - Would they amount to a total of less than $____ , more than $_____ , or what?

CDs

R9ACD is assigned the reported or imputed value of CDs, government savings bonds and treasury bills. The information comes from HRS questions:

LQ356 - (Aside from anything you have already told me about…) Do you (or your [husband/wife/partner]) have any money in CDs, Government Savings Bonds or Treasury Bills? (Yes/No/DK/RF)

LQ357 - If you added up all such accounts about how much would they amount to right now? (Amount/DK/RF)

LQ358-360 - Would they amount to a total of less than $____ , more than $_____ , or what?

Bonds

R9ABOND is assigned the reported or imputed net value of bonds or bond funds. The information comes from HRS questions:

LQ330 - (Aside from anything you have already told me about…) Do you (or your [husband/wife/partner]) have any corporate, municipal, government or foreign bonds or bond funds? (Yes/No/DK/RF)

LQ331 - If you (or you and your [husband/wife/partner]), sold all those bonds or bond funds, and paid off any thing you owed on them, about how much would you have? (Amount/DK/RF)

LQ332-334 - Would it amount to less than $____ , more than $_____ , or what?

Other Savings

R9AOTHR is assigned the net value of all other savings. The information comes from HRS questions:

LQ375 - Do you (or your [husband/wife/partner]) have any savings accounts or assets such as jewelry, money owed to you by others, a collection for investment purposes, rights in a trust or estate where you are the beneficiary, or an annuity that you haven't already told us about? (Yes/No/DK/RF)

LQ376 - If you (or you and your [husband/wife/partner]) sold all that and then paid off any debts on it, about how much would you have? (Amount/DK/RF)

LQ377-379 - Would it amount to less than $____ , more than $_____ , or what?

CURRICULUM VITAE

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Education

2011 (Spring) Ph.D., Family, Consumer, and Human Development. Utah State University, Logan, UT.
Dissertation: *Debt and Negative Net Worth Among Near-Retirees*

1987 M.B.A., Finance. Louisiana Tech University, Ruston, LA.

1979 M.A., Family Economics and Management. Michigan State University, East Lansing, MI.
Thesis: *Over-the-Counter Drug Use Among Michigan's Elderly Consumers: Its Relationship to Sources of Information.*

1976 B.A., Family and Consumer Studies. University of Utah, Salt Lake City, UT.

Teaching Experience

2009-2010 **Teaching Assistant, Department of Family, Consumer, and Human Development, Utah State University, Logan, Utah**
Assist with the class of 300 undergraduates each semester, grade papers, enter grades on spreadsheet, counsel students.

2008-2009 **Graduate Instructor, Department of Family, Consumer, and Human Development, Utah State University, Logan, Utah**
Planned, prepared, and taught lower division Consumer and the Marketplace for a total of 122 undergraduate students. Developed some course materials, graded students, and counseled students individually.

2008, Fall **Graduate Instructor, Department of Family, Consumer, and Human Development, Utah State University, Logan, Utah**
Taught lower division Consumer and the Marketplace online for 12 undergraduate students.

2007-2008 **Teaching Assistant, Department of Family, Consumer, and Human Development, Utah State University, Logan, Utah**
Assisted Professor with class, assisted with class preparation, graded papers, entered grades on spreadsheet, gave lectures for the class, counseled students.
1999-2000 **Site Coordinator, AMERICORPS, Salt Lake City, Utah**
Taught reasoning and writing to 25 4th grade students, assisted teacher in grading students' work and with student activities; assisted with ESL class of 20 students; identified 10 children with tutoring needs and tutored them in reading and with computer reading activities. Coordinated the linking of students and their families to resources in the community, especially medical and dental; contacted faculty, tutors and students to identify and assess family needs; provided families with information and assisted them to access community resources and services; collaborated with providers to coordinate services for families, especially Project Hope families.

1987 **Instructor, Department of Marketing and Management, Grambling State University, Grambling, LA**
Planned, prepared and taught business courses for class of 100+ of undergraduate students; developed course and test materials; graded students, counseled students individually.

1985-1987 **Graduate Assistant, Department of Economics and Finance, Louisiana Tech University, Ruston, LA**
Assisted with the teaching of graduate and undergraduate classes and with the development of spreadsheet applications for microeconomics; graded tests, graded homework and maintained computer student records.

1981-1985 **Assistant Home Economist, Louisiana Cooperative Extension Service, Franklin, LA**
Managed county 4-H youth program including planning, coordinating, promoting and holding county wide programs and events; increased youth participation by 10%; recruited and trained adult and youth volunteer leaders; adult Leaders and 4-H youth received local, state and national recognition. By contacting local businesses and organizations for contributions, increased funding for program by 75%; worked with local leaders to identify and address local needs with programs and training; utilized mass media and newsletters to keep clientele informed; assisted with state wide events.

Research Experience

2009-2010 **Research Assistant, Department of Family, Consumer, and Human Development, Utah State University, Logan, Utah**
Conduct research, conduct literature reviews, assist with preparation of research manuscripts, co-authored articles.

2006-2008 **Research Assistant, Department of Family, Consumer, and Human Development, Utah State University, Logan, Utah**
Conduct research, conduct literature reviews, assist with preparation of research manuscripts, co-authored article.

1979 **Research Assistant, grant project, State of Michigan Office of Services to the Aging, Lansing, MI**.
Developed the research design, did the data analysis, wrote research report.

1978 Data **Assistant, Quality of Life Study, Department of Family Ecology, Michigan State University, East Lansing, MI.**
Coded data from the project

Professional Publications

Refereed Journal Publications

Lee, Y., & Brown, S. (2010). Net worth of older black women: A comparison to older black men, older white women, and older white men. *Journal of Consumer Studies*, *21*(1), 83-106.

Lee, Y., & Brown, S. (2010). Chronic health problems and depressive symptoms among older women. *Hallym International Journal of Aging*, *12*(1), 11-26.

Lee, Y., & Brown, S. (2009). Effects of human capital on the likelihood of working in later life. *Hallym International Journal of Aging*, *11*(2), 155-172.

Lee, Y., & Brown, S. (2007). Financial distress and depressive symptoms: How do older women and men differ? *Hallym International Journal of Aging*, *9*(2), 125-146.

Gines, D.J., Miller, J.L., Brown, S.M., & Weimer, B. (1988). State association accountability to the membership. *Journal of the American Dietetics Association*, *88*, 949.

Refereed Proceedings

Lee, Y., Brown, S., & Jenkins, J. (2010). Factors predicting retirement well-being of single older women aged 65 and older. *Proceedings of the American Council on Consumer Interests Annual Conference*, 56. http://www.consumerinterests.org/public/articles

Brown, S., & Lee, Y. (2009). Correlates of physical health conditions and depressive symptoms among elderly women. *Proceedings of the American Council on Consumer Interests Annual Conference*, 55. http://www.consumerinterests.org/public/articles

Brown, S., & Lee, Y. (2008). How does human capital affect the decision to work in later life? *Proceedings of the American Council on Consumer Interests Annual Conference*, 54. http://www.consumerinterests.org/public/articles

Brown, S., & Lee, Y. (2007). Financial strains and depression among elderly women. *Proceedings of the American Council on Consumer Interests Annual Conference*, 53. http://www.consumerinterests.org/public/articles

Referred Presentations

Lee, Y., Brown, S., & Jenkins, J. (2010). Factors predicting retirement well-being of single older women aged 65 and older. Competitive paper presented at the 2010 ACCI (American Council on Consumer Interests) Conference, Atlanta, Georgia.

Brown, S., & Lee, Y. (2008, July). How does human capital affect the decision to work in later life? Paper was presented at the 2008 AAEA (Agricultural & Applied Economic Association)-ACCI (American Council on Consumer Interests) Joint Conference, Orlando, Florida.

Refereed Poster Presentation

Brown, S., & Lee, Y. (2009). Correlates of physical health conditions and depressive symptoms among elderly women. Poster presented at the American Council on Consumer Interests Annual Conference, Milwaukee, Wisconsin, July 28.

Brown, S., & Lee, Y. (2007). Financial strains and depression among elderly women. Poster presented at the American Council on Consumer Interests Annual Conference, St. Louis, Missouri, April.

Brown, S., & Delgadillo, L. (2006). Examination of federal flood insurance with implications for housing educators. Poster presented at the Housing Education and Research Association Conference, Ithaca, New York, October 8-11.

Presentations

Lee, Y., & Brown S. (2010). The Role of Gender and Race in Net Worth among Retirees. Paper presented at the Intermountain Graduate Research Symposium, Logan, UT, March 31.

Poster Presentation

Brown, S., & Lee, Y. (2009). Human capital and working in later life. Poster presented at the Intermountain Graduate Research Symposium, Logan, UT, April 1.

Other Publications

Brown, S. Ambassador Ramblings monthly column in Rancho Cordova Chamber of Commerce Newsletter, 1990-91

Brown, S.M. (June 1980). Research Report: *Over-the-Counter Drug Use Among Michigan's Senior Citizens: Focus on Information Sources*, State of Michigan

Office of Services to the Aging and Office of Substance Abuse Services, Lansing, MI.

Brown, S. Consumer's *Legal Services Guide* in *Michigan State University Council of Graduate Students Handbook*, Fall and Winter, 1979.

Brown, S. *Consumer Facts Column*, published bi-monthly in the *University of Utah Daily Chronicle Newspaper*, Fall 1974 through Spring 1975.

Awards

March 31, 2010, Competitive Paper Presentations, 3rd place for The Role of Gender and Race in Net Worth among Retirees at the International Graduate Research Symposium, FCHD Division, Logan, UT.

July 29, 2009, Competitive Poster Presentations, 3rd place for Correlates of Physical Health Conditions and Depressive Symptoms among Elderly Women at ACCI conference in Milwaukee, Wisconsin.

Grant/Research

1979 Recipient, Grant from State of Michigan Office of Services to the Aging and Office of Substance Abuse Services**,** to study the effect of sources of information related to the use of non-prescription drugs among Michigan's elderly population, approximately $2,100.

Travel Grants

April, 2010 Women and Gender Research Institute, to attend and present the paper, Factors predicting retirement well-being of single older women aged 65 and older, at the American Council on Consumer Interests, $260.15

April, 2010 American Council on Consumer Interests, to attend and present the paper, Factors predicting retirement well-being of single older women aged 65 and older, at the American Council on Consumer Interests, $100 scholarship

April, 2010 Department of Family, Consumer, and Human Development, Utah State University, to present the paper, Factors predicting retirement well-being of single older women aged 65 and older, at the American Council on Consumer Interest Conference, $400

July 2009 American Council on Consumer Interests, to attend and present the poster, Correlates of physical health conditions and depressive symptoms among elderly women, at the American Council on Consumer Interests, $90

July, 2009 Graduate Student Senate, Utah State University, to present the poster, Correlates of physical health conditions and depressive symptoms among elderly women, at the American Council on Consumer Interest Conference, $300

July, 2008 Graduate Student Senate, Utah State University, to present the paper, How does human capital affect the decision to work in later life? at the American Council on Consumer Interest Conference, $300

July, 2008 Department of Family, Consumer, and Human Development, Utah State University, to present the paper, How does human capital affect the decision to work in later life? at the American Council on Consumer Interest Conference, $400

March, 2007 Graduate Student Senate, Utah State University, to present the poster, Financial strains and depression among elderly women, at the American Council on Consumer Interest Conference, $300

March, 2007 Department of Family, Consumer and Human Development, Utah State University, to present the poster, Financial strains and depression among elderly women, at the American Council on Consumer Interest Conference, $300

Professional Associations

2010 - present Phi Upsilon Omicron
2006 - present American Council on Consumer Interests – Consumer Education Committee
2006 - present Association for Financial Counseling, Planning and Education
1985 - 1987 MidSouth Academy of Economics and Finance
1981- 1985 National Association of Extension Home Economists
1977 - 1979 Society of Consumer Advocates Professionals
1973 - 1979 American Home Economics Association

Community Service

1999-2004 Sandy City Amphitheater Volunteer - Assist with Box Office, Ushering and Concessions.
1989-1991 Rancho Cordova Area Chamber of Commerce Ambassador - Planned, promoted and conducted events, raffles and fund raisers
1991 Orangevale Rotary Club - Assisted with fund raising events..
1981-1984 Franklin Arts Festival - Auction Chairman 1981 & 1982 and Performing Arts Chairman 1983 & 1984

Other Work Experience

1999 **Defined Contribution Specialist II, Utah Retirement Systems, Salt Lake City, Utah**
Assisted members with defined contribution information and materials; educated members on financial and investment matters; reviewed and processed documents for compliance with retirement and defined contribution laws and policies.

1997-1998 **Examiner 1, Department of Financial Institutions, State of Utah, Salt Lake City, Utah**
Supervised and worked on teams to review and analyze accounting books, records, and management of financial institution; wrote and assisted writing final public reports to the institutions; kept current with new data, rules and technology.

1996-1997 **Retirement Program Specialist II, Public Employees Retirement System, State of California, Sacramento, CA**
Provided financial planning education and assistance to members and employers, on individual as well as group level; developed customized presentations of complex nature, utilizing alternative and innovative approaches to presentations; corresponded verbally and in writing to member inquiries.

1990–1996 **Deputy Commissioner I & II, Department of Real Estate, State of California, Los Angeles, CA**
Responded to office visits, telephone calls and correspondence of over 1500 public inquiries about real estate issues; investigated over 500 complex cases involving violations of real estate law by gathering and analyzing real estate documents and records; prepared hundreds of reports for legal filings or for successful closure.

1988-1989 **Registered Representative, Edward D. Jones and Company, Rancho Cordova, California**
Developed and managed office which marketed securities to individuals and businesses with accounts totaling $1M within a year; developed, organized and presented investment seminars to clients, businesses and community groups