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Students and Retirement Saving Predictors

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STUDENTS AND RETIREMENT SAVING PREDICTORS

by

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Dedication

I would like to dedicate this thesis to the people who supported me the most – my family and friends. They stuck by my side through countless late nights and long weekends. They may think that I will be free now that this document is complete, little do they know that my journey has only just begun.

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Abstract

Over the past century Americans have significantly increased personal income yet decreased personal savings. The researchers in this study examine college students habits and beliefs concerning saving for retirement. To our knowledge there is no published data about retirement savings among Americans in this age group. We try to determine whether a student's retirement savings beliefs and habits can be predicted. We designed a model examining the student's risk-aversion level, financial background, general savings habits, financial literacy and attitudes toward saving. We found that our overall model is predictive of a student's beliefs and habits in regards to saving for retirement. In addition, the student's level of risk-aversion, savings beliefs, and financial literacy were each independently predictive. The findings imply that students should be targeted if we would like to increase the personal savings rate in America. Financial literacy is the key and a personal finance course should be required to help students become aware of the saving options available and the power of saving early.

The purpose of this study is to investigate the savings behavior of American college students via a survey instrument. This study contributes to the existing literature in several ways. First, no study to date has investigated the savings behavior of American college students. From an educational viewpoint, such an investigation is important because it could indicate a need for further education in the area of personal finance beginning at the High School level.

Second, we develop a new model that identifies relevant predictors for the savings behavior among college students. This could reveal new and exciting areas for future research. Furthermore, an understanding of relevant predictors might also result in focusing financial education on certain segments of the population to increase the savings rate.

Third, our findings may be important from a macroeconomic perspective as it would enable us to identify individuals who are predisposed to place a low value on saving. We could then focus greater attention on educating those students on the need to save.

Most Americans would likely prefer to retire sooner than later, yet few actually have developed a plan to achieve this goal. Over the past century Americans have seen huge increases in personal income. From 1980-2005 personal income rose 265% yet there has been no increase in personal savings (United States Census Bureau, 2005). In fact, savings have decreased with the rise of personal income. People often come up with excuses such as "I have bills to pay now," "I can't afford to save," or "I can always save for retirement later." For most Americans, saving for retirement does not become an

important objective until they are in their 50's at which time it may be too late to accumulate a significant amount of wealth (Hennessey, 2006)

Workers today need to plan early for retirement even more than prior generations. Ettorre (1995) finds that workers are currently saving about 1/3 of that required for a comfortable retirement. The Congressional Budget Office has conducted studies and revealed that a substantial portion of today's workers are not saving enough to cover even their basic needs in retirement (Schieber, 2004).

Although many individuals claim that we have the strongest economy in the world, we are one of the only countries with a negative personal savings rate. In 1985, America's personal savings rate was 11.1%. Since that time, there has been a precipitous decline in the personal savings rate. In 2005, America's personal savings rate became negative for the first time since the Great Depression (Bureau of Economic Analysis, 2008). On average, Americans today spend more than they earn each year.

Saving early is the key to retirement wealth accumulation (Scheiber, 2004). By saving early, an individual can greatly reduce the percentage of their income they must save each year to achieve a comfortable retirement lifestyle-a retirement where they do not struggle to meet their basic needs. This is due to the phenomenon known as compound interest (i.e. earning interest on interest) which significantly decreases the total savings that must be contributed by the investor if he or she begins investing early. By implementing a saving strategy at a young age, when the total dollar amount will likely be small, the investor forms a habit which will likely continue throughout their working years as their income increases (Scheiber, 2004). Although the total dollar amount of

savings may be higher among people with higher incomes, Dynan (2004) noted that the savings rate is not tied to income.

Zhong (1994) found that older people tend to save more than younger people and that more educated people tend to save more than less educated people. Yet, those who actually save are often still not wealthy in retirement because employees tend to choose investments that are less risky. Bischopink (1994) found that the majority of those who participate in retirement savings plans are slow to accumulate wealth because they tend to choose conservative investments with low returns rather than placing their money with professional investment managers who take on more risk but achieve higher returns. Individuals tend to chose conservative investments because they are worried of the greater potential loss that comes with riskier investments. An individual's tendency toward risk-aversion demonstrates the importance of saving early. By saving early, the investor can afford to take on more risk as they have more years to recover any losses. When examined over longer time periods (i.e. 10-20 years), higher risk investments tend to have higher returns than less risky investments.

There are three main sources of income in retirement. Retirement income comes from personal savings (e.g. Individual Retirement Accounts) employer-sponsored plans (e.g. defined benefit (pension) plans and defined contribution (401(k) or 403(b) plans) and social security.

Expenses in retirement are different from expenses in the working years. In retirement, there are no social security taxes to be paid, less spending on food as most have more time to cook meals at home, less clothing expenses and less mortgage expenses. The amount saved from certain expenses not incurred in retirement are often

still not enough to cover the significantly increased medical expenses retirees face (Scholtz, Seshadri & Khitatrakun, 2006).

With the dynamic structure of retirement savings today, more than ever it is vital that Americans begin to think about retirement savings. In the past, the primary option for retirement saving was the defined benefit plan such as a pension plan. Under such plans the employer provides a predetermined amount of income to the employee every year after retirement. Many workers prefer the defined benefit plan because under such plans the employer, not the employee, is responsible for assuring that adequate money has been set aside to fund retirement payments to its retirees. Historically, the majority of workers relied solely on the company pension to fund their retirement needs. In 1980, 90% of all retirement savings were put into defined benefit plans (Wise, 2006).

Recently there has been a major shift away from the traditional defined benefit plans toward defined contribution plans such as the 401(k) and IRA. Under defined contribution plans the employee, not the employer, must first choose whether or not they want to save for retirement, second determine how much they need to save to adequately fund their expenses in retirement and third chose the direction that their money is invested. From 1992-1998 the number of employees covered by a defined benefit plan dropped from 40% to 20% while those enrolled in a defined contribution plan jumped from 37% to 57%. In 1999, 88% of all retirement savings contributions were to defined contribution plans (Wise, 2006).

A major difference between the defined benefit and defined contribution plans is evidenced in the structure of payments distributed in retirement. An employee covered by a defined benefit plan is guaranteed retirement income from the employer until he or she

dies. Whether the retiree lives 5 years after retirement or 50, they are guaranteed a certain amount of income each year. Alternatively, under a defined contribution plan the retiree has to determine how to make the balance of their account at retirement last their entire life, often a difficult task as it is impossible to know exactly how many years after retirement one will live. If the investor lives longer than they had calculated, they run out of money and are forced to bear the consequences.

Since their inception through a 1978 legislation, 401(k) plans have become one of the primary retirement savings vehicles available today. Though these plans are fairly new in relation to other retirement savings plans, 401(k)'s are now the most popular tax subsidy in the United States (Engelhardt, 2000). Unlike an IRA, the 401(k) is employment based, meaning individuals can only contribute to the plan of their current employer.

Employer sponsored retirement savings plans (e.g. 401(k) plans) are gaining popularity as they allow the employee to contribute a portion of their pre-tax salary (up to $15,500 in 2008) to the plan (Internal Revenue Service, 2008). Interest is earned on the pre-tax money and taxes are not paid until the time of withdrawal. By contributing to a 401(k) plan, employees actually lower the amount they pay in federal taxes each year as their reported income reflects the deduction they have placed in their 401(k). A worker, for example, in the 28% tax bracket who decides to place the maximum allowed ($15,500) into his or her 401(k) plan would save $4,500 per year in federal taxes.

These plans are also a wise investment as most employers will match the employee's contribution (typically 3-4%) to the plan. That equates to an automatic 100% return on investment with no risk. An individual, for example, earning $50,000 a year

contributing only 3% will place $1,500 a year in their 401(k) plan. In addition, the employer will place another $1,500 in the form of a company match into the plan raising the total to $3,000 per year being placed into the plan.

Despite the wide availability of 401(k) plans, there are many employees who still do not participate. In order to achieve higher participation among employees, many employers are choosing to use automatic enrollment (Selnow, 2003). With this option, all new employees are automatically enrolled in the 401(k) plan unless they choose to opt-out. This has proven to be an effective way to increase participation as many employees never sign up for the 401(k) plan because they either do not know how or they do not want to take the time fill out the paperwork. Studies conducted by Selnow (2003) reveal that 9 out of 10 employees automatically enrolled in a 401(k) plan were still enrolled 6 months later. In addition, participation numbers remain 1/3 higher after 3 years than those not under an automatic enrollment plan.

Choi (2002) studied 3 large firms using automatic enrollment. He found that 401(k) participation at all three firms exceeded 85%. This high participation rate is because people tend to choose the path of least resistance. Choi noted that those who are enrolled in a 401(k) plan are likely to stay enrolled and those not enrolled are likely to remain not enrolled.

Investment decisions within the 401(k) plan have become easier than ever. One option is to choose lifecycle funds. These funds are well diversified within the investor's choice of asset allocation. Some investors are confused as to how they should allocate their assets between stocks, bonds and cash. Life Cycle funds make this decision easy for the investor. The investor simply chooses their target retirement year and chooses a

lifecycle fund that is close to that date. For example, a thirty-three year old in 2008 who wishes to retire at age sixty-five would choose a 2040 lifecycle fund. These funds will automatically adjust the asset allocation within the investor's portfolio based on how many years they have remaining until retirement, taking this pressure off of the worker.

Another reason why it is becoming increasingly important for workers to begin to plan early for retirement is due to the significant population of baby boomers which will deplete the current Social Security System in the coming years. Baby boomers include anyone born between 1946 and 1964. Those 76 million Americans born in this eighteen year window make up nearly one-third of the entire United States population (Ettorre, 1995). Soon, there will be a major change in the mix of workers to retirees as every eight seconds another baby boomer turns 55 years old (Alfred, Farnen and Schachet, 2004). Nevertheless, the current mix of workers to retirees is 3.3 to 1. The 2006 OASDI Trustees report indicates that by the time all the baby-boomers have reached age 65 in 2030, the ratio of workers to retirees will only be 2.2 to 1. With fewer workers paying into the system and more retirees drawing benefits, the current system will fail unless strategic changes are implemented.

There is evidence to suggest that the baby boomers have not saved enough for retirement. As noted in The Wall Street Journal, boomers earning $100,000 will need $653,000 in today's dollars to retire at 65 in comfort but are only saving about 31% of the amount needed (Scholtz, Seshadri & Khitatrakun, 2006). B. Douglas Bernheim (1992) found that baby boomer households were saving only one-third the amount necessary to be adequately prepared for retirement. Even if Social Security and Medicare do not run out as projected, baby boomers are still not saving enough for retirement.

The uncertainty of the current Social Security system is another reason workers must plan sooner for retirement. Though the program is under-funded and its future is serious doubt, many workers still feel that Social Security will support them in retirement. Ettorre (1995) determined that if there are no changes in the current system, Social Security and Medicare taxes, which are currently set at 6.2% on the first $94,200 and 1.45% on any additional income, will need to be raised to 28% of an employee's paycheck by 2030. By 2030, an average worker in the 28% federal tax bracket will have to be pay nearly 60% of their income in taxes to support the current system. Based on the Employee Benefit Research Institute's 2006 Retirement Confidence Survey, the majority (80%) of workers mistakenly believe that even if the Social Security System stays funded, the amount they will receive from Social Security will be enough to support the majority of their retirement. The OASDI monthly statistics report for November 2007 reveals that the average retiree receives $964.50 per month from Social Security, or just over $11,000 per year. This is not enough to be the sole source of retirement income for most retirees.

A major factor that causes Americans to place little value on saving early for retirement is the lack of financial literacy (Selnow, 2003). Students are never required to educate themselves on personal finance. Once they enter the workforce, they will likely not take the time to become more financially literate and will not adequately prepare for their retirement.

Workers may find themselves confused or overwhelmed at the number of retirement savings options available to them. They may get frustrated and ignore the topic of investing until a later time. Bischopink's (1994) study revealed that employers who

educate employees about the plans available to them will have a higher percentage of workers who participate in the plans. Selnow (2003) also notes that people aware of the need to save and familiar with investment options are more likely to set aside money for later. Workers who are not educated often have false expectations about retirement and the amount they need to save before they get there.

There are also psychological factors that play a role in a person's decision to not save early, or adequately, for retirement. As noted by Hennessey (2006), we are an instant gratification society and the benefits of saving for retirement cannot be realized in the short-term. For most individuals, it is more satisfying to spend now rather than save for an uncertain future. In doing this, they are choosing pleasure now over long term pain. Selnow (2003) noted that it is tough to convince an average worker to set aside scarce resources (i.e. their money) today for future rewards that the worker may or may not receive. Young workers feel that they will always be young and many workers view retirement savings as a gamble and wonder why they should save when they might not even make it to retirement. To add to the uncertainty of retirement savings, the markets might crash causing them to be worse off than if they had never saved at all.

Although there is no immediate tangible reward for saving for retirement and no immediate penalty for not, the future benefits of saving are great and the future penalties of not are severe. Finke (2006) found that those who value retirement also place a high value on future consumption (i.e. using their wealth at a later date as opposed to today). His study revealed a strong correlation between preventative behavior and saving for retirement. He noted that those who wear seatbelts, exercise, and read nutrition labels are more likely to save for retirement than those who do not. In addition, he found that a low

proportion of smokers and drug users save for retirement. Finally, he found that those who receive greater utility from taking part in risky behavior tend to place less emphasis on saving for retirement. As noted by Finke, an individual's time preference for consumption and risk-aversion level are significant predictors of the importance an individual places on saving for retirement.

Keister (2003) studied the effects of siblings on an individual's retirement savings habits. He found that the number of siblings a person has is a significant predictor of the importance one places on saving for retirement. The more siblings one has, the less time each child has devoted exclusively to them from their parents. Parents with more children tend to save less and have less time to educate each child about saving. Also, the more siblings one has, the less likely their parents are to pay for college, give them a car, or put the down payment on their first home. This causes the children to have to pay for these items with no financial assistance from their parents. They are forced to start their finances off in debt and once someone is in debt, they often remain there for the rest of their lives. In addition, the more siblings one has the less likely they are to receive an inheritance when their parents pass away. Keister notes that overall, the more siblings one has the less wealth accumulation they are likely to achieve.

Over the past 16 years, the Employee Benefit Research Institute has annually conducted what is known as the Retirement Confidence survey. This survey has revealed the poor state of America in regards to retirement savings. The findings from the 2006 survey, as seen below, are shocking.

It is important for workers to complete a retirement needs calculation so that they know how much they need to save now to retire comfortably. Of those surveyed, 72%

report that they are saving for retirement yet only 42% have ever done a retirement needs calculation. The retirement needs calculation provides great insight and 59% of workers save more for retirement after completing a retirement needs calculation as they realize what they thought would sustain them in retirement will not be enough.

A majority (52%) of those who are currently saving for retirement have less than $50,000 in total savings and investments while three-fourths of those not currently saving for retirement have less than $10,000 in total assets and investments. This figure is even more startling when it comes to young workers. Of all workers age 25-34, 84% have total savings (not including their primary residence and any defined benefit plans) valued at less than $50,000.

Although the average worker expects to retire at age 65, the average current retiree retired at age 62. These numbers are up from just 10 years ago when the average worker expected to retire at age 62 while the average retiree retired at age 60. Many employees have an unrealistic expectation of how long they will actually be able to work. The reality is that 38% of workers leave the workforce earlier than they planned. Of those who had to leave the workforce early, 40% cite leaving due to health reasons and 30% were forced to leave due to downsizing. A mere 12% of those who leave the workforce early offer only positive reasons for leaving.

Though 24% of employees say that they are very confident that they will be financially secure at retirement, 22% of these are not currently saving anything for retirement. Of the 24% who are very confident they will have saved enough money when they reach retirement, 39% have less than $50,000 in savings, 32% do not have an IRA and 37% have not even attempted a retirement needs calculation! Unless they plan on

winning the lottery, these workers who are not saving and still are very confident that they will be financially secure in retirement are likely misguided.

The employer sponsored retirement plan is very important in an individual's retirement savings. Employer provided retirement savings plans significantly increase the likelihood of an employee saving. The majority (70%) of workers report that more than ½ of their total retirement savings are in an employer sponsored plan.

After compiling the results, the Retirement Confidence survey concluded that there are certain factors that have a strong correlation with the saving for retirement. The likelihood of saving for retirement increases with household income, education and health status. Married workers are more likely to save than unmarried workers, those over 35 are more likely than those under 35, homeowners are more likely than non-homeowners, those who have received retirement planning education within the past year are more likely than those who have not and those who have attempted a retirement needs calculation are more likely than those who have not to be saving for retirement.

Although only 12% of pre-retirees say that they will need the same or higher income in retirement than they do in their working years, 55% of current retirees reported that they need the same or higher income that they earned in their working years. 59% of current retirees are not covered by any employer-sponsored health insurance plan and have to pay for all of their medical expenses from their own savings. 37% of current retirees reported that inflation has affected them more than they thought it would, another reason why it is crucial to complete a retirement needs calculation. Though 67% of pre-retirees expect that they will work and earn pay during their retirement, only 27% of

current retirees actually report working for pay during retirement. For most workers, the saving has to be done before retirement.

In regards to the Social Security system, a mere 6% of workers are very confident that the Social Security benefits they will receive in retirement will be at least what today's retirees receive while 34% are not confident at all. Only 5% of workers are very confident that Medicare will provide them at least the coverage that is received by today's retirees receive while 28% are not confident at all.

The findings from the Retirement Confidence Survey reveal that Americans have a long way to go in regards to retirement savings. Many workers are going to be in for a big shock when they realize that retirement is just around the corner and it is too late to save. The sooner one plans, the more comfortable their retirement will be.

Method

Participants

A total of 163 students from the University of North Florida were recruited for participation in a survey. The 88 question survey was given during the summer of 2007. Questions on the survey were created based on research of prior studies and on factors that the researchers believed to be important predictors of the student's retirement savings habits and beliefs. Students volunteered to take part in a study of "Retirement Savings Predictors in College Students". In exchange for their participation, students received extra credit toward their course grade. Students were informed that their responses would remain anonymous and they were given one week to complete the survey. There were no special criteria that limited the students who were allowed to take the survey.

The sample was comprised of 50% males and 50% females. The majority (74%) were between eighteen and twenty-five years old, single and had no children. Of those surveyed, 97% were juniors or seniors, 87% were business majors and 86% were employed, at least part-time, at the time of the survey.

Of the 163 participants who volunteered for the survey, one student failed to complete any of the questions on the survey and this student was removed from the sample. Of the remaining 162 students, one failed to answer one question and another student failed to answer two questions. For those questions that were unanswered, the student was assigned a score based on the grand mean answer by all other participants for that particular question. Informed consent was obtained through electronic signature from all participants. All participants were treated in accordance with the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2002).

Procedure

Participants completed five independent measures. The measures were level of risk aversion, financial background, general savings behavior, financial literacy and general savings beliefs. The participants also completed the independent measure which was retirement savings habits and beliefs.

Participants completed the Risk-Aversion Scale which included nine items. Responses to each of the questions were either Likert-type or forced choice. Risk-aversion questions included "In general, would you consider yourself a thrill-seeker?" This scale was designed to determine whether or not the student's level of risk-aversion could be used to predict the value they place on saving for retirement. A higher

score on the Risk-Aversion Scale indicated the student was a riskier person. Some of the responses had to be reverse scored so that a higher score signified that the student was a riskier person. Cronbach's alpha for this sample was 0.22.

Next, participants completed the Financial Background Scale which contained four items. Responses to each of the questions were either Likert-type or forced choice. Questions in this category included "Was your family financially constrained when you were growing up?" This scale was designed to determine whether or not a student's financial upbringing is predictive of the value they place on saving for retirement. A higher score on the Financial Background Scale indicated the student had greater exposure to sound financial upbringing. Some of the responses had to be reverse scored so that a higher score signified that the student had a stronger financial upbringing. Cronbach's alpha for this sample was 0.64.

Then, participants completed the General Savings Behavior Scale which contained seven items. Responses to each of the questions were either Likert-type or forced choice. Questions included "Do you save money on a frequent basis (for example quarterly, monthly or weekly)?" This scale was designed to see if a student's current savings habits can predict whether or not they will be saving for retirement. A higher score on the General Saving Behavior Scale indicated that the student was saving more. Cronbach's alpha for this sample was 0.54

Next, participants completed the Financial Literacy Scale which contained ten items. Responses to each of the questions were either Likert-type or forced choice. To assess the student's financial literacy, participants were asked to respond to such questions as "I am familiar with most of the savings options and vehicles available

today." This scale was designed to test whether or not a student's level of knowledge regarding financial products such as the 401(k) and IRA can be used to predict the value they will place on saving for retirement. A higher score on the Financial Literacy Scale indicated that the student had a greater knowledge of the savings options available. Some of the responses had to be reverse scored so that a higher score signified that the student was more financially literate. Cronbach's alpha for this sample was 0.70.

Finally, Participants completed the General Savings Beliefs Scale which contained seventeen items. Responses to each of the questions were either Likert-type or forced choice. This section included such questions as "I feel guilty when I do not save." This scale was developed to determine whether or not a student's general savings beliefs, aside from their habits, can predict the value they place on saving for retirement. A higher score on the General Savings Beliefs Scale indicated that the student believed that saving is important, regardless of whether or not they were saving. Some of the responses had to be reverse scored so that a higher score signified that the student believed saving is important. Cronbach's alpha for this sample was 0.63.

The dependent variable was the student's retirement savings habits and beliefs. Participants completed the Retirement Savings Habits and Beliefs Scale which contained twenty-two items. Responses to each of the questions were either Likert-type or forced choice. This scale included questions such as "At what age do you believe a person should begin to save for retirement?" This scale incorporated both the student's beliefs toward retirement savings as well as their actual savings behavior. A higher score on the Retirement Savings Habits and Beliefs Scale indicated that the student placed a higher value on saving for retirement. Some of the responses had to be reverse scored so that a

higher score signified that the student placed a higher value on saving for retirement Cronbach's alpha for this sample was 0.66.

Results

All of the predictor variables were entered into a multiple regression and the overall model did predict the student's retirement savings with $F(5,156) = 8.67, p < 0.01$ and an adjusted R^2 of 19.2%. Independently significant predictor variables included general savings beliefs at $b = 0.38, p < 0.01$, risk-aversion level at $b = 0.16, p < 0.01$, and financial literacy at $b = 0.176, p < 0.01$. Financial background and general savings behavior were not independently predictive of the student's retirement savings. Please refer to Table 1 for a complete list of the correlations between the scales.

Table 1.

Correlations Between Scales

Measure	Risk Aversion	Financial Background	General Savings Behavior	Financial Literacy	General Savings Beliefs	Retirement Savings Habits/ Beliefs
Risk Aversion		0.008	0.144	0.124	-0.217**	0.108
Financial Background	0.008		0.113	0.024	0.230**	0.042
General Savings Behavior	0.144	0.113		0.389**	0.181*	0.211**
Financial Literacy	0.124	0.024	0.389**		0.146	0.273**
General Savings Beliefs	-0.217**	0.230**	0.181*	0.146		0.371**
Retirement Savings Habits/ Beliefs	0.108	0.042	0.211**	0.273**	0.371**	

Note . **Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Discussion

The overall model containing the student's risk-aversion level, financial background, general savings habits, financial literacy and general savings beliefs is predictive of the student's retirement savings. The student's risk-aversion level is predictive of the student's retirement savings independent of the overall model. These findings are to be expected because someone who is a risky individual would likely not be saving for retirement since not saving for retirement is certainly a big risk. Also, the student's general savings beliefs are predictive of their retirement savings independent of the overall model. Therefore, the views a student has toward saving in general will shape his or her views toward saving for retirement. Additionally, and perhaps most importantly, the student's financial literacy is a significant predictive factor of their retirement savings. If the student does not know what options are available to them, or if they are confused by the number of retirement savings products, they are likely not going to save.

Certain variable are not significant independently in predicting a student's retirement savings. One is the student's general saving behavior. Even though a student may have an implemented saving strategy for their income now, it does not necessarily translate into an implemented retirement savings strategy. Also, the student's financial background does not predict their retirement savings. A student's financial background does not predispose them to be more or less likely to be saving for retirement. You can take a student who grew up with a wealthy family and a student who grew up in poverty and through proper education, both should be equally as likely to value saving for retirement.

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Possible Limitations

There are limitations associated with this study. One limitation is the fact that the University of North Florida is a non-traditional school meaning that the average age of students is higher than at a traditional university. Non-traditional students are therefore more likely to be working full-time while pursuing their degree and more likely to already be saving for retirement. Another limitation is that some of the questions may not be assessing the variables correctly. For example, in the risk aversion scale contained questions that assessed the student's risk-aversion level in a round-about way. Questions such as "I smoke regularly" or "I always wear my seatbelt" may not truly assess the student's level of risk-aversion.

Future Directions

In conclusion, further research needs to be conducted. I would like to develop an index from the results from the first sample. Then, I would like to survey a second sample and see if the index holds by examining the standard deviation and forecasting error between the samples.

With this research, we can conclude that there is a need to educate all students on retirement savings and saving in general. Ramsey (2003) notes some startling facts. In 2007, one out of five bankruptcies was filed by a college student. The majority of students are not educated in this area and view filing for bankruptcy as a "get out of jail free" card. They need to understand that filing for bankruptcy has long-term implications and ruins their credit. College students often ruin their credit through accumulating a significant amount of credit card debt as evidenced by the fact that 80% of college seniors graduate with credit card debt. The debt accumulation stems from a lack of

general credit card knowledge. Americans currently have $807 billion in credit card debt, that is more than the entire GDP of Australia. According to the Wall Street Journal, 70% of all Americans live paycheck to paycheck. How much further does our savings rate have to fall before we begin to do something about it? By educating students on the importance of saving early, we can break the cycle and lead future generations on the road to financial freedom.

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Curriculum Vita

Christopher Miller was born in Greensboro, North Carolina. He has lived in Jacksonville, FL since 1994 and attended high school at Providence College Preparatory School. Chris enrolled in the University of North Florida in August, 2004 and will graduate with his Bachelor of Business Administration degree in Corporate Finance in May 2008. Chris is currently the technical analyst as well as the healthcare and industrials sector analyst for the Osprey Financial Group (a student managed investment fund that manages a portion of the University's endowment). Chris also works with a team of financial advisors at Merrill Lynch that manages over $300 million in assets. He analyzes investment options for high net worth clients around the world.

Outside of class, Chris is the founding President of the National Society of Collegiate Scholars, the Chief Financial officer of the Hate Hurts Peace Ambassadors, the Recruiter for the Finance and Investment Society, the Event Coordinator of the Student Business Advisory Council, as well as a member of Students In Free Enterprise, the Financial Management Association, the Golden Key International Honor Society, and the University Scholars Honor Society. Chris is also actively involved in his Church where he is a life group leader for the college group. Additionally, he volunteers his time with the Bridge of Northeast Florida, Builders Care, Camp Boggy Creek, City Rescue Mission, HabiJax, and nursing homes in Jacksonville. Chris enjoys traveling and has been to New York City, Mexico, Honduras, and Beijing, China on mission trips. For his volunteer efforts, Chris was recently awarded the prestigious Albert D. Ernest Caring Award as well as the Senior Service Award. Upon graduation, Chris plans to work as a financial analyst before returning to school to pursue an MBA.