


2006

Unsecured debt and early saving for retirement by recent female college graduates

Pamela J. Bennett
Iowa State University

Follow this and additional works at: <https://lib.dr.iastate.edu/rtd>

 Part of the [Finance Commons](#), [Finance and Financial Management Commons](#), [Home Economics Commons](#), [Women's History Commons](#), and the [Women's Studies Commons](#)

Recommended Citation

Bennett, Pamela J., "Unsecured debt and early saving for retirement by recent female college graduates " (2006). *Retrospective Theses and Dissertations*. 1798.
<https://lib.dr.iastate.edu/rtd/1798>

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

**Unsecured debt and early
saving for retirement by recent female college graduates**

by

Pamela J. Bennett

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Family and Consumer Sciences Education

Program of Study Committee:
Yvonne S. Gentzler, Major Professor
Mary B. Gregoire
Cheryl O. Hausafus
Beverly J. Kruempel
Robert A. Martin

Iowa State University

Ames, Iowa

2006

UMI Number: 3217253

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI[®]

UMI Microform 3217253

Copyright 2006 by ProQuest Information and Learning Company.

All rights reserved. This microform edition is protected against unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

Graduate College
Iowa State University

This is to certify that the doctoral dissertation of

Pamela J. Bennett

has met the dissertation requirements of Iowa State University

Signature was redacted for privacy.

Committee Member

Signature was redacted for privacy.

Committee Member

Signature was redacted for privacy.

Committee Member

Signature was redacted for privacy.

Committee Member

Signature was redacted for privacy.

Major Professor

Signature was redacted for privacy.

For the Major Program

TABLE OF CONTENTS

LIST OF FIGURES	vi
LIST OF TABLES	vii
ABSTRACT	viii
CHAPTER 1: INTRODUCTION	1
Rationale	1
Definition of Terms	5
Research Questions	5
Hypothesis	6
Assumptions and Limitations	6
CHAPTER 2: REVIEW OF LITERATURE	8
The Theory of Reasoned Action	8
Details of the Theory	8
Application of the Theory	10
The Role of Family and Consumer Sciences as a Catalyst for Positive Change	13
Historical Perspective of Family and Consumer Sciences	13
Practical Problem Solving	15
Family and Consumer Sciences Contribution to Research and the Literature	17
Education and Gender Equity	18
Secondary Education	18
Postsecondary Education	20
Unsecured Debt Loads	21
Student Loan Debt	21
Credit Card Debt	32
Considerations Beyond Students	38
Demographic Characteristics of Women	40
Women and Financial Responsibility	41
Women and Higher Education	42
Women, Employment, and Salaries	43
Women and Caregiving	45
Retirement Planning	46
Personal Responsibility	46
Adequate Retirement Income	48
Social Security	49
Employer-Sponsored Retirement Savings Plan	52
Individual Personal Savings	63

Need for Financial Literacy Education	67
Employers as Providers of Financial Education	69
Schools as Providers of Financial Education	71
Valuable Topics within Financial Education Programs	72
Women and Financial Education	72
Remedial Versus Proactive Financial Education	74
CHAPTER 3: METHODS	78
Sample	78
Data Collection Instrument	80
Data Collection	84
Statistical Analysis	84
CHAPTER 4: RESULTS AND DISCUSSION	87
General Information	87
Research Question 1	90
Research Question 2	94
Research Question 3	95
Research Question 4	98
Research Question 5	107
Research Question 6	108
Research Question 7	109
Research Question 8	110
CHAPTER 5: CONCLUSIONS	111
Limitations	111
Ideas to Improve Future Research Projects	112
Findings	113
Interested Parties and Recommended Actions	117
Family and Consumer Sciences Professionals	117
Recommended Actions for Family and Consumer Sciences Professionals	117
Universities	119
Recommended Actions for Universities	119
Employers	121
Recommended Actions for Employers	121
United States Government	122
Recommended Actions for United States Government	122
Financial Services Professionals	123
Recommended Actions for Financial Services Professionals	123
Recommendations for Future Research and Action	124
Conclusions	125
APPENDIX A: IRB APPROVAL	127

APPENDIX B: SURVEY INSTRUMENT	129
APPENDIX C: PERMISSION TO USE INSTRUMENT	139
APPENDIX D: INITIAL RECRUITMENT E-MAIL	140
APPENDIX E: SECOND RECRUITMENT E-MAIL	141
APPENDIX F: THIRD RECRUITMENT E-MAIL	142
REFERENCES CITED	143
ACKNOWLEDGMENTS	162

LIST OF FIGURES

Figure 1 – Theory of Reasoned Action Model	9
Figure 2 – Map of Higher Education Affordability	24
Figure 3 – Federal, State, and Institutional Expenditures	25
Figure 4 – Average Student Debt Loads by Classification	33
Figure 5 – Retirement Plan Assets	47
Figure 6 – Important Employment Benefits	54
Figure 7 – Defined Contribution Plan Growth	55
Figure 8 – Pre-retirement Lump Sum Distributions	61
Figure 9 – Outliers Scatter-plot	90
Figure 10 – Histogram of Retirement Attitude Scores	100
Figure 11 – Scatter-plot of Retirement Age and Total Saved for Retirement	105
Figure 12 – Scatter-plot of Retirement Attitude Score and Total Retirement Savings	105
Figure 13 – Scatter-plot of Retirement Attitude Score and Unsecured Debt	106

LIST OF TABLES

Table 1 – Retirement Savings Contribution Credit	64
Table 2 – Relationship between research questions and Survey Questions	82
Table 3 – Debt Load by Year of Graduation	92
Table 4 – Salary and Percent of Salary used in Unsecured Debt Repayment by year of Graduation	94
Table 5 – Savings Instruments Used for Retirement Savings by Recent Female College Graduates	95
Table 6 - Retirement Savings by Year of Graduation	97
Table 7 – Retirement Attitude by Year of Graduation	101
Table 8 - Attitudes within retirement attitude index score	102

ABSTRACT

The purpose of this study was to investigate unsecured debt (student loans and credit cards) and the practice of saving early for retirement by recent female college graduates. An electronic survey was conducted among 1994 – 2004 female graduates of the University of Central Arkansas. In addition to all graduates from the years 1994, 1999, and 2004, an over-sampling of 1994-2004 Family and Consumer Sciences graduates was conducted for comparison. The amount of student loan and credit card debt, the amount of retirement savings, attitudes toward retirement, and expectations toward retirement were investigated. The study was grounded in the Theory of Reasoned Action and the findings supported the theoretical construct.

The study revealed lower than national average amounts of student loan debt and a slightly larger than national average credit card debt. Twenty-six percent of the respondents had neither credit card nor student loan debt, while 39% had no student loan debt and 47% had no credit card debt. Approximately half of respondents reported they were currently saving for retirement. The average retirement savings rate was 6%. A significant correlation was found between attitude toward retirement, the amount of retirement savings, and the amount of unsecured debt respondents reported. In addition a negative correlation existed between the age of expected retirement and the amount of retirement savings.

INTRODUCTION

Rationale

In an economy where women are intricately involved in providing for the economic well-being of themselves and their families, why have they received little financial literacy education and encouragement to actively pursue life-long financial well-being? The purpose of this study was to ascertain the relationship between debt incurred during undergraduate education and the lifetime financial well-being of women; specifically, to examine the relationship between the debt load of recent female college graduates and their propensity to save for retirement, thereby securing their financial future.

Today's college graduates are leaving college with much more than just a diploma. They are also leaving with debt. When considering the rising cost of tuition, combined with lower levels of financial aid available, this is to be expected. "Average total tuition and fees at four-year public colleges and universities in 2005-06 were \$5,491, \$365 (7.1%) higher than they were in 2004-05" (The College Board, 2005a, p. 4). Combining this increase with those from the previous four years, average tuition rates increased 57% over a five year time span. Two primary sources of debt are student loans and credit cards. A 2002 survey conducted by Nellie Mae revealed that on average undergraduate student loan debts total \$18,900 (Baum & O'Malley, 2003a). The average credit card debt of undergraduate students is \$2,169, with 23% of undergraduate students carrying balances in excess of \$3,000, and 14% of students carrying no balance (Nellie Mae, 2005). For many recent graduates, the unpleasant task of paying back the borrowed money limits the economic choices they have available to them in light of their starting salaries. It comes as a shock to many that their

starting salaries combined with their debt payments severely limit the lifestyle upgrades they were expecting upon college graduation. “An estimated 39% of all student borrowers graduate with unmanageable student loan debt; meaning, these students pay more than 8% of their monthly income on student loan payments” (King & Bannon, 2002, p. 3).

As reported by the Women’s Institute for a Secure Retirement [WISER] (1999a), women are, on average, paid less than their male counterparts and are more likely than men to have gaps in employment due to the choices made regarding child rearing and caring for aging parents. This places women at a disadvantage in terms of career advancement, effectively reducing their lifetime earnings. These factors coupled with a longer life expectancy, which yields more years in retirement, make the financial education of women increasingly vital (Price, 2003).

Many employers in the United States offer employees the option of participating in a defined contribution retirement savings plan as opposed to a defined benefit retirement plan. The difference between the two options is essentially with whom the responsibility for retirement savings rests. In a defined benefit or traditional pension plan, the company assumes the responsibility for providing a set retirement benefit for the employee based on the number of years of service. In a defined contribution plan, the employer makes a contribution to an employer-sponsored, tax-deferred retirement plan, such as a 401(k), based on the contribution rate of the employee; therefore, the company is guaranteeing the contribution rather than the final amount of the benefit. The retirement benefit received is the responsibility of the employee (Stein, 2004) as expressed by the Pension Research Council, “the structure of retirement plans has changed substantially, significantly increasing

the role of workers in the determination of their retirement income” (Pension Research Council [PRC], 2003b, p. 2). In addition, there is currently a great deal of uncertainty regarding the future of the Social Security Program. Women’s planning for their own financial future is of greater necessity today than ever before.

Starting a savings plan early is key to financial freedom and security in later life. Due to the beauty of compounding interest, a young woman can save relatively small amounts to achieve large savings for future consumption; whereas, a woman waiting until later would need to save much larger sums to achieve the same results. As an example, if a woman began saving \$1200 per year at the age of 23, and did so until she was 65, even at a modest investment return of 8%, she would accumulate \$365,092. If, however, she waited until her education loans were paid off, typically 10 years, she would achieve quite different results. If she began saving \$1200 per year at the age of 33 and did so until the age of 65, and also received an 8% return, she would accumulate just \$161,056. The \$12,000 and ten years delay in retirement savings results in the loss of \$204,036, and the delayed starter has amassed only 44% of what she could have saved had she started ten years earlier. As contribution and rates of return on investment increase, so does the detrimental effect of waiting to save.

A number of demographic facts make it advantageous for women to learn about financial matters. The majority of young women graduating with a college degree do so with the intention of using their education to provide gainful employment. The average age at time of first marriage is now 25 for women, which places the average female in a financially independent situation for an average of 3-7 years prior to marriage (U.S. Bureau of Census,

2000). For the year 2002, the U.S. Bureau of the Census reported that 21.2% of women were never married, 10.5% were widowed, and another 11.3% were divorced (U. S. Bureau of the Census, 2003). The average life expectancy of women is 80.1 years; whereas, the average life expectancy of men is 74.8 years (National Center for Health Statistics, 2005). In combination, these facts make it statistically probable that at some point in their lifetime most women will be required to be cognizant of and responsible for their own financial condition.

Men have traditionally been the breadwinners for the American household. Smith and Zick (as cited in Into, 2003) reported that “women generally depend more on the earnings of their husbands than men depend on the earnings of their wives” (p. 826). In keeping with this, men have been viewed as the partner within the family responsible for financial matters. As a result, most marketing of financial products and financial training have been focused on men.

Another dimension of this dilemma involves school-aged girls, math, and the education system. Due to differences in the learning styles and the focus of the education system, many girls decide or are told that they cannot “do” math (McKee, 1992). Taking care of finances involves math. The gender bias in math education is yet another reason that women are less inclined to pursue financial education.

The purpose of this study was to examine the relationship between the debt load of recent female college graduates and their propensity to save for retirement, thereby securing their financial future.

Definition of Terms

Debt load: the total dollar amount of outstanding unsecured consumer debt; the balance on credit cards and student loans

Financial independence: the point in one's life that all financial obligations are satisfied by the individual rather than the individual receiving financial help from others such as parents

Personal savings rate: the amount of savings done through employer-sponsored plans combined with other personal savings vehicles expressed as a percentage of gross personal income

Recent female college graduates: women who have graduated from college in the past 10 years

Retirement savings: savings designated for the purpose of retirement, typically in an employer plan such as a 401(k), or in an individual retirement plan

Retirement savings rate: the amount of retirement savings expressed as a percentage of gross personal income

Unsecured consumer debt: non-business debt which is not collateralized used by consumers for purchases other than their home mortgage

Research Questions

The following research questions were addressed:

1. What is the extent of the unsecured, consumer debt load of women who have graduated from college within the past ten years?
2. What instruments are these women using to save for retirement?

3. To what extent (amount and percentage of income) are these women saving for retirement?
4. What attitudes and beliefs regarding retirement are common among women who have graduated from college in the past ten years?
5. Are retirement savings rates correlated with unsecured, consumer debt?
6. What types of preparation for financial independence (courses/seminars) did the alumnae receive from their years at the University?
7. What suggestions do recent female college graduates give to the University regarding preparation of future students for financial independence?
8. How do female Family and Consumer Sciences students compare on the previous measures to the general population of recent college graduates?

Hypothesis

The retirement savings rate of women who have graduated from college in the past ten years will be higher for those with a lower unsecured consumer debt level. It is further hypothesized that those women who graduated with a degree in Family and Consumer Sciences will have a higher rate of savings, as expressed as a percentage of their salary, than the general population of recent college graduates.

Assumptions and Limitations

The ultimate goal of any research is to add to the body of knowledge within a field. In order for a research study to do that, the results of the study must be reliable and valid. The instrument used “needs to provide an accurate assessment of the variable (i.e., be reliable) and enable the researcher to draw inferences to a sample or population (i.e., be

valid)” (Creswell, 2002, p.180). The instrument used in this study was an adaptation of an instrument used in two large-scale quantitative surveys (N=2,001, N=1,200) conducted by the American Association of Retired Persons (AARP) and Roper Public Affairs (AARP, 2004). These studies focused on the Baby Boom generation, their opinions of and preparedness for retirement.

Beyond the reliability and validity of the instrument, some concerns arise from the reluctance associated with revealing personal financial information. This study was based on the assumption that respondents were both willing and able to give accurate information regarding their financial practices and demographics. Of special concern was their willingness to reveal sensitive information such as their level of credit card debt. These questions were some of the final questions on the survey. Delaying these questions until this position allowed for a degree of comfort to be developed by the respondent to the survey topic. All respondents were assured that information was private and not connected with identifying information, nor shared with any other entity.

As with any survey requiring self-reporting, this research relied on what the respondent reported rather than what the respondent actually did, which is not always equivalent. The findings of this research are valid only to the extent that the respondents’ actual behavior matches their reported behavior. The participants were not random individuals, rather those who had a connection to the University of Central Arkansas. As an alumna and instructor at the University of Central Arkansas, the researcher believed that this factor would increase their willingness to provide accurate information due to the loyalty and good will felt toward the institution.

REVIEW OF LITERATURE

This study sought to clarify the connections between the unsecured debt burdens carried by recent female college graduates and the preparation undertaken for their financial future through early saving for retirement. In seeking clarification, a number of issues were investigated. Those issues were:

- The Theory of Reasoned Action
- The Role of Family and Consumer Sciences as a Catalyst for Positive Change
- Education and Gender Equity
- Debt Loads of Students and Recent Graduates
- Demographic Characteristics of Women
- Retirement Planning
- The Need for Financial Literacy Education

The Theory of Reasoned Action

The theory of reasoned action was used as the underlying construct of this research. It was expected that recent female college graduates who had a positive attitude toward retirement planning and had been exposed to an expectation that retirement planning should begin early in their career would be most likely to participate in retirement savings.

Details of the Theory

The theory of reasoned action was developed by Fishbein and Ajzen (1975) for use in not only predicting consumer behavior but also as a means to understand how one might influence that behavior. The theorists developed their ideas on “the assumption that human

beings are usually quite rational and make systematic use of the information available to them” (Ajzen & Fishbein, 1980, p. 5).

If a person has the intention to perform a behavior, they typically do perform the behavior; therefore, it is important to understand what influences their behavioral intentions. Within the theory of reasoned action, Fishbein and Ajzen (1975) propose that both internal and external forces exert influence over one’s behavioral intent. The internal influence is a person’s attitude toward a behavior; that is whether they see the behavior as good or bad or whether they are in favor or against performing the behavior. The external influence is their perception of social pressure to perform or not perform the behavior. “Generally speaking, individuals will intend to perform a behavior when they evaluate it positively and when they believe the important others think they should perform it” (Ajzen & Fishbein, 1980, p. 6). The following diagram (see Figure 1) of how the model predicts behavior was found in the Gentry and Calantone (2002) study.

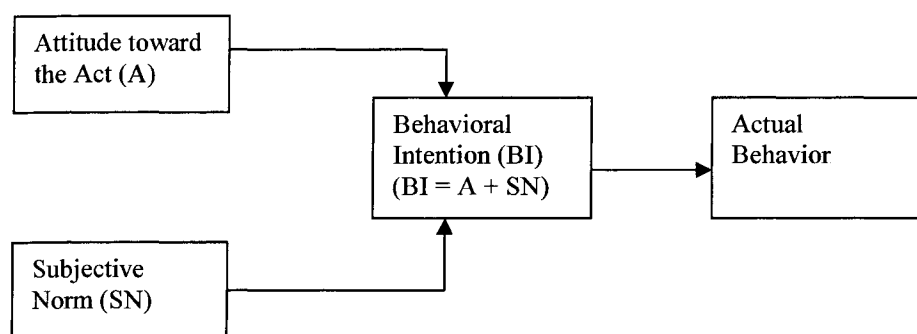


Figure 1 – Theory of Reasoned Action Model (Gentry & Calantone, 2002, p. 946)

As is indicated in the diagram, the presence of ambivalence or ignorance toward a subject by either the individual or the individual’s social context (which is expressed as a subjective

norm) would necessarily impede the behavior from occurring, however, when people had the opportunity to contemplate “how they are going to behave, the best predictor of their behavior is their intention” (Aronson, Wilson, & Akert, 2005, p. 222).

The theory of reasoned action has been used as a model by many researchers looking at goal situations, and has been “proven remarkably robust, even when generalized beyond its theoretical underpinnings” (Gentry & Calantone, 2002, p. 947). A meta-analysis of the use of the theory of reasoned action in past research was conducted in 1988 by Sheppard, Hartwick, and Warshaw. Their study evaluated the use of this theory in 174 studies published in nine journals (*Journal of Consumer Research*, *Journal of Marketing*, *The Journal of Marketing Research*, *Advances in Consumer Research*, *Journal of Personality and Social Psychology*, *Journal of Experimental Social Psychology*, *Journal of Social Psychology*, *Journal of Applied Social Psychology*, and the *Journal of Applied Psychology*). The results of this meta-analysis “provide strong support for the overall predictive utility of the Fishbein and Ajzen model” (Sheppard, Hartwick, & Warshaw, 1988, p. 336). The findings were significant at the .01 level.

Application of the Theory

Decision-making and the actions taken based on our decisions do not occur in isolation. “The theory of reasoned action shows that consumption is based on beliefs and attitudes, has consequences, and that it takes place within a social context” (Goldsmith, 2005, p. 64). This assumption was supported in the 2001 study conducted by Chien and DeVaney, in which “the findings show[ed] the higher the specific attitude index, the higher the outstanding credit card balances, and the more favorable the general attitude toward using

credit, the higher the installment debt” (p. 162). The longitudinal study conducted by Hayhoe (2002), also indicated that, “students’ high favorable attitudes may cause some to misuse credit...” (p. 75).

When considering men and women and their behavior regarding financial planning and action, several research studies have noted gender differences (Bajtelsmit & Bernasek, 1996; Goodman, 2004; Graham, Stendardi, Myers, & Graham, 2002; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Lee, 2004; Vanac, 2004; WISER, n.d.). Given the assumption that there were measurable differences in the attitudes and behaviors of men and women, the subjective norm for women might be slightly different than that of men, an idea not lost on the investment industry.

Women investors form a large and growing market. Because women represent a growing share of new financial customers, investment companies that target women investors stand to reap substantial rewards...The increase in the participation of women in the labor force coupled with the trend toward increased longevity and rising net worth makes women investors a force that cannot be ignored. (Graham et al., 2002, p. 7)

Graham et al. also identified a possible source of the subjective norm to which women react.

...change was motivated in large part by women viewing the circumstances of their mother’s generation, who were left alone due to widowhood or divorce and trying to cope with the resulting financial difficulties. Women today want to avoid these

difficulties and they recognize that becoming more knowledgeable investors is a key toward this end. (Graham et al., 2002, p. 7)

This observation was consistent with the theory of reasoned action. Not only do we act on the experiences we have first-hand, but also the experiences we observe in others.

Among the beliefs that ultimately determine intention and action is a set that deals with the presence or absence of requisite resources and opportunities. These beliefs may be based in part on past experience with the behavior, but they will usually also be influenced by second-hand information about the behavior, by observing the experiences of acquaintances and friends, and by other factors that increase or reduce the perceived difficulty of performing the behavior in question. (Ajzen, 1988, p. 135)

The theory of reasoned action also supports the need for the financial literacy education of young women. Financial literacy education would provide a social context in which women would find support and encouragement to manage their finances, both immediate and long-term, in a constructive manner. In this study, an emphasis on avoiding the misuse of credit and taking action toward saving for future goals were of primary importance. Hayhoe (2002) suggested the need for educators to “add greater emphasis on the long-term effects of debt. Helping students realize how much the debt actually costs and how long it takes to repay may influence the amount of debt incurred” (p. 75). Also, a number of researchers and organizations have called for financial education to address American’s relative diminutive amount of savings (Bruce, 2000; Hira, 2002; Into, 2003; Lee,

2004; National Retirement Planning Coalition, 2003; PRC, 2003b; Price, 2003; Stein, 2004; Vanac, 2004; and WISER, 1999a).

It was expected that the findings of this study would support and be supported by the theoretical construct of the theory of reasoned action. Recent female college graduates who had a positive attitude toward retirement planning and had been exposed to an expectation that retirement planning should begin early in their career would be most likely to participate in retirement savings.

The Role of Family and Consumer Sciences as a Catalyst for Positive Change

Historical Perspective of Family and Consumer Sciences

To set the context for the study and ground the study within the parameters of Family and Consumer Sciences, the researcher noted the intended purpose of the profession. Brown and Paolucci proposed the mission of the Family and Consumer Sciences profession as such: “to enable families, both as individual units and generally as a social institution, to build and maintain systems of action which lead (1) to maturing in individual self-formation and (2) to enlightened, cooperative participation in the critique and formulation of social goals and means for accomplishing them” (Brown & Paolucci, 1979, p. 23). Assuming one was mindful of the intended mission of the profession, the aspect of the mission that focused on the “critique and formulation of social goals and means for accomplishing them” (Brown & Paolucci, 1979, p. 23) is directly applicable to the financial education of women.

Family and Consumer Sciences seeks to marry theory and practice, to provide answers for practical problems and to provide education with an emancipatory effect. “There

must be the ability and the will to organize and use this knowledge independently, adaptively, and critically (such criticism including judgment of moral defensibility) in relating theory and practice” (Brown & Paolucci, 1979, p. 7). Certainly Family and Consumer Sciences is not the only field of study interested in the proposed topic; however the professionals within Family and Consumer Sciences bring a unique knowledge and interest to this study.

The uniqueness of knowledge in a professional field comes not from the uniqueness of its concepts; it comes from the formulation and ordering of knowledge for the problems which the profession is to attempt to solve in providing service. Knowledge is selected and created to meet the cognitive requirements of the problems and to guide professional service. (Brown & Paolucci, 1979, p. 12)

Twenty-four years later, this vision for the profession continued, “Family and Consumer Sciences professionals are united through our knowledge base and our commitment to the integration of knowledge as the way to improve the condition for families and communities” (Anderson, 2002, p. iv).

Brown and Paolucci suggested that to effectively solve problems, one must consider more than what was seen on the surface. A quality they coined “reflectiveness” was required to effectively solve problems.

Reflectiveness in individual and social action is diminished for determining what is justifiable to do is ignored and only thinking of how to reach a given end is considered when intelligent action requires both. This lack of reflectiveness is shown in the tendency to assume whatever is, is good; control by tacit consent does not

encourage the examination of the status quo. Thus, there is not critical reflection about society and the human condition. (Brown and Paolucci, 1979, p. 14)

Family and Consumer Sciences has a distinguished tradition of seeking solutions to the practical problems of individuals and families. Early home economists conceptualized “home economics as a field concerned with people’s search for and determination of values and with the cooperation of philosophy and science” (Brown & Paolucci, 1979, p. 17). The actions sought by this study were to expose any oversight of financial education for women, and to support the need for educating them to free them from the disservice being done. This coincides with the systems of action of Family and Consumer Sciences in that “Emancipative action ... provides critical consciousness of social forces and ... then formulates social goals and values and judges critically the means by which to accomplish those goals and values” (Brown & Paolucci, 1979, p. 23).

Practical Problem Solving

The researcher believed the question of what to do about undergraduate debt incurred by women and how it impacted their well-being in later life was a practical problem – one requiring critical analysis. Practical problem-solving evolved out of our inability to instinctively know what to do and our search for optimal solutions.

A problem, in its linguistic form, is a question the answer or solution to which can not be determined by habit or by lack of thoughtful consideration... The solution of a problem involves the use of reasoning; the kind of reasoning used is dependent on the category in which the problem is to be classified, practical problems involving practical solutions. (Brown & Paolucci, 1979, p. 24)

Answering practical problems is not merely about what could be done, rather what is best in light of the current situation, asking “What should be done?” As Gentzler contended, Answering a practical problem requires thought and reasoning regarding what should be or not be done about a given situation, and is dependent upon communication between the parties affected by the possible solution. A delineation is made between reasoned formulation of goals to determine a morally defensible outcome, as opposed to simply making a decision. (Gentzler, 1999, p. 25)

A key to solving the lack of financial literacy training is education. “Education becomes a tool to help learners see how to be involved in the process of social change” (Gentzler, 1999, p. 27). It allows for social change. “In brief, critical science provides the catalyst for social change. Through discussion, understanding, interpretation, and practical reasoning, people are able to determine possible solutions to society’s problems, with an ultimate goal of human emancipation” (Gentzler, 1999, p. 28).

Family and Consumer Sciences has played a critical role in shaping changes within individuals and society.

Because FCS [Family & Consumer Sciences] is a critical science, its professionals have an obligation to critically analyze social forces which affect individuals and families. It is not enough to work within systems that simply perpetuate the status quo, especially if individuals and families are being exploited by those systems. (Gentzler, 1999, p. 28)

Women may not have even realized that they have been done a disservice by not being properly educated on the importance of good fiscal management and early planning for retirement until they are well into their forties (Family Economic and Financial Education, n. d.). When in their twenties, they were concerned with establishing their career, paying off education loans, getting married, and possibly buying a home. The thirties and early forties have been consumed with having children and raising them. Indeed, many women have placed a myriad of other financial obligations before planning for their own long-term financial wellbeing. As reported by Hayhoe et al. (2000), it was “found that female heads of household were more likely to save for daily expenses; they appeared to focus on the most basic level of financial need. In contrast, male heads of household were more likely to save for retirement, for their children, and for growth” (p. 116).

Family and Consumer Sciences Contribution to Research and the Literature

“Over the decades, consumer scientists have made significant strides in research and have contributed immensely to the knowledge and understanding of individuals and families. They have demonstrated the ability to generate information useful to consumers, business, and government” (Abdel-Ghany, 2001, p. 237). Family and Consumer Sciences is capable of, and even culpable for, being an instrument of change for the improvement of the financial preparation of women. Indeed we are called to do so, “As consumer scientists (and researchers) our challenge is to consider the role of the ever-changing consumer in an environment that is constantly being redefined by society and to provide research accordingly” (Reynolds & Abdel-Ghany, 2001, p. 398).

It is valuable to note that much of the research conducted by Family and Consumer Sciences professionals has been published in research journals outside the field. The advantage of this is a wider audience of scholars to benefit from the knowledge gained. The unfortunate effect is a less developed body of knowledge within our own journals. For instance, a ten-year review of the *Family and Consumer Sciences Research Journal* yielded only four articles germane to this study, however, a large number of relevant studies written by Family and Consumer Sciences professionals were found in other journals such as the *NASFAA Journal of Student Financial Aid*, *The Journal of Consumer Affairs*, *Financial Counseling and Planning*, and the *Journal of Economic Psychology*.

Education and Gender Equity

Secondary Education

In the 1991 watershed document, *How Schools Shortchange Girls* (AAUW Educational Foundation, 1992), a plethora of research was reviewed regarding gender equity in education. The report “presents compelling evidence that girls are not receiving the same quality, or even quantity, of education as their brothers” (AAUW Educational Foundation, 1992, p. v). Of particular concern was the lack of participation in math, science, and technology courses. As McKee noted in her executive report of the findings of the study, the future workforce would “require strength in science, mathematics, and technology – subjects girls are still being told are not suitable for them” (McKee, 1992, p. i).

“Girls and boys enter school roughly equal in measured ability. Twelve years later, girls have fallen behind their male classmates in key areas such as higher-level mathematics and measures of self-esteem” (AAUW Educational Foundation, 1992, p 2). The harm in not

preparing males and females equitably is the loss of future potential. “Schools must prepare both girls and boys for full and active roles in the family, the community, and the work force. Whether we look at the issues from an economic, political, or social perspective, girls are one-half of our future” (McKee, 1992, p.1).

Among the key gender differences noted in the 1991 study were the differences in attention received from teachers, the encouragement received to take challenging coursework and pursue mathematic and scientific careers, and the role models presented to students in the curriculum they studied. In each of these areas, boys received significantly more positive reinforcement than girls about their abilities and expectations (AAUW Educational Foundation, 1992).

In 1998, the American Association of University Women Educational Foundation commissioned a follow-up study of gender equity issues in the classroom. The report was titled *Gender Gaps: Where Schools Still Fail Our Children*. Perhaps, because of the attention drawn to the subject by the previous report, there was a great deal of research conducted between the 1991 and 1998 reports. The findings indicated that girls had made great strides in education between the two reports; however, it revealed that girls were “enrolled in fewer advanced math and science courses than boys and did not perform as well as boys on standardized tests” (Ford, 1998, p.3).

From all indications, it appeared that the call to action by the two AAUW studies had made some differences by the end of 2004. In the 2005 U.S. Department of Education report entitled *Trends in Educational Equity of Girls and Women*, similar questions were addressed. The report showed that,

in elementary and secondary school and in college, females are now doing as well as or better than males on many indicators of achievement and educational attainment, and that large gaps that once existed between males and females have been eliminated in most cases and have significantly decreased in other cases. (p. 1)

Emphasizing the gender differences in education is not about seeking special treatment for one group over another. It is about providing excellence in education for all students. In the conclusion of the *Gender Gap* report, it was noted that “we must give all public school students, both girls and boys, the chance to learn, excel, and achieve educationally” (Ford, 1998, p.8).

Postsecondary Education

At the postsecondary level, there are also gender differences that need to be addressed. In a study that compared the goals of male and female college students, Abowitz and Knox (2003) were expecting to find gender differences between the sexes regarding the relative importance of relationships, but they were surprised to find that the women in their study ranked “being well educated” higher than did men. They concluded that,

Awareness of the importance of education in securing a desirable and well paying job has risen in recent years. With more women in the workforce full-time today, out of both economic necessity and the need for personal fulfillment, the emphasis on education (particularly higher education) has increased. (p. 551)

Although colleges were designed with young men in mind,

the typical college student is no longer male in this country and the somewhat different goals and needs of female undergraduates, who highly value their education

but who also emphasize social relationships as priorities, must be more fully considered and addressed. (Abowitz & Knox, 2003, p. 555)

This has implications for the curriculum offered as well as the manner in which support services and advising are offered to students.

Unsecured Debt Loads

Student Loan Debt

As a central component of this research study, the debt loads of students and recent graduates needed to be examined.

In 1989, Senator Claiborne Pell, Chairman of the Labor and Human Resources Subcommittee on Education, Arts and the Humanities and the person for whom the Pell Grant program is named, voiced his concern that students who successfully completed college were overburdened by large debts. Senator Pell felt that college students were at risk of becoming a ‘new class of indentured servants’ whose career choices and personal lives were being distorted by the significant loan debt they had acquired to get an education. (Millett, 2003, p. 386)

Although the problems that students encountered with debt were not new, they were certainly a bigger concern than in previous years due to overwhelming amounts of student debt (Baum & O’Malley, 2003b). Since Senator Pell’s passionate call for concern in 1989, student loan debt has increased 85% among recent college graduates of public four year colleges (Boushey, 2003).

Nellie Mae reported an average undergraduate student loan balance of \$18,900 for the year 2002 (Baum & O’Malley, 2003a). The higher rates of student loan borrowing reflected

the rising cost of tuition coupled with an environment within the education system that was increasingly dependent upon loans rather than grants (CEPR, 2005b; Hira, Anderson, & Petersen, 2000; Peterson, 2004; Sjogren, J., 1999). Loans accounted for up to 60% of all financial aid (Hira et al., 2000; Peterson, 2004). The *Trends in Student Aid: 2005* report (The College Board, 2005b), identified that aid in the form of loans used to finance postsecondary education expenses increased 141% to a (preliminary) figure of 62.6 billion dollars over a ten year period. Subsidized student loans, those for which the government was paying the interest while the student remained enrolled with a full-time student status, represented only 36% of these loans.

An investigation into the changes of costs, grant aid, and family income revealed that during the decade of the 1990s,

tuition and fee charges at four-year public colleges and universities increased 49 percent...median income for families with a head of household aged 45-54 (families most likely to have college-aged children) grew by just four percent, and appropriations for Federal Pell Grants (aid for low-income) increased by only 15 percent. (Redd, 2001, Reasons Why Borrowing Increased section ¶ 2)

When the ability of students to use funds from work to pay their education expenses is considered, it was obvious that the affordability of a college education had changed over the past two decades.

In 1981, a student could work full-time all summer at a minimum wage job and earn about two-thirds of their annual college costs, leaving less than \$2000 (in inflation adjusted 2004 dollars) that they needed to pull together from grants, loans, working

during the school year, or their parents. Today, however, a student earning the minimum wage would have to work full-time, full-year to afford one year of education at a four-year public college or university. (CEPR, 2005b, p. 2)

When the higher education performance of individual states was investigated, the National Center for Public Policy and Higher Education was unable to give any state in the nation a grade of “A” (based on a standard 90-100% = A) on keeping the cost of attending college affordable for families and only three out of fifty received a “C” or better (California, Minnesota, and Utah). “Pervasively dismal grades in affordability show that for most American families college is less affordable now than it was a decade ago” (Callan, 2004, p. 8). The map shown in Figure 2 illustrated the dire state of higher education affordability in our nation as expressed by the amount of need-based financial aid, low-priced colleges, and low reliance on student loans.

“Forty-six percent of all undergraduates received financial aid funded by the federal government in 2003-04. About one-third (34 percent) took out federal student loans, 28 percent received federal grants, and six percent held federal work-study jobs” (Berkner, He, Lew, Cominole, & Siegel, 2006, Selected findings section, ¶ 2). These numbers did not reflect the students who took out non-federal loans. It was estimated that the private loans represented approximately 18% of all loans, valued at approximately 13 billion dollars. It is also important to note that this amount did not including home equity loans that might have been taken out by families to finance education (The College Board, 2005b).

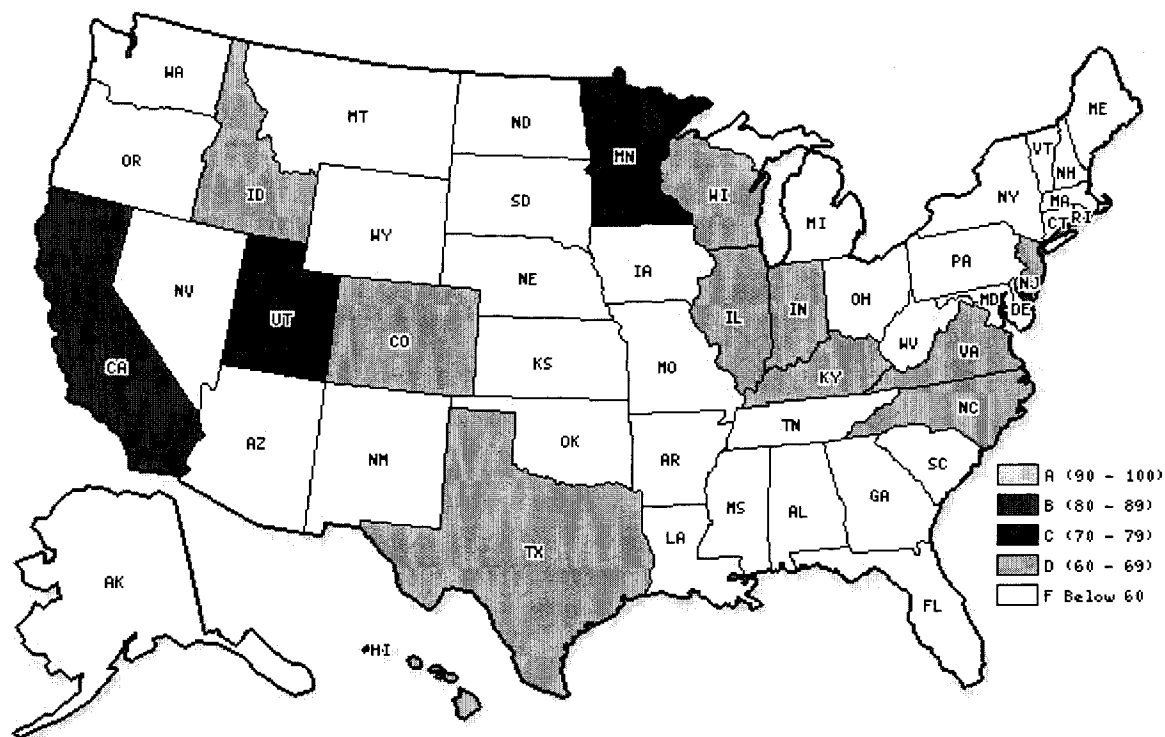


Figure 2 – Map of Higher Education Affordability (Callan, 2004, p. 22)

The federal, state, and institutional expenditures for education have increased dramatically over the past decade. However, the percentages of the types of aid have changed substantially as reflected in Figure 3. These changes reflected the trend toward the student bearing a larger portion of the financial burden for postsecondary education. A number of sources expressed alarm at the growing student debt burden as it was referred to as “unprecedented” (Harrast, 2004, p. 22), “daunting” (Gujarathi & McQuade, 2005, p. 79), “unknown to previous generations” (Boushey, 2003, p. 3), “uncontrolled” (Gladieux & Lee, 2001, p. 6), and “unmanageable” (King & Bannon, 2002, p. 2).

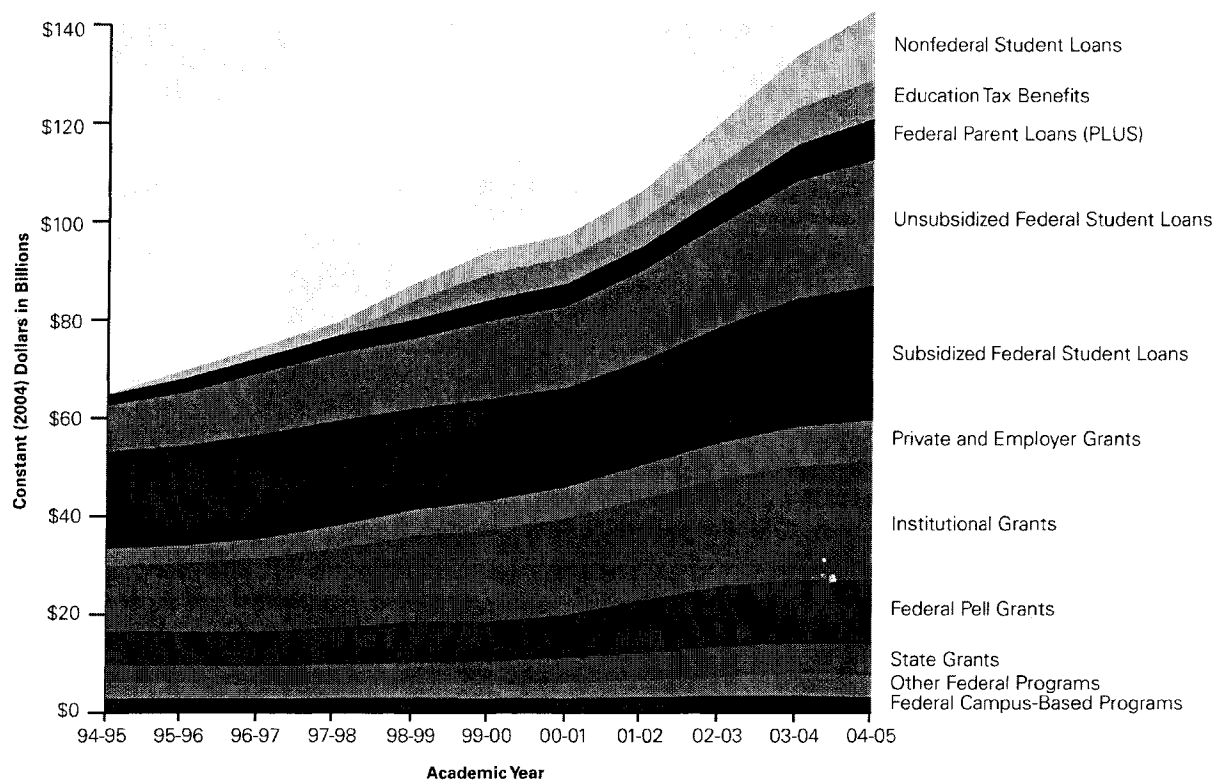


Figure 3 – Federal, State, and Institutional Expenditures (The College Board, 2005b, p. 4)

The propensity for students to over-leverage themselves with private loans has been a growing concern, echoed by the fact that nearly three quarters of private loan borrowers did not have a demonstrated financial need (PIRG, 2003). “For undergraduates from families with income of \$80,000 or more, financial need increased only three percent, but average loan amounts jumped 13 percent” (Redd, 2001, Reasons Why Borrowing Increased section, ¶ 4). Some students likely used private loans to attend the institution of their choosing. This raised other concerns. “Although private loans frequently allow students to attend their favored institution, they may contribute to unmanageable debt burdens, which may in turn dissuade students from pursuing less remunerative fields of work” (Anonymous, 2003, p. 6).

In the investigation into student debt conducted by Nellie Mae, among students who reported utilizing private loans, “the average total debt was extremely high” (Baum & O’Malley, 2003b, p. 7). Of those students who only borrowed through federal programs, 17% had borrowed more than \$40,000. Of students who reported using private loans, 37% had borrowed in excess of \$40,000 (Baum & O’Malley, 2003b). Furthermore, it was difficult to estimate when a student had borrowed too much due to “pre-graduation uncertainty surrounding salary and debt payments” (Harrast, 2004, p. 23). Statistics such as these left bankers pondering “how sound an investment these loans are and whether it is wise to feed [this] demand...” (Paula, 2003, p. 12).

It is valuable to note that all borrowing is not harmful. Indeed, “borrowing could be wise investment because it allows them (students) to finish their educational programs and increases the odds of achieving success in employment and other areas of life” (Redd, 2001). However, when borrowing increases to the point of being burdensome, and even financially disastrous, there is a problem. “Student loan default may result in loss or denial of professional license, wage garnishments, credit report damage, or forfeiture of state and federal tax refunds payments” (Harrast, 2004, p. 22). In addition, Social Security benefits are subject to being reduced by as much as 15% for the repayment of student loans, and there is no statute of limitations for failing to repay student loans (U.S. Department of Education, n.d.). The impact of only one of these, a damaged credit score, could have a great deal of influence over many opportunities in a student’s future.

With one out of every five young adults reporting that they have been late on or missed a loan payment in the past year, it is clear that servicing debt has become

increasingly risky, and at a time when credit scores are growing more relevant for employment, housing, and even cell phones. (Demos, 2004, p. 7)

A growing number of young people (over 500,000 in 2001, ages 34 and under) were turning to bankruptcy as an answer to unmanageable debt (Adkisson & McFerrin, 2005; Demos, 2004; Lown, 2005), but student loans are not among the financial obligations that are dischargeable with bankruptcy (Seifert & Worden, 2004).

When students default on their loans there is also a steep cost to our economy.

As this generation struggles to begin their lives with high levels of debt, there are consequences for both these individuals and for your national economy. The ability for young adults to build wealth and accumulate assets is greatly undermined by debt burdens that stymie their economic advancement now and well into their adult lives.

(Demos, 2004, p. 12)

The default rate on student loans has declined from 22.4% in 1990 to 5.6% in 1999, but the actual dollar amount lost increased from \$12 billion to \$25 billion, an amount greater than “the amount spent on any of the initiatives within the National Institute of Health, as well as most of the initiatives funded under the Higher Education Act” (Seifert & Worden, 2004, p. 41). “In addition to the costs borne by the taxpayer as the federal government purchases defaulted accounts, there are costs incurred by schools, lenders, loan servicers, and guaranty agencies for default prevention efforts and collection of defaulted loans” (Seifert & Worden, 2004, p. 41). There are a number of options available to students rather than default, but studies indicate that students might not be aware of them (Public Interest Research Group [PIRG], 2001a; Seifert & Worden, 2004).

Although the cost of borrowing is often high for students, the value of higher education is not in question. A college education has inherent personal and financial value as reported by King and Bannon (2002).

Higher education is critical to the future success of Americans. In addition to the inherent benefits of a higher education, a college degree is worth 75% more than a high school diploma or more than \$1,000,000 over a lifetime in the workforce.

However, as college costs continue to swell, students are increasingly shouldering high levels of debt to pay for a college education. (p. 1)

Studies (Baum & O'Malley, 2003a; Hira et al., 2000) also reported that the students recognized the value of the education they had received in both personal and career opportunities. However, more borrowers were feeling burdened by their student loan debt. In the 2002 national student loan survey, 55% said they felt burdened, 54% said they would have borrowed less if they had it to do over again, and 15% said that the benefits were not worth the difficulty they faced in making their payments (Baum & O'Malley, 2003a).

The proliferation of student borrowing was not only a result of escalating education expenses, but also a contributing factor. "Colleges and universities have benefited enormously...student loans are a major reason that in recent years institutions have been able to raise tuition at a rate that outpaces inflation" (Fossey, 1998, p. 320). This was not a fact lost on the banking industry, as Peterson (2004) described student lending, a \$57-billion business annually, as "more profitable than ever" (p. 50).

Support for recent graduates, rather than exploitation as mere sources of profit for the lending industry, is paramount, as recent graduates are a major contributing factor in the

future of our nation's economic well-being. There is an enormous cost borne by recent graduates. According to Boushey (2003),

At no point in recent history have we required young people to shoulder so much of the burden of their post-secondary education through a lien on their future wages. At the same time, young people need a college degree more than ever to enable them to find a job at a decent wage. Whether or not that wage will cover their living expenses and their loan burden is, however, another question. For many, rising loan burdens will mean abandoning their first career choice or graduate school in favor of more financial stability while for others it will mean forgoing or postponing starting a family or investing in other major purchases. (p. 3)

The findings of the 2003 Millett study echoed Boushey's concern.

In this study of 1992-1993 college students who expect to earn a doctoral degree, undergraduate loan debt does appear to lead to a new class of indentured servants who appear impaired by their debt from making the transition to graduate school within one year of earning their bachelor's degree. (p. 414-415)

Likewise, Baum and O'Malley (2003) reported that the effects of student debt have far-reaching effects.

Although there has not been an obvious decline in the standard of living for borrowers in repayment, respondents in 1997 and 2002 were much more likely than those in the two previous surveys to attribute to student loans delays in home purchases, getting married, and having children. (p. 17)

Women and minorities are two groups for whom the debt burden represented a more overwhelming impediment to seeking graduate education (Millett, 2003).

An alarming change has been documented in a recent Nellie Mae study on student debt. The Baum and O'Malley (2003) research revealed, "for the first time in fifteen years of Nellie Mae loan studies, student debt levels have a measurable negative impact on the probability of home ownership" (p. 30). This finding provides a warning about the growing debt burden carried by recent graduates.

For a rising number of students, the debt load of student loans became unmanageable. The percentage of a person's income used to make payments on a debt was a common indicator of debt burden. A typical assumption, although not a formal definition, was that once student loan payments reached eight percent of a person's income, they were unmanageable (Baum & O'Malley, 2003b; King & Bannon, 2002). According to the State Public Interest Research Group (PIRG)'s Higher Education Project report titled *The Burden of Borrowing* (King & Bannon, 2002), 39% of student borrowers graduated with unmanageable debt loads. When only those with a Bachelor's degree were considered, the figure was even higher. For 51% of these borrowers, their student loan monthly payments exceeded 8%, with a full 9% having student loan payments in excess of 24% of their income (Baum & O'Malley, 2003b). In an investigation comparing international (Australia, Britain, Canada, Germany, the Netherlands, New Zealand, Sweden, and the United States) student loan repayment rates, graduates in the United States spent a significantly larger portion of their income than did graduates in most of the other seven countries studied (Labi, 2005).

Although the percentage of students who default on student loans has decreased dramatically since the high in 1990, there are voices being raised in concern over the astronomical growth of student lending and its implications.

At present, few college students borrow so much money that their indebtedness exceeds the economic value of their education. But annual loan volume almost tripled in just seven years, and the average student's debt burden is continuing to rise. If we continue on our present course, student loan obligations will someday make the benefits of higher education seem far less clear than most of us can now imagine.

(Fossey, 1998, p. 321)

The Hira et al. study (2000) also indicated that the majority of students were unaware of the amount of debt they carry, the payments required, and a large number of students expressed concern over their ability to repay loans. Both college men and women expressed the perception of a negative impact from debt on their perceived economic well-being (Leach, Hayhoe, & Turner, 1999; Ozgen & Bayoglu, 2005).

In response to rising rates of borrowing, many student loan providers offered the option of a 25 year pay back period (CEPR, 2005b). This relieved pressure on the borrower's monthly budget, but it also increased the amount of interest paid, i.e. increasing the cost of the loan. In addition to the financial cost, the expansion of the repayment period cost the borrower time. "Even the youngest borrower who elects this repayment option will be saddled with educational debt well into middle age. Older students who opt for a 25-year repayment schedule could be paying on their student loans after they retire" (Fossey, 1998, p. 319).

Credit Card Debt

The concerns over the amount of student loan debt are substantial; however, they are not the sole reason for anxiety regarding students' fiscal well-being. In addition to student loans, the majority of students also graduated with credit card debt (Demos, 2004; Gladieux & Lee, 2001; Institute for higher education policy, 1998; Lyons, 2004; Nellie Mae, 2005; O'Malley, n.d.). As noted by Hira (2002), "the traditional value 'save now and buy later' has been replaced by a modern one, 'buy now and pay later'" (p. 2). Because of the ease of obtaining credit, the average student doubled his/her credit card debt and tripled the number of credit cards he/she owned from the time they arrive on campus until graduation. Of students at four year institutions who applied for education loans with Nellie Mae in the year 2004, 76% had at least one credit card. According to a Nellie Mae (2005) study, the average balance on credit card(s) for undergraduates was \$2169, although it is important to note that the median rate of credit card debt carried was \$946.

Figures from the 2001 Nellie Mae study (O'Malley, n.d.) differentiated the credit card debt owed by student classification which clearly showed the increasing debt burden as student progressed through their undergraduate studies. Figure 4 illustrated the average debt load of students according to classification. Separate figures for student loans and credit cards are shown.

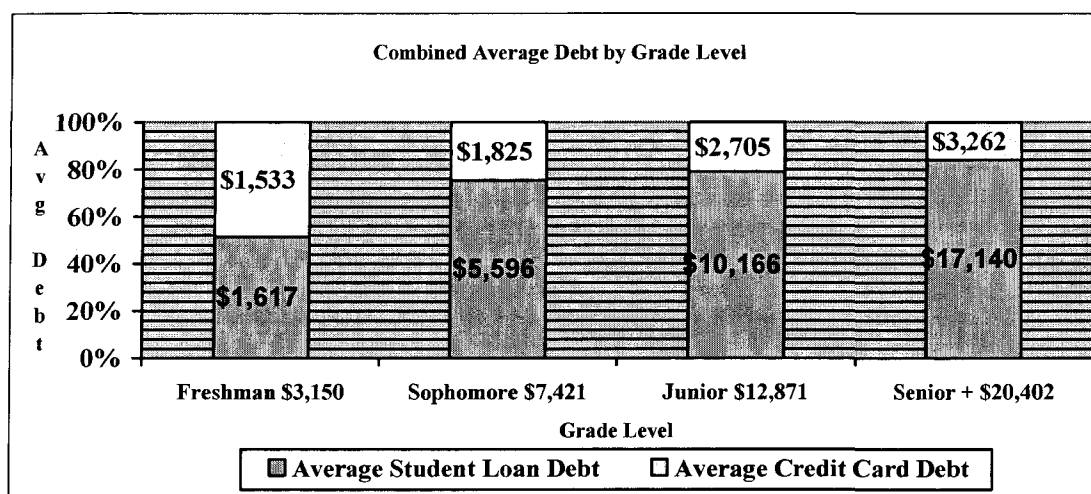


Figure 4 – Average student debt loads by classification (O'Malley, n.d., fig. 2)

Consistent with these findings, the Harrast study (2004) found that the longer students were in school, the greater their debt on average. The likelihood of having a credit card increased with each year in school, 96% of undergraduate seniors had a credit card. The number of cards carried by students also increased with years in school (Nellie Mae, 2005). Carrying more than three credit cards was linked to greater debt burden by several studies (Gladieux & Lee, 2001; Hayhoe, Leach, Allen & Edwards, 2005; Nellie Mae, 2005). One possible reason for this was the propensity for students to underestimate the amount they owed (Norvilitis, & Santa Maria, 2002), therefore carrying a greater number of cards would multiply this miscalculation, the result of which was an increased amount of debt and likelihood of repayment difficulties.

College students are a much sought after market segment for credit card companies because, “they have higher than average lifetime earnings and are just beginning a major transition period which is a key time to change previous behaviors” (Warwick & Mansfield, 2000, p. 617). Not even considering future earnings, the 5.8 million students enrolled in

four-year colleges and universities controlled an estimated annual \$90 billion per year in spending power (Warwick & Mansfield, 2000).

The Barron and Staten (2004) study, which compared student marketed credit cards to all others, showed that “recently opened student accounts are more likely to be delinquent and have a higher likelihood of charge-off compared with other groups, (however) the dollar amounts at risk ...are substantially lower” (p. 25). This made it a risk worth taking for many creditors. To counteract this trend, the credit card companies generally offered students a lower credit limit, as little as 20 to 40% of those offered to other applicants. This philosophy of establishing brand loyalty early has paid off for the credit card companies. The Warwick and Mansfield (2000) study revealed that on average the first credit card an individual has tends to be kept 12 to 15 years.

In a study by Norvilitis and Santa Maria (2002), it was revealed that the experiences of college students with student loans and credit cards were typically their first taste of consumer debt. Students may have seen their current financial situation as temporary and assumed that short-term debt would be easily repaid. Perhaps, as they had been reared in a time when credit card usage was easy and was seen as the norm, credit was not distinguished from income or was viewed in a positive light (Hayhoe et al., 1999). The patterns of usage during the college years may have a long term negative impact on their lifetime financial wellbeing. “Many young people fail at managing their first consumer credit experience; establish bad financial management habits at the start; and stumble through their lives learning how to manage their finances through trial and error” (Duguay, 2002, p. 38). In addition, Lyons (2004) found that “the dramatic growth in credit card usage among college

students had generated concern that students' credit card behavior is putting them at greater risk for high debt levels and misuse and/or mismanagement of credit after graduation" (p. 56).

Due to the debt rising with years in school, many studies and financial programs have focused on older students, but recent evidence by Joo, Grable, and Bagwell (2003) suggested that the target audience should be those just arriving on the college campuses and those least likely to manage credit well. They found that the average age for students to get their first credit card was 18, with some reporting to be as young as 15 years of age when they were given their first credit card. When investigating the differences between students who paid balances in full monthly and those who did not, gender, race, socioeconomic status and number of cards were significant indicators; with women, students of color, lower socioeconomic status, and larger number of cards indicating a lower likelihood of paying balance in full monthly (Jamba-Joyner, Howard-Hamilton, & Mamarchev, 2000). In the 2005 study of college students' knowledge and use of credit, Jones surveyed incoming college freshmen. Sixty-two percent had access to credit and a full 50.9% had existing debt. The results of this study showed men to have more financial knowledge of credit than women, and whites more than non-white respondents.

Socialization toward credit use has also been shown to start much earlier than eighteen years of age.

The fact that students' behavior and attitudes are influenced by their role models (i.e. parents, peers, or teachers) and previous experience is not surprising. However, this is an issue worth future consideration. It appears...that a student's attitude toward

credit is highly dependent upon socialization. Exposure to credit usage, either positive or negative, appears to influence one's attitude toward credit. Take, for example, parents' use of credit. Those students who witnessed positive credit behaviors tended to have more positive attitudes towards credit, while students who saw parental mismanagement of credit tended to be disciplined towards credit use. (Joo et al., 2003, p. 417)

This is not to suggest that all socialization of credit attitudes is complete when they arrive at college. In a study of attitudes toward borrowing, Hayhoe (2002) found that student borrowing increased when students were surrounded by other people who were in debt. The indebtedness became a means of fitting in, joining a "community of debtors" (Hayhoe, 2002, p. 72). The ease of borrowing also contributed to the burgeoning debt load. Hayhoe (2002) reported the conclusions of the 1995 investigation by Davies and Lea, as follows: "They found that students, initially, were not disposed to debt. However, when students found themselves in an environment where going into debt was convenient and easy, their attitudes changed" (p. 72).

In a society obsessed with entertainment, leisure, consumerism, and immediate gratification, access to consumer credit could be difficult to manage.

College students may see credit cards as a means of increasing their purchasing power while on a very limited income. It may enable them to participate in activities that peers are engaged in. It may allow students to feel they belong even though they do not have the money to pay for goods and services. (Hayhoe, 2002, p. 73)

In a national study conducted by Gladieux & Lee (2001), the most common credit card purchases were airline tickets, and approximately 20% used credit cards to pay for tuition and books. Other studies (Joo et al., 2003; Nellie Mae, 2005) indicated common uses of student credit cards were for food, clothing, toiletries, and entertainment.

In the 2005 study of household credit card debt among low and middle income households (Demos & the Center for Responsible Lending, 2005), it was determined that a significant amount of credit card debt came not from the purchase of luxury items, but from “safety-net debt,” using credit to “cope with drops in income or unexpected expenses. Only 12 percent of households did not report any type of safety-net usage” (p. 10). A similar finding was found in the study of college students’ attitudes toward what is and is not acceptable to charge on a credit card.

For example, students answered that it is acceptable for college students to borrow money to finance school related items (93.3%), to cover expenses due to illness (89.5%), and to cover living expenses (74.7%). On the other hand, they thought that it is unacceptable for college students to borrow money to purchase a luxury (89.5%) or to cover the expenses of a vacation (87.5%). (Joo, Grable, & Bagwell, 2003, p. 412)

Having credit cards and using credit cards responsibly was not at issue. Indeed, the majority of students did exhibit responsible use (Gladeaux & Lee, 2001; Jamba-Joyner et al., 2000; Norvilitis, & Santa Maria, 2002). However,

It is not the use, but rather the misuse of credit that presents a problem.

Credit is an economic resource that provides immediate access to money in critical times and enables families to enjoy the use of large ticket items while making payments. It has helped people maintain an existing life style when a temporary decline in income is experienced. However, when credit is mismanaged – used to expand current income by carrying large credit balances and making only minimum payments – it can result not only in financial difficulties but also personal and family problems. (Hira, 2002, p. 3)

Considerations Beyond Students

Although the student was ultimately responsible for his/her credit usage, the financial industry was not blameless (Blaum & Fong, 2000). The relaxing bank standards allowed students access to credit that would have been denied in years past. “The proliferation of credit cards and their ease of acquisition ensure that students today have more opportunities for making credit purchases to a far greater degree than any other generation of college student” (Blaum & Fong, 2000, ¶ 10). Students accepted that opportunity and credit card companies profited richly (PIRG, 2001b). “Credit card profits nearly tripled from 1995-1999, jumping from \$7.3 billion to \$20 billion” (PIRG, 2001b, p. 5).

Along with the financial services industry, there was a surprising entity profiting from student credit card acceptance and usage – the colleges and universities those students were attending (Munro, 1998; Roberts & Jones, 2001). For the privilege of being able to market directly on campus to students, some credit card companies extended lucrative contracts to the schools. One such contract between Georgetown University and a credit card

company resulted in the school receiving \$2.3 million, none of which was spent on financial education of the students” (PIRG, 2001b, p. 7).

The University of Oklahoma was another example of colleges benefiting financially from the credit card industry. As reported by the CBS news program 60 Minutes II:

First USA pays \$3 million to get on campus and issue a credit card with University of Oklahoma's name on it. Hundreds of colleges are cutting similar deals. The 10-year contract between First USA and the University of Oklahoma gives the bank the exclusive right to market its MasterCard or Visa to the alumni, employees and students. First USA guarantees the university a minimum payment of \$13 million and the school gets four-tenths of 1 percent of every purchase students charge. On demand, the university agrees to provide the bank with the names, addresses and phone numbers of its 21,000 students. (Howard, 2001, ¶ 19)

In response to a burgeoning student debt crisis, it is important to note that a number of universities do not allow direct marketing to their student population. In addition, Attorneys General from different states pursued legislation that would counteract “illegal or deceptive credit card marketing” (PIRG, 2001b, p. 4). There was also a call for needed educational offerings that would equip students to more adequately handle their financial decisions. As Marie O'Malley (n.d.), Vice President Marketing, Nellie Mae warned,

Credit cards and other borrowing options will continue to be available to them while they are in school and after they graduate. Credit card use and borrowing money have become common practices in American society and aren't going to cease. The wisest course is to teach students to limit credit card usage and to borrow wisely. (¶ 12)

There were a number of indicators in our society that point to areas of concern: essentially debt was up and savings were down, by federal measures, even non-existent as the savings rate dipped into negative numbers (Skousen, 2005). Therefore it is clear that financial crises were not unique to the student population. In a study of credit union members (Merrick, 2000), the CUNA findings indicated that debt reduction was their most important short term goal. The credit card debt load alone in the United States was estimated to be \$800 billion. Credit card debt was rampant and had a substantially larger impact on the budget of non-homeowner households (Bernstein, 2004).

Homeowners cashed out \$333 billion in home equity loans between 2001 and 2003 with over half of that amount reportedly used to eliminate credit card debt. Also, spending grew at twice the rate of income over the past five years (Skousen, 2005). Perhaps as a result, bankruptcy filings rose to \$1.8 million in 2004 (Demos & the Center for Responsible Lending, 2005) with young adults age 25-34 having the second highest percentage of filings (Demos, 2004).

Demographic Characteristics of Women

Financial literacy is an important skill for all to possess. Financial literacy programs, such as a university course in personal financial management, have a far-reaching impact. They not only affect the individual, but the larger economy as well.

Well-informed, well-educated consumers should make better decisions for their families, increasing their economic security and well-being. Secure families are better able to contribute to vital, thriving communities, further fostering community economic development. Thus, financial literacy is not only important to the

individual household and family, it is also important to communities. (Hogarth, 2002, p. 16)

The interest in women's financial literacy stems from the unique experiences of women. Women face the unenviable position of living longer, hence having a greater financial need during retirement years, coupled with lower lifetime earnings, and less preparation for the task of financial management (Bajtelsmit & Bernasek, 1996; Business and Professional Women's Foundation [BPWF], 2005; Chen & Volpe, 2002; U.S. Department of Labor Statistics, 2004; Vanac, 2004).

Women and Financial Responsibility

As reported by Lee (2004), The Bureau of Labor Statistics projected that 90% of women would be solely responsible for their finances at some point in their lives. This period of sole financial responsibility might occur at any age. It is common at a young age, such as prior to marriage, middle age in the case of divorce or premature death of a spouse, and during old age due to women's longer life expectancy. The life expectancy of women in 2005 was 80.1 years of age, as compared to 74.8 for men (National Center for Health Statistics, 2005). A woman who reaches the age 65, has an additional life expectancy of 19.5 years, and the number of persons aged 100 or more had increased 36% between 1990 and 2003 (U.S. Department of Health and Human Services, 2005). Considering the 65+ population, approximately half of all women are widowed, compared with 14% of men (Into, 2003; U.S. Department of Health and Human Services, 2005). In addition, 80% of all men died married whereas 80% of all women died single (Lee, 2004). Sole financial responsibility could also have stemmed from the decision to never marry. In a survey of 110

million women by the U.S. Census Bureau (2005) in March 2004, 21% of all adult women (18 years of age and over) had not ever been married. This does not say that they will never marry, only that up until now they have not married. Of 20 – 34 year olds, the ages most likely to be included in this study, the never married category represented 47% of the respondents.

Older women had an extremely high poverty rate. In 2003, the poverty rate for women was 12.5% as compared to 7.3% for men. Living alone (whether male or female) raised the poverty rate to 18.6% (U.S. Department of Health and Human Services, 2005).

Women and Higher Education

Women have attended postsecondary educational institutions and obtained degrees at higher rates than men since the mid 1980's. Between the 1992-1993 and 2002-2003 school years the number of bachelor's degrees awarded to men increased 8% while the number awarded to women rose 23%. For the same time period, there was a 21% increase in male full-time graduate students compared to a 61% increase in female full-time graduate students (U.S. Department of Education, 2005a). This trend is expected to continue. Projections by the U.S. Department of Education (2005b) for the year 2014 are for women to increase their percentage of enrollment in and graduation from higher learning institutions at a pace far exceeding that of men, particularly in advanced and professional degrees.

Although women did constitute a majority of students in undergraduate programs, they also represented "60 percent or more of students with characteristics that place them at a disadvantage in succeeding in post secondary education" (Peter & Horn, 2006, Changes in undergraduate student profiles and enrollment characteristics section, ¶ 4). Specifically,

women made up 60% of students in the lowest 25th percentile of income, 62% of students over 40, 62% of students with children, and 69% of single parents (Peter & Horn, 2006).

Borrowing for education produced a heavier debt burden for women also. Although education borrowing patterns were not significantly different from men, due to lower wages, women's debt from school loans was more burdensome (Sjogren, 1999).

Consistent with the findings in the Abowitz and Knox study (2003), the U.S. Department of Education reported in *Trends in Educational Equity of Girls and Women* (2005) that a higher number of girls than boys reported that they definitely intended to graduate from a four-year institution and they definitely would attend graduate or professional school. Although women had chosen majors in a wide variety of areas, in the 2005 report, there was still a much larger proportion of male students in computer and information sciences, physical sciences and science technologies, and engineering (U.S. Department of Education, 2005a).

Women, Employment, and Salaries

With the increases in women obtaining degrees it would be reasonable to have assumed that the employment rate and salaries would be similar for men and women among college graduates. However, both the employment rate and the salaries earned by recent graduates were significantly different based on gender (Peter & Horn, 2006; U.S. Department of Education, 2005a). One year following graduation, 81% of men with a bachelor's degree were employed full time compared to 74% of women (Peter & Horn, 2006). During the 2001 economic recession, women were hit especially hard, although it could be due to women being in a wider array of occupations that they became more vulnerable to the ups and downs

of the labor market, much like men (CEPR, 2005a). On average, men with a bachelor's degree who worked full-time, year-round, earned \$56,502 while women earned \$41,327 or 73% the average earnings of their male counterparts (U.S. Department of Education, 2005a).

In terms of compensation, there were inequities that women faced in the world of work. In the *Highlight of Women's Earnings in 2003* report, the U.S. Department of Labor, Bureau of Labor Statistics, reported that the median weekly earnings of women who were full time wage earners was 80% that of their male counterparts (U.S. Department of Labor, 2004). There were significant differences among ethnic groups, with African American and Hispanic women having an 88% earnings ratio while White and Asian women had much lower ratios of 79 and 78 respectively. Among younger women and men, the wage gap was less than among older women and men, but in no findings was the average compensation of women equal to or greater than the compensation of men (U. S. Department of Labor, 2004). Over a lifetime, the wage gap costs women approximately \$523,000 (BPWF, 2005).

A number of reasons were assumed to underlie the lower wages of women. These reasons ranged from the types of jobs in which women are employed, to the number of hours employed, and the amount of time women are out of the paid workforce for family care giving responsibilities.

There has been a continued increase in the number of women in the workforce. "Currently, 60% of women are employed outside of the home, up from 37% in 1960" (Price, 2003, ¶ 1). However, that does not mean that women are employed in the same capacity as men. "In today's economy, women cluster in only 20 of the more than 400 job categories, and two out of three minimum-wage earners are women" (Ford, 1998, p.7). Women are also

twice as likely to work part time as men (Peter & Horn, 2006; U.S. Department of Labor, 2004; WISER, 1999a).

Women and Caregiving

Women are more likely than men to be responsible for family care, whether for children or for aging parents (Bajtelsmit & Bernasek, 1996; & BPWF, 2005). In 2004, 31.8% of married women with children under the age of 18 were not employed outside the home (U.S. Bureau of the Census, 2006). In addition, it was estimated that nearly one-fourth of households in the United States were involved in caregiving for elders or disabled family or friends (Anonymous, 2000; Parks & Novielli, 2003). Approximately 59 to 75% of caregivers were women (National Center on Caregiving, 2005). Many caregivers continued to work while adding care of loved ones to their daily responsibilities. In the national study conducted by MetLife, National Alliance for Caregiving, and the Center for Productive Aging at Towson University (2003), it was found that approximately 15% of the working population was actively providing caregiving for an older family member or friend.

Nearly two-thirds of workers/caregivers reported that caregiving had at least some negative effect on their career. The financial effects were felt by both the employers and the employees. Employers were estimated to have lost up to \$29 billion annually, and the employees were estimated to have lost an average of \$25,494 in Social Security benefits, an average of \$67,202 in pension benefits, and an average of \$566,433 in wage wealth over a lifetime (National Center on Caregiving, 2005). In addition to lost wages, costs included out of pocket expenditures, travel costs, and emotional, social, and physical wellbeing costs (Fast, Williamson, & Keating, 1999).

The education system has a responsibility to address the disadvantages faced by women. “When we ignore the needs of historically disadvantaged groups, we underserve students we have underserved in the past. And in failing these groups, we continue to foster social injustices” (Ford, 1998, p.2). Women need access to financial literacy training. It is crucial that the training focus on lifelong financial well-being, as noted by former Representative Pat Schroeder,

the pay discrimination and injustice that women endure throughout their working lives comes full circle when they get older – and it strikes its cruelest blow at retirement age when women realize that after a life-time of hard work and struggling that they are left with very little to live on. (WISER, 1999a, Caregiving section, ¶ 3)

Retirement Planning

Personal Responsibility

Similar to the changes experienced by students toward individual responsibility to pay for a larger proportion of their education, there was also a noticeable shift toward individual responsibility for retirement financing during the last decade. Several reasons were noted for the change by Joo and Grable (2005), “The aging of the population, a looming baby boomer crisis, the possible failure of Social Security, changing retirement policies, and a fluctuating investment environment have forced the burden of preparing for a safe retirement from society to individuals” (p. 37). Corporations no longer shoulder the burden of providing a guaranteed retirement income to workers nor does government have the ability to provide an adequate retirement benefit. This shift from institutional to private responsibility placed an onerous burden on individual workers to plan and act in ways to provide

adequately for their own retirement needs (Alcon, 1999; Employee Benefit Research Institute [EBRI], 2004a; Glass & Kilpatrick, 1998a; Joo & Grable, 2001; Joo & Grable, 2005; National Retirement Planning Coalition [NRPC], 2003; Power & Hira, 2004; PRC, 2003b; Xiao & Fan, 2002; Xiao, Malroux, & Yuh, 1999; Yuh & DeVaney, 1996). This trend could easily be seen in the asset shift that occurred over the previous decade in retirement accounts as reflected in Figure 5.

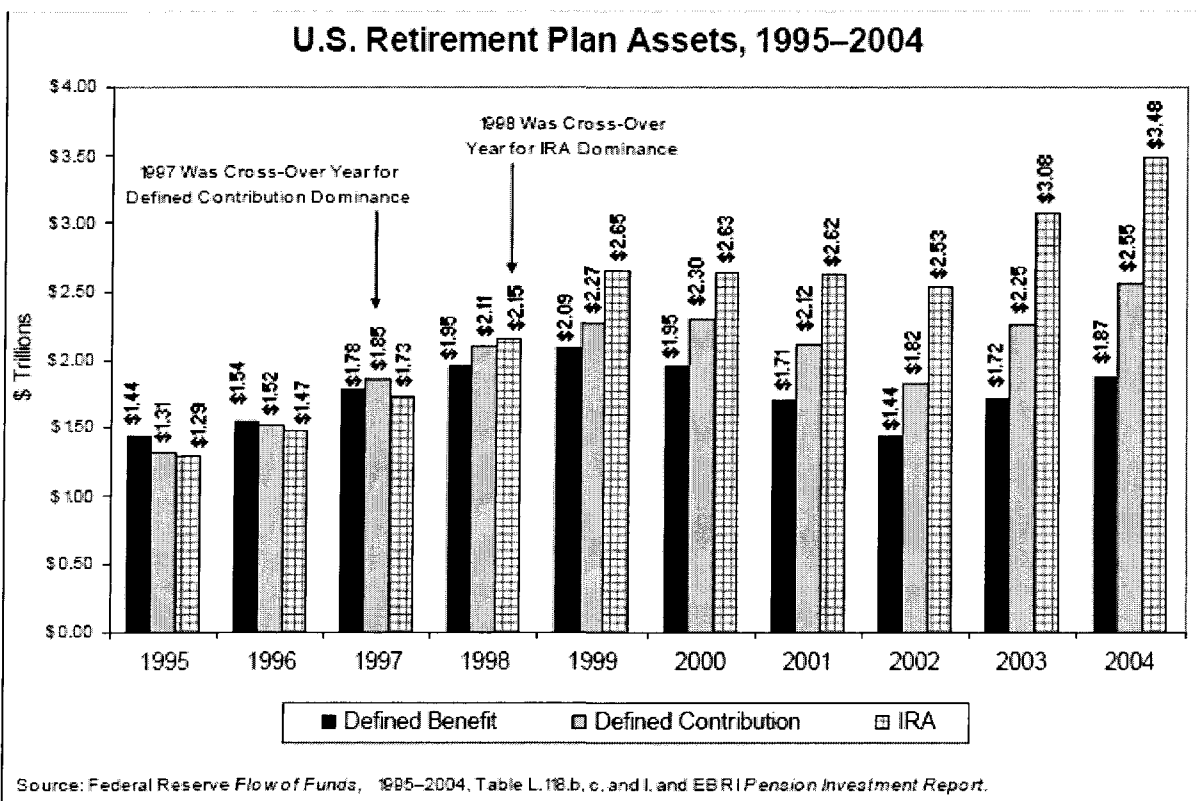


Figure 5 – Retirement Plan Assets (EBRI, 2006b)

As life expectancy increased, so did the amount of time an individual typically lived in retirement. It is estimated that women could expect to spend as much as 25% of their adult years, roughly 20 to 30 years, retired (Lahey, Kim, & Newman, 2003; Price, 2003). This placed additional burden on the pension plans and the Social Security system. As a

result, companies increased their offering of defined-contribution plans and decreased their offering of defined-benefit plans and Social Security reform became necessary (Lahey et al., 2003). This shift made it imperative for women to implement individual plans to provide income during a substantial number of years of retirement (Glass & Kilpatrick, 1998a).

Adequate Retirement Income

A minimum of 70% of pre-retirement income is the standard for measuring adequate retirement income (EBRI, 2005a; Lahey et al., 2003; Li, Montalto, & Geistfeld, 1996; WISER, n.d.). By this standard, many have failed to adequately prepare for retirement (Hewitt, 2005, Lahey et al., 2003; Li et al., 1996). As many as 40% of pre-retirees in the Stein study (2004), had almost no retirement savings, and among those who did, they had much smaller balances than necessary to meet anticipated needs. When figures from the Lahey et al. (2003) study were compared with the Li et al. (1996) study, approximately only one half of Americans were found to be adequately prepared. When comparing demographic groups, women, minorities, those employed in the service industry, and lower paid workers were overly represented in the inadequately prepared group (Bajtelsmit & Bernasek, 1996; Glass & Kilpatrick, 1998b; Joo & Grable, 2005; Li et al., 1996).

Adequate retirement income has three components which are often compared to the three legs on a stool. These components are a Social Security retired-worker benefit, an employer-sponsored pension plan, and individual savings. The estimates of what each of these should contribute are roughly 15 to 25% from Social Security, 0 to 60% from employer-sponsored pension plans, and the remainder coming from individual savings (Glass & Kilpatrick, 1998a; WISER, n.d.). Unfortunately, the stool analogy aptly represented the

balance difficulties with shifting circumstances among retirement planning entities. As changes occurred among the two institutional entities, there was greater pressure on the third entity, individual savings. Concerns have arisen over Americans' ability and/or willingness to make the decisions necessary to have adequate retirement income in light of changes to the Social Security system and employer-sponsored pension plans (Century Foundation, 1998; Goodman, 2004; Hogarth, 2002; Stein, 2004; Tucker, 2002; WISER, n.d.).

Social Security

Changes within the Social Security system are eminent (Lahey et al., 2003; Tacchino & Saltzman, 2001; Tucker, 2002). "Because Social Security is projected to face a shortfall between promised benefits and revenues in the year 2032, almost all proposals for reforming it involve some combination of benefit reductions, tax increases, or additional federal borrowing" (Century Foundation, 1998, p. 3). A prominent reason for the crisis is the aging of America. The ratio of workers paying into the Social Security system decreased from 16.5 workers to 1 payee in 1950 to 3.3 to 1 currently and is anticipated to be as low as two to one within 40 years (Social Security Administration, 2005). Due to the aging of the Baby Boomers, those 77 million people born between 1946 and 1964, there has been and will continue to be a strain on the ability of the Social Security system to meet obligations. In 2004, Social Security retirement benefits were paid to 39.6 million individuals. It was estimated that this number will rise to 43.2 million by 2010 and 71.2 million by 2030 (EBRI, 2005c). Federal government reports estimated that payments would exceed payroll taxes by 2016 with an anticipated deficit of \$318 billion by the year 2035. For payroll taxes to fund that deficit, they would have to be raised from their current rate of 12.4%, to 17.8% effective

immediately (Tucker, 2002). Any changes which resulted in reduced benefits would substantially affect the majority of the elderly population, leaving a large number inadequately prepared to meet retirement expenses (Li et al., 1996).

There has been a great deal of skepticism expressed among pre-retirees as to the ability of the Social Security system to meet the commitments it will have in the future (AARP, 2004; AICPA, 2004; Transamerica Retirement Services, 2005). However, even if Social Security benefits were to remain at current levels, they would not prove adequate funding for sole financial support in retirement. The Social Security benefits were meant to be a “floor of protection” from poverty. In 2001, Social Security supplied only 39% of retirement income for persons 65 and older according to the National Retirement Planning Coalition (2003) study, and an even smaller 20 to 30% of the retirement income in the Lahey et al. (2003) study.

Women remain particularly vulnerable to changes in Social Security benefits. Social Security benefits are calculated based on the years of participation in the labor force and the salary earned during those years. Due to the divergent work histories of women coupled with the lower lifetime earnings, the benefits due to women from Social Security are on average much smaller than the benefits men receive. This is one mitigating factor in poverty rates among older women being more than double the poverty rate of older men (The Century Foundation, 1998; Into, 2003; Spratlin & Holden, 2000). In a study of eight industrialized nations, poverty among elderly women was not unique to the United States. Elderly women living alone were more likely than the average pensioner to be poor in seven of the eight countries studied, with the Netherlands being the only exception (Spratlin & Holden, 2000).

Twenty-nine percent of unmarried women in the United States have depended on Social Security as their sole source of income (Social Security Administration, 2004), and one-fourth of women age 65 and older relied on Social Security for at least 90% of their income (The Century Foundation, 1998). Although women are twice as likely as men to depend on Social Security as their sole source of income (Glass & Kilpatrick, 1998a), Social Security was not designed to provide the sole source of retirement income. Therefore, those relying entirely upon Social Security found themselves at near poverty levels during their retirement years. The average monthly Social Security retirement benefit paid to women in 2004 was roughly 77% of what was paid to men, \$798 compared to men's average benefit of \$1,039. A person earning minimum wage, \$5.15 per hour (U.S. Department of Labor, 2006), who works a 40 hour week, makes \$886 per month, \$88 more per month than a woman dependent upon Social Security. In 2004, the poverty threshold for a single person age 65 (+) was \$9060 (U.S. Bureau of the Census, 2005b), meaning that a woman whose only source of income was Social Security would have been only \$516 above the poverty threshold.

Women have been given an option when collecting Social Security benefits. They have been able to collect the entire benefit for which their work history qualifies them or a partial benefit based on their husband's earnings. Social security has permitted a woman to draw 50% of her husband's benefits after age 60 or 100% if she was widowed and delayed drawing benefits until after age 65 (The Century Foundation, 1998; WISER, 1999b). "Women's earnings are much less than a man's over a lifetime and since all retirement benefits are based on a lifetime of earnings, half of her husband's benefit is almost always

larger than her own worker benefit” (WISER, 1999b). Estimates anticipate that only 20% of widows eligible for Social Security benefits in the year 2015 will have earned benefits greater than those of her husband’s (The Century Foundation, 1998).

Employer-Sponsored Retirement Savings Plans

The second component in adequate retirement income is an employer-sponsored pension plan. There are two distinct types of employer-sponsored retirement-savings plans: defined benefit plans (DB) and defined contribution plans (DC). The defined benefit, or traditional pension plan, was the norm in retirement plans for the past generation of retirees. However in the last few decades more companies have opted for defined contribution plans (Bernstein, 2004; EBRI, 2006b; Graham et al., 2002; Pence, 2002; PRC, 2003b; Yuh & DeVaney, 1996). The implementation of DC plans was occasionally supplementary to DB plans, but more typically they were a replacement. In 1985, 41% of full-time workers in large and medium companies participated in a DC plan and 80% in DB plans. By 1993, 49% participated in DC plans compared to 56% in DB plans (Yuh & DeVaney, 1996). There was a decrease in the number of defined benefit plans from more than 100,000 in 1975 to less than 31,000 in 2003 (EBRI, 2004a). The Employee Benefit Research Institute (2006b) reported that 61% of private sector retirement funds were held in DC plans followed by 39% of funds held in DB plans.

A DB plan provides a benefit for life based on the number of years an employee worked for the company. In the Li, et al. (1996), pension ownership was found to have the greatest positive effect on whether a household was adequately prepared for retirement in the Li et al. study (1996). Interestingly, multiple studies found less inclination to save for

retirement when a household had a DB plan (Cunningham & Engelhardt, 2002; Joo & Grable, 2005; Yuh & DeVaney, 1996). This had important implications for future retirees because approximately half of corporations polled were considering implementing reduced pension benefits. This would be a continuation of the pattern seen in the last decade of the twentieth century; in 1992, 40% of families had a family member with a defined benefit plan and by 2001 that percentage had decreased to 19.5% (EBRI, 2004a).

Women have been less likely to benefit from DB plans.

The traditional pension structure rewards higher earning employees in certain types of jobs and who work continuously for one employer. Unfortunately for women, they are likely to be in the employment scene where pension benefits are less common – in small firms, in service jobs, and in non-union jobs. (Glass & Kilpatrick, 1998a, p. 604)

Also, women have been adversely affected by the tendency to exit and re-enter the workforce as they cared for children or elders (Glass & Kilpatrick, 1998a; PRC, 2003b). Cramer (2002) reported, “seven years away from a job during a 40-year career span results in half the benefits for the current retiree” (p. 49).

In a defined contribution plan, personal savings accounts allow the employee to have a limited amount of investment decision control. The benefit available at retirement is based on the amount accumulated by the employee; employers often match the employee’s contributions (Stein, 2004). The employee is given a limited number of choices in which to invest his or her contributions with no guarantee of the final benefit, only a guarantee of the contribution the company would make. The Transamerica Retirement Survey (2005) found

that DC plans were seen by 79% of employers as beneficial for attracting and keeping employees, and as very important by 74% of employees. DC plans were ranked second only to health insurance as the most valuable worker benefit, higher than DB plans, long-term disability insurance, and life insurance, as illustrated in Figure 6.

	Health Insurance	Life Insurance	Disability Insurance	Defined-benefit pension plan	401(k) or other self-funded plan
Very important	90	37	50	61	74
Somewhat important	7	43	39	26	20
Important	98	80	89	86	93
Not too important	1	14	8	9	4
Not at all important	1	6	3	4	2
Not important	2	20	11	13	6
Not sure/Refused	0	0	0	0	0

Figure 6 – Important Employment Benefits (Transamerica Retirement Services, 2005, p. 9)

Large companies were more likely (90%) than small companies (72%) to offer employees a DC plan and participation was higher among large company employees (81%) than among small company employees (64%) (Transamerica Center for Retirement Studies & Zogby International, 2005). “As a percentage of all private pension plans, defined contribution plans increased from 66.8 percent in 1975 to 92.3 percent in 1998” (Lusardi, 2003, p. 2). The Employee Benefit Research Institute (2005b) presented the growth of defined contribution plans and the decline in defined benefit plans in Figure 7:

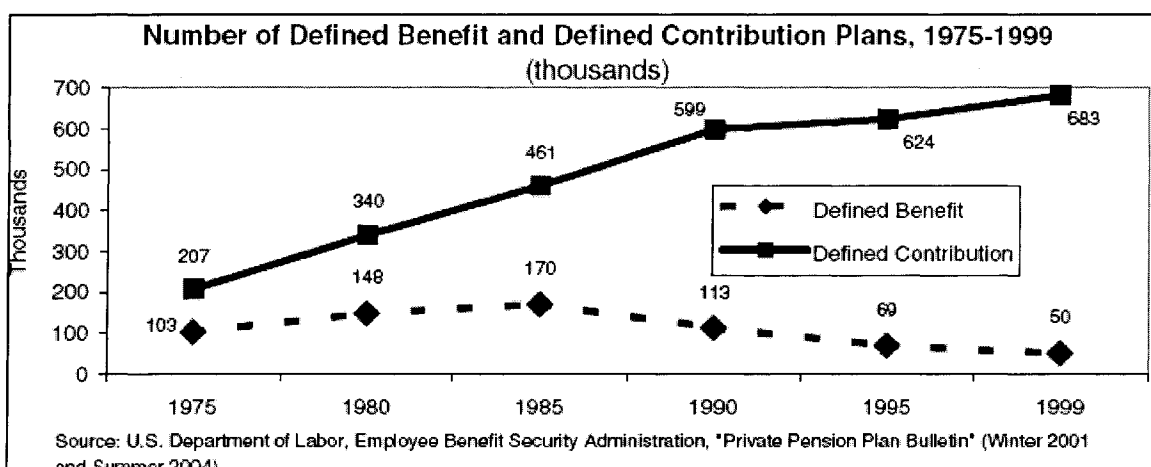


Figure 7 – Defined Contribution Plan Growth (Employee Benefit Research Institute 2005b, p. 3)

Although more employers offer DC plans, employees have not taken advantage of the DC plans to the fullest extent. The results of the “2001 Survey of Consumer Finances” revealed that only 52.2% of families had retirement accounts. When only employer provided accounts were examined, it was revealed that only 33.8% of families had this type of savings for retirement (Aizcorbe, Kennickell, & Moore, 2003). Of those who were eligible to participate in DC plans, three out of ten did not (Hogarth, 2002). This was significant when consideration is given to the fact that choosing not to participate may be choosing to have no retirement income.

There were distinct patterns of participants versus non-participants. Women and lower paid workers were least likely to participate, however participation rates increased with age, income, length of time on the job, education, and matching contributions by employers (Aizcorbe et al., 2003; Bassett, Fleming, & Rodrigues, 1998).

Employee education was associated with successful management of a DC account. Many employers were reluctant to provide education beyond written information for fear of being held liable if the investments lost money. However, multiple studies have shown increased participation among companies that implemented financial education programs for their employees (Hershey, Walsh, Brougham, Carter, & Farrell, 1998; Joo & Grable, 2001; Joo & Grable, 2005; Power & Hira, 2004; Yuh & DeVaney, 1996). Power and Hira (2004) found that personal help by financial professionals and the benefits office was most useful and visits from vendors were ranked least useful. Younger workers reported internet resources being very useful also (EBRI, 2005a; Power & Hira, 2004).

Attitude toward education offered was also significant. Chen and Volpe (2002) found that when reporting their perceived level of financial knowledge, men were more confident, and upon testing did prove more knowledgeable. However, neither sex had adequate investing knowledge (useful when managing retirement assets), and women's knowledge was described as grossly inadequate. Eleven percent of men ranked themselves as very knowledgeable as compared to 5% of women, whereas 16% of women ranked themselves as not at all knowledgeable compared to only 4% of men.

Women more frequently than men sought help from financial service professionals, as did higher paid workers than lower paid workers (Elmerick, Montalto, & Fox, 2002; Joo & Grable, 2001). Type of assistance, whether saving and investing advice, debt advice, or comprehensive advice, varied between demographic groups. Seeking comprehensive advice was most common among households with higher levels of education, higher levels of income, higher net worth, and larger amount of financial assets. Households headed by

single women were more likely than married households to seek comprehensive advice from financial planners (Elmerick et al., 2002). This was significant due to the positive correlation between seeking professional help and accomplishing goals (Joo & Grable, 2001).

In addition to education, an employee must be motivated to action. There is considerable support for companies' taking the initiative to automatically enroll employees in their DC plans with an option to un-enroll if desired. In the 2005 Retirement Confidence Survey, 66% of workers who did not currently participate in their employer's retirement plan indicated that they would likely remain in the plan if they were automatically enrolled. Automatic enrollment is an idea being implemented in approximately 56% of large employers. They have automatically enrolled employees using a money market fund, which provided low risk, but also low return, as the default option investment (Anonymous, 2005). Yet another motivator used by 90% of companies was providing a matching contribution (Bernstein, 2004). Seventy-two percent of workers not enrolled in their company's plan indicated that a match of 5% of their salary would motivate them to participate, and among participants with a matching employer contribution, 86% contributed at least as much, and often more, than their company match (EBRI, 2005a). The Bassett et al. (1998) study indicated a nine percent increase in participation when an employee went from a DC plan without a match to one with a match.

In studying motivation for retirement savings, Neukam & Hershey (2003) found that, "when thinking about retirement, individuals are likely to envision both positive and negative images of the future and these images are likely to have a significant impact on one's retirement planning and savings tendencies" (p. 19). Essentially, if one had fear-based

motives they were less likely to save for retirement. Fear-based motives were feelings of inadequacy, fear of the future, being overwhelmed with a task, etc. Several studies show women were more likely than men to exhibit these tendencies (Anthes & Most, 2000; Graham et al., 2002; Hira & Mugenda, 2000; Jianakoplos & Bernasek, 1998; Neukam & Hershey, 2003; Transamerica Retirement Services & Zogby International, 2005). Those who exhibited goal-based motives tended to be more active in managing their retirement savings and more successful at meeting their goals (Joo & Grable, 2005; Neukam & Hershey, 2003). In comparing 401(k) participants to non-participants, Pence (2002) found that participants were more likely to list saving for retirement as their main savings goal. Among workers polled in the 2005 EBRI Retirement Confidence Survey, saving for retirement was by far the most common savings goal (69%), followed by education for children/grandchildren (20%), and purchasing or renovating a home (11%). However, 16 % of respondents did not name a single savings goal. One concern about retirement savings goal setting is that multiple studies have indicated that the majority of employees (and fewer women than men) have not taken action to determine what amount they needed to save for adequate retirement funding and among those who have, several admit to “guessing” (Anthes & Most, 1999; Carlson, 2005; EBRI, 2005a; Joo & Grable, 2005; Transamerica Retirement Services & Zogby International, 2005).

The amount of funds in DC plans is affected by three factors: the amount of contributions, the rate of return earned on contributions, and the withdrawal or loan activity. Average rates of contributions were up to 9.88% of income in 2005, up 1.5% from 2004 (Transamerica Center for Retirement Studies & Zogby International, 2005a). However, the

amount saved in the employer-sponsored and other tax-advantaged retirement accounts were deficient when compared to amounts needed for adequate retirement funding. Among those who participated in an employer-sponsored, retirement-savings plan, the median balance was \$14,000 (Goodman, 2004). In order for \$1,000 of monthly income to be generated, it would have taken \$230,000 in savings (National Retirement Planning Coalition, 2003). As workers approached retirement and had been with their employer for longer periods of time, they accumulated greater savings, with average balances of \$198,595 for participants in their 60's who had at least 30 years of tenure to average account balances of \$4,479 for participants in their 20's with less than three years of tenure (EBRI, 2004a).

When saving for long-term goals, higher rates of return would be of greater benefit to the saver; higher rates are generally found in equity investments rather than stable value or guaranteed income funds. At year end 2003, the average DC plan participant had 45% of funds invested in equity funds (stock mutual funds), 16% in company stock, 9% in balanced funds, 10% in bond funds, with the remaining 18% in stable value or guaranteed income funds (EBRI, 2004b). Power and Hira (2004), in their investigation of university employees who were already retired, found that those with equity (stock) investments were more pleased with their retirement funds than those without equity in their portfolio. However, in the Hewitt (2004) study, many people chose to place their DC funds in what was most familiar to them: stable or guaranteed income funds, which led to low returns, or company stock, which increased the risk of their investment due to lack of diversification.

Proper distribution of funds in retirement plans is particularly important for young investors. "By improving diversification or assuming more risk levels, a 25 year-old can

improve his or her retirement income replacement by as much as 20 to 25 percentage points” (Hewitt, 2005, Improve Investment Diversification section). Women, especially single women, had the greatest likelihood of being risk averse; hence decreasing the rate of return they received on their investments (Bajtelsmit & Bernasek, 1996; Chen & Volpe, 2002; Jianakoplos & Bernasek, 1998). Proper allocation of retirement assets is a major concern regarding the ability to reach savings goals. As expressed by Glass and Kilpatrick, (1998b),

Both men and women needed to increase the diversification of their investments, especially in those categories that provide maximum potential for growth. Women especially need to be risk tolerant and gain confidence in their math ability and financial decisions. (p. 738)

Leaving accumulated savings invested is vital to long-term accumulation of retirement funds. Many DC plans allow for loans to be taken out against accumulated assets and paid back with interest. This practice eliminates the ability of these funds to compound, thereby decreasing the amount available at retirement (Bassett et al., 1998). In 2003, there were roughly 18% of eligible employees that had outstanding loans (EBRI, 2004b).

Typically, when an employee leaves a company, they are given the option, if not required, to take the money accumulated in their DC plan out. The choices available are to take a lump-sum distribution on which taxes and a 10% early withdrawal penalty would be paid if they were under the age of 59 ½, or to roll accumulated assets into a new employer’s DC plan or into an Individual Retirement Account (IRA) (Tacchino, 1994). Although the overwhelming majority, 83%, rolled over their funds into an IRA or another employer’s plan (EBRI, 2006a), women were 40% more likely than men to take the money out of retirement

savings (Glass & Kilpatrick, 1998a), as were lower paid workers compared to higher paid workers (Bassett et al., 1998).

PRERETIREMENT LUMP-SUM PENSION PLAN DISTRIBUTIONS BY 1992 FAMILY INCOME, 1988-1992			
Income Interval (\$ Thousands)	Distribution Size[a] (Dollars)	Rollover[b] (Percent)	Dollar Weighted Rollover (Percent)
< 15	5,531.4	15.6	30.6
15-25	5,045.2	10.0	23.8
25-35	6,153.7	21.1	35.0
35-50	7,155.4	23.0	48.5
50-75	14,212.6	39.1	67.4
>= 75	19,510.5	47.1	64.9
All	10,367.2	28.3	56.3

[a] Mean amount of distribution in 1993 dollars.

[b] Percent of distributions rolled over into tax-qualified savings plan.

[c] Percent of distributions rolled over into tax-qualified savings plan, weighted by distribution size.

Note: Distributions are assumed to be equally allocated to all reported uses in calculating the figures for the last two columns.

Source: Authors' calculations, based on data from the Current Population Survey.

Figure 8 - Pre-retirement Lump Sum Distributions (Bassett et al., 1998, p. 282)

The average lump-sum distribution in 2003 was \$30,072 with a median of \$8,118. Among those who took a lump-sum distribution, 38% reported being required to take the distribution while 62% reported choosing the distribution (EBRI, 2006a). The cost of spending the lump-sum distribution was not only measured in current money used to pay the

taxes and penalty, but also in the future lost retirement savings. The average loss of retirement assets by those who chose to cash out was estimated to be between \$24,138 (assuming a 3% rate of return) and \$179,483 (assuming a 10% rate of return) (EBRI, 2006a). For example, if a 25 year old took out \$8064.52 and paid the taxes and penalty, they would have received \$5000. With an 8% return assumed, the person would have forfeited \$175,197.84 in retirement savings at the age of 65 (Tacchino, 1994). Not surprisingly, more retired persons who had taken lump-sum distributions ranked their financial status as worse than expected than those who had rolled over their distributions (EBRI, 2006a).

As with Social Security, employer-sponsored retirement savings plans were more commonly a greater benefit to men than women. As reported by the Century Foundation in 1998, “only 13 percent of elderly women received a private pension, compared with 33 percent of elderly men” (p. 2). However, the gender gap in access to pension coverage has narrowed to 3%, with 51% of men and 48% of women having access to pension coverage. “Although the percentage of women participating in pension programs should increase with the future cohort of retirees, the dollar gap between men’s and women’s pension income will not decrease significantly” (Glass & Kilpatrick, 1998a, p. 604). Among those who are covered, the 401(k) accounts of women ages 18 to 62 have half as much invested as those of men, and particularly distressing is the plight of women near retirement whose account only has on average 20% as much as their male counterparts (Goodman, 2004). In their study, Glass & Kilpatrick (1998b) found that the lowest average level of savings for men was higher than the highest average level of savings for any group of women studied. “Women have typically not taken the responsibility for their own financial future. Many women feel

retirement planning is a male domain, that they will be taken care of, and feel inadequate at attempting retirement planning” (Glass & Kilpatrick, 1998a, p. 608). If women are to build a solid financial future, this trend must be reversed.

Individual Personal Savings

The final component of retirement income sources was the individual’s personal savings. American’s personal savings were inadequate to meet the challenge of retirement funding. As reported by the Bureau of Economic Analysis, the personal savings rate as expressed as a percentage of disposable personal income has dropped continuously. In 1993, the personal savings rate was 5.8%. Since then there has been a relatively steady decline, resulting in a personal savings rate of 1.4% in the year 2003 (U.S. Department of Commerce, 2004). This figure included not only personal savings, but also savings done through employer sponsored plans proving that a very limited amount of long-term savings was accrued. Perhaps this was reflective of the short-term focus on finances found in the Muske and Winter study (2004). One participant in the study expressed it as, “saving is something people are interested in, but in reality, people want to enjoy what they have right now” (p. 84). This type of short-sighted financial philosophy presents significant obstacles for financial educators and the students they hope to educate.

The Individual Retirement Account (IRA) is the most funded retirement savings instrument, due in large part to workers and retirees rolling over assets from other plans upon retirement or changing jobs (EBRI, 2006b). IRAs were created in 1974 to help workers without access to retirement plans through work, but have since been expanded to all workers. Traditional IRAs offer tax-deferred growth of savings, and the Roth IRA,

introduced in 1997, offers tax-exempt earnings (Bernstein, 2004). As found with other savings instruments, there were differences between households that utilized IRAs and those that did not. The average household with an IRA was older, more educated, more likely to be covered by private pensions, more likely to have higher levels of liquid (cash equivalent) assets, and have higher debt levels than households without IRAs (Bernstein, 2004).

A common research finding was that lower income households were less likely to be prepared for retirement (Anthes & Most, 1999; Bernstein, 2004; Glass & Kilpatrick, 1998b, Hewitt, 2004; Joo & Grable, 2005; Xiao & Fan, 2002). Reason suggested that these households had fewer assets not consumed by their immediate needs. Many advantages of retirement savings were associated with savings on income taxes. However, the lowest income groups were least likely to benefit from tax relief, due to low marginal tax rates (Bernstein, 2004). As an incentive to save for retirement, low income households who save for retirement are eligible for the Retirement Savings Contribution Credit. It provides a tax credit; that is a dollar-for-dollar tax reduction for lower income workers who placed money aside for retirement. The credit was a percentage of the amount deposited with a maximum credit of \$1,000, as illustrated in Table 1.

Credit Rate	Income for Married, Joint	Income for Head of Household	Income for Others
50%	up to \$30,000	up to \$22,500	up to \$15,000
20%	\$30,001–32,500	\$22,501–24,375	\$15,001–16,250
10%	\$32,501–50,000	\$24,376–37,500	\$16,251–25,000

Table 1 – Retirement Savings Contribution Credit (IRS, 2005)

“Despite this additional tax credit, IRAs do not appear to be effective at stimulating retirement savings for younger low-income households” (Bernstein, 2004, p. 70). IRA

contributions were likely not made due to the presence of debt obligations, lack of will-power to save, and use of funds for current consumption (Bernstein, 2004; Joo & Grable, 2005).

In the Credit Union National Association's survey, credit union members overwhelmingly identified their "most critical priority" for the long term was to save for retirement, followed by three additional savings or investing goals (Merrick, 2000). However, it was evident that Americans on average were having difficulties achieving these goals.

Most Americans undersave and overspend at dangerous rates. Most Americans spend all of their paycheck on current consumption or borrow to spend even more. But in July (2005), the savings rate of America hit an all time low: -1.1. It's a watershed event. For the first time in our history, Americans as a whole spent every dime they made. Indeed the personal savings rate in the US has been declining since 1980. (Skousen, 2005, p. 50)

It is valuable to note that federal measures of the savings rates of Americans did not take into consideration assets owned which may be appreciating, such as homes, stocks, and money contained within retirement plans. When these were considered, "although household debt has grown relative to disposable income over the past few years, it has shrunk relative to household financial assets" (Peach & Steindel, 2000, p. 4). The perfect estimate of how Americans are fairing financially would involve a detailed analysis of how individual households are managing their debt and savings. Because this estimate is not available, it

was necessary to consider the data available, which revealed a society that needs more preparation in caring adequately for their finances.

Two additional considerations important for adequate retirement preparation were the age at which retirement savings began and the age at which workers retired. The earlier planning began, the more likely individuals were to adequately fund their retirement (Hewitt, 2004; Power & Hira, 2004; Xiao et al., 1999). The young were often the most resistant to saving for retirement, perhaps because of the length of time before their retirement, “but with rising retiree health care costs and declining support for traditional pension programs, they are a group that may ultimately need to rely more on their 401(k) savings than their older peers” (Hewitt, 2004, Participation and Contributions section ¶ 2).

Typically the decision to retire is permanent; workers could rarely re-enter the workforce with similar wages and benefits after making the decision to leave. In addition, it would usually take five to ten years before the effects of inflation would highlight the inadequacy of their retirement funds (Hershey et al., 1998). Working a longer period of time could have a substantial impact on the adequacy of retirement funds. The longer one works, the greater time for retirement fund accumulations, and the fewer years one would be dependent upon retirement investments (Li et al., 1996). The average age of retirement in the Employee Benefits Research Institute study (2005a) was 62, while the average age that study participants estimated they would retire was 65. Planning on making larger contributions when one was older could prove to be risky in that 75% of retired workers indicated they had unplanned early retirement due to changes in their company such as downsizing, or changes in health of themselves or a family member (EBRI, 2005a).

Concern over the ability of Americans to adequately meet retirement needs was high among analysts. William Gale of the Brookings Institute reported that “as many as 25 percent of households aren’t saving enough; one-third to one-half look as though they’re doing pretty well; the rest, he says, it’s hard to tell where they stand” (Bruce, 2000, ¶ 9). Don Blandin of the American Savings Education Council (ASEC) agreed.

By any way you measure it, Americans are poor savers...More households are saying they're planning for retirement, but I have an uneasy feeling they're not saving enough. We overestimate how much we'll get from Social Security and underestimate how long we'll live -- and that can make for a disastrous story. (Bruce, 2000, ¶10)

If analysts were overly concerned, the *Retirement Confidence Survey* indicates that Americans were under concerned. Sixty-six percent of persons rated themselves very confident or somewhat confident on having enough money to live comfortably in retirement. Over half of all the survey participants in this same study indicated that they had less than \$50,000 in total savings and investments (ASEC, 2004b). Less than half of the survey participants, only 40% of women and 44% of men had actually attempted to calculate the amount needed to retire comfortably (ASEC, 2004a). Among participants who felt confident yet were currently not saving, a number of reasons were given ranging from expecting others, such as employers and Social Security, to provide for their retirement, to plans to save later, to having other investments or inheritance (ASEC, 2004a).

Need for Financial Literacy Education

Financial literacy was defined by the federal government as, “the ability to make informed judgments and to take effective actions regarding the current and future use and

management of money” (GAO, 2004, p. 1). A number of entities expressed concern over the lack of financial literacy among Americans: professional organizations, financial planners, education institutions, employers and the federal government to name a few. For this reason, the United States Government Accountability Office (GAO) convened a group of experts on July 28, 2004, to define the federal government’s role in improving financial literacy. The participants in the forum defined the problem:

...many Americans lack the knowledge of basic personal economics they need to make informed financial judgments and manage their money effectively. Yet financial literacy is increasingly important in a world where consumers must choose from an array of complicated financial products and services and employees must take on more responsibility for their retirement savings. (GAO, 2004, Why GAO Convened this Forum section, ¶1)

Indeed, the ability to meet the financial demands of retirement has shifted to the shoulders of individuals. Numerous researchers and organizations called for financial education to address the burgeoning challenges in response to the growing amount of debt along with relative small amounts of savings (Bruce, 2000; Into, 2003; Hira, 2002; Lee, 2004; NRPC, 2003; PRC, 2003b; Price, 2003; Stein, 2004; Vanac, 2004; and WISER, 1999a).

Americans reported inconsistencies regarding their satisfaction with and ability to manage their personal finances. In a poll conducted in 2004, 78% of respondents indicated they felt they were doing pretty well (AICPA, 2004), although answers to how they perceived specific financial tasks were contradictory. Only 25% of Americans considered themselves good at living within their means (Clark, Heaton, Israelsen, & Eggett, 2005), 77%

reported being dissatisfied with their savings (Garman, Kim, Kratzer, Brunson, & Joo, 1999), 23% worried about debt (Garman, et.al., 1999), 33% reported worrying often about finances (Hira & Mugenda, 2000) and three-fourths of Americans have faced at least one significant financial problem (Garman, Leech, & Grable, 1996). Several studies have suggested that workers who do poorly at managing their personal finances are costly for employers in terms of productivity, absenteeism, and overall health (Garman, 1998; Garman, 1999; Garman, et.al., 1999; Garman et al., 1996; Hira & Mugenda, 2000; Joo & Garman, 1998, Loibl & Hira, 2005; Oleson, 2001).

Employers as Providers of Financial Education

Employees have recognized their needs and requested their employers' help (Kim, Bagwell, & Garman, 1998).

A survey conducted by the International Society of Certified Employee Benefit Specialists and Deloitte & Touche Accounting Firm, reported that retirement planning replaced health care as the top issue (Kleiman, 1998). Information on retirement planning and investments was indicated as that most wanted by employees. (Cramer, 2002, p. 48)

A trend toward an increasing number of employers offering some type of financial education was documented in the literature. In 2003, the Pension Research Council reported that among larger companies approximately 40% had begun providing employee financial education through the use of written materials and educational seminars (PRC, 2003b). In 2005, Fox, Barholomae, & Lee reported that 75% of corporations offered some form of financial education to employees; however this number is indiscriminate regarding the type

of education. This education could have taken several forms: written literature, statements on retirement accounts, internet access to information, seminars, videos, access to vendors of financial products, and access to personal financial planners. In the Employee Benefits Research Institute study (2005a), it was found that employees ranked personal help from non-vendors most beneficial.

There are several programs to promote financial literacy available; however most do not have sufficient follow-up evaluation to document the effectiveness of the program (Fox et al., 2005; GAO, 2004; Xaio, et.al, 2004). Among studies that did follow-up evaluation, there was sufficient reason to believe in the positive benefit of financial literacy education within the workplace. Several studies found that when companies offered financial education to their employees there was both improved participation rates in the DC retirement plans, as well as increased accumulation of retirement assets. The effect was greater among lower paid, lower educated workers than among the upper-level employees, presumably because of the higher rate of participation among the upper-level employees prior to the education (Bernheim &Garrett, 2003; Garman et.al, 1999; Joo & Grable, 2005; Loibl & Hira, 2005; Lusardi, 2004). Kim et al. (1998) found that 80% of seminar participants reported the intention to figure the amount needed for adequate retirement savings after attending a seminar in the workplace. This was important due to the positive correlation between knowing the amount needed and taking action to achieve the goal (Joo & Grable, 2005). Hogarth and Hilgert (2002) found that those with greater financial knowledge were also more likely to own a home and stocks. In addition, Bernheim and Garrett (2003) documented positive effects of workplace financial literacy education on the spouse's

retirement savings, although not as strong as those of the actual retirement seminar participant.

Understanding that financial matters were interrelated helped in the development of successful programs. For example, if one is struggling with debt payments, saving for retirement may not be feasible. Therefore, on-going, broad-based financial literacy education that took into consideration the needs and interests of participants proved to be more effective than one-time information on a single topic such as retirement (Bernheim & Garrett, 2003; Kim et al., 1998; Garman et.al., 1999)

Schools as Providers of Financial Education

A lack of financial knowledge and sound financial management among young people has been well documented (Avard, Manton, English, & Walker, 2005; Henry, Weber, & Yarbrough, 2001; Mandell, 2002; Murphy, 2005). There has also been documentation of several education initiatives within the school and community that have demonstrated a positive impact on the financial knowledge of participants (Kiss, 2006; Oleson, 2001; Tennyson & Nguyen, 2001; Xiao et al., 2004). Unfortunately, the majority of students have not taken advantage of financial literacy education. Only twenty states were reported to have specific educational requirements for teaching personal finance in the secondary school system in 2001 (Tennyson & Nguyen, 2001).

Just as schools did not implement curriculum not specifically mandated, students didn't take classes not required. Henry et al. (2001) reported that although 65% of students had the opportunity to take such a class, in actual practice only 21% chose to take a financial management course. Oleson (2001) reported many innovative ways to reach students with

financial literacy education. Universities such as Iowa State University, the University of Georgia in Athens, Utah State University, Texas Tech, and Brigham Young University have implemented courses, developed financial counseling clinics for students, and utilized several face-to-face and electronic means to provide financial literacy education for their students.

Valuable Topics within Financial Education Programs

Topics of education that could drastically improve the utilization and investment results of the typical American were many. The need to invest early and substantially was one such topic. The *Investor Confidence Survey* revealed that 66% of respondents said they were able to save an additional \$20 per week for retirement. The result of which would have been an additional \$50,000 over a 25 year time frame at a 5% rate of return (ASEC, 2004b). If the value of compounding was understood at an early age, it could potentially produce a tremendous impact on the retirement savings.

Americans also need to know the differences between defined benefit and defined contribution plans. When defined contribution plans are offered, employees needed to be educated on “the importance of participating in the plan, making contributions early in one’s career (to take advantage of compounding), contributing consistently over time, understanding risk and return associated with different investment strategies, and engaging in responsible loan and withdrawal activity” (EBRI, 2004b, p. 5). For example, almost two-thirds of assets invested by the lowest-paid workers were in a money market or bond funds as contrasted with the investment elections of the highest paid workers, which were 85% stocks (Goodman, 2004).

Women and Financial Education

In light of the demographic characteristics and retirement research, it was particularly important to target women with financial education. The bulk of research done on retirement planning hitherto focused on men, ignoring the differences in the experiences of women (Cramer, 2002; Price, 2003). Some of the research findings that have addressed gender issues have uncovered differences in why women invest (Lee, 2004), how they invest (Vanac, 2004), and the opportunities available to them to invest (WISER, n.d.; Goodman, 2004). It was reasonable to assume that education designed for and by men might have needed modification to reach women effectively.

Some firms have realized the unique need of women and begun targeting women for education programs. The Wealth Enhancement Group of Wayzata, Minnesota offered a program entitled “Smart Retirement Moves for Women and the Men Who Care for Them.” The program targeted women between 50 and 70 years of age with education in the financial industry, the basics of investing, and estate planning. Peg Chromy Webb, senior vice president of the firm, expressed, “even though women have made progress over the last 20 years, we still have a lot of catching up to do” (Lee, 2004, p. 18). In 2005, the American Institute of Certified Public Accountants (AICPA) also launched a program targeted at the education of women. The program, 360 Degrees of Financial Literacy for Women, focuses on “educating and empowering” women to take control of their finances and to achieve greater financial well-being (AICPA, 2005).

These and similar programs were an excellent place to begin; however, women need to be targeted for education at a much younger age. In one study of 633 financial education

seminar participants, it was the younger, lower wage women who were most likely to “increase their retirement saving and alter their investment choices” (PRC, 2003a, p. 14). The Pension Research Council study (2003a) reported similar findings. “Our findings...show that those individuals with less financial knowledge such as women are more likely to change their saving behavior after attending a financial education seminar, again suggesting that seminars may help those who display more difficulties in saving” (p. 17). It was highly probable that people who voluntarily chose to attend financial literacy education events may have had different qualities than those who did not. To combat this difficulty, several call for financial literacy education to be mandated in schools and in the workplace (Avard et al., 2005; Bernheim & Garrett, 2003; Garman et al., 1996; Joo & Grable, 2005; Lachance & Choquette-Bernier, 2004; Lusardi, 2004).

Remedial Versus Proactive Financial Education

Financial literacy education could be remedial or proactive. Remedial education seeks to correct the existing problems identified such as a lack of financial knowledge regarding retirement planning and investment options. The workplace would be the perfect environment to aid women in understanding the importance of their choices regarding retirement savings. The proactive education seeks to prevent financial problems from occurring; an ideal setting for preventive education is the school system, prior to, and in preparation for, complete financial independence.

The financial management courses should not only focus on specific topics such as budgeting, credit management, risk management, savings and investments, but also on financial values, attitudes, and beliefs. Additionally, the courses should focus on

developing skills to use the various financial instruments that help individuals make sound financial decisions. (Hira, 2002, p. 3-4)

One study released by the ASEC in 1999, indicated that the vast majority of students ages 16-22 had never taken a class in personal finance, but two-thirds admitted to needing more information regarding money management (Varcoe et al., 2001). Results of the study of one financial education program, Financial Champions, indicated that 60% of participants rated themselves to have “learned something to learned a great deal” (Mincemoyer & Furry, 2003, p. 30). This learning was quite valuable in the long term. As “research shows that individuals graduating in states that have mandated personal finance courses achieve higher rates of savings and net worth” (Mincemoyer & Furry, 2003, p. 30).

A growing sense of urgency exists within and without the Family and Consumer Sciences profession to provide solutions to the economic problems facing young people (Benn, 2002; Bowden & Jones, 2006). “Professionals in the family and consumer sciences field can help make sure that information leads to education – and that the resultant change in behavior that improves the economic security and stability of the family” (Hogarth, 2002, p. 25). National attention has also been focused on this problem. In a 2002 address to the U.S. Senate committee on banking, housing, and urban affairs, Allen Greenspan reported:

Education can play a critical role by equipping consumers with the knowledge required to make wise decisions when choosing among a myriad of financial products and providers. This is especially the case for populations that have traditionally been underserved by our financial system...In addition, comprehensive education can help provide individuals with the financial knowledge necessary to create household

budgets, initiate savings plans, manage debt, and make strategic investment decisions for their retirement or children's education. Having these basic financial planning skills can help families to meet their near-term obligations and to maximize their longer-term financial well being. (PRC. 2003b, p. 16)

The benefits of financial education go beyond the individual and beyond the present time.

By encouraging families to make prudent investment decisions, and teaching them how to balance their income and expenses even during times of increasing economic uncertainty, we will not only improve the financial management of families, but also help to stabilize the economy as a whole, which benefits everyone. (Nickols, 2002, p. 39)

Targeting women, an underserved population in retirement planning, would prove extremely beneficial.

Educating women as to factors that affect availability and eligibility of retirement benefits can lead to better decision making in relation to securing and keeping jobs. The extent of participating in retirement benefits speaks to the crucial need for educational efforts both on and off the job site. Frequency of job change, combined with the extent of participation in employer-provided plans, and choices regarding accrued benefits upon leaving employment provide educational opportunities that could positively affect the retirement security of women. (Cramer, 2002, p. 52-53)

Financial literacy education would have benefits for employers, educational institutions, those receiving the education, and society at large. "It pays for employers to be

interested in the wellness of their employees...it increases job productivity, reduces costs, and makes employees happy” (Garman et al., 1996, p. 165). Universities have the opportunity to not only teach students to earn a wage, but also to manage it wisely so that it will provide for their wants and needs not only during their working years, but long after. Oleson (2001) aptly stated, “Perhaps our greatest opportunity to influence the lives of students in a lasting and meaningful way is by understanding the complexity of their lives (academic, social, financial, etc.) and providing comprehensive services to meet those needs” (p. 42). With the application of their knowledge, students would have experienced less financial stress and “the more people are encouraged and enabled to do things and to think for themselves, the more their abilities and competence increases and the more self reliant they become...” (McGregor, 2005, p. 440). Society would also benefit, as Clark et al. (2005) so aptly stated, “Financial literacy makes real economic freedom possible” (p. 337).

There were many factors to consider within this research study. One would be remiss to think that this problem would be easily addressed by one simple action. Women were shown to be a unique group with a unique need to care for their financial future. As the body of knowledge regarding debt, retirement planning, demographic characteristics of women, and institutional and social responsibility toward preparing women for financial decision making expands, solutions to the various problems become clearer.

METHODS

Sample

The purpose of this study was to examine the relationship between the debt load of recent female college graduates and their propensity to save for retirement, thereby securing their financial future. A sample of recent women college graduates was taken from the University of Central Arkansas (UCA). In addition to UCA, a number of locations were considered for the study including Purdue University, The University of Idaho, and Louisiana Tech University. Two issues presented formidable barriers to obtaining permission to sample alumni populations, a lack of electronic mail contact information on alumni who graduated as much as ten years ago, and freedom of information/privacy issues related to releasing information to a researcher with no formal connection to the University. The University of Central Arkansas proved willing to release the information as the researcher was both an alumna and an employee of the university.

One of the long term objectives of this study was to provide documentation of the need for financial education within the university undergraduate curriculum so as to be a preventive factor against poverty among women. The 2001 poverty rate in the southern region of the United States is the highest in the nation, 13.5% of the population versus 12.1% in the West, 10.7% in the Northeast, and 9.4% in the Midwest (Dinkins, 2003, p. 102). More specifically, in 2004, Arkansas ranked fifth in the nation for the number of people living below the poverty level (U.S. Census Bureau, 2005a). There was 17.9% of the population living below the poverty line, and among women the poverty rate was 20.1% (U.S. Census Bureau, 2004). This fact was another compelling reason for choosing UCA as it is located in

the southern region of the United States. UCA is a state-sponsored, four-year institution of higher education. In the year 2004, there were 10,069 students enrolled of which women represented 61.4% of the enrollment (University of Central Arkansas, 2005a). In addition, women composed 65.7% of all graduates for the 2004-2005 academic school year (University of Central Arkansas, 2005b).

The population of interest in this study was women who graduated from college in the years 1994-2004. This time frame was chosen because ten years is the typical length of time allotted for student loan repayment (Sallie Mae, 2005). The probability sampling process used in this study was stratified sampling. Because the focus of this study was women, data were collected on only female alumni of UCA. A sample ($N = 651$) was taken from all female graduates of the UCA in the calendar years 1994, 1999, and 2004, for whom the UCA Alumni Office maintained electronic mail addresses. An over sampling ($N= 107$) of Family and Consumer Sciences (FCS) majors was taken in order to provide a statistically significant answer to research question number eight, the comparison of FCS students to the general population. The number of FCS graduates was much smaller than the general sample, therefore, all FCS graduates from the years 1994 to 2004 were sampled. This study provides a baseline study that can be replicated at universities in other locations or with differing demographics to further study the link between credit card and student loan debt and early retirement savings by recent female college graduates.

Prior to conducting this study, Institutional Review Board (IRB) approval was sought and received at both Iowa State University and the University of Central Arkansas (Appendix A). When working with human subjects, it is necessary to have all research scrutinized for

any possible negative effects on research participants. An exemption was sought from the Iowa State IRB due to the fact that the design involved minimal risk to participants.

Although an informed consent statement was included in the survey, there was no collection of signatures because the survey was administered completely electronically, and electronic signatures were not acceptable. The design of this study was deemed to be exempt, however the researcher followed practices consistent with those designed to protect the rights of participants. Participants were under no obligation to answer questions, their privacy was protected and their answers were kept anonymous. Any publication of the research study would not have individually identifying information. The information collected was kept confidential.

Data Collection Instrument

The method of data collection used in this study was a survey. The researcher adapted a questionnaire used in two previous national studies conducted by the American Association of Retired Persons (AARP) and Roper Public Affairs (AARP, 2004). The two studies were large-scale, quantitative surveys entitled “Baby Boomers Envision Retirement” conducted in 1998, and “Baby Boomers Envision Retirement II” conducted in 2003. Permission was granted by AARP for the survey instrument to be modified and used in this study (see Appendix C). The instrument modification was solely for the purpose of obtaining the specific information needed for this research project which required the elimination of questions that were outside of the scope of this study and the addition of questions dealing with student status and credit card and student loan debt. Questions regarding Medicare, post-retirement plans, health, health insurance, most questions on Social

Security, plans involving adult children, life changes in the past year, and demographic questions were removed from the survey. Of the non-demographic questions, roughly half of the questionnaire was utilized in the development of the instrument used in this study. Questions were added that were pertinent to the study, among them, student status, student loan and credit card debt levels, annual income (used to establish debt load percentages), dates of graduation, major, and experiences and suggestions for teaching financial information in the college setting (Appendix B).

Questions on the survey were designed to correspond with the research questions for the study. The following research questions were addressed:

1. What is the extent of the unsecured, consumer debt load of women who have graduated from college within the past ten years?
2. What instruments are these women using to save for retirement?
3. To what extent (amount and percentage of income) are these women saving for retirement?
4. What attitudes and beliefs regarding retirement are common among women who have graduated from college in the past ten years?
5. Are retirement savings rates correlated with unsecured, consumer debt?
6. What types of preparation for financial independence (courses/seminars) did the alumnae receive from their years at the University?
7. What suggestions do recent female college graduates give to the University regarding preparation of future students for financial independence?

8. How do female Family and Consumer Sciences students compare on the previous measures to the general population of recent college graduates?

Table 2 shows how research questions were addressed in the questionnaire:

Research Question	Survey Question Item Numbers
Question 1: Debt load	48-54
Question 2: Savings instruments	18-20
Question 3: Extent of savings	21-22
Question 4: Attitudes toward retirement	1-17; 23-44
Question 5: Correlation of savings & debt	21-22; 48-54
Question 6: University training	55-56
Question 7: Suggestions for training	57
Question 8: FCS comparisons	47
Demographic information	45-47; 58

Table 2 – Relationship between Research Questions and Survey Questions

The first question on the survey is an open-ended question regarding the participant's initial thoughts about retirement. Open-ended questions are included at the beginning of the survey, "so that the participant[s] can best voice their experiences unconstrained by any perspective of the researcher or past research findings" (Creswell, 2002, p. 204). The questions were sequenced according to their degree of invasiveness. The most sensitive questions were intentionally placed at the end of the survey in hopes that the participants would have developed a rapport, be more familiar with the objectives of the research, and be

less inclined to skip these questions. Questions that sought to measure retirement attitude were worded to provide variability and prevent response set; the most positive attitudes toward retirement were sometimes coded “a,” completely disagree, and sometimes “e,” completely agree.

To further encourage participants to take the survey and to give them direction after they completed the survey, links to several websites were placed within the WebCT shell. Some of the information provided by these links utilized calculators to determine an estimate of income needed at retirement and the savings necessary to achieve that goal as well as a debt reduction plan, called Powerpay, developed by the Utah Extension Service. Participants were not required to complete the survey to gain access to the financial planning materials.

The principles for conducting web surveys set forth by Dillman, Tortora, and Bowker (1998) were utilized to reduce potential sources of survey error. The questions were standardized in their layout so that there were no differences between how they were viewed by one computer versus another. There was a welcome message and clear, concise directions given where needed. The survey was password protected to assure that only eligible participants responded. Respondents were allowed to skip a question and return to it at any time. A visual indicator allowed participants to view their progress in completing the survey. Unnecessary use of color and graphics was eliminated to allow for slower computers to access the survey in a timely manner. Multiple contacts (three) were made to encourage responses.

Data Collection

A pilot-test was conducted with students in a graduate evaluation course (FCEDS 515) at Iowa State University in the spring 2005 semester and minor question modifications were made to survey questions to assure clarity of questions and ease of use. The pilot test provided an estimated time of 15-20 minutes needed to complete the survey.

The survey was disseminated electronically due to the advantages of using electronic dissemination. The financial cost of the project and the time involved in collecting data were reduced by the electronic dissemination of the survey. The WebCT system at UCA was used to host the survey. A distribution list of participants was created from the addresses supplied in the spring of 2005 to the UCA Alumni Association in conjunction with the updating of the Alumni directory. An electronic mail message was distributed to the potential respondents explaining the study and requesting their informed consent. Participants were directed via a hyperlink to the UCA WebCT website. The researcher had arranged for the participants to be pre-registered using the first of their e-mail addresses (all characters before the @ symbol) and a standard password. Participants were informed how to change their password once they logged into the WebCT system. Using the WebCT survey function allowed for complete anonymity for the participants as even the designer of the survey could not link responses to respondents. The researcher could, however, easily view which participants had responded.

Statistical Analysis

After data collection was complete, answers to the survey were exported from WebCT to an Excel file and from the Excel file to the statistical package. The data were

analyzed using the SPSS statistical software. The oversight of a statistician ensured proper treatment of the data.

This survey gathered data that represented a combination of the scales of measurement. Some information was nominal, such as gender, and was reported as the percentage of the sample represented. Some information was ordinal in nature, such as the amount of thought given to retirement. This information was numerically coded and averaged together to yield a quantitative score representing attitude toward retirement. Information that was appropriate to be measured on the ratio scale such as income or debt levels were placed in standard numerical form. Descriptive statistics were calculated on the individual questions. A retirement attitude score was also calculated for each participant. There were 28 attitude questions measured on a five-point Likert scale. Point values were assigned from one (most optimistic attitude toward retirement) to five (least optimistic attitude toward retirement). Each respondent's answers were averaged, yielding their retirement attitude score. With the open ended questions, like responses were grouped together and emerging themes regarding what kept them from saving and their attitudes and expectations regarding retirement were explored.

A Pearson product-moment correlation was used to examine the relationship between the retirement savings rates and the unsecured, consumer debt of participants. A second Pearson product-moment correlation was run on data of the FCS majors only in order to compare the strength of the correlation coefficient of the two groups. A two-tailed test for significance at the .05 level was used. To assess the differences between FCS majors and all others, a t-test was performed on questions one (debt load), three (extent of savings), and four (attitudes

toward retirement). A reliability analysis was computed to determine the dependability of the retirement attitude score.

RESULTS AND DISCUSSION

General Information

The survey instrument was hosted on the UCA WebCT system. Electronic mail messages were sent to alumnae requesting their participation in a survey on unsecured debt and retirement planning. There were 758 electronic mail messages (Appendix D) sent out as an invitation to participate in the research. Of the 651 messages sent to the graduates with non-FCS majors, 118, approximately 18%, were returned undeliverable. Of the 107 messages sent to graduates with Family and Consumer Sciences (FCS) majors, 10, approximately 9%, were returned undeliverable. Participants were given 15 days to respond. During this time, a total of 43 participants, 27 from the various majors and 16 from the FCS majors, responded. The distribution list was modified to remove undeliverable electronic mail addresses and those participants who previously responded. A second notification (Appendix E) and an additional 10 days yielded 43 new responses, 23 non-FCS majors, and 20 FCS majors. A final request for participation in the study (Appendix F) yielded an additional 15 responses, 13 of which were non-FCS majors and 2 of which were FCS majors, which brought the total to 101 responses. Forty-two percent of the respondents were FCS majors.

Of all survey participants, there was the greatest rate of participation among recent graduates. There were 15% of the respondents that graduated prior to 1999, 28% of the respondents graduated 1999-2003, and 50% indicated 2004 as their graduation date. Interestingly, eight respondents indicated a 2005 graduation date, likely indicating a graduate

degree, due to the fact that 2005 graduates were not included in the sample. In addition to their graduation dates, two respondents indicated that they were currently students and one indicated that she was not employed.

The response rate from delivered surveys ($N=630$) was 16%. Although this was a relatively small rate of response, it mirrors those from several other studies (Hayhoe et al., 1999; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Nellie Mae, 2005; Warwick & Mansfield, 2000). Several reasons could underlie the low rate of response. Perhaps due to the sensitive nature of the questions dealing with debt, salary, and savings, there were those who chose not to participate. Another possibility could have been technological difficulties. Lack of incentives might have proven another obstacle for a higher return rate. A drawing for a savings bond was considered as an incentive for participation in the research; however incentives in the form of a drawing are deemed gambling within the state of Arkansas and therefore could not be utilized. Educational information was made available on the WebCT shell, however this proved to be little incentive, as most participants did not visit the additional pages.

Every effort was made to ensure ease of usability. Participants were pre-registered for the WebCT system at UCA using the first part (everything before the @ symbol) of their e-mail address as their sign-in name and a standard password for which they were given the instructions to change if they so chose. Some participants had active accounts and they were contacted requesting that they use their existing sign-in name and password. This was problematic if they could no longer remember the password, although the system does have a password reminder feature. Some contact with the researcher was made requesting help in

accessing the survey. Generally this only required the user to turn off their pop-up blocker, which was mentioned in the email, but was apparently overlooked. A reminder regarding the pop-up blocker was placed in a header above the opening page to the survey when this problem was brought to the attention of the researcher.

Upon evaluation of the data reported, a scatter plot (see Figure 9) revealed two outliers. These were subsequently removed from the data for the calculations involving debt and savings. One respondent reported having amassed \$200,000 in retirement savings, which is double the next largest amount reported. In addition, one respondent reported a much larger amount of debt than all other respondents, \$90,000. The possibility of this being an error was strongly considered, however, there was also a reported debt payment of \$1,360 per month which would be reasonable for this amount of debt. These two respondents were removed from calculations using the debt and savings figures. This is consistent with the recommendation of Dunn (2001), "Outlying scores can artificially increase (or decrease) the apparent size of a correlation; just one or two 'deviant' scores in a small or medium size sample can wield a great influence" (p. 225). One additional outlier was removed from the sample to compute the income and debt statistics due to the fact that she indicated paying 144% of her salary in debt repayment and saving 400% of her salary, which is of course not reasonable.

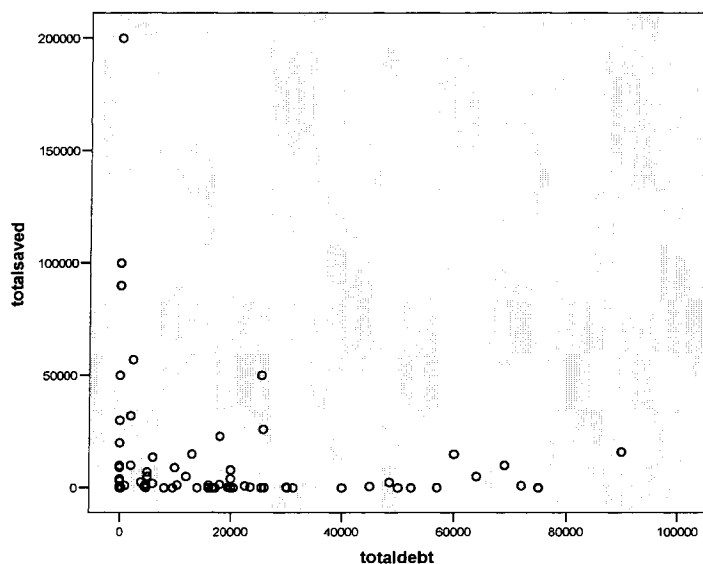


Figure 9 – Outliers Scatter-plot

Research Question 1

What is the extent of the unsecured, consumer debt load of women who have graduated from college within the past ten years?

The range of total unsecured debt was from \$0 to \$75,000. The average amount of total debt was \$16,104, with the median, or mid-point of reported unsecured debt being \$10,450. When considering total debt of the sample of recent female college graduates, it was encouraging to note that 26% had no unsecured debt.

Student loans were reported by 61% of the sample, with two respondents indicating that undergraduate and graduate loans were reported. The range of student loans in this study was \$0 to \$67,000. The average amount of student loan debt was \$12,575, with the median being \$7,500. When considering the student loan balances of only those students who had student loans, the median student loan balance was \$16,500. On the campus of UCA, approximately 70% of the student population receives some type of student aid, including,

but not limited to loans, indicating that this sample is representative of the students in this population (C. Lyons, personal communication, February 21, 2006). In The College Board *Trends in Student Aid* (2005a) report, 62% of students who graduated with a Bachelor's degree from a public institution had student loans. The average amount was \$10,600, and the median was \$15,500. The Nellie Mae (2003) study reported an average student loan debt of \$18,900, and a median student loan debt of \$16,500.

Credit card debt was reported by 53% of the sample. Similarly, in the Joo et al. (2003) study about one half of the students paid their credit card bill in full each month leaving no revolving balance. The range of credit card debt was from \$0 to \$60,000. The average amount of credit card debt was \$3,529 however the median was only \$175. These results were much better than those reported in the Demos (2005) study where the average credit card debt for those ages 18-34 was \$8,182, and the median debt was \$4,700.

When the debt loads were observed, based on the year of graduation, some patterns emerged. With respect to total debt, the middle graduation group (1999-2003) of respondents was on average servicing the most unsecured debt, \$21,770. The student loan debt decreased with time out of school as would be expected. The average student loan debt for the earliest graduates (1994-1998) was \$6,870 as compared to \$12,929 for the most recent graduates (2004-2005). The average credit card debt was lowest for the most recent graduates (see Table 3).

Graduation Group	N		Mean	Median	Maximum	Minimum
1994-1998	14	Total Unsecured Debt	\$10,334	\$2,000	\$57,000	\$0
		Student Loan Debt	\$6,870	\$0	\$41,000	\$0
		Credit Card Debt	\$3,464	\$1,000	\$20,000	\$0
1999-2003	28	Total Unsecured Debt	\$21,770	\$15,000	\$75,000	\$0
		Student Loan Debt	\$14,720	\$500	\$60,000	\$0
		Credit Card Debt	\$7,049	\$225	\$60,000	\$0
2004-2005	56	Total Unsecured Debt	\$14,714	\$15,000	\$72,000	\$0
		Student Loan Debt	\$12,929	\$10,000	\$67,000	\$0
		Credit Card Debt	\$1,785	\$138	\$19,150	\$0
1994-2005	98	Total Unsecured Debt	\$16,104	\$10,450	\$75,000	\$0
		Student Loan Debt	\$12,575	\$7,500	\$67,000	\$0
		Credit Card Debt	\$3,529	\$175	\$60,000	\$0

Table 3 - Debt Load by Year of Graduation

The debt load of this sample showed that the majority of these recent graduates were managing unsecured debt well due to the fact that 49% had \$10,000 or less in total debt and 72% had \$20,000 or less in total debt. A large number of respondents reported no unsecured debt. Thirty-nine percent reported no student loan debt, 47% reported no credit card debt, and 26% reported no unsecured debt in either of these categories. There were some concerns as well. Using the 2005-2006 fee schedule, the cost per year for full-time enrollment, including room and board would be \$10,945 per year: \$5,755 in tuition and required fees, \$4,190 for room, board, and PO box, and \$1,000 for books and supplies (University of Central Arkansas, 2005c), which would equal \$43,780 for four years. Twenty-five percent of the sample indicated student loan debt equal to or greater than \$20,000; indicating that 46% or more of their tuition, fees, room, board, books and supplies was financed by loans. Five percent of the sample reported \$20,000 or more in credit card debt.

The average salary reported by the respondents was \$30,817, with a median of \$31,200. The salary ranged from \$0 (reported by 5%) to \$200,000. Seventy-five percent of the sample made \$39,000 or less. These figures were used to determine the percent of income dedicated to unsecured debt repayment by recent female college graduates. For total unsecured debt payments, the average percent of salary committed to repayment was 10%, and the median amount was 6%. This percentage ranged from 0%, reported by 35% of the sample, to 74%, which would indicate severe financial strain due to debt repayment. Twenty-six percent indicated no debt, making the 35% indicating no debt payments an anomaly. A further review of the data indicated that 10 respondents reported student loan debt, but no payments (deferral) and all who indicated credit card debt reported payments.

When comparing the salary of recent graduates by graduation year, it was no surprise to find that the average salaries increased in direct proportion to the length of time women were in the workforce. The average difference in salaries between the earliest graduating alumnae group in this study and the most recent graduates was \$34,706. Unsecured debt required a lower percentage of income from the earliest graduates (7% on average) than from those who graduated between the years of 1999-2003 (12%), as well as the most recent graduates (11%). Unsecured debt repayment seems to represent a larger obstacle for those who have graduated most recently than for those who have been out of school for more than five years. See Table 4 for comparison of annual salary and percent of income devoted to unsecured debt repayment.

Graduation Group			Mean	Median	Maximum	Minimum
1994-1998	N=14	Annual Salary	\$57,814	\$47,500	\$200,000	\$35,000
		Percent of Income used for Debt Repayment	7%	4%	26%	0%
1999-2003	N=28	Annual Salary	\$32,461	\$34,000	\$80,000	\$0
		Percent of Income used for Debt Repayment	12%	6%	74%	0%
2004-2005	N=56	Annual Salary	\$23,108	\$26,043	\$45,000	\$0
		Percent of Income used for Debt Repayment	11%	7%	64%	0%
1994-2005	N=98	Annual Salary	\$30,817	\$31,200	\$200,000	\$0
		Percent of Income used for Debt Repayment	10%	6%	74%	0%

Table 4 - Salary and Percent of Salary used in Unsecured Debt Repayment by year of Graduation

Research Question 2

What instruments are these women using to save for retirement?

Respondents were given a choice of 13 different savings instruments that they could be personally utilizing for retirement savings at the time of the survey. They were allowed to choose multiple savings instruments, so percentages reflect the number utilizing a type of investment, but not necessarily that a unique subset of the sample that had a particular savings instrument. Sixty-five percent of the sample reported utilizing more than one savings instrument. Ten percent of the sample indicated using none of the given instruments; although 29% indicated having no retirement savings. The most common instrument (52%) used for retirement savings by this group was an employer-sponsored retirement plan, which

was offered by and contributed to by the respondent's employer, and the least common instrument utilized was annuities (4%). A summary of responses are in Table 5.

Savings Instrument	N	Percent of Utilization
Employer-Sponsored Retirement Plan – contributing employer	52	52
Regular Savings Account	47	47
Mutual Funds	19	19
Roth IRA	19	19
Insurance	17	17
Real Estate	17	17
Long-term Savings Account	13	13
Corporate Stocks or Bonds	12	12
Employer-Sponsored Retirement Plan – non-contributing employer	12	12
Traditional IRA	12	12
None	10	10
Other	9	9
Government Bonds	8	8
Other Retirement Savings Account	7	7
Annuities	4	4

Table 5 - Savings Instruments Used for Retirement Savings by Recent Female College Graduates

Research Question 3

To what extent (amount and percentage of income) are these women saving for retirement?

Despite being out of school for a relatively short period of time, approximately half of all respondents reported saving for retirement. The range for retirement savings in the previous year was \$0 to \$15,000. The average amount saved in the previous year was \$1,714, with a median savings of \$675. Fourteen respondents did not answer or indicated that they did not know the amount saved for retirement in the previous year. Forty-two

percent of the remaining sample reported no saving for retirement during the previous year, while 29% indicated saving between \$100 and \$2,000, and 8% indicated amounts of savings greater than \$5,000.

As a percentage of income, retirement savings represented on average six percent of a respondent's income. Six percent is a common matching contribution by many employers, so it is reasonable for this to be the average savings rate. There were 17 respondents who indicated they did not know the savings for the previous year, left the question blank, or did not enter salary data which yielded 83 valid cases. The range of retirement savings for the past year as a percent of income was from 0% to 40%. The median savings rate was only one-third the average amount at two percent. There were 43% of the remaining respondents who indicated saving 0% of their salary, while 31% saved 6% or less and 16% saved greater than 10% of their salary for retirement in the past year.

When considering total retirement savings, the range was \$0 to \$100,000 ($N=76$). The average amount saved was \$8,330, with a median savings of \$650. There were three respondents in this sample who had saved greater than \$50,000 (four counting the one saving \$200,000). When data were evaluated without these four cases ($N=73$), the average amount saved was \$5,288, with a median savings of \$500. Twenty-two respondents did not answer or indicated that they did not know the amount saved for retirement. Thirty-seven percent of the remaining sample reported no saving for retirement, while 34% indicated \$5,000 or less, and only 10% indicated amounts of savings greater than \$26,000.

Table 6 shows the results of comparing retirement savings by year of graduation. The largest amounts of savings are by those who have been out of school the longest, with the most recent graduates having the least savings.

Graduation Group			Mean	Median	Maximum	Minimum
1994-1998	N=8	Retirement Savings Last Year	\$4,688	\$3,500	\$15,000	\$0
	N=8	% of Salary Saved for Retirement Last Year	5%	2%	30%	0%
	N=8	Total Retirement Savings to Date	\$23,563	\$12,500	\$90,000	\$0
1999-2003	N=26	Retirement Savings Last Year	\$2,050	\$780	\$10,000	\$0
	N=26	% of Salary Saved for Retirement Last Year	7%	2%	40%	0%
	N=22	Total Retirement Savings to Date	\$13,630	\$2,405	\$100,000	\$0
2004-2005	N=50	Retirement Savings Last Year	\$1,064	\$100	\$10,000	\$0
	N=50	% of Salary Saved for Retirement Last Year	4%	0%	33%	0%
	N=46	Total Retirement Savings to Date	\$3,146	\$150	\$50,000	\$0
1994-2005	N=84	Retirement Savings Last Year	\$1,714	\$675	\$15,000	\$0
	N=84	% of Salary Saved for Retirement Last Year	6%	2%	40%	0%
	N=76	Total Retirement Savings to Date	\$8,330	\$650	\$100,000	\$0

Table 6 - Retirement Savings by Year of Graduation

Respondents were asked to complete the following statement: I will be able to save more for retirement when... Responses were grouped by themes. Common themes were

completing graduate/professional school, paying off debts, getting a better job or raise, having children grown, and no time better than the present. There were seven respondents who replied that now was the best time for them to save, while the overwhelming majority of responses relegated the responsibility of saving to some magic date in the future, when all financial obligations would surely be easier to manage. This is somewhat alarming due to the fact that as most people's income increases so do their expenses. There were a small number, five, respondents who apparently believed that retirement planning should not be attempted until one is in the job from which they intend to retire, suggesting a need for education on the portability of retirement savings. Three respondents gave no definite time frame, only indicating that retirement planning was appropriate when they were older, one intended to save upon winning the lottery, and one respondent simply replied never!

Research Question 4

What attitudes and beliefs regarding retirement are common among women who have graduated from college in the past ten years?

The first question of the survey was an open response question asking what retirement meant to the respondent. The majority of the feedback was positive, although there were some fears and reservations expressed about financial planning and health. The overriding theme expressed was one of looking forward to a slower-paced life, a life with time for travel, family, relaxation, hobbies, volunteerism, and freedom. When people retire from their place of employment, they seem to be eagerly anticipating having flexibility with their time. This was consistent with the AARP study of Baby Boomers. "Most in this

generation continue to view retirement principally as an opportunity to spend more time with family, as a time to pursue hobbies and interests and a time of leisure” (AARP, 2004, p. 6).

When asked about how much thought had been given to retirement, the overwhelming majority, 79%, had given a great deal or some thought to retirement. Only one respondent indicated that they had given retirement no thought. This finding was encouraging because the message of early preparation is being heard, perhaps not acted upon by all, but at least being heard. Comparing the different graduation years, it was interesting to note that regardless of year of graduation, 79% of graduates had given at least some thought to retirement (See Table 7).

When asked how optimistic they were about retirement, 81% reported being very optimistic or somewhat optimistic about retirement years. No respondents marked “not at all optimistic”. This finding was more optimistic than the findings of the AARP (2004) study, in which 69% reported feeling very or fairly optimistic about their retirement years. When considering the question by year of graduation, the respondents with the earliest graduation date reported the most optimism (See Table 7).

In addition to these two measures, a retirement attitude score was calculated for each participant. There were 28 attitude questions measured on a five-point Likert scale. Point values were assigned from one (most optimistic attitude toward retirement) to five (least optimistic attitude toward retirement). Each respondent’s answers were averaged, yielding her retirement attitude score. A reliability analysis revealed that the total retirement attitude score was appropriate, with an alpha of .787. Retirement attitude scores ranged from the most optimistic attitude of 1.54 to the most pessimistic attitude of 3.68. The average

retirement attitude was 2.54 as was the median. A score of 3 (answer of “neither agree nor disagree”) would have reflected a general ambivalence in retirement attitude; therefore, these scores reflect a retirement attitude that is only slightly more positive than negative. A Pearson product-moment correlation revealed a strong correlation ($r=.612, p=.000$) between the retirement attitude score and the self-reported attitude toward retirement. The scores on the retirement attitude index followed a normal distribution, see Figure 10. In general, the AARP (2004) study also revealed mostly positive attitudes toward retirement, although the attitudes of those with adequate preparation were much more positive than those without adequate financial resources. The retirement optimism score varied only slightly between the groups when comparing date of graduation. The middle group of graduates, 1999-2003, scored the least optimistic toward retirement (See Table 7).

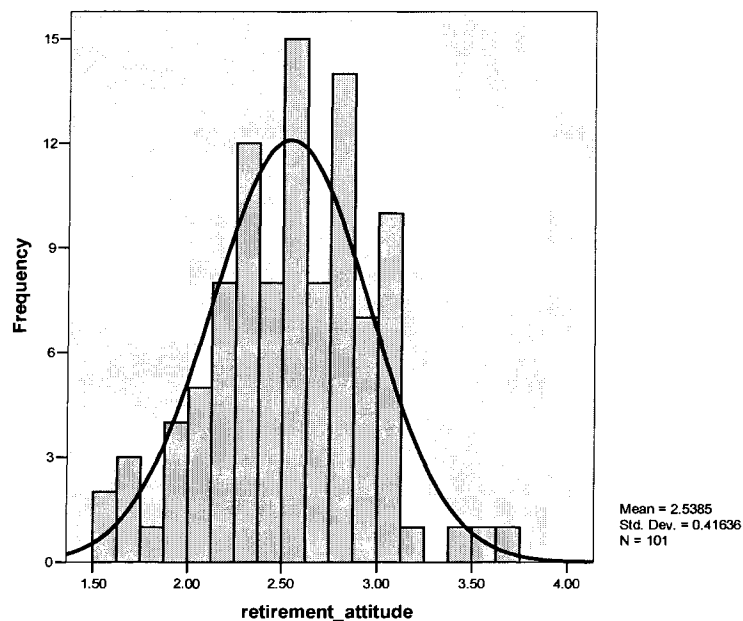


Figure 10 – Histogram of Retirement Attitude Scores

Graduation Group			Mean	Median	Maximum	Minimum
1994-1998	N=14	Retirement Attitude Index	2.54	2.55	3.54	1.61
		Percent Reporting Very or Somewhat Optimistic about Retirement Years	86%			
		Percent Reporting having Given a Great Deal or Some Thought to Retirement	79%			
1999-2004	N=28	Retirement Attitude Index	2.58	2.52	3.68	1.93
		Percent Reporting Very or Somewhat Optimistic about Retirement Years	79%			
		Percent Reporting having Given a Great Deal or Some Thought to Retirement	79%			
2004-2005	N=56	Retirement Attitude Index	2.53	2.55	3.21	1.54
		Percent Reporting Very or Somewhat Optimistic about Retirement Years	80%			
		Percent Reporting having Given a Great Deal or Some Thought to Retirement	79%			
1994-2005	N=98	Retirement Attitude Index	2.54	2.54	3.68	1.54
		Percent Reporting Very or Somewhat Optimistic about Retirement Years	81%			
		Percent Reporting having Given a Great Deal or Some Thought to Retirement	79%			

Table 7 - Retirement Attitude by Year of Graduation

The following table (Table 7) indicates the mean and median scores on each of the 28 individual retirement attitude questions. The item revealing the least optimistic outlook was the statement that it is hard to save now because of all the other financial needs. This item had an average score of 3.88. The item with the lowest average score (1.58) was *you expect*

to rely on Social Security for all or most of your income during retirement. The low score revealed that the majority chose completely or somewhat disagree revealing an attitude reflecting the acceptance of personal responsibility to save for retirement.

Attitudes Measured in Retirement Attitude Index	Mean	Median	Maximum	Minimum	Std Deviation
1. Scale back lifestyle	2.92	3.50	5.00	1.00	1.31
2. Struggle to make ends meet	1.79	2.00	4.00	1.00	.88
3. Reliance on Social Security for majority of income	1.58	1.00	4.00	1.00	.87
4. Expect money returned from Social Security	2.77	2.50	5.00	1.00	1.43
5. Expect to rely on 401k or personal savings	1.59	2.00	5.00	1.00	.72
6. Not able to afford to retire	1.97	2.00	4.00	1.00	1.03
7. Often discuss retirement	3.20	4.00	5.00	1.00	1.30
8. Hard to save now with so many other needs	3.88	4.00	5.00	1.00	1.21
9. Future will take care of itself	2.04	2.00	5.00	1.00	1.19
10. Confident in ability to prepare	2.12	2.00	5.00	1.00	1.05
11. Find it hard to imagine retirement	2.62	2.00	5.00	1.00	1.33
12. Need more retirement information	3.93	4.00	5.00	1.00	1.12
13. Will have plenty of money for retirement	2.92	3.00	5.00	1.00	1.09
14. Won't be able to afford to do	2.95	3.00	5.00	1.00	1.19

*Lower # indicates more positive attitude toward retirement

*Scale ranged from completely agree to completely disagree, lower number indicates agreement with statement in questions 5, 7, 10, 13, 18, 19, 20, 22, 23, 24, 26, 27, & 28; lower number indicates disagreement with statement in all others.

Table 8 -Attitudes within retirement attitude index score

15. Expect to rely on Social Security	2.16	2.00	5.00	1.00	1.26
16. Major impact if no Social Security	2.83	3.00	5.00	1.00	1.30
17. Keep working for health care and income	3.08	3.00	5.00	1.00	1.18
18. Live longer than parents	2.16	2.00	5.00	1.00	.96
19. More retirement money than parents	3.13	3.00	5.00	1.00	1.05
20. Doing more saving than parents	3.40	4.00	5.00	1.00	1.02
21. Expect Social Security to meet needs	2.29	2.00	5.00	1.00	1.18
22. Need more money than parents	1.81	2.00	5.00	1.00	.86
23. Expect to be better off than age mates	2.48	2.00	5.00	1.00	.88
24. Depend heavily on personal investments	2.06	2.00	5.00	1.00	1.05
25. Won't want to stop working	2.67	3.00	5.00	1.00	1.22
26. Can't wait to retire	2.80	3.00	5.00	1.00	1.23
27. Expect to travel more than age mates	2.17	2.00	5.00	1.00	.96
28. Important to sacrifice and save	1.95	2.00	5.00	1.00	.96
Overall retirement attitude index score	2.54	2.54	3.68	1.54	.42

Table 8 – (Continued)

When asked about Social Security, only seven percent reported feeling very confident in their knowledge of the program. Thirty-nine percent of respondents reported that they were not at all knowledgeable about Social Security. Perhaps they feel no need to be informed regarding the program, as the majority, 85%, responded that they were not very confident or not at all confident that Social Security would be available to them when they retire. Only one respondent indicated that she was very confident in Social Security being

available to her when she retired. Questions from the retirement attitude index which were specifically related to Social Security were averaged together and correlated to the self reported confidence in the Social Security system. There was a strong negative correlation ($r=-.567, p=.000$) between the two; those who indicated a low confidence level in the Social Security confidence question (larger number) indicated a stronger sense of personal responsibility for their retirement as expressed by a lower number on the retirement attitude index questions that dealt with Social Security. Perhaps because those interviewed were closer to retirement age, the AARP (2004) study revealed much more (self-reported) knowledgeable respondents with greater confidence and positive feelings toward the Social Security system. Among Baby Boomers, 67% consider themselves somewhat knowledgeable about Social Security, and 54% are very or somewhat confident that Social Security will be available when they retire.

Respondents ($N=94$, 6 non-respondents for retirement age) indicated that they expected to retire somewhere between the ages of 50 and 75, with the most common response being 65. The average age of expected retirement was 63.8 years. The lowest-quarter of respondents expected to retire before age 60, while the upper-quartile expected to retire after age 67. In the AARP (2004) study, the average age of expected retirement was 65.5. A Pearson product-moment correlation revealed that there was a weak, yet significant negative correlation between retirement age and the total amount saved for retirement ($r=-.331; p=.004$), and the amount saved in the previous year ($r=-.291; p=.008$), meaning that those who anticipate retiring earlier were saving more. These findings should, however, be interpreted with caution as the correlation was weak and the scatter plot revealed a limited

linear relationship between retirement age and the total amount saved for retirement (see Figure 12).

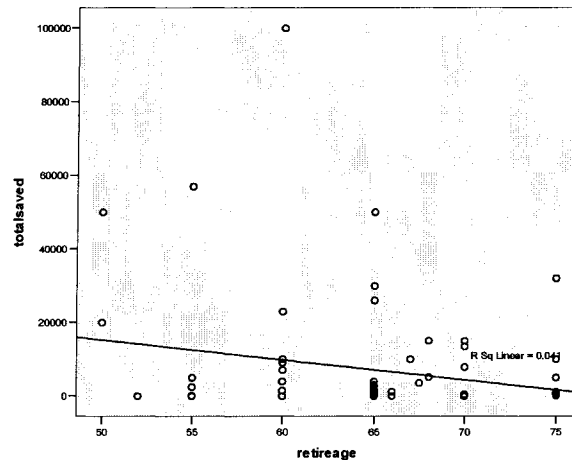


Figure 11 – Scatter-plot of Retirement Age and Total Saved for Retirement

To test for support of the Theory of Reasoned Action, upon which this study was grounded, a Pearson product-moment correlation was used to compare the retirement attitude scores with the total savings and total debt load of participants. A scatter plot revealed the tendency of those with more positive attitudes toward retirement to save more, and have less unsecured debt (see Figures 13 and 14).

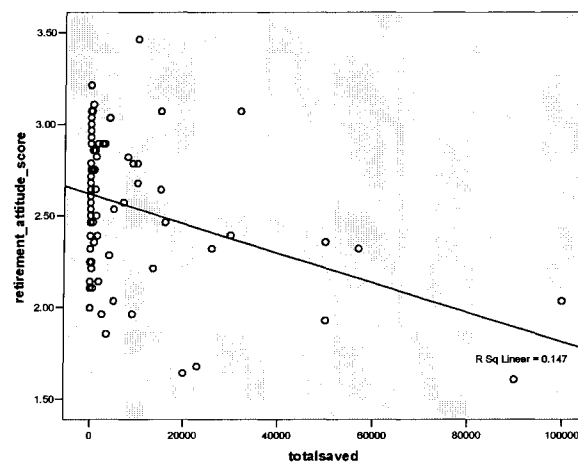


Figure 12 – Scatter-plot of Retirement Attitude Score and Total Retirement Savings

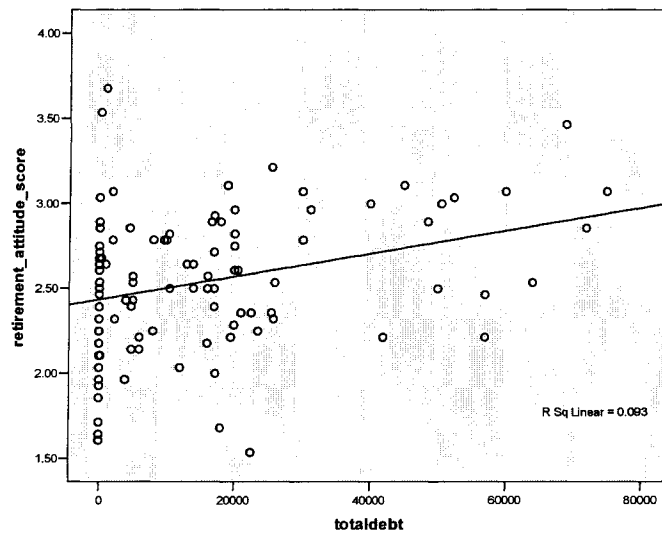


Figure 13 – Scatter-plot of Retirement Attitude Score and Total Unsecured Debt

There was a significant positive correlation at the .01 level between retirement attitude score and total debt ($r=.300, p=.003$), revealing the less optimistic the retirement attitude, the larger the total outstanding debt. It is interesting to consider the components of the debt measure. There was a slightly larger correlation between student loans and retirement attitude score ($r=.256, p=.011$) than between credit card debt and retirement attitude ($r=.203, p=.045$). This finding indicates that student loan debt exerts a slightly stronger influence on the retirement attitude than does credit card debt. In addition, there was a significant negative correlation at the .01 level between retirement attitude score and total amount saved for retirement ($r=-.383, p=.001$) and also for retirement attitude score and the amount saved last year ($r=-.427, p=.000$). This reveals that the more optimistic the retirement attitude, the larger the amount saved for retirement. These findings support the utility of the Theory of Reasoned Action.

Respondents were split to identify differences between those with debt and those with no debt. Participants who had debt had a higher retirement attitude index score revealing a less positive attitude toward retirement. A t-test revealed that the difference between the retirement attitude index scores of those with debt and those with no debt was significant ($t=2.754$; $p=.009$). A Pearson-product moment correlation revealed that the retirement attitude score continued to have a significant, yet weak correlation to the retirement savings from the previous year ($r=-.335$, $p=.008$), it was however stronger among those with no debt ($r=-.515$, $p=.014$).

Research Question 5

Are retirement savings rates correlated with unsecured, consumer debt?

A Pearson product-moment correlation was used to examine the relationship between the percent of salary devoted to retirement saving and the percent of salary devoted to the unsecured consumer debt of participants. The percent of salary was used to make these comparisons due to the fact that comparing raw numbers would not take into consideration the variation in salary. The use of percentages is common when considering the debt burden placed on households. In general, if a household has more than 20% of their income devoted to debt repayment, they are considered over-indebted. This number would include all debt except a first mortgage. Therefore, the unsecured debt used in these calculations would only be a portion of this amount because no secured debt, such as automobile loans, was included.

The data failed to reveal a significant relationship between unsecured debt levels and early saving for retirement. The correlation was very weak, $r = -.196$, and failed to achieve significance at the .05 level. The significance level for this correlation was .076.

The data were positively skewed due to the large number of respondents with no unsecured debt. Therefore, a second calculation was run with respondents being grouped into three categories, no debt, low debt, and high debt, with each category representing roughly one-third of respondents. A cross tabulation revealed 11 respondents with no debt and high savings, but 9 respondents with high debt and high savings. There were 11 respondents with no debt and no savings, as well as 11 respondents with high debt and no savings. The low debt had the highest number of low savings. A Chi-square test was used to compare the groups. There was no significant relationship found ($p=.244$) between groups based on unsecured consumer debt level.

The large presence of respondents with no unsecured debt, coupled with the relatively small sample size made it difficult to achieve significance. If the survey were to be repeated with a better response rate, or fewer debt-free people, it is possible that a significant relationship might be found.

Research Question 6

What types of preparation for financial independence (courses/seminars) did the alumnae receive from their years at the University?

Forty-eight percent of respondents indicated that they had participated in some financial education at UCA. Forty-four percent mentioned the Consumer Education class taught in the Department of Family and Consumer Sciences (FCS). In addition to the course in FCS, one mentioned Economics in the Business department, one was an investment club member, one indicated Finance, with no department, and one could not recall what she had attended.

A t-test was used to compare the average credit card debt, student loan debt, total savings, and retirement attitude score of those indicating they had been in a class (CL) to those indicating they had not (NC). Although there were some encouraging raw data differences in the areas of debt and retirement attitudes, there were no statistically significant findings.

Research Question 7

What suggestions do recent female college graduates give to the University regarding preparation of future students for financial independence?

Most recent college graduates' suggestions focused on educating students about the dangers of debt and the need for saving. The most common suggestion, made by 31 respondents was to make a financial literacy course a requirement. An additional six indicated that the course should be offered or required, and one suggested that it be added to the list of choices in the General Education requirements. The pool was split on whether the course should be offered to freshmen or seniors - valid argument was made for both cases. An additional 18% of respondents suggested various ways to add the information to other courses, seminars, bulk electronic mail messages, exit interviews, Greek system presentations, etc. Although not going so far as to suggest a class, 16 suggested more information on retirement planning, and 17 suggested more information on credit. Four suggested bringing financial experts to campus, and six suggested throwing credit card vendors off campus! Additional scholarship opportunities and increased aid in job placement were also suggested. One respondent expressed an interest in offering such a course free to alumni: yet another said that it wasn't the University's place – "students have to figure these

things out for themselves.” If the majority voice of recent female college graduates was to be heard, students need to be educated on finances during their college years.

Research Question 8

How do female Family and Consumer Sciences students compare on the previous measures to the general population of recent college graduates?

Family and Consumer Sciences majors represented 42% of this sample. The next largest group of majors was Psychology and Education with 5% each. Familiarity with the researcher could be assumed to be one reason for the greater participation of FCS majors in the survey.

T-tests were used to compare FCS to non-FCS majors on retirement attitude, percent of salary committed to debt, and percent of salary committed to retirement savings. When no differences proved significant, FCS and non-FCS majors were grouped according to debt level (none, low, high) and a Chi-square test was used to test for significant differences. Among the previous measures, there were some trends found regarding FCS majors and other majors. On average, FCS majors were saving \$745 more while their salaries were \$737 less. Student loan debt is less, although credit card debt is more. They are saving just over 6% of their income for retirement, and their attitude toward retirement is nearly identical to that of the other majors, slightly more positive than negative. These findings could certainly make practical differences in an individual's life, but none of the findings proved to be statistically significant at the .05 level.

CONCLUSIONS

The purpose of this study was to bring insight to the relationship between unsecured debt and early saving for retirement by recent female college graduates. The results of the study must be understood in light of the limitations presented. They must also be interpreted as a preliminary look at young women and retirement attitudes and actions. Suggestions for future study are presented.

Limitations

The limitations of the present study should be considered in the interpretation of the findings as well as in preparation for future studies. The sampling of only graduates of the University of Central Arkansas for which the Alumni Office had email addresses may limit the generalization of the findings of this study. The use of a single university could produce an institution bias as well as the potential for a regional bias. Although limiting inclusion in the study to those alumnae who had provided the UCA Alumni Office with an electronic mail address assured that respondents were familiar and comfortable with the use of computerized technology in communication, it also eliminated a number of alumnae from the study.

The low response rate, 16%, is certainly of concern. It brings to the attention of the researcher the possibility that non-response error could skew the findings of the study. The low response rate of earlier graduates weakens the ability to make accurate comparisons of graduates across time. One must consider the fact that perhaps more savers and fewer debtors chose to respond to the survey due to their comfort in confronting their own financial situation. Also, respondents may not have been candid in their reporting of debt and savings.

An additional consideration is the impact of the limited amount of time much of the sample had been out of school. This could mean a less than accurate portrayal of their saving propensity due to the lack of time to establish saving and investing habits.

Ideas to improve future research projects

- Improve sampling techniques
- Addition of needed questions to survey instrument

To address these concerns, a number of changes could be made in future research. Cooperation among researchers at multiple universities or businesses who employ recent college graduates could yield a more representative sample. This would allow sample characteristics to be improved upon. More thought should be given to ways to increase participation rates, including the use of incentives or using a mixed method of collecting the data such as follow-up phone calls for initial non-respondents. Both of these suggestions would significantly increase the cost in terms of resources and time for the research to be conducted; additional funding would be necessary.

Changes to the survey instrument could yield more meaningful results as well. Although year of graduation was requested, there was no request for age. Due to the presence of non-traditional students, it is not accurate to assume that year of graduation reflects the age of the respondent. In addition, the credit card debt was requested, but not the number of credit cards owned. Both age and the number of credit cards have been shown in other studies (Gladieux & Lee, 2001; Hayhoe et al., 2005; Nellie Mae, 2005) to have influence on the amount of debt. A question regarding present employment would have revealed potential bias in current saving – as unemployed persons may not be contributing to

retirement savings for that reason rather than due to lack of knowledge or desire to save. There were also some respondents who indicated that they were not ready to save for retirement because they were not in the job they wished to retire from, so a question on the perceived permanence of their employment would allow the researcher to control for this factor. Demographic questions which would indicate marriage status, the presence of joint accounts, and whether respondents were living independent versus in their parent's home would also have added valuable information. In addition to the retirement attitude scale, a measure of the attitude toward debt and attitude toward saving would have added clarity to the results. A question regarding the presence of employer provided education and not only university provided education would have also been beneficial.

Findings

This study provided valuable information in the following areas:

- Student loan and credit card debt
- Early saving for retirement
- Factors perceived as barriers to saving for retirement
- Instruments used for retirement savings by recent female college graduates
- The correlation between retirement attitude, savings, and debt
- The perceived importance of financial education by recent female college graduates

With regard to unsecured debt, the participants in this survey, on average were doing well. Nationally, student loans had a median of \$15,500 among students who borrowed to attend college for a Bachelor's degree at the time of graduation (The College Board, 2005b).

This study revealed a median student loan debt of \$16,500 among those with student loan debt; however, 39% of the sample had no student loan debt. When all respondents were considered, the median student loan debt in this sample was \$7,500. It is important to note that this sample included those who had been paying on student loans for varying periods of time, up to ten years; therefore a direct comparison is not a completely reliable indicator. The median credit card debt was only \$113, reflecting the presence of 47% of the sample reporting a zero balance on credit cards. This number was substantially less than the \$946 reported by Nellie Mae (2005), although once again it must be considered that there was a time difference between the two. Additionally, 26% had no unsecured debt in the form of credit cards and student loans within the first years after college.

Other findings were not so positive. Twenty-five percent of all respondents had \$20,000 or more in student loans, 11% of respondents had borrowed more than the full cost of tuition, fees, room and board for four years at UCA. Thirteen percent had equal to or greater than \$10,000 in credit card debt, with one respondent holding \$90,000 in credit card debt. Certainly eliminating that amount of debt will require years of hard work and fiscal prudence.

Almost half (48%) of all respondents had begun saving for retirement, although the median amount of total retirement savings was rather small, only \$650. Twenty-two respondents did not answer the question about total amount saved, and 29% of respondents indicated they had no retirement savings. Given the fact that 57% of the respondents had a graduation date of 2004 or 2005, and two responded that they were currently in graduate school, these numbers could indicate a shift in earlier retirement saving by recent female

college graduates. It is important, however, to reach the 29% of the respondents with no savings so that they too can benefit from the power of compounding.

There was no correlation between the amount of debt or debt payments and the amount of savings being done for retirement at an early age. From anecdotal evidence, recent graduates indicated that paying student loans kept them from saving. However, in response to this survey, paying off student loans was mentioned less often than five other responses when asked about when they expected to be able to save for retirement. Obtaining a better job or a promotion was the most often mentioned barrier to retirement savings. The general tendency was to associate ease of saving with LATER – indicating as much a problem with willpower as with lack of funds.

Within this study, respondents reported a number of retirement savings instruments that were being utilized. Sixty-four percent of the sample had access to and utilized employer-sponsored retirement savings plans with 52% receiving matching funds from their employer. This number is somewhat lower than the 72% who reported saving in a 401(k) in the Transamerica Retirement Services & Zogby International survey (2005), but could also be reflective of their limited amount of time in the workforce. The next most reported savings instrument was a regular savings account being utilized by 47% of respondents. Due to the very low rates of returns on regular savings account, this would indicate a need for educating young women about how rates of return and the inflation rate affect long-term savings. Nearly one in five (19%) were utilizing a Roth IRA which allows for tax-exempt growth of deposits – an excellent choice for young people anticipating several years of future compounding (Garman & Forgue, 2003).

A unique contribution of this study to the literature was the information regarding the retirement savings attitudes and actions of recent female college graduates. Most studies on retirement planning and actions assessed older workers. If younger workers were mentioned in studies it was as a comparison to the rate of participation or savings of other workers. In an extensive literature review, the researcher did not find a study that focused on young people and their retirement attitudes.

The correlation between retirement attitude, savings, and debt supported the theory of reasoned action. Within the theory, the more positive the attitude and the expectation that others whose opinion we value feel we should behave in a certain way (our subjective norm), the more likely that the behavior will occur. The accumulation of debt was negatively correlated with positive retirement attitudes and the amount of savings done by recent female college graduates was positively correlated to positive retirement attitudes in this study. It must be noted that correlations do not imply causation, rather a relationship. Therefore this finding does not tell us that their attitude toward retirement was responsible for greater savings or less unsecured debt. It does however show a relationship that gives educators and employers a reasonable expectation that if attitudes toward retirement and the social expectation of personal saving for retirement are reinforced that the retirement saving and unsecured debt levels would be impacted as well.

The vast majority of respondents (93%) mentioned some form of education as being an important way to prepare students for their financial future. Requiring students to take a course or seminar in financial literacy was suggested by 31% in this study, less than half of the 76.3% in the Bowden and Jones (2006) study. However, responses to this query were in

the form of open response with no set choices provided, given the suggestion of a required course, respondents may have ranked this higher.

Interested Parties and Recommended Actions

Many entities could benefit from the insight gained in this study as the economic well-being of young people is both the responsibility of and the hope for the future of many.

Among those who should be interested are:

- Family and Consumer Sciences professionals
- Universities – students, faculty, and administration
- Employers
- United States Government
- Financial Service professionals

Family and Consumer Sciences Professionals

The Family and Consumer Sciences (FCS) profession remains committed to the empowerment of individuals and families. The American Association of Family and Consumer Sciences (AAFCS), the professional organization for this field of study, strives “to improve the quality and standards of individual and family life by providing educational programs, influencing public policy, and through communication. More than 10,000+ members work to empower individuals, strengthen families and enable communities” (AAFCS, n.d., Our focus section, ¶ 1).

Recommended Action for Family and Consumer Sciences Professionals

- Make education relevant
- Publish or highlight within FCS journals

The findings of this study support the work of FCS professionals in the financial literacy field. When asked about the steps that should be taken to financially prepare current students, recent graduates overwhelmingly promoted the use of relevant education. This was also advised by Bowen and Jones (2006), “focusing on issues young adults face today (e.g. credit cards, auto insurance, banking issues) might interest them in future issues they will face (e.g. retirement issues, life and health insurance, work benefits)” (p. 38).

FCS professionals have written profusely regarding the topics touched upon in this study (Abdel-Ghany, 2001; Anderson, 2002; Bowen & Jones, 2006; Chien & DeVaney, 2001; Clarke et al., 2005; Cramer, 2002; Duguay, 2002; Elmerick et al., 2002; Fast et al., 1999; Fox et al., 2005; Garman et al., 1999; Graman et al., 1996; Hayhoe, 2002; Hayhoe et al., 2005; Hayhoe et al., 1999; Hayhoe et al., 2000; Hira, 2002; Hira et al., 2000; Hira & Mugenda, 2000; Hogarth, 2002; Hogarth & Hilgert, 2002; Into, 2003; Jones, 2005; Joo & Garman, 1998; Joo & Grable, 2001; Joo & Grable, 2005; Joo et al., 2003; Kim et al., 1998; Lachance & Choquette-Bernier, 2004; Leach et al., 1999; Li et al., 1996; Loibl & Hira, 2005; Lown, 2005; Lyons, 2004; Muske & Winter, 2004; Nickols, 2002; Power & Hira, 2004; Price, 2003; Oleson, 2001; Ozgen, & Bayoglu, 2005; Reynold & Abdeel-Ghany, 2001; Spratlin & Holden, 2000; Xiao & Fan, 2002; Xiao et al., 1999; Xiao et al., 2004; Yuh & DeVaney, 1996). However, the professional literature within the field does not accurately reflect this depth. Certainly one is not required to publish only within one body of professional literature, but it would behoove FCS literature to highlight the work of researchers within our field who have been published in other professional journals; perhaps

through the addition of a “spotlight on FCS research” column within FCS professional journals.

Universities

University students, faculty, and administration could benefit from the results of this study as well. Students may not be cognizant of the effects of today’s borrowing on their future financial situation. By reviewing the findings of this and many other studies, perhaps students will be made aware of amounts of debt that are excessive relative to college costs and make wiser decisions regarding borrowing discretionary amounts. Also, many young people have never considered retirement planning because of the length of time until they reach retirement age. However, students can benefit by being given information early in their career about the importance of personal planning and action.

University faculty, particularly those involved in financial literacy education and administration can provide for all aspects of a student’s education while at the university. Financial stress is beneficial for neither the student’s ability to concentrate and achieve academically nor the university’s retention rates (Norvilitis & Santa Maria, 2002).

Recommended Action for Universities

- Assist students in making wise borrowing choices
- Apprise students of loan balances
- Provide financial education regarding saving early

The presence of significant credit card and student loan debt (greater than \$20,000) among 28% of the respondents in this study highlights the opportunity for education institutions to offer students financial help in making wise borrowing choices. As stated by

Warwick and Mansfield (2000), “University administration also has a fiscal interest in the students as well as an educational responsibility for what a student is exposed to on campus” (p. 623). In light of this responsibility, the university could influence the subjective norm of students through promoting an atmosphere of financial responsibility.

Twenty-five percent of respondents in this study had in excess of \$20,000 in student loan debt. Universities have the opportunity to make sure students are aware of the burden of excessive student loan debt. Regular confidential reporting would keep students and parents apprised of their cumulative balance. Those who would be able to access this information would need to be regulated in accordance with applicable privacy laws. Keeping students apprised of their outstanding loan balances could be achieved through an addition to their grade report or associated with their student ID so that it could be displayed when other electronic records were accessed. These activities would reinforce the subjective norm of taking care of finances is a valued activity that society expects of recent graduates.

Among reasons given in this study for not saving or not saving more for retirement were not being in the job they wanted to retire from, revealing a need for information on the portability of retirement savings, and waiting until children were grown. If alumni lose twenty years of accumulating retirement funds, it stands to reason that they will be less financially able to benefit the university or themselves during retirement. Henceforth, “college students and young adults can be encouraged to start saving and investing as soon as they enter the workforce and not wait until their pre-retirement years to accumulate savings for retirement” (Xiao, Maltroutu, & Yuh, 1999, p. 57).

Employers

Those who employ recent college graduates could also benefit from exposure to this study. A continuation of the atmosphere of personal financial responsibility with regard to unsecured debt and early saving for retirement would in all likelihood increase participation rates in defined contribution retirement plans (Bernheim & Garrett, 2003; Garman et.al, 1999; Joo & Grable, 2005; Loibl & Hira, 2005; Lusardi, 2004) and contribute to employee loyalty and productivity (Garman et al., 1996). The average rate of retirement savings found in this study was six percent of respondent's salary; however the median was just two percent. The average amount saved in the past year was \$1,714, but the median was just \$675. Forty-two percent of the respondents who indicated the amount saved in the last year responded that they had saved nothing this past year for retirement. As evidenced in this study by the low rate of early saving for retirement, more needs to be done to encourage retirement savings among recent female college graduates.

Recommended Actions for Employer

- Offer comprehensive financial education and role model positive financial management
- Pay employees for time spent in financial education

Employers could influence positive retirement attitudes by providing appropriate education and good role models for employees. It is also valuable to consider making the education mandatory, on paid company time, because those who need the information most are also the least likely to voluntarily seek it (Neukam & Hershey, 2003).

United States Government

Government entities must also be aware of the challenges addressed in this study.

The importance government places on the post-secondary education of its citizenry should be evident in the money allocated to support it. However, there is a continued decrease in grant funding for higher education that has increased the dependency on student loans (The College Board, 2005b).

Recommended Actions for United States Government

- Increase grant funding for higher education
- Modify Social Security and inform younger workers of the way the system can serve them

Efforts should be made to increase grant funding for higher education. The cost of higher education has risen to the point that the majority of students, 61% in this study, have taken student loans to finance their education. This can impact the choices available to them regarding graduate school, buying a home, and which career to pursue (Boushey, 2003; Millett, 2003, Baum & O'Malley, 2003).

As supported by the findings of this study, Social Security is rarely considered a viable system by young people. Young people need to be made aware of the current state of affairs within the Social Security system and be considered in the changes being proposed for the system. Considering the future of Social Security is extremely valuable for young people as well as older adults.

Financial Service Professionals

Financial service professionals, including both financial planning and debt counselors, would benefit by considering the implications of this study. Xiao, Maltroutu, and Yuh (1999) expressed that “Financial service professionals and personal finance and family economics educators now face new opportunities and challenges to promote savings and investment mentality and habits and to teach effective investing strategies so that households may have a financially secure retirement” (p. 57).

Recommended Actions for Financial Service Professionals

- Take young clients seriously
- Help heavily indebted recent graduates

It is valuable for planning professionals to see young clients, with small asset bases, as important to pursue, educate, and enable to prepare for their future. As would be anticipated, this study indicated that assets grew the longer respondents had been out of school.

Debt counselors should assist the young to eliminate debt early as the impact of debt can deter the attainment of a financially secure future (Duguay, 2002; Lyons, 2004). Although most respondents were not deeply in debt, there were some who could definitely benefit from the help of debt counselors. When students foolishly use credit and accumulate debt they financially handicap themselves. “The young adult who lacks the ability to save or who has amassed a great deal of consumer debt takes into adulthood an ‘anti-dowry’” (Clark et al., 2005). Financial service professionals can be of great benefit to the young adult.

Recommendations for Future Research

Although this study has provided an addition to the literature, upon reviewing the results, several recommendations for future studies are outlined below that would add to the existing body of knowledge in financial literacy. Among those recommendations are:

- Repeating this study using different samples
- Longitudinal study of financial literacy education
- Longitudinal study of the long-term impact of debt loads
- Qualitative study of savers versus non savers
- Longitudinal study of changes in saving habits as we age
- Investigating differences of those with positive retirement attitudes and negative retirement attitudes

A broader sample, including college graduates from multiple universities and non-college graduates would be beneficial. Reaching a larger percentage of alumnae from earlier graduation years would allow the researcher a better cross-sectional view of changes with measures of unsecured debt and retirement savings.

In addition to questions measuring attitude toward retirement, a similar group of questions measuring attitude toward saving versus spending and attitude toward debt would allow for further utilization of the theory of reasoned action. In future use of the data gathered in this study, a factor analysis of the retirement attitude questions might be used to reveal significant themes related to the attitudes expressed and allow the researcher to further extract meaningful conclusions from the data.

Financial literacy education has been proposed as an answer to a multitude of problems facing young adults (Bruce, 2000; Into, 2003; Hira, 2002; Lee, 2004; NRPC, 2003; PRC, 2003b; Price, 2003; Stein, 2004; Vanac, 2004; and WISER, 1999a). As such, longitudinal research used to identify the best practices and support the effectiveness of financial literacy education would add to the financial literacy body of knowledge.

An additional longitudinal investigation into the long-term impact of the debt load of recent female college graduates would also add clarity. It would also be a worthy inquiry to qualitatively study those who chose to save at an early age juxtaposed to those who ignored the need to save until a later age. A longitudinal study could also clarify how the saving habits of recent graduates change as they age. Differences between the characteristics of those with the most positive attitudes toward early saving for retirement compared to those with the most pessimistic attitudes could also allow practitioners valuable insight into effective programming.

Conclusions

The purpose of this study was to investigate the relationship between early saving for retirement and the unsecured debt-load of recent female college graduates. Anthes and Most (2000) expressed the difficulty of the cultural stereotype of the helpless girl that has in the past followed women into adulthood and hindered them from preparing for their financial future at a young age.

Girls are trained to be financially dependent and expect the knight in shining armor to take care of them. They are taught to seek safety and security rather than become risk-takers, and that has an impact on their decision making in finances and

investments. Girls don't do money. So when they become women, they don't do money either. (p. 140)

This study revealed that although there are a number of recent female college graduates who have been diligent in beginning to save for retirement early and have not acquired unsecured debt, there are also a number of recent female college graduates who need to reduce their debt and increase their savings in order to provide for themselves in the future. Early in their career is a great time for women to develop the efficacy to care for their financial affairs in a competent manner. Family and Consumer Sciences and the education communities can help them do so.

APPENDIX A: IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Assurances
Vice Provost for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

DATE: November 17, 2005

TO: Pamela Bennett
FROM: Human Subject Research Compliance Office

RE: IRB ID # 05-513
STUDY REVIEW DATE: November 17, 2005

The Institutional Review Board has reviewed the project, "The correlation between undergraduate debt and early retirement planning of recent female college graduates" requirements of the human subject protections regulations as described in 45 CFR 46.101(b)(2). The applicable exemption category is provided below for your information. Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

The IRB determination of exemption means that this project does not need to meet the requirements from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects, unless required by the IRB. We do, however, urge you to protect the rights of your participants in the same ways that you would if your project was required to follow the regulations. This includes providing relevant information about the research to the participants.

Because your project is exempt, you do not need to submit an application for continuing review. However, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if you have stated in your application that you will do so or required by the IRB.

Any modification of this research must be submitted to the IRB on a Continuation and/or Modification form, prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

cc: AESHM
Yvonne Gentzler

Sponsored Programs

THE UNIVERSITY OF
CENTRAL ARKANSAS



201 Donaghey Avenue
Conway, Arkansas 72035-0001
Telephone: (501) 450-3451
Fax: (501) 450-5339

November 29, 2005

Pamela J. Bennett, M.S.
University of Central Arkansas
Department of Family & Consumer Sciences
Conway, AR 72035

RE: IRB Review of Dissertation Research

Dear Ms. Bennett:

The UCA Institutional Review Board accepts Iowa State University's determination that your dissertation research, *The correlation between undergraduate debt and early retirement planning of recent female college graduates*, is exempt. Continuing review will not be required by the UCA IRB.

Please inform the UCA IRB by memo of any changes made to your research project.

Sincerely,

A handwritten signature in cursive script that reads "Jacquie Rainey".

Jacquie Rainey, Dr.P.H.
Chair, UCA IRB

APPENDIX B: SURVEY INSTRUMENT

Survey Instrument: Please answer the following questions as accurately as possible. Your answers should reflect your individual information rather than that of your household. Information will be treated confidentially and no identifying information will be recorded with your answers.

Question 1

Retirement means different things to different people. Briefly, what are the first things that come to mind when you think of your retirement years?

Question 2

Regardless of how far down the road it might be, how much thought, if any, have you given to your retirement years – what you'll do, what financial resources you will have available, etc.?

- a. a great deal
- b. some
- c. very little
- d. none

Question 3

As things stand today, which of these statements best describe your feelings as you think about your retirement years?

- a. Very optimistic about my retirement years and very much look forward to them
- b. Fairly optimistic about my retirement years and pretty much look forward to them
- c. Not too optimistic about my retirement years and look forward to them with mixed feelings
- d. Not at all optimistic about my retirement years and do not look forward to them

Question 4

Thinking about your employment status in later years, which of these best describes what you think you will be doing when you retire. (Please select one of the following) Will you...

- a. Not work at all
- b. Retire from your current career but work full time for pay doing something else
- c. Work part-time mainly for needed income
- d. Work part-time mainly for interest and enjoyment
- e. Start your own business
- f. Other

Question 5

At what age do you expect to retire completely and not work for pay at all?

Answer:

Question 6

Read the following statements people have made about retiring and getting older. Consider whether these statements apply to you personally and choose your position. When considering retirement & getting older, you expect to be living with a spouse or partner for most of your retirement years.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 7

When considering retirement & getting older, you expect to have an aging parent or parent-in-law living in your home at some time during your retirement.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 8

When considering retirement & getting older, you expect to have to scale back your lifestyle during retirement.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 9

When considering retirement & getting older, you expect to have to struggle to make ends meet.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 10

When considering retirement & getting older, you expect to rely upon Social Security for all or most of your income during retirement.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 11

When considering retirement & getting older, you expect to get back during your retirement years the money you have put into the Social Security system.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 12

When considering retirement & getting older, you expect to depend heavily on your 401(k) or other funds you have saved for retirement.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 13

When considering retirement & getting older, you expect to not be able to afford to retire.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 14

Now, how much do you agree or disagree with each of the following statements? You often discuss retirement planning with your family, friends, and co-workers.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 15

You find it hard to save with so many other needs right now.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 16

When you think about retirement, you have the attitude that the future will take care of itself.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 17

You are confident in your ability to prepare adequately for the future.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 18

Which of the following things do you feel fairly sure you can count on as a source of income during your retirement years? (Mark all that apply)

- a. Social Security
- b. Pension from place of employment
- c. Military service pension
- d. IRA, 401(k), or other retirement savings account
- e. Annuity policy from insurance company
- f. Income from savings and investments
- g. Money you will get by selling your house
- h. Money you will get from an inheritance
- i. None of these

Question 19

Which of these tools, if any, are you personally utilizing for retirement savings at this time? (Mark all that apply)

- a. Regular savings account
- b. Long-term savings account
- c. IRA (traditional)
- d. Roth IRA
- e. Employer sponsored plan, such as a 401(k) or 403 b, which my employer offers but does not contribute to
- f. Employer sponsored plan, such as a 401(k) or 403 b, which my employer offers and contributes to
- g. Other retirement savings accounts
- h. Government bonds
- i. Corporate stocks or bonds
- j. Mutual funds
- k. Insurance
- l. Real Estate
- m. Annuities
- n. Other
- o. None of these

Question 20

Does your current employer offer an employer-sponsored retirement savings plan, such as a 401(k) or 403(b)?

- a. Yes, a plan is offered, and my employer matches part or all of my contributions
- b. Yes, a plan is offered, but my employer does not match contributions
- c. No plan is offered by my current employer
- d. I do not know

Question 21

How much did you personally save this past calendar year for retirement?

Answer:

Question 22

Approximately how much is your total personal retirement savings at this point in time?

Answer:

Question 23

How satisfied are you with the amount of money you are putting aside for retirement?

- a. Completely satisfied
- b. Somewhat satisfied
- c. Not very satisfied
- d. Not at all satisfied

Question 24

Here are statements people have made about retiring and getting older. Consider whether these statements apply to you personally and choose your position. When considering retirement and getting older...You find it hard to imagine yourself retired.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 25

When considering retirement and getting older...You need more information to help you prepare for your retirement.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 26

When considering retirement and getting older...You'll have plenty of money when you retire.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 27

When considering retirement and getting older...You won't be able to afford to do all the things you want to do.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 28

When considering retirement and getting older...You expect to rely on Social Security benefits.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 29

When considering retirement and getting older...If Social Security benefits are not available, it will have a major impact on your retirement.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 30

When considering retirement and getting older...You expect to keep working during retirement in order to obtain health care coverage or additional income.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 31

In continuing with statements people have made about retiring and getting older: Consider whether these statements apply and choose your position. When considering retirement and getting older...People in your generation will live longer than people in your parent's generation.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 32

When considering retirement and getting older...People in your generation will have more money when they retire than people in your parent's generation.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 33

When considering retirement and getting older...People in your generation save more for retirement than people in your parent's generation.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 34

When considering retirement and getting older...People in your generation expect Social Security to meet their needs as well as it did your parent's generation.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 35

When considering retirement and getting older...People in your generation need more money to live comfortably than your parent's generation.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 36

When discussions come up about Social Security, how knowledgeable do you feel you are about how the Social Security system works?

- a. Very knowledgeable
- b. Somewhat knowledgeable
- c. Not at all knowledgeable

Question 37

How confident are you that Social Security will still be available to you when you retire?

- a. Very confident
- b. Somewhat confident
- c. Not very confident
- d. Not at all confident

Question 38

Here are more statements people have made about retiring and getting older. Consider whether these statements apply to you personally and choose your position. When considering retirement and getting older...You expect to be better off financially than most people your age.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 39

When considering retirement and getting older...You expect to depend heavily on the personal investments you're making today.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 40

When considering retirement and getting older...You won't want to stop working.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 41

When considering retirement and getting older...You can't wait to retire.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 42

When considering retirement and getting older...You expect to travel more than other people your age

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 43

When considering retirement and getting older...You feel it is important to be prepared for the future by sacrificing and saving today.

- a. Completely disagree
- b. Somewhat disagree
- c. Neither agree nor disagree
- d. Somewhat agree
- e. Completely agree

Question 44

Please complete the following phrase: I will be able to save more/focus more for retirement when...

Question 45

What is the highest level of education you completed?

- a. Associates degree
- b. Bachelor's degree
- c. Master's degree
- d. Doctoral or Professional degree

Question 46

In what year did you complete your degree at the University of Central Arkansas?

Answer:

Question 47

In what field of study was your undergraduate degree?

Answer:

Question 48

For statistical purposes only, please report the amount of outstanding student loan debt that you currently have. (All answers provided within this survey are anonymous. No one, not even the researcher, is able to connect a respondent's answers with their identity. WebCT is password protected and secure.)

Answer:

Question 49

What is the monthly amount you currently pay toward your student loan debt?

Answer:

Question 50

For statistical purposes only, please report the amount of credit card debt you currently have.

Answer:

Question 51

What is the monthly amount you currently pay toward your credit card debt?

Answer:

Question 52

What are the approximate average charges that you add to your credit card monthly?

Answer:

Question 53

To what extent does the student loan and credit card debt you have influence your long term financial planning?

- a. a great deal
- b. some
- c. very little
- d. none

Question 54

What is your current annual salary?

Answer:

Question 55

Did you attend any classes or seminars during your time at the University that aided in your preparation for financial independence?

- a. Yes
- b. No

Question 56

If yes, what was the title and by what department was it sponsored?

Question 57

What suggestion would you make to universities in preparing students for financial independence?

Question 58

Gender:

- a. Male
- b. Female

APPENDIX C: PERMISSION TO USE INSTRUMENT

Permission to use AARP Survey:

From: "Prisuta, Robert" <RPrisuta@aarp.org> To: <PBennett@iastate.edu> Subject: Permission to Use Questionnaire Date: Mon, 26 Jul 2004 11:39:02 -0400						Move Message To: <input type="button" value="Move"/>	
						<input type="button" value="View All Headers"/>	
<input type="button" value="Reply"/>	<input type="button" value="Reply To All"/>	<input type="button" value="Forward"/>	<input type="button" value="Redirect"/>	<input type="button" value="Print"/>	<input type="button" value="Delete"/>	<input type="button" value="Previous"/>	<input type="button" value="Next"/>
<p>Message Ms. Bennett:</p> <p>Please feel free to replicate, with appropriate attribution, portions of the questionnaire used in the AARP report "Boomers Envision Retirement II." Please use both AARP and Roper Public Affairs in your citations. Good luck with what sounds like an interesting project.</p> <p>Robert H. Prisuta, Ph.D. Research Director AARP</p>							

APPENDIX D: INITIAL RECRUITMENT E-MAIL

Initial Recruitment E-mail

Dear UCA Alumna:

Did you know that the Bureau of Labor Statistics estimates that **90% of women** will be solely responsible for their finances at some point in their life? Because women live an average of six years longer than men, and earn an average of 22% less than their male counterparts, it is vital that they plan for their financial well-being from an early age. You are receiving this message as an invitation to participate in an exciting research survey exploring the connection between the debt obligations and the early retirement planning of recent female graduates of the University of Central Arkansas. This survey will have no cost to you, require a minimal amount of your time, and will be of benefit to the education of future college students throughout the nation. As a participant in this study, you will also be given access to information designed to increase your personal financial knowledge.

I am a UCA alumna and a clinical instructor at UCA in the Department of Family & Consumer Sciences. I am conducting this research study to explore the connection between the unsecured debt and early retirement planning among recent female college graduates. As a female graduate of UCA in the past ten years, **your input is vital** to this research. You do not have to have unsecured debt or be involved in retirement planning at this time for your information to be valuable. This research will identify one possible reason for the lack of planning and serve as support needed to implement greater personal financial planning resources into the college curriculum and workforce Human Resources departments.

Your participation in this research is completely voluntary, and you may choose to skip any question. However, utilizing the WebCT server at UCA ensures your privacy. The benefit of the survey being on WebCT is that the information will be password protected so that you are the only one who has access to your information. As the researcher I will be able to see survey results, but not individual answers. This system provides for **complete anonymity** to you as a participant. Your WebCT ID will be all the characters (lowercase, no spaces) of your e-mail address prior to the @ symbol. The password is UCAbears, and it is case sensitive. Once you have logged on to WebCT, you may change your password if you desire to do so, by choosing "password settings" at the top of your screen.

To access the survey simply follow the link

http://webct.uca.edu:8900/webct/ticket/ticketLogin?action=print_login&request_uri=/webct/homearea/homearea%3F

Do not hesitate to contact me with any questions you may have either through e-mail or by telephone at (501)450-5951. In addition, Dr. Yvonne S. Gentzler is serving in the capacity of major advisor for my program of study at Iowa State University. Contact information for Dr. Gentzler is gentzler@iastate.edu, or (515) 294-0533. Thank you for your willingness to help future women graduates of UCA, and Go Bears!

Sincerely,

Pam Bennett

Pam Bennett, M. S.
Doctoral Candidate, Family & Consumer Sciences
Iowa State University

APPENDIX E: SECOND RECRUITMENT E-MAIL

Second Recruitment E-mail

Dear UCA Alumna,

You are receiving this message as a follow-up reminder regarding your invitation to participate in an exciting research survey exploring the connection between the debt obligations and the early retirement planning of recent female graduates of the University of Central Arkansas.

Average credit card debt among indebted young adults (ages 25-34) increased by 55 percent between 1992 and 2001, and 104 percent among the youngest adults (ages 18-24) in the same time period. Young adults are often still servicing student loan debt and earn lower, entry-level wages. In addition, it is estimated that women can expect to spend as much as 25 percent of their adult years retired. This makes it vital for plans to be implemented to provide income during a substantial number of years of retirement. Although these statistics can be daunting, they should encourage you to begin now planning for your future!

Your input in this survey makes it possible to identify a reason for the lack of planning and serve as support needed to implement greater personal financial planning resources into the college curriculum and workforce Human Resources departments. This research cannot be completed without your participation...please take 15-20 minutes from your busy schedule to complete the survey. Your participation is completely voluntary but I would deeply appreciate if you take the time and respond to the survey.

This survey utilizes the WebCT server at UCA which ensures your privacy. This system provides for complete anonymity to you as a participant. Your WebCT ID will be all the characters (lowercase, no spaces) of your e-mail address prior to the @ symbol. The password is UCAbears, and it is case sensitive. Once you have logged on to WebCT, you may change your password if you desire to do so, by choosing "password settings" at the top of your screen.

To access the survey simply follow the link

http://webct.uca.edu:8900/webct/ticket/ticketLogin?action=print_login&request_uri=/webct/homearea/homearea%3F

Do not hesitate to contact me with any questions you may have either through e-mail or by telephone at (501)450-5951. In addition, Dr. Yvonne S. Gentzler is serving in the capacity of major advisor for my program of study at Iowa State University. Contact information for Dr. Gentzler is gentzler@iastate.edu, or (515) 294-0533. Thank you for your willingness to help future women graduates of UCA, and Go Bears!

Sincerely,

Pam Bennett

Pam Bennett, M. S.
Doctoral Candidate, Family & Consumer Sciences
Iowa State University

APPENDIX F: THIRD RECRUITMENT E-MAIL

Third Recruitment E-mail

Dear UCA Alumna,

You are receiving this message as a final reminder regarding your invitation to participate in an exciting research survey exploring the connection between the debt obligations and the early retirement planning of recent female graduates of the University of Central Arkansas. I will be completing data collection Saturday, January 28th. This research cannot be completed without your participation...please take a brief amount of time from your busy schedule to complete the survey. As always, your participation is completely voluntary, but most valuable and appreciated.

The ultimate goal of this research is to provide a documentation of importance for the improved preparation of women to care for their financial needs during their college years and early working years. Ask yourself a few questions: 1) Do you have credit card and/or student loan debt? 2) Do you have a plan to eradicate it? 3) Do you know how much you need to save for retirement? 4) Do you have a plan to accumulate it? 5) Would it have been beneficial to you to have had some academic preparation in these areas? If you answered yes to any of these questions, this survey represents your chance to benefit those that are following you. Also, on the WebCT homepage, there are links to tools available to help you in your financial management of these areas. I sincerely hope that you will choose to participate, and by so doing will be benefited by the tools and information.

This survey utilizes the WebCT server at UCA which ensures your privacy. This system provides for complete anonymity to you as a participant. Your WebCT ID will be all the characters (lowercase, no spaces) of your e-mail address prior to the @ symbol. The password is UCAbears, and it is case sensitive. Once you have logged on to WebCT, you may change your password if you desire to do so, by choosing "password settings" at the top of your screen.

To access the survey simply follow the link

http://webct.uca.edu:8900/webct/ticket/ticketLogin?action=print_login&request_uri=/webct/homearea/homearea%3F

Do not hesitate to contact me with any questions you may have either through e-mail or by telephone at (501)450-5951. In addition, Dr. Yvonne S. Gentzler is serving in the capacity of major advisor for my program of study at Iowa State University. Contact information for Dr. Gentzler is gentzler@iastate.edu, or (515) 294-0533. Thank you for your willingness to help future women graduates of UCA, and Go Bears!

Sincerely,

Pam Bennett

Pam Bennett, M. S.
Doctoral Candidate, Family & Consumer Sciences
Iowa State University

REFERENCES CITED

- AARP. (2004, May). *Baby boomers envision retirement II: Survey of baby boomer's expectations for retirement*. Retrieved July 26, 2004, from http://assets.aarp.org/rgcenter/econ/boomers_envision.pdf
- AAUW Educational Foundation. (1992). *How schools shortchange girls*. Washington, DC: NEA Professional Library.
- Abdel-Ghany, M. (2001). The evolution of research in Consumer Science: A 200 year perspective. *Family and Consumer Sciences Research Journal*, 30, 223-239.
- Abowitz, D., & Knox, D. (2003). Goals of college students: some gender differences. *College Student Journal*, 37, 550-556. Retrieved February 02, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Adkisson, R. V., & McFerrin, R. (2005). Living large: Evolving consumer credit institutions and privately induced transfer payments. *Journal of Economic Issues*, 39, 447-454. Retrieved January 12, 2006 from ProQuest database.
- Aizcorbe, A. M., Kennickell, A. B., & Moore, K. B. (2003, January). *Recent changes in U.S. family finances: Evidence from the 1998 and 2001 survey of consumer finances*. Retrieved September 25, 2004, from Federal Reserve Bulletin Website at: <http://www.federalreserve.gov/pubs/oss/oss2/2001/bull0103.pdf>
- Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago: The Dorsey Press.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Alcon, A. (1999). Financial planning and the mature woman. *Journal of Financial Planning*, 12(2), 82-88. Retrieved February 13, 2006 from ProQuest database.
- American Association of Family and Consumer Sciences [AAFCS]. (n.d.). *A brief history of AAFCS*. Retrieved February 25, 2006, from <http://www.aafcs.org/about/history.html>
- American Institute of Certified Public Accountants [AICPA]. (2004, May). *Americans talk about personal finances*. Retrieved January 29, 2006, from http://www.aicpa.org/financialliterary/download/2004_05_Roper_Survey_findings.pdf
- American Institute of Certified Public Accountants [AICPA]. (2005, May 24). *The AICPA launches national women's financial literacy campaign*. Retrieved January 29, 2006, from http://www.aicpa.org/download/news/2005_0524.pdf

- American Savings Education Council [ASEC]. (2004a). *2004 RCS fact sheet: Gender comparisons among workers*. Retrieved September 30, 2004, from <http://www.asec.org/research/rce/2004/04rcsfs4.pdf>
- American Savings Education Council [ASEC]. (2004b). *2004 RCS fact sheet: Saving and retiring in America*. Retrieved September 30, 2004, from <http://www.asec.org/research/rce/2004/04rcsfs4.pdf>
- Anderson, C. L. (2002). Overview: Financial literacy. *Journal of Family and Consumer Sciences, 94*(1), iv.
- Anonymous. (2000). Elder care is costly to relatives and friends. *Journal of Financial Planning, 13*(2), p. 22. Retrieved February 5, 2006, from ProQuest database.
- Anonymous. (2003). Private borrowing for college increasing. *Academe, 89*(6), p. 6-7. Retrieved September 1, 2004, from ProQuest database.
- Anonymous. (2005). Stat bank. *Journal of Financial Planning, 18*(12), 19. Retrieved February 5, 2006, from ProQuest database.
- Anthes, W. L., & Most, B. W. (1999). Retirement planning in the 21st century. *Journal of Financial Planning, 12*(8), 88-96. Retrieved February 13, 2006, from ProQuest database.
- Anthes, W. L., & Most, B. W. (2000). Frozen in the headlights: The dynamics of women and money. *Journal of Financial Planning, 13*(9), 130-129. Retrieved February 13, 2006, from ProQuest database.
- Aronson, E., Wilson, T. D., & Akert, R. M. (2005). *Social Psychology* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Avard, S., Manton, E., English, D., & Walker, J. (2005). The financial knowledge of college freshmen. *College Student Journal, 39*, 321-339. Retrieved February 21, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Bajtelsmit, V. L., & Bernasek, A. (1996). Why do women invest differently than men? *Financial Counseling and Planning, 7*(1), 1-10. Retrieved February 2, 2006, from <http://www.afcpe.org/doc/vol%2071.pdf>
- Barron, J. M., & Staten, M. E. (2004). Usage of credit cards received through college student-marketing programs. *NASFAA Journal of Student Financial Aid, 34*(3), 7-26. Retrieved January 31, 2006, from <http://www.nasfaa.org/Annualpubs/Journal/vol34n3/barron.pdf>

- Bassett, W. F., Fleming, M. J., & Rodrigues, A. P. (1998). How workers use 401(k) plans: The participation, contribution, and withdrawal decisions. *National Tax Journal*, 51, 263-288. Retrieved October 28, 2004, from ProQuest database.
- Baum, S., & O'Malley, M. (2003a, February 6). *College on credit: How borrowers perceive their education debt: Results of the 2002 national student loan survey*. Retrieved January 19, 2006 from http://www.nelliemae.com/library/nasls_2002.pdf
- Baum, S., & O'Malley, M. (2003b). College on credit: How borrowers perceive their education debt. *NASFAA Journal of Student Financial Aid*, 33(3), 7-19. Retrieved January 31, 2006, from http://www.nasfaa.org/annualpubs/Journal/Vol33n3/Baum_Omalley.pdf
- Benn, J. (2002). Consumer education: Educational considerations and perspectives. *International Journal of Consumer Studies*, 26(3), 169-177. Retrieved February 20, 2006, from Blackwell Publishing database.
- Berkner, L., He, S., Lew, S., Cominole, M., & Siegel, P. (2006). 2003-04 National postsecondary student aid study (NPSAS:04): Student financial aid estimates for 2003-04. *Education Statistics Quarterly*, 7(1). Retrieved January 31, 2006 from http://nces.gov/programs/quarterly/vol_7/1_2/5_3.asp
- Bernheim, B. D., & Garrett, D. M. (2003). The effects of financial education in the workplace: Evidence from a survey of households. *Journal of Public Economics*, 87, 1487-1519. Retrieved February 20, 2006, from EBSCOhost database.
- Bernstein, D. (2004). Household debt and IRAs: Evidence from the survey of consumer finances. *Financial Counseling and Planning*, 15(1), 63-72. Retrieved February 7, 2006, from <http://www.afcpe.org/doc/vol1517.pdf>
- Blaum, P., & Fong, V. (2000, May). How students use credit cards has greater impact than number of cards. *Penn State News*. Retrieved June 2, 2004, from <http://www.psu.edu/ur/2000/studentcreditcards.html>
- Boushey, H. (2003, March). *The debt explosion among college graduates* (Center for Economic and Policy Research Issue Brief). Retrieved June 1, 2004, from http://www.cepr.net/Student_Debt_Issue_Brief.pdf
- Bowden, C. F., & Jones, H. M. (2006). Empowering young adults to control their financial future. *Journal of Family and Consumer Sciences*, 98(1), 33-39.
- Brown, M. M., & Paolucci, B. (1979). *Home economics: A definition*. Washington, DC: American Home Economics Association.

- Bruce, L. A. (2000, December). *Savings in America: Retirement picture not as bad as it looks*. Retrieved September 30, 2004, from <http://www.bankrate.com/brm/news/sav/20001226a.asp>
- Business and Professional Women's Foundation [BPWF]. (2005, July). *101 facts of the status of working women*. Retrieved January 28, 2006, from <http://www.bpwusa.org/i4a/pages/index.cfm?pageid=4506>
- Callan, P. M. (2004). *Measuring up 2004: The national report card on higher education*. Retrieved January 31, 2006, from the National Center for Public Policy and Higher Education website: http://measuringup.highereducation.org/docs/nationalreport_2004.pdf
- Carlson, L. (2005, October). Lack of basic financial knowledge impairs retirement. *Employee Benefit News*. Retrieved February 5, 2006 from <http://www.benefitnews.com/pfv.cfm?id=8117>
- Center for Economic and Policy Research [CEPR]. (2005a, August). *Gender bias in the current economic recovery? Declining employment rates for women in the 21st century* (Briefing paper). Washington, D.C.: Boushey, H., Rosnick, D., & Baker, D. Retrieved February 3, 2006, from http://www.cepr.net/publications/labor_markets_2005_08_29.pdf
- Center for Economic and Policy Research [CEPR]. (2005b, September). *Student debt: Bigger and bigger* (Briefing paper). Washington, D.C.: Boushey, H. Retrieved February 3, 2006, from http://www.cepr.net/publications/student_debt_2005_09.pdf
- The Century Foundation. (1998, October 27). *Social security: A women's issue* (issue brief #6). Retrieved September 25, 2004, from http://www.socsec.org/facts/issue_briefs/pdfversions/issbrf6.pdf
- Chen, H., & Volpe, R. P. (2002). Gender differences in personal financial literacy among college students. *Financial Services Review*, 11, 289-307. Retrieved February 7, 2006, from ProQuest database.
- Chien, Y., and DeVaney, S. A. (2001). The effects of credit attitude and socioeconomic factors on credit card and installment debt. *The Journal of Consumer Affairs*, 35(1), 162-179. Retrieved January 12, 2006 from ProQuest database.
- Clark, M. C., Heaton, M. B., Israelsen, C. L., & Eggett, D. L. (2005). The acquisition of family financial roles and responsibilities. *Family and Consumer Sciences Research Journal*, 33, 321-340.

- The College Board. (2005a). *Trends in college pricing, 2005*. Retrieved January 21, 2006, from http://www.collegeboard.com/prod_downloads/press/cost05/trends_college_pricing_05.pdf
- The College Board. (2005b). *Trends in student aid, 2005*. Retrieved January 31, 2006, from http://www.collegeboard.com/prod_downloads/press/cost05/trends_aid_05.pdf
- Cramer, S. L. (2002). Retirement savings of Midwestern women. *Journal of Family & Consumer Sciences, 94(1)*, 48-53.
- Creswell, J. (2002). *Educational research*. Upper Saddle River, New Jersey: Merrill Prentice Hall.
- Cunningham, C. R., & Engelhardt, G. V. (2002). Federal tax policy, employer matching, and 401(k) saving: Evidence from HRS W-2 records. *National Tax Journal, 55*, 617-645. Retrieved February 13, 2006, from ProQuest database.
- Demos. (2004, October). *Generation broke: The growth of debt among young Americans* (Briefing paper #2). New York: Draut, T. & Silva, J. Retrieved December 31, 2005, from http://www.demos.org/pubs/Generation_Broke.pdf
- Demos & The Center for Responsible Lending. (2005, October). *The plastic safety net: The reality behind debt in America* New York: Draut, T. Retrieved December 31, 2005, from http://www.demos.org/pubs/PSN_low.pdf
- Dillman, D. A., Tortora, R. D., & Bowker, D. (1998). Principles for constructing web surveys. *SESRC Technical Report 98-50*, Pullman, Washington. Retrieved April 7, 2005, from <http://survey.sesrc.wsu.edu/dillman/papers/websurveyppr.pdf>
- Dinkins, J. (Ed.). (2003). U.S. poverty thresholds and related statistics. *Family Economics and Nutrition Review, 15(1)*, 102. Retrieved November 18, 2004, from <http://www.cnpp.usda.gov/FENR/FENRv15n1/fenrv15n1p102.pdf>
- Duguay, D. (2002). Graduating money smart students. *Journal of Family & Consumer Sciences, 94(1)*, 37-38.
- Dunn, D. (2001). *Statistics and data analysis for the behavioral sciences*. Boston: McGraw Hill.
- Elmerick, S. A., Montalto, C. P., & Fox, J. J. (2002). Use of financial planners by U.S. households. *Financial Services Review, 11*, 217-231. Retrieved February 7, 2006, from ProQuest database.

- Employee Benefit Research Institute [EBRI]. (2004a, May). *ERISA at 30: The decline of private-sector defined benefit promises and annuity payments? What will it mean? (Issue Brief #269)*. Washington, DC: VanDerhei, J., & Copeland, C. Retrieved September 9, 2004, from <http://www.ebri.org/pdf/briefspdf/0504ib1.pdf>
- Employee Benefit Research Institute [EBRI]. (2004b, August). *401(k) plan asset allocation, account balances, and loan activity in 2003. (Issue Brief #272)*. Washington, DC: Holden, S., & VanDerhei, J. Retrieved September 9, 2004, from <http://www.ebri.org/ibpdfs/0804ib.pdf>
- Employee Benefit Research Institute [EBRI]. (2005a, April). *Encouraging workers to save: The 2005 retirement confidence survey. (Issue Brief #280)*. Washington, DC: Helman, R., Greewald, Mathew & Associates, Salisbury, D., Palandino, V., & Copeland, C. Retrieved January 5, 2006, from <http://www.ebri.org/pdf/briefspdf/0405ib.pdf>
- Employee Benefit Research Institute [EBRI]. (2005b, April). *The U.S. retirement income system*. Washington D. C. Retrieved January 5, 2006, from <http://www.ebri.org/pdf/publications/facts/0405fact.pdf>
- Employee Benefit Research Institute [EBRI]. (2005c, May). *The basics of Social Security, updated with the 2005 board of trustees report*. Washington, D.C. Retrieved February 9, 2006, from <http://www.ebri.org/pdf/publications/facts/0505facts.pdf>
- Employee Benefit Research Institute [EBRI]. (2006a, January). *Study shows value of preserving lump-sum distribution*. Washington, D. C.: Copeland, C., & MacDonald, J. Retrieved February 9, 2006, from http://www.ebri.org/pdf/PR_724_10_Jan06.pdf
- Employee Benefit Research Institute [EBRI]. (2006b, February). *Traditional pension assets lost dominance a decade ago, IRA's and 401(k)s have long been dominant. (Fast Facts # 16)*. Washington, D. C.: MacDonald, J. Retrieved February 9, 2006, from <http://www.ebri.org/pdf/publications/facts/fastfacts/fastfact020306.pdf>
- Family Caregiver Alliance, National Center on Caregiving. (2005). *Fact sheet: Selected caregiver statistics*. Retrieved February 4, 2006, from http://www.caregiver.org/caregiver/jsp/print_friendly.jsp?nodeid=439
- Family Economics and Financial Education [FEFE]. (n.d.). *Lifecycle of Financial Planning*. Retrieved March 31, 2006, from Montana State University Bozeman Web site: <http://www.familyfinance.montana.edu/curriculum.php?categoryID=13#38>
- Fast, J. E., Williamson, D. L., & Keating, N. C. (1999). The hidden costs of eldercare. *Journal of Family and Economic Issues*, 20, 301-326. Retrieved February 5, 2006, from SpringerLink database.

- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Ford, M. (Ed.). (1998). *Gender gaps: Where schools still fail our children: Executive summary*. Washington, DC: American Association of University Women Educational Foundation.
- Fossey, R. (1998). Condemning students to debt: Is the college loan program out of control? *Phi Delta Kappan* 80, 319-321. Retrieved September 1, 2004, from ProQuest database.
- Fox, J., Bartholomae, S., & Lee, J. (2005). Building the case for financial education. *The Journal of Consumer Affairs*, 39(1), 195-214. Retrieved January 28, 2006, from ProQuest database.
- Garman, E. T. (1998). The business case for financial education. *Personal Finances and Worker Productivity*, 2(1), 81-93. Retrieved February 21, 2006, from <http://www.ethomasgarman.net/research/vipfwe/BusinessCase.pdf>
- Garman, E. T. (1999). Employee personal financial wellness and job productivity – research is needed to convince top management to make the investment in workplace financial education. *Personal Finances and Worker Productivity*, 3(2), 65-68. Retrieved February 21, 2006, from <http://www.ethomasgarman.net/research/vipfwe/ResearchNeeded.pdf>
- Garman, E. T., & Fogue, R. E. (2003). *Personal Finance (7th ed.)*. Boston: Houghton Mifflin Company.
- Garman, E. T., Kim, J., Krantzer, C. Y., Brunson, B. H., & Joo, S. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning*, 10(1), 79-88. Retrieved February 21, 2006, from <http://www.ethomasgarman.net/research/feni/WFEImprovesGarman.pdf>
- Garman, E. T., Leech, I. E., & Grable, J. E. (1996). The negative impact of employee poor personal financial behaviors on employers. *Financial Counseling and Planning*, 7, 157-168. Retrieved February 20, 2006, from <http://www.afcpe.org/doc/Vol%20717.pdf>
- Gentry, L., & Calantone, R. (2002). A comparison of three models to explain shop-bot use on the web. *Psychology and Marketing* 19(11), 945-956. Retrieved November 11, 2004, from ABI/INFORM Global database.
- Gentzler, Y. S. (1999). What is critical theory and critical science? In Johnson, J. & Fedje, C. G. (Ed.), *Family and consumer sciences curriculum: Toward a critical science approach* (pp.23-31). Peoria, IL: Glencoe/McGraw-Hill.

- Gladieux, L. E., & Lee, J. B. (2001). Credit card use by undergraduates: California and the nation, an analysis of issues (Edfund 2001 report). Retrieved June 1, 2004, from <http://www.edfund.com/pdfs/i-56.pdf>
- Glass, J. C. Jr., & Kilpatrick, B. B. (1998, a). Financial planning for retirement: an imperative for baby boomer women. *Educational Gerontology*, 24, 595-617. Retrieved February 7, 2006, from EBSCOhost database.
- Glass, J. C. Jr., & Kilpatrick, B. B. (1998, b). Gender comparisons of baby boomers and financial preparation for retirement. *Educational Gerontology*, 24, 719-745. Retrieved February 7, 2006, from EBSCOhost database.
- Goodman, J. C. (2004, January 27). Retirement planning. *Federal Document Clearing House Congressional Testimony*. Retrieved July 21, 2004, from LexisNexis database.
- Goldsmith, E. B. (2005). *Consumer economics: Issues and behaviors*. Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Graham, J. F., Stendardi, E. J., Jr., Myers, J. K., & Graham, M. J. (2002). Gender differences in investment strategies: An information processing perspective. *The International Journal of Bank Marketing*, 20(1), 17-26. Retrieved February 16, 2006, from ProQuest database.
- Gujarathi, M. R. & McQuade, R. J. (2005). Financial aid 101. *Journal of Accountancy*, 200(1), 79-84. Retrieved January 31, 2006, from EBSCOhost database.
- Harrast, S. A. (2004). Undergraduate borrowing: A study of debtor students and their ability to retire undergraduate loans. *NASFAA Journal of Student Financial Aid* 34(1), 21-37. Retrieved January 31, 2006, from [http://www.nasfaa.org/Annualpubs/Journal/vol34\(1\)/Harrast.pdf](http://www.nasfaa.org/Annualpubs/Journal/vol34(1)/Harrast.pdf)
- Hayhoe, C. R. (2002). Comparison of affective credit attitude scores and credit use of college students at two points in time. *Journal of Family and Consumer Sciences*, 94(1), 71-77.
- Hayhoe, C. R., Leach, L., Allen, M. W., & Edwards, R. (2005). Credit cards held by college students. *Financial Counseling and Planning*, 16(1), 1-10. Retrieved February 2, 2006, from <http://www.afcpe.org/doc/vol1611.pdf>
- Hayhoe, C. R., Leach, L., & Turner, P. R. (1999). Discriminating the number of credit cards held by college students using credit and money attitudes. *Journal of economic Psychology*, 20, 643-656. Retrieved February 3, 2006, from Science Direct database.
- Hayhoe, C. R., Leach, L.J., Turner, P. R., Burin, M. J., & Lawrence, F. C. (2000). Differences in spending habits and credit use of college students. *The Journal of Consumer Affairs*, 34(1), 113-133.

- Henry, R. A., Weber, J. G., & Yarbrough, D. (2001). Money management practices of college students. *College Student Journal*, 35, 244-249. Retrieved February 03, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Hershey, D. A., Walsh, D. A., Brougham, R., Carter, S., & Farrell, A. (1998). Challenges of training pre-retirees to make sound financial planning decisions. *Educational Gerontology*, 29, 447-470. Retrieved February 7, 2006, from EBSCOhost database.
- Hewitt Associates. (2004). *Hewitt study shows U.S. employees sluggish in interacting with 401(k) plans*. Lincolnshire, IL: Kanter, M., & Laffey, J.. Retrieved January 29, 2006, from <http://was4.hewitt.com/hewitt/resource/newsroom/pressrel/2004/05-24-04.htm>
- Hewitt Associates. (2005). *Hewitt study highlights squeeze on retirement savings*. Lincolnshire, IL: Zitlow, K., & Polich, K. Retrieved January 29, 2006, from <http://was4.hewitt.com/hewitt/resource/newsroom/pressrel/2005/11-28-05.htm>
- Hira, T. K. (2002). Current financial environment and financial practices: Implications for financial health. *Journal of Family and Consumer Sciences*, 94(1), 1-4.
- Hira, T. K., Anderson, M. A., & Petersen, K. (2000). Students' perceptions of their education debt and its impact on life after graduation. *NASFAA Journal of Student Financial Aid*, 30(1), 7-19.
- Hira, T. K., & Mugenda, O. (2000). Gender differences in financial perceptions, behaviors, and satisfaction. *Journal of Financial Planning*, 13(2), 86-92. Retrieved February 5, 2006, from ProQuest database.
- Hogarth, J. M. (2002). Financial literacy and family and consumer sciences. *Journal of Family and Consumer Sciences*, 94(1), 15-28.
- Hogarth, J. M., & Hilgert, M. A. (2002). Financial knowledge, experience and learning preferences: Preliminary results from a new survey on financial literacy. *Consumer Interest Annual*, 48, 1-7. Retrieved February 22, 2006, from <http://www.consumerinterests.org/files/public/FinancialLiteracy-02.pdf>
- Howard, J. (2001, January 23). *The power of plastic on 60 minutes II* [Television broadcast]. New York: CBS Broadcasting Inc. Transcript retrieved September 5, 2004 from <http://www.cbsnews.com/stories/2001/01/19/60II/main265630.shtml>
- Institute for Higher Education Policy. (1998). *Credit risk or credit worthy? College students and credit cards, a national survey*. Washington, D.C.: Volle, K., Cunningham, A., & O'Brien, C. Retrieved February 3, 2006, from <http://www.ihep.org/Pubs/PDF/Credit.pdf>

- Internal Revenue Service [IRS]. (2005, March). *Retirement savings contribution credit*. Retrieved February 14, 2006, from <http://www.irs.gov/newsroom/article/0,,id=107686,00.html>
- Into, F. H. (2003). Older women and financial management: Strategies for maintaining independence. *Educational Gerontology, 29*, 825-839.
- Jamba-Joyner, L. A., Howard-Hamilton, M., & Mamarchev, H. (2000). College students and credit cards: Cause for concern? *NASFAA Journal of Student Financial Aid, 30(3)*, 17-25.
- Jianakoplos, N. A., & Bernasek, A. (1998). Are women more risk averse? *Economic Inquiry, 36*, 620-630. Retrieved January 28, 2006, from ProQuest database.
- Jones, J. (2005). College students' knowledge and use of credit. *Financial Counseling and Planning, 16(2)*, 9-16. Retrieved February 2, 2006, from <http://www.afcpe.org/doc/vol1622.pdf>
- Joo, S., & Garman, E. T., (1998). The potential effects of financial education based on the relationship between personal financial wellness and worker job productivity. *Personal Finances and Worker Productivity, 2(1)*, 163-173. Retrieved February 21, 2006, from http://money-metrics.com/workplace_fin_ed_effects.pdf
- Joo, S., & Grable, J. E. (2001). Factors associated with seeking and using professional retirement-planning help. *Family and Consumer Sciences Research Journal, 30(1)*, 37-63.
- Joo, S., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Financial Counseling and Planning, 16(1)*, 37-49. Retrieved February 5, 2006, from <http://www.afcpe.org/doc/vol1615.pdf>
- Joo, S., Grable, J. E., & Bagwell, D. C. (2003). Credit card attitudes and behaviors of college students. *College Student Journal, 37*, 405 - 419. Retrieved February 02, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Kim, J., Bagwell, D. D., & Garman, E. T. (1998). Evaluation of workplace personal financial education. *Personal Finances and Worker Productivity, 2(1)*, 187-192. Retrieved February 20, 2006, from http://money-metrics.com/workplace_fin_ed_effects.pdf
- King, T., & Bannon, E. (2002, March). *The burden of borrowing: A report on the rising rates of student debt*. Retrieved June 1, 2004, from The State PIRG's Higher Education Project Website: <http://www.nyu.edu/classes/sepsen/pirgmar02.pdf>
- Kiss, E. (2006). Increasing financial security. *Journal of Family and Consumer Sciences, 98(1)*, 69.

- Labi, A. (2005). U.S. Policy on loan debt punishes students, says report analyzing student debt in 8 nations. *The Chronicle of Higher Education*, 52(5), 51. Retrieved February 2, 2006, from ProQuest database.
- Lachance, M. J., & Choquette-Bernier, N. (2004). College students' consumer competence: A qualitative exploration. *International Journal of Consumer Studies*, 28, 433-442. Retrieved February 20, 2006, from the Blackwell Publishing database.
- Lahey, K. E., Kim, D., & Newman, M. L. (2003). Household income, asset allocation, and retirement decision. *Financial Services Review*, 12, 219-238. Retrieved February 7, 2006, from ProQuest database.
- Leach, L. J., Hayhoe, C. R., & Turner, P. R. (1999). Factors affecting perceived economic well-being of college students: A gender perspective. *Financial Counseling and Planning*, 10(2), 11-24. Retrieved February 2, 2006, from <http://www.afcpe.org/doc/vosl%201022.pdf>
- Lee, C. S. (2004, June 21). Striving to narrow the financial gender gap: Firm agrees that men are from Mars, women are from Venus. *Investment News*, p. 18. Retrieved July 21, 2004, from LexisNexis database.
- Li, J., Montalto, C. P., & Geistfeld, L. V. (1996). Determinants of financial adequacy for retirement. *Financial Counseling and Planning*, 7(5), 39-48. Retrieved February 7, 2006, from <http://www.afcpe.org/doc/vol%2075.pdf>
- Loibl, C., & Hira, T. K. (2005). Self-directed financial learning and financial satisfaction. *Financial Counseling and Planning*, 16(1), 11-21. Retrieved February 3, 2006, from <https://www.eng.iastate.edu/tkhira>
- Lown, J. M. (2005). Educating and empowering consumers to avoid bankruptcy. *International Journal of Consumer Studies*, 29, 401-408. Retrieved February 19, 2006, from Blackwell Publishing database.
- Lusardi, A. (2003). *The impact of financial education on savings and asset allocation*. Retrieved September 9, 2004, from University of Michigan Retirement Research Center Website: http://www.mrrc.isr.umich.edu/researchh/publications/Working_Paper/wp.0306.pdf
- Lusardi, A. (2004). Saving and the effectiveness of financial education. In O. Mitchell & S. Utkus (Eds.), *Pension Design and Structure: New Lessons from Behavioral Finance* (pp. 157-184). New York: Oxford University Press. Retrieved February 20, 2006 from http://www.dartmouth.edu/~alusardi/Financial_Education_2004.pdf
- Lyons, A. C. (2004). A profile of financially at risk college students. *The Journal of Consumer Affairs*, 38(1), 56-80. Retrieved January 28, 2006, from ProQuest database.

- Mandell, L. (2002). *Financial literacy: A growing problem. Results of the 2002 national Jump\$tart survey*. Washington, DC: Jump\$tart Coalition for Personal Financial Literacy.
- McGregor, S. (2005). Sustainable consumer empowerment through critical consumer education: A typology of consumer education approaches. *International Journal of Consumer Studies*, 29, 437-447. Retrieved February 19, 2006, from Blackwell Publishing database.
- McKee, A. (Ed.). (1992). *How schools shortchange girls: Executive summary*. Washington, DC: American Association of University Women Educational Foundation.
- Merrick, B. (2000). Members are setting financial targets. *Credit Union Magazine*, 66(12), 18. Retrieved January 12, 2006, from ProQuest database.
- MetLife, National Alliance for Caregiving, & The Center for Productive Aging at Towson University. (2003, June). *The MetLife study of sons at work: Balancing employment and eldercare*. Retrieved February 5, 2006, from <http://www.metlife.com/WPSAssets/20358015231056137413V1FSonsAtWork.pdf>
- Millett, C. M. (2003). How undergraduate loan debt affects application and enrollment in graduate or first professional school. *The Journal of Higher Education*, 74, 386-427. Retrieved September 1, 2004, from ProQuest database.
- Mincemoyer, C., & Furry, M. (2003). Financial champions: Curriculum builds financial capacity in youth. *Journal of Family & Consumer Sciences*, 95(3), 27-31.
- Munro, J. (1998). Credit cards and college students: Who pays, who benefits? *Journal of College Student Development*, 39(1)51-57. Retrieved February 20, 2006 from http://findarticles.com/p/articles/mi_qa3752/is_199801/ai_n8781054
- Murphy, A. J. (2005). Money, money, money: An exploratory study on the financial literacy of black college students. *College Student Journal*, 39, 411-434. Retrieved February 21, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Muske, G., & Winter, M. (2004). Personal financial management education: An alternative paradigm. *Financial Counseling and Planning*, 15(2), 79-88. Retrieved February 18, 2006, from <http://www.afcpe.org/doc/vol1528.pdf>
- National Center for Health Statistics, U. S. Center for Disease Control. (2005). *National vital statistics report, Volume 53, no.15. Deaths: Preliminary data for 2003*. Retrieved February, 4, 2006, from http://www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_15.pdf

- National Center on Caregiving. (2005). *Fact sheet: Selected caregiver statistics*. Retrieved February 5, 2006, from http://www.caregiver.org/caregiver/jsp/pring_friendly.jsp?nodeid=439
- National Retirement Planning Coalition [NRPC]. (2003, November). The “retirement readiness” crisis. *Backgrounder*. Retrieved September 25, 2004, from http://www.retireonyourownterms.org/pdf/Backgrounder_2003_Final.pdf
- Nellie Mae. (2005, May). *Undergraduate students and credit cards in 2004*. Retrieved January 19, 2006, from http://www.nelliemae.com/library/ccstudy_2005.pdf
- Neukam, K. A., & Hershey, D. A. (2003). Financial inhibition, financial activation, and saving for retirement. *Financial Services Review, 12(1)*, 19-37. Retrieved February 7, 2006, from ProQuest database.
- Nickols, S. Y. (2002). Maintaining financial well-being in uncertain times. *Journal of Family and Consumer Sciences, 94(1)*, 39-40.
- Norvilitis, J. M., & Santa Maria, P. (2002). Credit card debt on college campuses: causes, consequences, and solutions. *College Student Journal, 36*, 356-363. Retrieved February 02, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Oleson, M. (2001). Student credit card debt in the 21st century: Options for financial aid administrators. *NASFAA Journal of Student Financial Aid, 31(3)*, 35-44.
- O'Malley, M. (n.d.). *Educating undergraduates on using credit cards*. Retrieved May 29, 2004, from Nellie Mae Web site: http://www.nelliemae.com/library/cc_use.html
- Ozgen, O., & Bayoglu, A. S. (2005). Turkish college students' attitudes towards money. *International Journal of Consumer Studies, 29*, 493-501. Retrieved February 18, 2006, from Blackwell Publishing database.
- Parks, S. M., & Novielli, K. D. (2003). Alzheimer's disease caregivers: Hidden patients. *Clinical Geriatrics, 11(5)*, 34-38. Retrieved February 5, 2006, from the Directory of Open Access Journals database.
- Paula, M. de. (2003). Banking on education; Private student loans increase asset base, risk. *USBanker, 113(5)*, 12. Retrieved January 31, 2006, from ProQuest database.
- Peach, R., Steindel, C. (2000). A nation of spendthrifts? An analysis of trends in personal and gross saving. *Current Issues in Economics and Finance, 6(10)*, 1-6. Retrieved January 12, 2006, from ProQuest database.

- Pence, K. M. (2002). Nature or nurture: Why do 401(k) participants save differently than other workers? *National Tax Journal*, 55, 597-616. Retrieved February 7, 2006 from ProQuest database.
- Pension Research Council [PRC] of the Wharton School of the University of Pennsylvania. (2003a). Saving and the effectiveness of financial education. (Pension Research Council Working Paper PRC WP 2003-14). Philadelphia: Lusardi, A. Retrieved September 9, 2004, from <http://rider.wharton.upenn.edu/~prc/PRC/WP/WP2003-14.pdf>
- Pension Research Council [PRC] of the Wharton School of the University of Pennsylvania . (2003b). Sex differences, financial education, and retirement goals. (Pension Research Council Working Paper PRC WP 2003-15). Philadelphia: Clark, R. L., d'Ambrosio, M. B., McDermed, A. A., & Sawant, K. Retrieved September 9, 2004, from <http://rider.wharton.upenn.edu/~prc/PRC/WP/WP2003-15.pdf>
- Peter, K., & Horn, L. (2006). Gender differences in participation and completion of undergraduate education and how they have changed over time. *Education Statistics Quarterly*, 7(1-2). Retrieved January 31, 2006, from http://nces.ed.gov/programs/quarterly/vol_7/1_2/5_7.asp
- Peterson, J. R. (2004). Students need you more than ever. *American Bankers Association Banking Journal* 96(5), 50-53. Retrieved September 1, 2004, from ProQuest database.
- Power, M. L., & Hira, T. K. (2004). University-provided retirement planning support and retiree financial satisfaction during retirement: Differences by gender, job classification, and planning behavior. *Risk Management and Insurance Review*, 7(2), 121-149. Retrieved February 3, 2006, from <https://www.eng.iastate.edu/tkhira>
- Price, C. A. (2003). Women's retirement: Beyond issues of financial security. *Journal of Extension*, 41(5). Retrieved July 21, 2004, from <http://www.joe.org/joe/2003october/a6.shtml>
- Public Interest Research Group [PIRG]. (2001a, March). *Big loans bigger problems: A report on the sticker shock of student loans*. Washington, D.C.: King, T. & Frishberg, I. Retrieved February 2, 2006, from <http://www.PIRG.org/highered/studentdebt/finaldebtreport.pdf>
- Public Interest Research Group [PIRG]. (2001b, April). *The credit card trap: How to spot it, how to avoid it*. Washington, D.C. Retrieved May 29, 2004, from <http://www.truthaboutcredit.com/creditrap.pdf>

- Public Interest Research Group [PIRG]. (2003, April). *Private loans: Who's borrowing and why? Private label borrowing by students outside the federal loan programs*. Washington, D.C.: Rube, K. Retrieved February 2, 2006, from <http://www.PIRG.org/highered/privateloans03.pdf>
- Redd, K. E. (2001). *Why do students borrow so much? Recent national trends in student loan debt*. Washington D.C.: ERIC Clearinghouse on Higher Education. (ERIC Document Reproduction Service No. ED451759)
- Reynolds, L. M., & Abdel-Ghany, M. (2001). Consumer Sciences research: A two-decade comparison, 1980's and 1990's. *Family and consumer Sciences Research Journal*, 29, 382-440.
- Roberts, J. A., & Jones, E. (2001). Money attitudes, credit card use, and compulsive buying among American college students. *Journal of Consumer Affairs*, 35, 213-240. Retrieved January 31, 2006, from ABI/INFORM database.
- Sallie Mae. (2005). Manage your loans: Standard repayment. Retrieved January 26, 2006, from <http://www.salliemae.com/manage/standard.html>
- Seifert, C. F. & Worden, L. (2004). Two studies assessing the effectiveness of early intervention on the default behavior of student loan borrowers. *NASFAA Journal of Student Financial Aid*, 34(3), 41-52. Retrieved January 31, 2006, from [http://www.nasfaa.org/Annualpubs/Journal/vol34\(3\)/Seifert.pdf](http://www.nasfaa.org/Annualpubs/Journal/vol34(3)/Seifert.pdf)
- Sheppard, B., Hartwick, J., & Warshaw, P. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *The Journal of Consumer Research*, 15, 325-343. Retrieved November 11, 2004 from JSTOR database.
- Sjogren, J. (1999). In debt for college: Does gender make a difference? *NASFAA Journal of Student Financial Aid*, 29(2), 33-44.
- Skousen, M. (2005, November). A dangerous combination: Undersaving and Overspending. *USBanker*, 50. Retrieved January 28, 2006, from ProQuest database.
- Social Security Administration. (2004). *Women and Social Security*. Retrieved February 11, 2006, from <http://www.ssa.gov/pressoffice/factsheets/women-alt.htm>
- Social Security Administration. (2005). *Social Security's future: Frequently asked questions*. Retrieved February 11, 2006, from <http://www.ssa.gov/qa.htm>
- Spratlin, J., & Holden, K. C. (2000). Women and economic security in retirement: Implications for Social Security reform. *Journal of Family and Economic Issues*, 21(1), 37-63. Retrieved February 7, 2006, from ProQuest database.

- Stein, B. J. (2004, February 25). Strengthening defined benefit pension plans. *Federal Document Clearing House Congressional Testimony*. Retrieved July 21, 2004, from LexisNexis database.
- Tacchino, K. B. (1994). Helping clients overcome the five most common roadblocks to retirement security. *Journal of the American Society of CLU & CHFC*, 48(6), 24-25. Retrieved October 28, 2004, from ProQuest database.
- Tacchino, K. B., & Saltzman, C. (2001). Should Social Security be included when projecting retirement income? *Journal of Financial Planning*, 14(3), 98-108. Retrieved February 13, 2006, from ProQuest database.
- Tennyson, S., & Nguyen, C. (2001). State curriculum mandates and student knowledge of personal finance. *Journal of Consumer Affairs*, 35(2), 241-262. Retrieved February 02, 2006, from *Expanded Academic ASAP* via Thomson Gale database.
- Transamerica Retirement Services, & Zogby International. (2005, October). *Seventh annual Transamerica retirement survey: The attitudes of American workers and their employers regarding retirement security and benefits*. Los Angeles, CA: Zogby, J., Bruce, J., Wittman, R., & Peck, C. W. Retrieved January 28, 2006, from <http://www.ta-retirement.com/resources/2005%20seventh%20annual%transamerica%20survey.pdf>
- Transamerica Retirement Services. (2005, December). *Transamerica survey shows significant changes in the retirement attitudes and behaviors of workers and employers: National debate on Social Security stimulates savings, propelling retirement benefits to number one recruiting tool*. Los Angeles: Sasser, C., & Vermazen, K. Retrieved January 28, 2006, from http://www.ta-retirement.com/resources/TR5%20survey%20release_12.02.pdf
- Tucker, M. (2002). Partial privatization of Social Security: A simulation of possible outcomes and risks to workers. *Financial Services Review*, 11, 311-326. Retrieved February 7, 2006, from ProQuest database.
- University of Central Arkansas. (2005a). *Enrollment summary Fall terms 2000-2004*. Retrieved January 27, 2005, from University of Central Arkansas website: http://www.uca.edu/research/media/documents/FactBooks/fb2004-2005/Enrollment_Summary.pdf
- University of Central Arkansas. (2005b). *Degrees awarded by race and gender for the years 1999-00 through FY 2004-05*. Retrieved January 24, 2006, from University of Central Arkansas website: http://www.uca.edu/research/media/documents/FactBooks/fb2004-2005/Degrees_Awarded_Race_05.pdf

- University of Central Arkansas. (2005c). *UCA viewbook: connections*. Retrieved March 25, 2006, from <http://www.uca.edu/admissions/documents/vbook2005.pdf>
- U. S. Bureau of the Census. (2000). *Population profile of the United States* (chap. 5). Retrieved September 25, 2004, from <http://www.census.gov/population/pop-profile/2000/profile2000.pdf>
- U. S. Bureau of the Census. (2003). *Statistical abstract of the United States (Table No. 63)*. Retrieved September 25, 2004, from <http://www.census.gov/prod/www/statistical-abstract-03.html>
- U.S. Bureau of the Census. (2004). *Arkansas S1707. Poverty status in the past 12 months*. Retrieved February 22, 2006, from http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=04000US05&-qr_name=ACS_2004_EST_G00_S1701&-ds_name=ACS_2004_EST_G00_
- U. S. Bureau of the Census. (2005a). *Percent of people below poverty level in the past 12 months (for whom poverty status is determined): 2004*. Retrieved January 26, 2006, from http://factfinder.census.gov/servlet/GRTTable?_bm=y&-geo_id=01000US&-_box_head_nbr=R1701&-ds_name=ACS_2004_EST_G00_&-redoLog=false&-mt_name=ACS_2004_EST_G00_R2003_US30&-format=US-30&-CONTEXT=grt
- U. S. Bureau of the Census. (2005b). *Poverty thresholds 2004*. Retrieved February 11, 2006, from <http://www.census.gov/hhes/www/poverty/threshld/thresh04.html>
- U.S. Bureau of the Census. (2006). *Statistical abstract of the United States:2006 (Table 587)*. Retrieved February 5, 2006, from <http://www.census.gov/prod/2005pubs/06statab/labor.pdf>
- U.S. Census Bureau. (2005). *Marital status of the population by sex and age: 2004*. Retrieved March 26, 2006, from <http://www.census.gov/population/www/socdemo/hh-fam/cps2004.html>
- U.S. Department of Commerce: Bureau of Economic Analysis. (2004, September). *National income and products account table (Table 2.1)*. Retrieved September 30, 2004, from <http://www.bea.gov/bea/dn/nipaweb/TableView.asp#Mid>
- U.S. Department of Education: National Center for Education Statistics. (2005a). *Digest of education statistics, 2004*. Retrieved February 4, 2006, from <http://nces.ed.gov/programs/digest/d04/>
- U.S. Department of Education: National Center for Education Statistics. (2005b). *Projection of Education statistics to 2014, NCES2005-074*. Retrieved February 4, 2006, from <http://nces.ed.gov/pubs2005/2005074.pdf>

- U.S. Department of Education: Office of Student Financial Aid. (n.d.). *Collections guide to defaulted student loans: Treasury offset payments*. Retrieved March 25, 2006, from <http://www.ed.gov/offices/OSFAP/DCS/treasury.offset.payments.html>
- U.S. Department of Health and Human Services: Administration on Aging. (2005). *A profile of older Americans: 2004*. Retrieved February 4, 2006, from <http://www.aoa.gov/prof/Statistics/profile/2004/2004profile.doc>
- U. S. Department of Labor: Bureau of Labor Statistics. (2004, September). *Highlights of women's earnings in 2003. Report 978*. Retrieved September 9, 2004, from <http://www.bls.gov/cps/cpswom2003.pdf>
- U.S. Department of Labor: Employment Standards Administration Wage and Hour Division. (2006). *Questions and answers about the minimum wage*. Retrieved February 11, 2006, from <http://www.dol.gov/esa/minwage/q-a.htm>
- U.S. Government Accountability Office [GAO]. (2004, November). *Highlights of a GAO forum: The federal government's role in improving financial literacy (GAO-05-93SP)*. Retrieved February 21, 2006, from <http://www.gao.gov/new.items/d0593sp.pdf>
- Vanac, M. (2004, June 7). Planning even more vital for women: Taking time off from work for children, living longer can complicate things. *Plain Dealer*, pp. E5. Retrieved July 21, 2004, from LexisNexis database.
- Varcoe, K. P., Peterson, S., Garrett, C., Martin, A., Rene, P., & Costello, C. (2001). What teens want to know about financial management. *Journal of Family & Consumer Sciences*, 93(2), 30-34.
- Warwick, J., & Mansfield, P. (2000). Credit card consumers: College student's knowledge and attitude. *The Journal of Consumer Marketing*, 17, 617. Retrieved January 12, 2006, from ProQuest.
- Women's Institute for a Secure Retirement [WISER]. (1999a, Spring). *And...the pay gap's connected to the retirement gap!*. Retrieved September 9, 2004, from http://www.wiser.heinz.org/special_report_pay_equity.html
- Women's Institute for a Secure Retirement [WISER]. (1999b, Fall). *Widowhood: Why women need to talk about this issue*. Retrieved September 9, 2004, from http://www.wiser.heinz.org/special_rpt_widow.html
- Women's Institute for a Secure Retirement [WISER]. (n.d.). *Women and pensions: An overview*. Retrieved September 9, 2004, from http://www.wiser.heinz.org/pensions_overview.html

- Xiao, J. J., & Fan, F. X. (2002). A comparison of savings motives of urban Chinese and American workers. *Family and Consumer Sciences Research Journal*, 30, 463-495.
- Xiao, J. J., Malroux, Y. L., & Yuh, Y. (1999). Sources of income inequality among the elderly. *Financial Counseling & Planning*, 10(2), 49-59. Retrieved February 11, 2006, from <http://www.afcpe.org/doc/Vol%201025.pdf>
- Xiao, J. J., O'Neill, B., Prochaska, J. M., Kerbel, C. M., Brennan, P., & Bristow, B. J. (2004). A consumer education programme based on the transtheoretical model of change. *International Journal of Consumer Studies*, 28(1), 55-65. Retrieved February 21, 2006, from Blackwell Publishing database.
- Yuh, Y., & DeVaney, S. A. (1996). Determinants of couples' defined contribution retirement funds. *Financial Counseling and Planning*, 7(4), 31-38. Retrieved February 7, 2006, from <http://www.afcpe.org/doc/Vol%2074.pdf>

ACKNOWLEDGMENTS

I would like to acknowledge and thank several people who have made this study possible.

- Dr. Yvonne S. Gentzler, my major professor and friend, who never failed to give me vision, guidance, and encouragement.
- Dr. Mary B. Gregoire, Dr. Cheryl O. Hausafus, Dr. Beverly J. Kruempel, & Dr. Robert A. Martin, for serving on my committee and giving me valuable advice.
- My husband, Tim, and children, Braxton & Brenna, for their full support and faith.
- Dr. Mary Harlan for her wonderful encouragement and support at work.
- Friends and family that have provided endless support
- Dr. Jacquie Rainey for the statistical assistance
- AARP & Roper International for the use of the survey instrument