Proceedings of the Association for Financial Counseling and Planning Education, 2004

IMPACT OF A WORKPLACE FINANCIAL EDUCATION PROGRAM ON FINANCIAL ATTITUDE, FINANCIAL BEHAVIOR, FINANCIAL WELL-BEING, AND FINANCIAL KNOWLEDGE

Jinhee Kim[1], University of Maryland

In the United States today, financial stress means more than economic deprivation. Job instability, divorce, rising medical costs, the burdens of home ownership, and consumer debt threaten the financial security of countless Americans in all economic strata. A growing number of workers are failing to manage their money wisely. As the economy moved into a downturn, national reports reveal a drop in savings, a growth in debt, and a rise in consumer bankruptcies (American Bankruptcy Institute, 2004; Draut & Silva, 2003).

Many working Americans experience financial strains. A recent national survey by American Express Retirement Services found that 60% of working Americans who are employed indicated that they were experiencing moderate to high levels of financial stress (American Express Retirement Services, 2004). More than half of employees (52%) in another recent survey report that they manage their finances by living paycheck-to-paycheck (MetLife, 2003). Financial stress is associated with individual's well-being and their productivity at workplace (Garman, Leech, & Grable, 1996; Joo & Garman, 1999; Peirce, Frone, Russell, & Cooper, 1996).

Workplace financial education could help employees better manage their personal finances and improve their financial well-being. A significant number of employers are currently providing financial education programs to help employees manage their retirement plan (Bernheim & Garrett, 2003; Employee Benefits Research Institute, 2004). Workplace financial education has become popular in the 1990s, spurred in part by the increasing popularity of defined contribution plans such as 401(k) (Bernheim & Garrett, 2003). A great majority of workplace financial education programs are focusing on helping the employees better manage their retirement plans. A few recent studies found that workplace financial education was effective in improving retirement saving behaviors (Bernheim & Garrett, 1996; Bernheim & Garrett, 2003; Clark & d'Ambrosio, 2003; Clark & Shieber, 1988; Employee Benefit Research Institute, 2004).

Cooperative Extension provides a variety of financial literacy education programs for public (Vitt et al., 2000). Many extension programs are being provided for employees often requested or paid by their employers at the workplace. Typically, extension programs include basic financial management such as credit management or budgeting as well as retirement planning or investing. A critical question is whether workplace financial education programs are effective methods of improving participants' financial management and financial well-being. To date, limited research (Fletcher, Beebout, & Mendenhall, 1997) has been conducted on the impacts of Extension workplace financial education programs on individual's personal finances.

The purpose of this study is to examine the impacts of the Cooperative Extension financial education program, "Prescription for Financial Wellness," on a selected group of university employees. Specifically, the study assessed the effects of the program on employees' financial attitude, financial knowledge, perceived financial well-being, and self-assessed financial knowledge. A pre-test/post-test design was utilized, with participants administered measures of financial knowledge, financial attitudes, financial behavior, and financial well-being and after a month-long intervention program.

Literature Review

Workplace Financial Education

Many American workers encounter financial difficulties at some point in their lives. Numerous factors may contribute to financial stress, including unemployment, divorce, injury, illness, overspending, low financial literacy, and financial mismanagement. Even within a favorable economy, such as the one during the mid-1990's, some groups experience more financial benefits than others. For example, while the

[1] Department of Family Studies, University of Maryland, 1204 Marie Mount Hall, College Park, MD 20742, Phone: 301-405-3500, email jinkim@umd.edu, Fax: 301-314-9161

median net worth of all families rose 17 ½ % from 1995 to 1998, this trend did not apply to families where the head of household had a high school degree or less, had earnings of under $25,000, or was non-white or Hispanic (Greenspan, 2001). Data from the Federal Reserve's Survey of Consumer Finances further reveal a recent increase in families' median debt burden and financial stress (debt payments that reflect more than 40% of income) across all income and age groups, with the highest stress among families headed by individuals 65 and older and earning less than $25,000 per year (Consumer Federation of America and Primerica, 1999). This same survey reported that half of U.S. families in 1995 had net financial assets of $1,000 or less.

Financial stress has been shown to have a number of negative effects on individual and family well-being. Specifically, financial strain has been linked to depression, anxiety, marital conflict, alcoholism, and drug abuse. Individuals experiencing financial problems have also been found to exhibit lower productivity, greater absenteeism, and other workplace problems such as stealing (Brown, 1999; Garman et al., 1996; Joo & Garman, 1999; Peirce, Frone, Russell, & Cooper, 1996).

One strategy that might help employees reduce their financial stress is workplace financial education. More employers have begun to provide workplace programs in the 1990s. About 88% of large employers offered some form of financial education in 1994 (Bernheim & Garrett, 2003). Yet, to date, the vast majority of these programs have focused on investment and retirement planning, drawing audiences from older (40-65) age groups. There is an urgent need to implement and evaluate workplace programs that address a wider range of financial issues, such as budgeting, debt management, saving, and purchasing insurance (Atkinson, 2001).

Experts maintain that workplace financial education should be more than a narrowly focused investment education. Blair and Sellers (1995) suggested that most employer-provided financial education focused on investing and was not sufficient. Tiras (1997) also asserted that financial education focused on investing for retirement was not sufficient and that employees desired and deserved a far more comprehensive education. He suggested that employees need to learn not only how to invest their retirement savings but how to free up money to save.

In a survey by American Express Retirement Services, a majority (61%) of working Americans indicated they were experiencing moderate or high levels of financial stress and that 25% felt that their financial stress had gotten worse in the past 18 to 24 months (Field & Vogt, 2003). Another survey by Metlife found that more than half of employees (52%) report that they manage their finances by living paycheck-to-paycheck. That figure increases dramatically for Hispanic workers (78%) (MetLife, 2003). Moreover, there is a need to provide financial management education for employees from a wider range of ages and income levels. Employees earning moderate income who live paycheck-to-paycheck may be especially likely to benefit from such intervention as they attempt to stretch their incomes to meet important family needs.

Effects of Workplace Financial Education

A few studies have found that workplace financial education programs result in increased financial literacy, increased retirement savings, and improvement of financial management (Bayer, Bernheim & Scholz, 1996; Bernheim & Garrett, 1996; Bernheim & Garrett, 2003; Clark & Shieber, 1998; Clark & d'Ambrosio, 2003; Employee Benefits Research Institute, 2004). Many of these studies suffer from methodological limitations, including non-academic case studies or use of post-assessment data only. Furthermore, detailed descriptions of program structure and content were not available in the studies. And the education exposure was limited to one or two hour retirement seminars by plan providers. Bernheim and Garrett (2003) investigated the effects of employer-based financial education on personal saving and found employer-based financial education stimulates saving, both in general and for retirement. The workplace retirement education included seminars, professional assistance, or informative materials to assist with retirement planning. Clark and d'Ambrosio (2003) studied the effects of one-hour retirement seminars and found that participation in financial education seminars changed individuals' retirement goals and retirement savings behaviors in a positive way. They also found gender differences in retirement goals and levels of retirement savings.

Garman et al. (1998) assessed the impacts of workplace financial workshops (one to four) on workers' financial management. They reported that workplace financial education, 75% responded that they became more confident in investment decisions due to financial education and 70% said they changed their investment strategy by diversifying or being more aggressive in their choices. However, the data came from post-assessment only surveys of employees after programs were delivered years ago.

Little research has been published about the impacts of Extension workplace financial education programs which are more basic and comprehensive than investment education. Fletcher et al. (1997) did a pre-and post-assessment (n=29 in the pre, n=15 in the post) of financial attitudes, knowledge, and behaviors to evaluate the effectiveness of personal finance workshops delivered by Iowa State University Cooperative Extension to employees at a corporate headquarter. Respondents report increases in financial management behaviors as well as financial knowledge although they were not statistically tested.

There is currently a strong need for more empirical research examining the impact of different types of workplace financial education on employees' personal finances. Existing studies have been limited primarily to the effects of financial programs on investments or retirement savings as their programs are often limited to such topics. Most of the studies in this area investigated one or two one-time retirement seminars provided by employers.

Method

Procedures

The University of Maryland Cooperative Extension offered a series of workshops (eight-hour, four weeks) on financial management for faculty and staff on campus from the summer and fall of 2002 to the spring and fall 2003. Participants came from different offices on campus including Personnel Training Department, Health Center and Residential Facilities Management. The workshops were advertised by the Personnel Training Department brochures which were mailed to all the employees on campus. All participants were employees of University of Maryland College Park who volunteered to participate in the study. Participants included administrative/clerical staff, facilities management workers, health care professionals, and faculty.

The workshops used in the treatment came from *Prescription for Financial Wellness*, University of Maryland Cooperative Extension financial education program. The program was developed by four extension educators. It was peer-reviewed and presented at national conferences. Over 17,000 Maryland residents have attended the workshops.

The workshop curriculum consists of eight modules. *Make Your Money Go Further* discusses the impact of values on financial decision-making, spending styles and goal setting. *Get Your Act Together* teaches the importance of financial record organization. *Get A Handle On Your Money* examines cash management tools, time value of money and painless ways to save. *To Your Credit* looks at credit use and debt management. *How's Your Insurance Coverage* discusses risk management decisions. *You Can't Take It With You* examines the estate planning process. *Investment IQ* looks at differences between savings and investments, financial risk versus reward, and investment instruments. *Is Retirement Within Your Reach* discusses how to determine the amount and ways to save for retirement.

The purpose of the 8-hour workshops is to increase financial knowledge and change financial attitudes and behaviors in a positive way. As a result, workers reduce their financial stress and improve their financial security. Based on the Logic Model (Julian, Johns & Deyo, 1995; Hernadez, 2000), the program is designed to increase employees' use of money management principles immediately and over the long-term.

A total of 97 University employees attended the workshops in this study. Data in this study were collected from 36 University employees who responded to both pre-and post-survey with identification numbers. Some people did not respond to both surveys while others did not give identification numbers. A pre and post design was used, with a pre-test survey distributed at the beginning of the workshops. After completing the survey, individuals participated in a two-hour seminar. A total of four two-hour sessions were offered to the participants in a four-week time period.

Post-test surveys were sent to the participants about three months after the workshops. The post-test data collection followed Dillman's (1978) strategy of an initial mailing, a first follow-up (a post card, one week after the initial mailing), and a second follow-up (survey packet, two weeks later). The Maryland Cooperative Extension provided small incentives (e.g., financial record organization book, fact sheets) in the survey packets. Participants were asked to give the last four digits of their Social Security numbers for identification purpose on both surveys. Although 97 employees attended the trainings, only 36 people who had matching pre-and post-surveys were included in the analysis.

Measures

A questionnaire of demographic measures included age, gender, race/ethnicity, education, family size, household income, job title, and job tenure of study participants. Financial knowledge was assessed with the self-assessed Financial Knowledge (Kim, 2000). Financial Attitudes Scales were adapted from Godwin and Carroll (1986). A total of ten questions were summed in a score. Perceived Financial Well-being Questionnaire came from Joo and Garman (1999) and five questions were summed into a scale. The Financial Behavior Scale (Fitzsimmons, Hira, Bauer, & Hafstrom, 1994) was employed to assess a variety of financial behaviors, including budgeting, saving, debt, credit management, and organization of financial records. A total of sixteen questions were summed into one score.

The Sample

This study is exploratory due to the limitations of the sample size. Descriptive statistics were used to summarize demographic characteristics of the population (shown in Table 1). The participants in the study were predominantly female (77.8%) and white (69.4%). The average household size was 2.86 while the average age was 45.06 years old. Of 36 participants, 41.2% had graduate degrees, 23.5% had bachelor's degree and 35.3% had less than a high school diploma, trade/vocational training, associate's degree, or some college. About six out of ten respondents (61.1%) were remarried while 16.7% were never married or 13.9% were separated/divorced. Only 5.6% were in their first marriage. On average, participants have been with the University for 5.5 years and 36.1% worked more than 10 years. After collapsing categories, about half of the participants had $50,000 to $100,000 annual household income while 25% reported more than $100,000, 19.4% reported less than $50,000.

Table 1 Descriptive Statistics of Demographics (n=36)

Variable	n (%)	Variable	n (%)
Gender		Ethnicity	
Male	38 (22.2%)	African-American	9 (25.0)
Female	28 (77.8%)	White	25 (69.4)
		Other	3 (5.6)
Household Size		Age	
1	12 (33.3)	39 and under	10 (28.6)
2	5 (13.9)	40-50	15 (42.9)
3	5 (13.9)	51 and higher	10 (28.6)
4	7 (19.4)		
5	4 (11.1)		
6	3 (8.3)		
Education		Marital Status	
High diploma	2 (5.9)	Never Married	6 (16.7%)
Trade/vocation	1 (2.9)	Living with a partner	1 (2.8)
AA	3 (8.8)	Remarried	22 (61.1)
Some college	6 (17.6)	Separated/divorced	5 (13.9)
BS degree	8 (23.5)	First Marriage	2 (5.6)
Graduate	14 (41.2)		
Work years with employer		Household Income	
> 1 year	2 (5.6)	$20,001-$30,000	3 (8.3)
1-2 years	5 (13.9)	$30,001-$40,000	2 (5.6)
3-4 years	8 (22.2)	$40,001-$50,000	2 (5.6)
5-6 years	4 (11.1)	$50,001-$60,000	4 (11.1)
7-8 years	2 (5.6)	$60,001-$70,000	4 (11.1)
9-10 years	2 (5.6)	$70,001-$80,000	4 (11.1)
11-12 years	1 (2.8)	$80,001-$90,000	5 (13.9)
13-14 years	2 (5.6)	$90,001-$100,000	3 (8.3)
15-16 years	4 (11.1)	More than $100,000	9 (25.0)
17-18 years	1 (2.8)		
19 or more	5 (13.9)		

Findings and Discussion

Four variables including financial attitude, financial behavior, subjective financial well-being, and self-assessed financial knowledge were assessed in this study. Descriptive statistics were used to summarize the four variables in the pre-and post- surveys (shown in Tables 2, 3, 4). Tables 2, 3, 4, and 5 showed the results of paired t-test analysis conducted for four variables (shown in Tables 2, 3, 4, and 5).

As shown in Table 2, the paired t-test was employed to examine any significant changes in mean scores of financial attitudes between pre-and post-assessments. Of the ten financial attitude questions, only one showed a statistically significant ($p < .05$) improvement: "Keeping records of financial matters is too time consuming to worry about." One item, "It is important for a family to develop a regular pattern of saving and stick to it" had a significant change but in a negative direction. One possible explanation could be that seven out of 10 questions were negatively phrased. Some of the questions could have been confusing for the respondents. These results were not consistent with previous studies (DeVaney, 1995; Fletcher et al., 1997).

Among 16 financial behavior questions (as shown in Table 3), 11 financial behavior items such as "I have a weekly or monthly budget that I follow," "I review and evaluate spending on a regular basis," "I live from paycheck to paycheck," "I estimate household net worth," "I create financial goals," "I make plans on how to reach my financial goals," "I developed a plan for my financial future," "I regularly review my total financial situation," "I often spend more money than I have," "I compare my credit card receipts with monthly statement," and "I evaluate my risk management (insurance) strategies" showed significant improvement in mean scores (p< .05). Three items such as "I regular set aside money for saving," "I write down where money is spent," and "I get myself into more debt each year" showed significant improvement at or beyond p < .10 but not at p <.05. These results were consistent with previous literature (DeVaney, 1995; Fletcher et al., 1997; Garman et al., 1998)

Table 2 Financial Attitudes

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	T-test
Families should really concentrate on the present when managing their finances [a]	Pre Post	2 (5.6) 3 (8.3)	11 (30.6) 5 (13.9)	7 (19.4) 7 (19.4)	13 (36.1) 17 (47.2)	3 (8.4) 4 (11.1)	3.11 (1.11) 3.38 (1.13)	1.57
Financial planning for retirement is not necessary for assuring one's security during old age [a]	Pre Post	0 (0.0) 0 (0.0)	1 (2.8) 2 (5.6)	2 (5.6) 0 (0.0)	14 (38.9) 17 (47.2)	19 (52.8) 17 (47.2)	4.40 (.73) 4.36 (.76)	-0.44
Having a financial plan makes it difficult to make financial investment decisions [a]	Pre Post	1 (2.8) 1 (2.8)	1(2.8) 1 (2.8)	2 (5.6) 3 (8.3)	19 (52.8) 16 (44.4)	13 (36.1) 15 (41.7)	4.17 (.87) 4.19 (.92)	0.23
Having a savings plan is not really necessary in today's world in order to meet one's financial needs [a]	Pre Post	1 (2.8) 1(2.8)	1 (2.8) 0 (0.0)	0 (0.0) 2(5.6)	14 (38.9) 14 (38.9)	20 (55.6) 19 (52.8)	4.41 (.87) 4.38 (.83)	-0.15
It is really essential to plan for the possible disability of a family wage earner	Pre Post	11 (30.6) 14 (38.9)	19 (52.8) 10 (27.8)	4 (11.1) 7 (19.4)	2 (5.6) 2 (5.6)	0 (0.0) 3 (8.3)	2.86 (1.35) 2.27 (1.25)	-2.46*
Planning is an unnecessary distraction when families are just trying to get by today [a]	Pre Post	0 (0.0) 0 (0.0)	1 (2.8) 2 (5.6)	1 (2.8) 2 (5.6)	18 (50.0) 14 (40.0)	16 (44.4) 17 (48.6)	4.36 (.68) 4.31 (.83)	-0.36
Keeping records of financial matters is to time-consuming to worry about [a]	Pre Post	1(2.8) 0 (0.0)	3 (8.3) 1 (2.8)	4 (11.4) 2 (5.6)	16 (45.7) 16 (44.4)	11 (31.4) 17 (47.2)	3.94 (1.03) 4.36 (.72)	2.76**
Saving is not really important [a]	Pre Post	3 (8.3) 0 (0.0)	0 (0.0) 0 (0.0)	0 (0.0) 0 (0.0)	13 (36.1) 16 (44.4)	20 (55.6) 20 (55.6)	4.30 (1.11) 4.55 (.50)	1.32
It is important for a family to develop a regular pattern of saving and stick to it	Pre Post	13 (36.1) 18 (50.0)	13 (13.1) 15 (41.7)	3 (11.1) 3 (8.3)	3 (8.3) 0 (0.0)	3 (8.3) 0 (0.0)	2.38 (1.37) 2.41 (1.46)	0.10
Thinking about where you will be financially in 5 or 10 years in the future is essential for financial success	Pre Post	17 (47.2) 15 (41.7)	12 (33.3) 18 (50.0)	4 (11.1) 2 (5.6)	2 (5.6) 1 (2.8)	1 (2.8) 0 (0.0)	2.28 (1.39) 2.63 (1.46)	1.29

[a] These questions were reverse-coded. Higher scores mean more positive financial attitudes.
*** p <.001 ** p < .01 * p < .05

Two behavior questions (saving for retirement and paying credit card bills in full) did not show any significant changes. However, the percentage of participants who set aside money for retirement increased. After collapsing categories of "agree" and "strongly agree," 80.6% reported that they set aside money for retirement in the pre and 88.9% reported that they set aside money for retirement in the post. Although the score did not change significantly, the number of those who save for retirement has been increased. Also, it could be that those behaviors take place in a longer term than three months. Another reason might be that these employees did not see any cost of living adjustments for the previous three years while prices including housing went up in the area. Participants improved their financial behaviors by managing their money better but actual savings or debt reduction might not have happened due to the economic circumstances or other reasons. The savings and debt reduction behaviors should be further investigated in the future study.

Of the five questions measuring perceived financial well-being, three questions, "How well off are you financially," "How stressed do you feel about your personal finances," and "How secure do you feel about your personal finances for retirement?" showed significant improvement (in Table 4). Although the mean scores for saving for retirement in financial behavior scale did not change, people felt more secure about their personal finances for retirement than before the workshops. This could be that participants just felt better about their financial well-being without actual changes in objective financial well-being measures such as amount of emergency funds or savings. This should be investigated in the future studies. Over-confidence regarding retirement future is consistent with the national Retirement Confidence Survey by EBRI (2004). Individuals are just optimistic regardless of their objective financial situations.

Table 3. Financial Behaviors

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Paired t-test
I have a weekly or monthly budget that I follow	Pre Post	2 (5.6) 5 (13.9)	6 (16.7) 11 (30.6)	13 (36.1) 7 (19.4)	9 (25.0) 12 (33.3)	6 (16.7) 1 (2.8)	2.69 (1.12) 3.19 (1.14)	2.72**
I review and evaluate spending on a regular basis	Pre Post	2 (5.6) 6 (16.7)	15 (41.7) 19 (52.8)	6 (16.7) 5 (13.9)	8 (22.2) 5 (13.9)	5 (13.9) 1 (2.8)	3.03 (1.20) 3.66 (1.01)	3.33**
I live from paycheck to paycheck [a]	Pre Post	8 (22.2) 3 (8.3)	10 (27.8) 10 (27.8)	5 (13.9) 6 (16.7)	6 (16.7) 12 (33.3)	7 (19.4) 5 (13.9)	2.83 (1.46) 3.16 (1.23)	2.16*
I regular set aside money for saving	Pre Post	14 (38.9) 10 (27.8)	10 (27.8) 20 (55.6)	4 (11.1) 2 (5.6)	3 (8.3) 4 (11.1)	5 (13.9) 0 (0.0)	3.69 (1.43) 4.00 (.89)	1.77†
I write down where money is spent	Pre Post	3 (8.3) 4 (11.1)	8 (22.2) 13 (36.1)	6 (16.7) 4 (11.1)	8 (22.2) 10 (27.8)	11 (30.6) 5 (13.9)	2.55 (1.36) 3.02 (1.29)	1.96†
I estimate household net worth	Pre Post	3 (8.3) 4 (11.1)	9 (25.0) 14 (38.9)	8 (22.2) 11 (30.6)	10 (27.8) 5 (13.9)	6 (16.7) 2 (5.6)	2.80 (1.23) 3.36 (1.04)	2.45*
I set aside money for retirement	Pre Post	20 (55.6) 13 (36.1)	9 (25.0) 19 (52.8)	3 (8.3) 0 (0.0)	4 (11.1) 3 (8.3)	0 (0.0) 1 (2.8)	4.25 (1.02) 4.11 (.97)	-.77
I create financial goals	Pre Post	3 (8.3) 9 (25.0)	9 (25.0) 15 (41.7(	7 (19.4) 7 (19.4)	15 (41.7) 5 (13.9)	2 (5.6) 0 (0.00)	2.55 (1.02) 3.78 (.98)	5.89***
I make plans on how to reach my financial goals	Pre Post	1 (2.8) 8 (22.2)	9 (25.0) 13 (36.1)	8 (22.2) 10 (27.8)	15 (41.7) 5 (13.9)	3 (8.3) 0 (0.0)	2.72 (1.03) 3.66 (.98)	5.30***
I developed a plan for my financial future	Pre Post	2 (5.7) 8 (22.2)	8 (22.9) 9 (25.0)	8 (22.9) 12 (33.3)	12 (34.3) 7 (19.4)	5 (14.3) 0 (0.0)	2.72 (1.14) 3.50 (1.05)	4.58***
I regularly review my total financial situation	Pre Post	3 (8.3) 5 (13.9)	11 (30.6) 17 (47.2)	10 (27.8) 7 (19.4)	8 (22.2) 6 (16.7)	4 (11.1) 1 (2.8)	3.03 (1.15) 3.52 (1.02)	3.00**
I often spend more money than I have [a]	Pre Post	8 (22.2) 2 (5.6)	11 (30.6) 11 (30.6)	6 (16.7) 4 (11.1)	6 (16.7) 14 (38.9)	5 (13.9) 5 (13.9)	2.69 (1.36) 3.25 (1.20)	2.19*
I usually pay the credit card bills in full	Pre Post	10 (27.8) 9 (25.0)	5 (13.9) 5 (13.9)	5 (13.9) 5 (13.9)	5 (13.9) 13 (36.1)	11 (30.6) 4 (11.1)	2.94 (1.64) 3.05 (1.41)	.73
I get myself into more debt each year [a]	Pre Post	4 (11.1) 1 (2.8)	5 (13.9) 4 (11.1)	7 (19.4) 7 919.4)	12 (33.3) 14 (38.9)	8 (22.2) 10 (27.8)	3.41 (1.29) 3.78 (1.07)	1.71†
I compare my credit card receipts with monthly statements	Pre Post	7 (19.4) 10 (27.8)	8 (22.2) 15 (41.7)	9 (25.0) 2 (5.6)	6 (16.7) 9 (25.0)	6 (16.7) 0 (0.0)	3.11 (1.36) 3.72 (1.13)	3.18**
I evaluate my risk management (insurance) strategies	Pre Post	2 (5.6) 2 (5.6)	4 (11.1) 16 (44.4)	12 (33.3) 11 (30.6)	7 (19.4) 6 (16.7)	11 (30.6) 1 (2.8)	2.42 (1.20) 3.33 (.93)	3.62**

[a] These questions were reverse-coded. Higher scores mean more positive financial behaviors.
*** p <.001 ** p < .01 * p < .05 † p< .10

Table 4.Financial Well-being and Self-assessed Financial Knowledge

Variable	Range		M (SD)	Paired t-test
How well off are you financially?	1-5	Pre Post	2.77 (1.00) 3.02 (.90)	2.31*
How do you feel about current financial situation?	1-5	Pre Post	2.80 (1.09) 2.94 (.92)	.89
How stressed do you feel about your personal finances?	1-5	Pre Post	2.66 (.98) 3.02 (.97))	2.25*
How secure do you feel about your personal finances for retirement	1-5	Pre Post	2.08 (.94) 2.61 (.83)	3.61**
How satisfied are you with your present financial situation?	1-10	Pre Post	4.25 (1.87) 4.58 (2.04)	1.31
How would you rate your financial knowledge?	1-7	Pre Post	3.08 (1.20) 4.17 (1.08)	7.73***

[a] These questions were reverse-coded. Higher scores mean higher levels of financial well-being and financial knowledge.
*** p <.001 ** p < .01 * p < .05

Table 5. Financial Attitude, Financial Behavior, and Financial Well-being Summed Scales

Variable		M (SD)	Paired t-test
Financial Attitude	Pre Post	36.26 (3.37) 36.73 (3.59)	.91
Financial Behavior	Pre Post	47.47 (11.11) 56.26 (3.59)	5.78 ***
Financial Well-being	Pre Post	12.47 (3.84) 13.94 (3.78)	3.58**

*** p <.001 ** p < .01 * p < .05

Financial knowledge, measured with one question, "How would you rate your financial knowledge?" showed a significant positive increase after they participated in the workshops. The actual knowledge testing was not included in the study. However, the self-assessed knowledge increase sustained three months after the workshops.

Table 5 shows the paired t-test results of summed scales of financial attitude, financial behavior, and financial well-being. As expected, financial behavior and financial well-being had significant improvement but not financial attitude.

Conclusions and Recommendations

This study contributes to the literature in family financial management. Specifically, the research empirically evaluated a comprehensive Extension workplace financial education program ("Prescription for Financial Wellness") developed by the Maryland Cooperative Extension educators and added some evidence on the effects of workplace financial education on comprehensive measures of financial attitude, financial behavior, financial well-being and self-assessed knowledge.

This study found significant changes in financial management behaviors, financial well-being and perceived knowledge as a result of workplace financial education programs. As the intervention was more comprehensive than retirement planning, participants also improved their personal finances in other key areas such as credit management, general financial planning and cash management. Also, their perceived financial well-being and financial knowledge also have improved.

Although there are limitations due to the sample size, these results provide crucial information for financial educators, counselors and employers seeking to enhance their employees' financial literacy and well-being. For example, research outcomes indicate that certain domains such as financial behavior, financial well-being and financial knowledge where the program had its strongest effects. Some items such as retirement saving or paying credit card bills in full did not have significant mean changes. Longer-term follow-up than three months is recommended in the future studies. There might be a bias due to the fact that the participants were predominantly female. Surprisingly, no changes in financial attitude were found. The future programs should be improved because financial attitudes affect financial management and financial well-being (Kim, 2000). One reason might be negatively phrased questions for financial attitudes. Future research is needed to test different types of financial attitude scales. Also, this study did not have a control group in the design. Future studies are recommended to employ more rigorous experimental designs that use a control group and larger sample size.

As more employers express interest in workplace financial education, the knowledge gained from this study could help educators to enhance individual/family financial well-being in a challenging economic climate. This study also can be used to convince more employers to provide more workplace financial education programs. Although investment advice is beneficial to most employees, they have a full range of financial situations and needs. Some may need debt management while others may desire to save for a college education for a child or to buy a home. A comprehensive financial education could help more employees handle their finances better and improve their financial well-being.

References

American Bankruptcy Institute (2004). *U.S. bankruptcy filings 1980-2003 (Business, non-business, total)*. Retrieved on March 2, 2004 from http://www.abiworld.org/stats/1980annual.html

American Express Retirement Services (2004, April 1). Second American Express National Survey finds worker financial stress lingering into 2004. [News Release]. Retrieved on April 7, 2004 from http://www.businesswire.com

Atkinson, W. (August, 2001). Drowning in debt. *HR Magazine,* 46 (8), pp. 68-74.

BayBayer, P. J., Bernheim, B. D., & Scholz (1996). *The effects of financial education in the workplace: Evidence from a survey of employers.* Stanford Economics Working Paper #96-011.

Bernheim, B. D. & Garrett, D. M. (1996). *The determinants and consequences of financial in the workplace: Evidence from a survey of household.* Stanford Economics Working Paper #96-007.

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.

Blair, D. T. & Sellars, A.T. (1995, May). Retirement planning: More than investment education. *Journal of the American Society of CPU & ChFc*, 64-71.

Brooke, Jr., P. P., & Price, J. L. (1989). The determinants of employee absenteeism: An empirical test of a causal model. *Journal of Occupational Psychology, 62,* 1-19.

Brown, R. (1999). Financially-troubled employees and threats of violence impact the workplace. *Personal Finances and Worker Productivity,* 3(1), pp. 38-47.

Clark, R. L. & d'Ambrosio, M. C. (2003, November). Ignorance is not bliss: The importance of financial education. *TIAA-CREF Research Dialogue, 78,* 1-14.

Clark, R. L. & Shieber, S. J. (1998). *Factors affecting participation rates and contribution levels in 401(k) plans.* In: Mitchell, O. S., Schiber, S. J. (Eds.), Living With Defined Contribution Pensions. Pension Research Council, Philadelphia, 69-97.

DeVaney, S. A., Gorham, L., Bechman, J. C., & Haldeman, V. A. (1995). Saving and investing for retirement: The effect of a financial education program. *Journal of the Family Economics and Resource Management Biennial,* pp. 153-158.

Dillman, D. A. (1978). *Mail and telephone surveys: The total design method.* New York: John Wiley & Sons.

Draut, T. & Silva, J. (2003). *Borrowing to make ends meet.* Demos. New York, NY: Author.

Employee Benefit Research Institute (2004). *Will Americans ever become savers? The 14th Retirement Confidence Survey*, Issue Brief 268. Author: D.C.

Field, R. & Vogt, V. A. (2003). Employee financial stress and investment advice needs. American Express Retirement Services. Minneapolis: MN.

Fitzsimmons, V., Hira, T., Bauer, J., & Hafstrom, J. (1994). Financial management: development of scales. *Journal of Family and Economic Issues, 14* (3), 257-274.

Fletcher, C.N., Beebout, G., & Mendenhall, S. (1997). Developing and evaluating personal finance education at the worksite: A case study. In E. T. Garman, J. E. Grable, & S. Joo (Eds.), *Personal Finances and Worker Productivity 1*(1) (pp.54-59). Roanoke, VA.

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.

Garman, E. T., Kim, J., Kratzer, C. Y., Brunson, B. H., & Joo, S. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning, 10*(1), 79-88.

Godwin, D. D., & Caroll, D. D. (1986). Financial management attitudes and behaviors of husbands and wives. *Journal of Consumer Studies and Home Economics, 10,* 77-96.

Greenspan A. (October 26, 2001). *The importance of financial education and literacy.* Before the National Council on Economic Education, Chicago, Illinois (via videoconference). http://www.federalreserve.gov/boarddocs/speeches/2001/20011026

Joo, S. & Garman, E. T. (1998). Personal financial wellness may be the missing factor in understanding and reducing worker absenteeism. *Personal Finances and Worker Productivity, 2* (2), 172-182.

Julian, D. A., Jones, A. & Deyo, D. (1995). Open systems evaluation and the logic model: Program planning and evluation tools: Evaluation and Program Planning, 18 (4), 333-341.

Hernandez, M. (2000). Using logic models and program theory to build outcome accountability. *Education and Treatment of Children,* 23(1), 24-40.

Kim, J. (2000). *The effects of workplace financial education on personal finances and work outcomes.* Unpublished doctoral dissertation. Virginia Polytechnic Institute & State University: Blacksburg, VA.

Magione, T. W., Howland, J., Amick, B., Cote, J. Lee, M., Bell, N., and Levine, S. (1997). Employee drinking practices and work performance. *Journal of Studies on Alcohol, 60*(2), 261-270.

MetLife (2003). The MetLife study of employee benefits trends: Findings from the 2003 National survey of employers and employees. Retrieved on May 20, 2004 from http://www.metlife.com

Peirce, R. S., Frone, M. R., Russell, M., & Cooper, M. L. (1996). Financial stress, social support, and alcohol involvement: a longitudinal test of the buffering hypothesis in a general population survey. *Health Psychology, 15* (1), 38-47.

Tiras, S. (1997). Cover the basics in financial education. *HR Magazine, 41,* 119-123.

Vitt, L. A. Anderson, C., Kent, J., Lyter, D., Siegenthaler, J. K., & Ward, J. (2000). *Personal Finance and the Rush to Competence: Financial Literacy Education in the U.S.* Fannie Mae Foundation: Washington, DC.