

# Factors Related to Retirement Confidence: Retirement Preparation and Workplace Financial Education

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*The purpose of this study is to examine factors contributing to individual's retirement confidence using the 2004 Retirement Confidence Survey. Retirement confidence includes the views and attitudes of Americans regarding retirement, their preparations for retirement, their confidence with regard to various aspects of retirement, and related issues. The results suggest that those who calculated their retirement fund needs, had more savings, higher levels of confidence in government programs such as Social Security and Medicare, higher household income, better health, and who received workplace financial education and advice had higher levels of retirement confidence than others. The findings provide implications for financial professionals, employers, and policymakers.*

Keywords: *Retirement confidence, Retirement preparation, Workplace financial education*

## Introduction

Wealth and health are two of the most important factors contributing to a successful retirement. Believing that one will have adequate postretirement income is positively related to retirement adjustment (Beehr, 1986; Taylor & Doverspike, 2003). There is a great concern that many aging baby boomers may retire without adequate financial resources for retirement in the near future (Gist, Wu, & Verman, 2004; Yuh, Montalto, & Hanna, 1998). With decreasing numbers of defined benefit pension plans (Turner, Muller & Verma, 2003) and uncertainty regarding Social Security and Medicare payments (Social Security Administration, 2004), individuals increasingly need to save more to prepare for their own retirement. Generally, those who are better prepared for their retirement have more positive attitudes toward retirement. However, some people might feel optimistic about their retirement despite inadequate retirement savings. Therefore, it seems to be important to explore factors that lead to retirement confidence, such as retirement planning.

Different studies have indicated that many individuals may not have sufficient resources to maintain their financial independence during their retirement (Gist, et al., 2004; Gokhale, Kotlikoff, & Sabelhous, 1996; Yuh, et al., 1998). A recent study (Gist, et al., 2004) using

the 2001 Survey of Consumer Finances showed that the median net worth among boomers was about \$107,000 including home equity and defined contributions. Many suggest that this amount alone would not be sufficient for retirement security without the contribution of defined benefit pensions and Social Security as well (Gist, et al., 2004; Yuh, et al., 1998).

However, fewer workers among boomers will have pension benefits when they retire if the number of participants in defined benefits continues to decrease. The number of active participants in defined benefit plans peaked at 30.1 million in 1984 and had declined to 23.0 million by 1998. In contrast, the number of defined contribution plan participants grew from 30.6 million to 50.3 million during the same time period (Turner, et al., 2003). Furthermore, the overall participation rate in any employer-provided retirement plans is not high. Only half of private industry employees (49%) participated in employer-provided retirement plans, including defined benefits and defined contribution plans (U.S. Department of Labor, 2003).

Further, Social Security and Medicare programs are key resources for individual's retirement in the United States. In the future, however, Social Security will provide less retirement income relative to previous earnings than it does today. Consequently, future

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retirees will need to find alternative income sources as they age (Munnell, 2003; Social Security Administration, 2002). Social Security and Medicare have drawn a great deal of attention because of the financial inadequacy of the trust funds for the near future. The 2004 Social Security Trustees Report indicated that the combined Social Security fund reserves will run out by 2042, and there is even more serious doubt about the sustainability of Medicare (Social Security Administration, 2004). The Social Security Administration reports that financial reform of Medicare and Social Security are imperative.

Despite serious concerns regarding retirement income security, especially for the baby boomer generation, many Americans are not saving enough for retirement, and some have unrealistic anticipations about the adequacy of their retirement planning. The Retirement Confidence Survey (RCS) has been conducted annually since 1991, “to gauge the views and attitudes of working-age and retired Americans regarding retirement, their preparations for retirement, their confidence with regard to various aspects of retirement, and related issues.” Analysis of the 2004 RCS indicated that 68% of workers are very or somewhat confident about their retirement, while 4 in 10 workers say that they are not currently saving for retirement at all (Helman & Paladino, 2004). However, aside from several studies (Camp, Bagwell, & Joo, 2002; Joo & Pauwels, 2002) and the RCS, there has been limited research about factors of retirement confidence.

This study proposes to broaden the exploration of factors that predict retirement confidence by investigating anticipation and preparation for retirement and individual characteristics. Some studies have found that anticipation and preparation for retirement affected attitude toward retirement (Mutran, Reitzes, & Fernandez, 1997; Taylor & Doverspike, 2003). Reports show that those who are well prepared are likely to be confident about their retirement. It is also possible, however, that some people feel optimistic about their retirement despite inadequate retirement savings. Such overconfident individuals may not realize that their lack of retirement planning and savings poses a significant problem for their future financial well-being, having discounted the relevance of their insufficient planning. Therefore, it is important to understand the relationship between preparation of retirement and retirement confidence.

One of the most salient factors affecting retirement decision making is an individual’s attitude toward retirement (Taylor & Shore, 1995). Favorable retirement expectations have been positively related to retirement behaviors (Glamser, 1981; Taylor & Shore, 1995). Also, feeling prepared for retirement affects

retirement anxiety and depression (Fretz, Kluge, Ossana, Jones, & Merikangas, 1989) as well as retirement experience and adjustment (Taylor & Doverspike, 2003). Thus, identification of the factors that contribute to the fostering of positive attitudes toward retirement or retirement confidence could be used to help individuals better prepare for their retirement and achieve successful postretirement adjustment. The purpose of this study is to examine factors that might contribute to individual’s retirement confidence including anticipation and preparation for retirement and individual characteristics.

### Related Literature

One’s attitude toward retirement is important in adjusting satisfactorily to retirement (Atchley, 1991). Also, attitude about retirement influences the level of confidence one displays regarding the success of their retirement. However, there are limited studies on retirement confidence (Camp et al., 2002; Joo & Pauwels, 2002). Using symbolic interaction theory, Mutran, et al. (1997) suggested that anticipatory socialization influences the way older workers understand and interpret retirement, and identified factors of anticipation and preparation for retirement, such as proximity and retirement planning, predict attitude toward retirement. Based on the previous research, the present study includes anticipation and preparation for retirement and individual characteristics as factors contributing to retirement confidence.

#### *Anticipation and preparation for retirement*

Preparing for and anticipating retirement is a phase of preretirement (Atchley, 1976). Anticipation and/or preparation for retirement have been associated with attitudes toward retirement (Atchley, 1991; Behling & Merves, 1985; Evans, et al, 1985; Glamser, 1976, 1981; Mutran, et al., 1997; Turner, Bailey, & Scott, 1994). Studies suggest that those who are better prepared for their own retirement have more positive attitudes than those who are not (Glamser, 1976; Helman & Paladino, 2004; Mutran, et al., 1997).

Anticipation and preparation for retirement variables were measured in different ways. Measurements included proximity (Atchley, 1976; Mutran, et al., 1997); pre-retirement involvement scales such as talking with family members and reading articles (Evans et al., 1985); preparedness for retirement (Glamser, 1976); knowledge of retirement issues (Glamser, 1976; 1981); retirement planning such as financial planning, home equity planning, locational planning and employment planning (Turner, et al., 1994); financial pre-retirement planning, including health insurance, social security, and pension contributions (Behling & Merves, 1995); and retirement fund calculation and retirement savings

(Helman & Paladino, 2004). Further, Mutran, et al. (1997) measured retirement planning with questions addressing topics such as discussing retirement with others; reading about retirement; attending a preretirement program, lecture, or seminar; and actively planning for retirement such as calculating retirement expenses and income. Thus, multiple variables, such as proximity to retirement, retirement fund calculation, savings amount, confidence in government program such as Social Security, and workplace financial education seem to be indicative of anticipation and/or preparation for retirement.

Generally, retirement-oriented activities increase with proximity to retirement (Evans, et al., 1985). Atchley (1976) argued that proximity to retirement, not age, is the key to preparation level. However, the relationship between proximity and attitude toward retirement has been unclear. Streib and Schneider (1971) found that proximity had a negative relationship with retirement attitude, while Mutran, et al. (1997) did not find any significant impact of proximity to retirement on attitude toward retirement.

Retirement fund calculation allows individuals to determine how much money they need to live comfortably during retirement. It is an initial step of retirement planning that lets individuals develop subsequent plans to achieve that goal. Calculation of retirement income and expenses as active retirement planning has been shown to positively affect attitude toward retirement (Helman & Paladino, 2004; Mutran, et al., 1997).

Retirement income needs are different depending on an individual's situation. Therefore, having adequate financial resources for retirement is not easy to measure, especially when accurate data on total asset holdings of an individual such as real estate, investments, and pension benefits is difficult to obtain (Ruhm, 1989). Therefore, the effects of wealth have been investigated less in understanding one's retirement (Ruhm, 1989), while studies often used perceived retirement income adequacy, total amount of, and types of retirement savings in predicting retirement attitudes and behaviors (Behling & Merves, 1985; Fronstin, 1999; Ruhm, 1989).

Further, confidence in Social Security and Medicare programs could influence an individual's retirement attitudes and behaviors. Social Security and health insurance coverage are some of the key factors influencing retirement decisions (Betley, 1998; Fronstin, 1999; Ruhm, 1989). Fronstin (1999) found that pension plans and retirement health insurance had a significant influence on worker's retirement age expectations. Those who had retirement plans (defined benefit plan or \$50,001 or more defined contribution)

and retirement health insurance available were more likely to expect to stop working before age 65. Others found a similar relationship between health insurance coverage and retirement decisions (Betley, 1990; Employee Benefit Research Institute, 1998). Economic forecasts also influence retirement decisions (Prothero & Beach, 1984). Some do not retire because they are concerned about the impact of inflation on their financial security and level of living. Additionally, expectations about Social Security and Medicare in the future could influence individual's retirement attitudes, forcing them to find alternative financial sources for their retirement if they anticipate reductions in their future Social Security and Medicare benefits. Consequently, those who are less confident in the future of Social Security and Medicare programs may display more concern about their own retirement security.

Finally, having knowledge of retirement issues is positively related to attitude toward retirement (Glamser, 1976; Hershey & Mowen, 2000). Hershey and Mowen (2000) found that those who believe that they know more about financial planning are more likely to have prepared for retirement. They continue to suggest that training and intervention programs designed to boost financial knowledge should help to improve financial preparedness by triggering advanced planning activities. Retirement education could improve employees' knowledge and behaviors related to retirement planning, and in turn, attitudes toward retirement. Although employers who recognize the need for retirement education of their employees currently provide workplace financial education for their employees, the 2004 RCS indicated that only one-third of workers (34%) received retirement educational materials or seminars from an employer or work-related retirement plan provider in the past 12 months (Helman & Paladino, 2004).

Workplace financial education implies more than retirement workshops or retirement related information, and often focuses on company retirement planning which fulfills ERISA guidelines for plan providers (employers) to provide "sufficient information to make informed decisions with regard to investment alternatives under the plan." These workplace financial education programs include retirement benefit statements, brochures, newsletters/magazines, seminars or group meetings, workbooks or worksheets, investment advice, internet services, software programs, videos and CD-ROMs. Recently, more employers have started to provide employees with access to professional advice in response to employee requests. Indeed, in recent years, professional advice has been desired by many

employees who prefer personal interaction with experts (Helman & Paladino, 2004).

A number of studies examined the effects of financial education programs on retirement behaviors or attitudes of employees (Bayer, Bernheim & Scholz, 1996; Bernheim & Garrett, 1996; Bernheim & Garrett, 2003; Clark & d'Ambrosio, 2003; Garman, Kim, Kratzer, Brunson, & Joo, 1999; Taylor-Carter, Cook, & Weinberg, 1997). The large majority of studies found that brief training programs stimulated individual's saving behaviors and decision-making competencies (Hershey & Mowen, 2000). Bernheim and Garrett (2003) investigated cross-sectional relationships between the availability of financial education provided by employers and savings. They found that employer-based financial education increased both saving in general and saving for retirement. Another study also documented the effects of one-hour retirement seminars on retirement attitudes and behaviors (Clark & d'Ambrosio, 2003). The researchers found that participation in seminars changed individual's retirement goals and retirement savings behaviors in a positive way. Similarly, Taylor-Carter, et al. (1997) found that informal financial planning had a positive effect on anticipated financial expectation and that formal retirement education seminars that included financial management had positive effects on anticipated retirement satisfaction.

Although there are a few studies about the effectiveness of financial education on financial attitudes and behaviors, little is known about the effects of workplace financial education and advice on retirement confidence. Joo and Pauwels (2002) found that employer-provided financial education had a positive effect on retirement confidence. However, while the data included employer-provided education, it did not have information regarding workplace financial advice. Studies suggest that financial advice might be more effective in changing financial attitudes and behaviors than conventional financial education (Ernst & Young Human Capital LLP, 2004; Kim & Garman, 2003). Thus, it is timely to explore the relationship between confidence and financial education and advice.

#### *Individual characteristics*

Individual characteristics such as gender, race, education, marital status, financial dependents, household income, health status, and employer contribution to retirement plan have been identified to explain retirement attitude in previous studies (Evans, et al., 1985; Joo & Pauwels, 2002; Mutran, et al, 1997; Taylor & Doverspike, 2003; Taylor & Shore, 1995).

Studies showed that females experience retirement differently from males (Atchley & Robinson, 1982; Joo & Pauwels, 2002; Newman, Sherman, & Higgins, 1982). Atchley and Robinson (1982) found that males were likely to have a more positive attitude toward retirement than females. Using 1999 RCS data, Joo and Pauwels (2002) found that males also had higher confidence than females. In contrast, female workers were found to be less prepared for retirement than their male counterparts (Behling & Merves, 1985) and the 2000 Women's Retirement Confidence Survey also showed that women had lower confidence and retirement preparation than males (EBRI, 2000).

Additionally, studies have found racial differences in retirement attitudes and behaviors (Behling & Merves, 1985; EBRI, 2001; EBRI, 2003; Joo & Pauwels, 2002). Minority workers, such as African-American and Hispanic workers, have been reported to have lower retirement confidence and less retirement preparation primarily due to lower income (EBRI, 2001; EBRI, 2003). However, further analysis was not conducted to control for the effects of other contributors such as education.

Education also affects retirement attitude (Joo & Pauwels, 2002; Mutran, et al, 1997; Turner, et al., 1994). Turner, et al. (1994) found that those with some high school education, a high school degree, or some college were likely to have more negative attitudes toward retirement. Additionally, Joo and Pauwels (2002) found that those who had higher levels of education had higher levels of retirement confidence.

Marital status is also linked to attitude toward retirement (Mutran, et al., 1997; Turner, et al., 1994). Married individuals were likely to have more positive attitudes toward retirement (Mutran, et al., 1997, while those who were never married had more negative attitudes toward retirement (Turner, et al., 1994). Also, number of financial dependents was often found to negatively predict retirement attitude or confidence (Glamsner, 1976; Joo & Pauwels, 2002; Turner, et al., 1997).

Household income is critical in understanding attitude toward retirement. Feldman (1994) found that those with the highest incomes (over \$75,000) generally had much more favorable attitudes toward retirement than those with lower incomes (under \$25,000); those in low-income groups view retirement unfavorably. Additionally, Joo and Pauwels (2002) found that those with higher income (over \$50,000) had more positive retirement confidence. However, Mutran, et al.'s (1997) finding contradicts this assertion, showing income to negatively influence attitude toward retirement.

In addition, health is one of the strongest forecasters of retirement attitude and behavior (Atchley & Robinson, 1982; Beehr, 1986; Evans, et al., 1985; Taylor & Shore, 1995). Health was positively related to attitudes toward retirement and post retirement satisfaction (Atchley & Robinson, 1982; Taylor & Shore, 1995).

In the previous research, having pensions at work has been positively related to retirement attitude (Behling & Merves, 1985; Fronstin, 1999; Hayslip, Beyerlein, & Nichols, 1997; Mutran, et al., 1997). In a study of retirement decisions, Fronstin (1999) included pension benefits as a predictor of retirement patterns. Those who had pension benefits were more likely to expect to retire earlier than others.

### Methodology

#### *Data*

The data came from the 2004 Retirement Confidence Survey (RCS) co-sponsored by the Employee Benefit Research Institute (EBRI), American Savings Education Council (ASEC), and Mathew Greenwald & Associates, Inc. The survey was conducted in January 2004 via 20-minute telephone interviews with 1,002 individuals (783 workers and 219 retirees) age 25 and older in the United States. Using a random digit dialing method, a representative cross section sample of the U.S. was obtained. Also, all data were weighted by age, sex, and education to reflect the actual proportions in the adult population. This study included only the workers from the original 2004 RCS dataset.

#### *Variables*

*Dependent Variable.* Retirement confidence is the dependent variable of this study. Six questions about retirement confidence were combined and used as one retirement confidence variable. Those six questions were (1) confidence about having enough money to live comfortably throughout retirement years, (2) confidence about preparing financially for retirement, (3) confidence about having enough money for medical expenses, (4) confidence about having enough money for basic expenses, (5) confidence about meeting long-term care expenses, and (6) confidence about not outliving retirement savings. Each question was measured with a 4-point Likert scale, ranging from “not at all confident (1-point)” to “very confident (4-point)”. Reviewing high correlations among answers from six questions led the authors to use one summated scale in looking at retirement confidence.

The answers from the six questions were summed to create a retirement confidence scale. Cronbach coefficient alpha was 0.90. This figure is higher than 0.70 which is the generally agreed upon lower limit for Cronbach’s alpha. The range of the retirement confidence scale was 6 to 24.

*Independent Variables.* Explanatory variables include variables measuring (1) anticipation and preparation for retirement, and (2) individual characteristics. Anticipation and preparation for retirement variables included proximity to retirement, retirement fund calculation, retirement savings amount, confidence in government program, and workplace financial education and advice. Proximity to retirement was created as a continuous variable by subtracting current age from worker’s expected retirement age. A dummy variable indicating whether a respondent had ever calculated retirement funds needed was also created. Savings amount was measured with dummy variables indicating whether or not their savings amount was less than \$25,000 (reference group), \$25,000–\$99,999, \$100,000–\$249,999, \$250,000 or more, don’t know, and refused to answer. Two questions asking about confidence in the Social Security and Medicare systems were measured as confidence in government programs. Each question was measured with a 4-point Likert scale, ranging from “not at all confident (1 point)” to “very confident (4-point)”. The confidence in government program scale was constructed by summing up confidence in the Social Security system and confidence in Medicare. Cronbach coefficient alpha was 0.84. One question was “In the past 12 months, has an employer or work-related retirement plan provider given you educational material, information, or seminars about retirement planning and savings?” and the other question was “In the past 12 months, has an employer provided you with access to professional investment advice for retirement purposes, that is, access to specific recommendations about which stocks, bonds, and mutual funds you should invest your money in for retirement?” One variable was created indicating whether they received “neither education nor access to professional advice (reference group),” “only education,” or “both education and access to professional advice.”

Gender, race, education, marital status, financial dependents, household income, health, and employer contribution to retirement plan at work were analyzed as individual characteristics. Gender was measured with a dummy variable indicating male (1) or female (0). Race was measured with three dummy variables indicating White (reference group), Black or Others. Education was a continuous variable with 1 some high school or less, 2 high school graduate, 3 finished some college/trade or business school, 4 a college graduate, 5 post graduate work, and 6 a graduate degree. Marital status was measured with a dummy variable indicating married (1) or not (0). Financially dependent child was a dummy variable indicating whether or not they have a financially dependent child. Income was measured with dummy variables indicating if 2003 total household income was less than \$15,000,

\$15,000~\$24,999, \$25,000~\$34,999, \$35,000~\$49,999 (reference group), \$50,000~\$59,999, \$60,000~\$74,999, \$75,000~\$99,999, \$100,000 or more, don't know, or refused to answer. Health status was measured with a 5-point Likert scale, ranging from poor (1-point) to excellent (5-point). Employer contribution to retirement savings plan at work was measured with a variable indicating whether their employer contributed to their retirement savings plan (1) or not (0).

## Results and Discussion

### *Descriptive Statistics*

Descriptive statistics are presented in Table 1. Table 1 depicts descriptive characteristics of the sample in the first two columns and the results of T-test, ANOVA, or correlation analysis depending on the type of independent variable. In the T-test and ANOVA, mean values of retirement confidence were compared among sample subgroups of each characteristic. Except for the variable, "living with any financially dependent child," the levels of retirement confidence were found to be different among subgroups in most of characteristics.

The mean value of proximity to retirement was 20.1 years (SD = 11.84 years) and the average age was 43.7 years (SD = 11.01). Reviewing the correlation between proximity and retirement confidence, proximity had a negative relation with retirement confidence.

Overall, respondents were not preparing for retirement very well. More than half (55.0%) never calculated how much they would need to save to live comfortably when they retire. Although 85.0% of the 561 respondents reported that they are currently saving for retirement (not shown in the table), the amount falls far short of what is necessary for a comfortable retirement. The question of saving for retirement was not included in the regression analysis due to a large number of missing cases. Almost half of the respondents (49.8%) have saved less than \$25,000 for their retirement. Those better prepared for retirement were more confident in their retirement. Workers who have calculated how much they need for a comfortable retirement and currently have larger retirement savings were more confident in their retirement than others. Respondents were asked about their confidence in government programs. About two thirds (63.1%) reported that they are not at all or not too confident that the Social Security system will continue to provide benefits of at least equal value to benefits received by retirees today. More than half (59.26%) of respondents were not at all or not too confident about the Medicare

system. The questions were summed and the mean of confidence in government programs was 4.32 (S.D. = 1.72) out of a score range from 2 to 8. Confidence in government programs had a positive relationship with retirement confidence.

Workplace financial education was not available for the majority of respondents. Only a quarter (23.6%) of respondents received only educational material, information, or seminars, but not professional advice in the past 12 months. While 63.0% of workers never received workplace financial education or investment advice, 13.4% received professional investment advice for retirement purposes in addition to workplace financial education. Those who had both workplace financial education and professional investment advice had higher levels of retirement confidence than others. About half (48.2%) of respondents were male, while 51.8% were female. Male respondents were more confident regarding retirement with a mean score of 17.39 (SD = 4.65) than female respondents with a mean score of 16.45 (SD = 4.67). Eight out of ten workers (79.8%) were White, 10.5% were Black, and other races including Hispanic, Asian and others accounted for 9.7%. The results of ANOVA indicated that other races had the highest retirement confidence with a mean of 17.96 (SD = 4.53), followed by White (M = 16.89, SD = 4.68) and Black (M = 16.05, SD = 4.72). The average education level was between some college and college graduates (M = 3.26, SD = 1.31); education level had a positive correlation with retirement confidence. Regarding marital status, those who were married (58.8%) had higher levels of retirement confidence than those who were not. Slightly less than half (46.0%) had one or more financially dependent children although there was no significant difference in retirement confidence between those who had dependent children and those who did not. Median household income in 2003 was between \$35,000 and \$50,000. More than six out of ten participants (62.0%) reported that they were in very good or excellent health, while the average health status was 3.78 out of a 1 to 5 score range. Health showed a positive correlation with retirement confidence. In the previous year, 53.3% of the respondents indicated that an employer contributed money or stocks to a workplace retirement savings plan in their name or spouses' name. Those who had retirement savings plans at their workplace and employers' contribution had higher levels of retirement confidence than others.

**Table 1.**  
Descriptive Characteristics of Variables

Characteristics	N	M (SD)	%	Retirement confidence		Statistics <sup>a</sup>
				M	SD	
	783			16.91	4.68	
Anticipation/preparation for retirement						
Proximity to retirement	783	20.1 (11.84)		20.07	11.84	r=-0.11 **
Retirement fund calculation	783					T=8.47***
Yes	352		44.96	18.41	4.23	
No	431		55.04	15.68	4.68	
Savings amount	783					F=28.13***
Less than \$25,000	315		40.23	14.85	4.82	
\$25,000~\$99,999	156		19.92	17.81	3.85	
\$100,000~\$249,999	86		10.98	18.52	4.09	
\$250,000 or more	75		9.58	20.14	3.86	
Don't know	40		5.11	16.73	4.08	
Refused to answer	111		14.18	18.10	3.99	
Confidence in government programs	783	4.32 (1.72)		16.91	4.68	r=0.26 ***
Workplace Financial education (WFE)	783					F=31.19 ***
No WFE	493		62.96	15.94	4.84	
WFE only	185		23.63	18.24	3.94	
WFE and Advice	105		13.41	19.06	3.75	
Individual Characteristics						
Gender	783					T=2.82***
Male	377		48.15	17.39	4.65	
Female	406		51.85	16.45	4.67	
Race	783					F=3.32*
White	625		79.82	16.89	4.68	
Black	82		10.47	16.05	4.72	
Others	76		9.71	17.96	4.53	
Education	783	3.26 (1.31)		16.91	4.68	r=0.20 ***
Marital Status	783					T=5.33***
Married	460		58.75	17.64	4.40	
Not married	323		41.25	15.86	4.86	
With any financially dependent child	783					T=-1.37
Yes	360		45.98	16.66	4.66	
No	423		54.02	17.12	4.69	
2003 total household income	783					F=21.46***
Less than \$15K	57		7.28	12.73	4.89	
\$15K~\$24,999	79		10.09	13.94	4.68	
\$25K~\$34,999	92		11.75	15.62	4.42	
\$35K~\$49,999	164		20.95	16.31	4.50	
\$50K~\$59,999	71		9.07	18.50	4.14	
\$60K~\$74,999	85		10.86	18.20	3.56	
\$75K~\$99,999	74		9.45	18.59	3.59	
\$100K or more	100		12.77	19.64	3.91	
Don't know	10		1.28	14.23	3.62	
Refused to answer	51		6.51	18.77	3.89	
Health	783	3.78 (1.09)		16.91	4.68	r=0.31 ***
Employer contribution to retirement plan	783					T=7.27***
Yes	417		53.26	18.01	3.99	
No	366		46.74	15.65	5.08	

\*p<.05, \*\*p<.01, \*\*\*p<.001

<sup>a</sup> T-test was conducted for independent variables with two-categories and Analysis of Variance (ANOVA) was conducted for independent variables with more than two categories. Correlation analysis was conducted to see relations between continuous independent variables and retirement confidence.

### *Factors related to Retirement Confidence – Multiple Regression Analysis*

To identify statistically significant factors related to workers' retirement confidence, SAS was used to perform multivariate regression analysis. To evaluate conformity of the data with the assumptions of multivariate analysis, studentized residual plots, partial regression plots, and a normal probability plot were evaluated. Results indicated that the model was linear relative to the phenomenon measured, error term distribution was normal, and the error term was homoscedastic. Evaluation of the correlation matrix and tolerance measures indicated that neither collinearity nor multicollinearity were a problem.

The results of the multiple regression analysis are presented in Table 2. Characteristics with statistically significant positive relations with retirement confidence include retirement fund calculation, savings of \$25,000~\$99,999, savings of \$250,000 or more, confidence in government programs, workplace financial education and professional advice (reference group was no workplace financial education), Black, other races (reference group was White), 2003 total household income of less than \$25,000, income of \$50,000~\$59,999, \$75,000~\$99,999, \$100,000 or more (reference group was income if \$35,000~\$49,999), refuse to answer about income, and health. Characteristics with statistically significant negative relations were 2003 total household income of less than \$15,000, \$15,000~\$24,999, and don't know about income. On the other hand, proximity to retirement, gender, education, and employer contribution to retirement savings plan were not significant. Cumulatively, the variables account for 37% of the variance in retirement confidence ( $R^2 = .373$ ).

Those who calculated their retirement fund and saved more for retirement had higher levels of retirement confidence. These findings are somewhat similar to previous research that found a positive relationship between preparation for retirement and attitude toward retirement (Glamser, 1976; Joo & Pauwels, 2002; Mutran, et al., 1997). The Employee Benefit Research Institute also reported that those who calculated how much they needed for comfortable retirement had higher levels of retirement confidence without controlling the effects of other factors (Helman & Paladino, 2004). Further, this could be related to findings that realistic expectations and clear financial goals lead to specific planning activities for retirement (Taylor & Doverspike, 2003). Calculating retirement funds allows individuals to realize how much they need to save for their comfortable retirement.

Additionally, compared with those who have savings and investment of less than \$25,000, individuals with savings and investment of \$25,000 to \$99,999, and those with \$250,000 or more, were more confident about their ability to have a comfortable retirement. However, the group with \$100,000 to \$249,999 did not have significantly different confidence from the reference group (\$25,000 below). Although these savings do not represent net worth, which could be a better indicator of individuals financial resources, the findings suggest that savings has a positive impact on retirement confidence.

As expected, confidence in government programs showed a significantly positive relation with individual's retirement confidence. People who had higher levels of confidence in government programs such as the Social Security system and Medicare were more confident in their retirement than others, given the other factors in the model. This result is similar to previous findings that Social Security, pension plans, or health insurance benefits affect retirement decisions (Betley, 1998; EBRI, 1998; Fronstin, 1999). Social Security and Medicare are key economic resources for retirees due to many private-sector employee benefits being reduced. While Social Security is currently the most important source of income for older persons, confidence in government programs may not be realistic when the future of the programs is uncertain.

As a part of retirement preparation, workplace financial education and advice was found to be a significant predictor of retirement confidence. Additionally, these findings could be similar to those studies that found attending a retirement workshop seminar influences attitude toward retirement (Mutran, et al., 1997; Taylor-Carter, et al., 1997). One of the notable findings involved the role of workplace financial education and advice. Compared with those who received neither workplace financial education nor professional advice, those who did had higher levels of retirement confidence, controlling for other factors. This result might be due to the fact that in this study, workplace financial education could include a variety of materials and information including retirement benefit statements and brochures, as well as seminars or group meetings. Although workers found formats such as interactions with experts, having their questions answered in seminars or group meetings, and access to financial planners to be the most helpful (Helman & Paladino, 2004), many employees may not have access to these types of educational programs. The result is similar to Kim and Garman's (2003) finding that showed that financial education and advice improved financial attitude and behaviors.

**Table 2.**  
Variables related to retirement confidence: Regression

Characteristics	b	beta	T	Sig.
Anticipation and Preparation for Retirement				
Proximity to retirement	.017	.043	1.24	
Retirement fund calculation	.955	.101	3.11	**
Savings amount				
(Reference group: less than \$25K)				
\$25,000~\$99,999	1.177	.100	2.83	**
\$100,000~\$249,999	.890	.059	1.64	
\$250,000 or more	2.197	.138	3.62	***
Don't know	.552	.026	.80	
Refused to answer	.681	.051	1.20	
Confidence in government programs	.740	.272	8.91	***
Workplace Financial Education (WFE)				
(Reference group: no WFE)				
WFE only	.606	.055	1.73	
WFE and professional advice	1.715	.125	3.97	***
Individual Characteristics				
Male	.533	.057	1.90	
Race (Reference group: White)				
Black	.962	.063	2.04	*
Others	1.389	.088	2.98	**
Education	.056	.016	.48	
Married	.308	.032	.98	
With any financially dependent child	-.296	-.032	-.99	
2003 Total Household Income				
(Reference group: \$35K~\$49,999)				
Less than \$15K	-1.995	-.111	-3.10	**
\$15K~\$24,999	-1.135	-.073	-2.07	*
\$25K~\$34,999	-.279	-.019	-.55	
\$50K~\$59,999	1.913	.117	3.52	***
\$60K~\$74,999	.894	.059	1.70	
\$75K~\$99,999	1.503	.094	2.71	**
\$100K or more	1.711	.122	3.15	**
Don't know	-.339	-.008	-.26	
Refused to answer	1.827	.096	2.48	***
Health	.638	.148	4.51	***
Employer contribution to retirement savings plan	.550	.059	1.78	

F= 16.61\*\*\*, R<sup>2</sup>= .3727, Adjusted R<sup>2</sup>= .3502

\*p<.05, \*\*p<.01, \*\*\*p<.001

Among individual characteristics, race, household income, health, and employer contribution to retirement plan were significant. Race was a significant factor of retirement confidence. However, the direction of the relationship was interesting. The results of the ANOVA suggested that others, including Hispanic and Asian, had the highest confidence score (17.96), followed by White (16.89) and African American (16.05) scores. However, regression results indicated that compared to the reference group (White), Black and others had higher levels of retirement confidence. This finding is very unique compared to other findings from Minority Retirement Confidence Surveys. Minority Retirement Confidence Surveys are collected by additional oversamples of minority groups, specifically African-Americans and Hispanic-

Americans (200 interviews were conducted within each of these groups). The findings of Minority RCS 2003 reported that African-American and Hispanic workers have lower levels of retirement confidence than American workers overall, with household income explaining most of the difference in retirement confidence (EBRI, 2003). Surveys suggested that African-American and Hispanic workers have similar levels of retirement confidence with household income held constant. However, the findings from the present study suggest that African-Americans and others including Hispanics and Asians might have higher retirement confidence than Whites, controlling for the effects of preparation for retirement, individual characteristics, and workplace financial education; however, one should be cautious about generalizing

because the sample size was very small for African-American and other race workers in the present study.

Household income was also a significant factor of retirement confidence, consistent with findings of Joo and Pauwels's (2002) study. However, this significant finding contradicts Mutran, et al's (1997) study that found a negative relationship between retirement attitude and income. Compared with those who have an income of \$35,000~\$49,999, those with incomes of less than \$25,000 had lower levels of retirement confidence. Additionally, people with incomes of \$50,000 ~ 59,999, and those with incomes of \$75,000 or more were more confident, controlling for other factors. Also, those who refused to specify their household income had higher retirement confidence compared with the reference group (\$35,000-\$49,999). These findings might suggest that having resources such as household income strongly impacts retirement confidence, but the relationship might not be linear.

Findings supported the previous results that health and wealth are the two most important factors of retirement attitude and behaviors (Atchley & Robinson; 1982; Beehr, 1986; Evans, et al., 1985; Taylor & Shore, 1995). Health had a positive relationship with retirement confidence. In other words, people with better health status had higher levels of retirement confidence.

Proximity to retirement, gender, education, marital status, financially dependent children, and employer contribution to retirement plan were not found to be significant to predict retirement confidence in this study. This finding was not consistent with previous studies that found that proximity to retirement (Evans, et al., 1985), gender, education, marital status, and financial dependents (Joo & Pauwels, 2002; Turner, et al, 1994) were related to retirement confidence or attitude. Employer contribution to one's retirement plan was not statistically significant either, although previous studies suggest that having a pension affects an individual's retirement (Mutran, et al., 1997; Taylor & Shore, 1995).

The standardized coefficients (beta coefficient) show relative effects of each factor to retirement confidence, allowing direct comparison of factors (shown in Table 2). By using beta coefficient, the problem of dealing with different units of measurement from various independent variables can be eliminated; hence beta shows the relative impact of individual's characteristics on the retirement confidence. Beta coefficient is not interpreted in the absolute sense; rather, it is interpreted in the context of the other independent variables in the regression model. Beta coefficient is used as a guide to the relative importance of the individual independent variables on retirement confidence. In the regression

equation of the study, confidence in government programs explained the most variance for retirement confidence, followed by health, retirement savings amount, workplace financial education and advice, total household income, retirement fund calculation, and race. The finding suggests that individuals' retirement confidence relies more on their confidence in government assistance programs such as Social Security and Medicare than on any other factor.

The present study adds to the literature on retirement planning and attitude. Multiple factors contributing to retirement confidence were identified and examined, while many previous studies solely examined attitude toward retirement in relation to retirement planning and retirement decision-making. Findings suggest that Americans are not well prepared for their retirement. Half of participants do not know how much they need to save for their retirement and have saved less than \$25,000, even though they expect to retire in 20 years. About six in ten are not confident in the government programs, while only 13.4% received financial education and advice. Additionally, Anticipation and preparation for retirement factors were added to the understanding of retirement confidence in the study and were found to be significant predictors. Those who are better prepared for their retirement had higher levels of retirement confidence. Retirement planning factors such as retirement fund calculation, confidence in government programs, and workplace financial education and advice are important in understanding retirement confidence in addition to individuals' resources, such as income and savings. Also, the present study contributes new information about the effects of confidence in government programs on retirement confidence; these data are timely as modification of Social Security might occur in combination with reduced employer retirement plans and decreased individual savings.

### Limitations

Several limitations of this study should be noted. First, knowledge of retirement planning was not included in the model. Knowledge about retirement planning could link actual preparation and retirement confidence. For example, knowledge of retirement issues has been associated with attitudes toward retirement (Glamser, 1976; 1981). Lack of retirement planning knowledge could result in insufficient retirement planning and in return could affect retirement confidence. This study included workplace financial education and advice that might improve retirement planning knowledge. However, future studies are recommended to include knowledge of retirement planning.

Another limitation is that there is no information about other assets such as real estate or savings in IRAs in the current database. Total net worth could be considered in future research. Further, it is not possible to know participants' retirement income needs based on their desired level of living during retirement, though it is a very important factor of retirement confidence in relation to retirement preparation.

There were small numbers of minority workers in the sample, although interesting findings regarding the relationship between retirement confidence and race were found. Studies with minority oversampled data are recommended. Another limitation was that workplace financial education was analyzed in a very simplified form. Under the name of workplace financial education, different types of education may be provided, ranging from brochures to in-depth seminars. For more accurate analysis, characteristics of workplace financial education, such as contents and delivery methods, need to be examined. Also, the current study measured the effects of workplace financial education and advice only as an access to education and advice not the actual usage of those programs. However, there might be differences between actual usage and access. Longitudinal research that could track employees' behaviors and attitudes before and after workplace financial education and advice are suggested to investigate the effects of workplace financial education and advice in the future.

### **Implications**

The present study identified and examined the factors of retirement confidence, retirement anticipation and preparation for retirement, and individual characteristics. Previous studies have found that those who are financially secure have more positive attitudes toward retirement (Atchley & Robinson, 1982; Beck, 1984). This study used a number of variables to investigate the impacts of anticipation and preparation for retirement on retirement confidence. In general, findings suggest that Americans are not well prepared for their retirement. However, anticipation and preparation for retirement factors were found to be valid predictors of retirement confidence. These findings could be used to suggest policies and programs to help individuals better prepare for their retirement. Those who calculated their retirement fund, saved more for retirement, are more confident in government programs, and received workplace financial education and advice were more confident about their retirement. Further, household income and health were positively related to retirement confidence. These findings could be useful for financial educators and professionals to advise clients about their retirement planning.

The present study supports the previous findings that those who are in lower paying jobs are less likely to plan for retirement and to have access to retirement planning seminars (Beck, 1984; Taylor & Doverspike, 2003). It is difficult to fund 401(k) plans when individuals have competing needs such as mortgage, car payment, and credit card payments with limited household income. However, planning for retirement is particularly important for financially disadvantaged groups (Taylor & Doverspike, 2003). Researchers, practitioners, and policymakers should focus on the design and dissemination of retirement planning seminars for low income individuals. For low income individuals, long-term financial planning could help improve their financial situation, take actions related to retirement, and foster more positive beliefs about retirement (Taylor & Doverspike, 2003). Those who are most in need of retirement planning may avoid it due to lack of planning or competing obligations. Therefore, workplace financial education programs should be extended to low income employees whose employers do not typically offer them.

In addition, individuals' retirement confidence was highly related to the confidence in government programs. Confidence in government programs was the most significant variable to predict individual's retirement confidence. The result reflects the fact that individuals heavily rely on Social Security and Medicare for their future retirement income security. However, Social Security benefits will decrease in the future (Munnell, 2003), of which many individual workers in the United States are not aware. Only two in ten workers know the correct age at which they can receive Social Security retirement benefits without a reduction for early retirement (Helman & Paladino, 2004). Thus, there is a need to educate workers about their Social Security benefits. Moreover, Social Security and Medicare will have serious financing problems; there is currently an urgent call for financial reform (Social Security Administration, 2004). Policy makers who consider any financial reforms of Social Security and Medicare must understand that any major benefit changes in these programs will affect many workers who count on these government programs as major retirement income sources. Reduction in benefits will negatively affect the retirement income security of these individuals. Financial educators and financial planning professionals need to inform their clients of the possibility of reduced benefits in Social Security and Medicare and the consequences during their retirement planning session. This finding is particularly timely given the proposed changes in Social Security system by President Bush.

Moreover, future studies are recommended to examine whether or not aging baby boomers are preparing for their retirement in advance with appropriate retirement planning, including their expectation of government programs such as Medicare and Social Security. Confidence in government programs could be a phenomenon of the baby boomer cohort, consisting of 83 million individuals (American Association of Retired Persons, 1999). The typical boomer is saving only a third of the amount needed to retire at 65 and maintain their current standard of living (Taylor & Doverspike, 2003; Watson Wyatt, 1999); however, only 23% of boomers believe that they will have to “struggle to make ends meet” in retirement (American Association of Retired Persons, 1999; Taylor & Doverspike, 2003).

Finally, professional advice combined with workplace financial education was found to be significant to predict retirement confidence. Retirement planning should be personalized depending on an individual’s situation. While workplace financial workshops convey great information, 30% of employees feel they are not confident in their ability to make the right financial decisions for themselves and for their families (Metlife, 2003). Professional advice could contain the most helpful and relevant information for individuals; plus, many workers desire individual financial advice to help review and manage their financial situations. Professional advice could help individuals understand how to collect information and what to choose among a variety of investment options available. Providing ‘how to’ and ‘what to’ will lead employees to act more promptly to prepare for retirement. It is suggested that employers consider providing employees with access to professional financial advice. However, fiduciary liability often prevents many employers from providing their employees with financial advice (Kim & Garman, 2003). Legal protection could help many employers who feel strongly about financial advice offer these services to their employees.

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